

» 28th International

NURSING RESEARCH CONGRESS



27-31 July 2017

DUBLIN IRELAND

*Influencing Global Health
Through the Advancement
of Nursing Scholarship*



Sigma Theta Tau International
Honor Society of Nursing®



Program book sponsored by
UNIVERSITY OF SOUTH ALABAMA
COLLEGE OF NURSING

**28th International
Nursing Research Congress**

Conference Proceedings

**Enhanced Abstracts of Oral and Poster
Presentations**

Held 27-31 July 2017

Dublin, Ireland



**Sigma Theta Tau International
Honor Society of Nursing®**

Copyright © 2018 by Sigma Theta Tau International

All rights reserved. This book is protected by copyright. No part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without written permission from the publisher. Any trademarks, service marks, design rights, or similar rights that are mentioned, used, or cited in this book are the property of their respective owners. Their use here does not imply that you may use them for similar or any other purpose.

This book is not intended to be a substitute for the medical advice of a licensed medical professional. The author and publisher have made every effort to ensure the accuracy of the information contained within at the time of its publication and shall have no liability or responsibility to any person or entity regarding any loss or damage incurred, or alleged to have incurred, directly or indirectly, by the information contained in this book. The author and publisher make no warranties, express or implied, with respect to its content, and no warranties may be created or extended by sales representatives or written sales materials. The author and publisher have no responsibility for the consistency or accuracy of URLs and content of third-party websites referenced in this book.

The Honor Society of Nursing, Sigma Theta Tau International (STTI) is a nonprofit organization whose mission is advancing world health and celebrating nursing excellence in scholarship, leadership, and service. Founded in 1922, STTI has more than 135,000 active members in over 90 countries and territories. Members include practicing nurses, instructors, researchers, policymakers, entrepreneurs, and others. STTI's more than 530 chapters are located at more than 700 institutions of higher education throughout Armenia, Australia, Botswana, Brazil, Canada, Colombia, England, Ghana, Hong Kong, Japan, Jordan, Kenya, Lebanon, Malawi, Mexico, the Netherlands, Pakistan, Philippines, Portugal, Singapore, South Africa, South Korea, Swaziland, Sweden, Taiwan, Tanzania, Thailand, the United States, and Wales. Learn more at www.nursingsociety.org.

Sigma Theta Tau International
550 West North Street
Indianapolis, IN, USA 46202

To order additional books, buy in bulk, or order for corporate use, contact Nursing Knowledge International at 888.NKI.4YOU (888.654.4968/US and Canada) or +1.317.634.8171 (outside US and Canada).

To request a review copy for course adoption, e-mail solutions@nursingknowledge.org or call 888.NKI.4YOU (888.654.4968/US and Canada) or +1.317.634.8171 (outside US and Canada).

To request author information, or for speaker or other media requests, contact Marketing, Honor Society of Nursing, Sigma Theta Tau International at 888.634.7575 (US and Canada) or +1.317.634.8171 (outside US and Canada).

PDF ISBN: 9781945157547

Glossary

A **plenary session** is a session in which an invited speaker, usually with a significant subject matter, presents their work or viewpoint. All attendees attend these general sessions as they usually begin and end a program of events. Plenary sessions vary in length from one (1) hour to one and a half (1½) hours and can be accompanied by PowerPoint presentations, audio and/or video files and other visual aids.

An **oral presentation** is a brief 15-20 minute individual presentation time moderated by a volunteer. An effective oral presentation should have an introduction, main body and conclusion like a short paper and should utilize visual aids such as a PowerPoint presentation. Oral presentations are divided into different categories based on the program presented. Categories can include: clinical, leadership, scientific, evidence-based practice, or research.

A **poster presentation** is the presentation of research information by an individual or representatives of research teams at a conference with an academic or professional focus. The work is peer-reviewed and presented on a large, usually printed placard, bill or announcement, often illustrated, that is posted to publicize. Exceptions to peer-reviewed posters include Rising Stars student posters and Sigma Theta Tau International's Leadership Institute participant posters.

A **symposium** is a presentation coordinated by an organizer similar to a panel discussion and contains at least three (3) presentations concerning a common topic of interest. Each symposium session is scheduled for 45-75 minutes and allows for questions at the end of the session. Symposia provide an opportunity to present research on one topic, often from multiple perspectives, providing a coherent set of papers for discussion.

A **peer-reviewed paper** is simply an individual abstract that has been reviewed by at least three (3) peer-reviewers to determine the eligibility of the submission to be presented during a program. The determination is made by the peer-reviewer answering a series of regarding the substance of the abstract and the materials submitted. Scores from each reviewer are compiled. The average score must be 3.00 on a 5-point Likert scale in order to qualify for presentation. Sigma Theta Tau International enforces a blind peer-review process, which means that the reviewers do not see the name or institution of the authors submitting the work. All submissions, with the exception of special sessions and invited posters are peer-reviewed.

An **invited** or **special session** is similar to a symposium in the length of time allotted for presentation, but is not peer-reviewed. These sessions focus on a specific area, but are conducted by individuals invited to present the work.

Introduction

The Honor Society of Nursing, Sigma Theta Tau International (STTI) conducted its 28th International Nursing Research Congress in Dublin, Ireland, 27-31 July 2017. Nearly 1400 nurses from around the world gathered at the congress, which had as its theme “Influencing Global Health Through the Advancement of Nursing Scholarship.”

Program objectives of the 28th International Nursing Research Congress include:

- Promote the transformation of knowledge and practice to advance global health and nursing.
- Exchange ideas and solutions that promote the integration of technology into evidence-based nursing practice.
- Discuss research strategies to promote evidence-based teaching and learning that influences interprofessional environments.

These conference proceedings are a collection of abstracts submitted by the authors and presented at the research congress. To promptly disseminate the information and ideas, participants submitted descriptive information and abstracts of between 300 and 1500 words. Each oral and poster presentation abstract was peer-reviewed in a double-blind process in which three scholars used specific scoring criteria to judge the abstracts in accordance with the requirements of STTI’s Guidelines for Electronic Abstract Submission.

The opinions, advice, and information contained in this publication do not necessarily reflect the views or policies of STTI or its members. The enhanced abstracts provided in these proceedings were taken directly from authors’ submissions, without alteration. While all due care was taken in the compilation of these proceedings, STTI does not warrant that the information is free from errors or omission, or accept any liability in relation to the quality, accuracy, and currency of the information.

Format for Citing Papers

Author. (Year). Title of paper. In *Title of conference proceedings* (page numbers). Place of publication: Publisher.

Example:

Smith, C. C. (2015). Nursing Research and Global Impact. In *Engaging Colleagues: Improving Global Health Outcomes: Proceedings of the 25th International Nursing Research Congress* (pp. xxx-xxx). Indianapolis, IN: Sigma Theta Tau International.

Table of Contents

Plenary Sessions	70
PLN 2 - PLENARY SESSION 2: Evidencing the Contribution of Nursing and Midwifery: Measuring What Matters	71
Special Sessions	72
G 01 - SPECIAL SESSION: The STTI Chapter Development Process: How to Start a Chapter	73
G 02 - SPECIAL SESSION: The United Nations and the Sustainable Development Goals ...	75
G 04 - SPECIAL SESSION: Domestic Violence and Abuse: Preparation of Preregistration Nursing and Midwifery Students	76
G 06 - SPECIAL SESSION: Mobile Health Technologies and Precision Health	77
G 07 - SPECIAL SESSION: Nurse Entrepreneurship: Where Nursing Research Meets Opportunity	79
H 03 - SPECIAL SESSION: How to Amend Your STTI Chapter to Add a College of Nursing or Practice Setting	80
H 04 - SPECIAL SESSION: Secrets of the Most Successful Nurse Educators	83
H 07 - SPECIAL SESSION: Sigma Theta Tau International Global Initiatives	84
H 17 and I 17- SPECIAL SESSION: Nurse Faculty Leadership Academy Sustainable Advancements in Nursing Education	85
J 06 - Making a Mentoring Match: Advancing the Profession Through Communication	87
J 15a - SPECIAL SESSION: "Finding a Balance Point": A Concept Central to Family Caregiving for Older Persons in Taiwan	89
J 15b - SPECIAL SESSION: Computer-Tailored Interventions to Increase Cancer Screening: Building a Program of Research	91
J 16a - SPECIAL SESSION: Advancing Research and Researcher Training by International Research Collaboration	93
J 16b - SPECIAL SESSION: Developing the Evidence for Airway Management of Critically Ill Ventilated Patients	94
J 17 - SPECIAL SESSION: Publishing: A Career Road for You?	96
K 01 - SPECIAL SESSION: From Cherry Ame's Nursing Dreams to Sigma Theta Tau International Hall of Fame	97
K 02 - SPECIAL SESSION: The Nurse Scientist in a Practice Organization	99
K 03 - SPECIAL SESSION: The International Nurse Researcher Hall of Fame: One Nurse's Journey	101
K 04 - SPECIAL SESSION: Getting the Most Out of Existing Data Sources for Nursing Research Questions	102
K 05 - SPECIAL SESSION: Lymphedema Symptom Science: Precision Phenotyping, Genotyping, and Intervention	104

K 06 - SPECIAL SESSION: Using the Decisional Involvement Scale (DIS) to Gauge Staff Nurse Unit Decisional Involvement.....	106
K 07 - SPECIAL SESSION: The Tale of Two Tengu: A Program of Research in a Child's World	108
K 08 - SPECIAL SESSION: A Program of Research: Cancer Symptom Management	110
K 09 - SPECIAL SESSION: Nurse-Initiated Protocols Save Lives: The QASC Trial	111
K 10 - SPECIAL SESSION: Physical Restraint and Falls in Older Hospitalized Adults: Where Do We Go From Here?	112
K 11 - SPECIAL SESSION: Self-Management of Insomnia Among Patients With Stable Heart Failure: Evolution of a Research Program	114
K 12 - SPECIAL SESSION: Research Passages in Cancer Symptom Management and Lymphedema	116
K 13 - SPECIAL SESSION: Improving Health and Wellness for Persons With Chronic and Disabling Conditions: Evidence for Practice	120
K 14 - SPECIAL SESSION: The Evolving World of Qualitative Methodology as a Tool for Nursing Knowledge Development.....	122
K 15 - SPECIAL SESSION: The Postpartum Transition: A Critical Life Course Juncture for Women's Behavioral and Psychosocial Health.....	124
K 16 - SPECIAL SESSION: Feeding and Dementia: Bridging the Gap.....	125
K 17 - SPECIAL SESSION: Can't Sleep at Night, Can't Function During the Day: Effect of Sleepiness on Daily Behaviors	126
L 06 - SPECIAL SESSION: Gerontological Nursing Leadership Academy (GNLA): Leading Advancements in Interprofessional Care for Older Adults	128
L 17 - SPECIAL SESSION: Getting Published	130
Evidence-Based Practice Oral Presentations.....	131
A 02 - Promoting Maternal-Child Health	132
Use of the Pediatric Infant Parent Exam: Screening Maternal-Infant Interactional Synchrony During Well-Infant Visits.....	132
A 02 - Promoting Maternal-Child Health	133
Abnormal Thermal Patterns in Very Preterm Infants Associated With Infection and Maternal Smoking	133
A 03 - Nursing Education: Substance Abuse Interventions.....	136
Addressing Substance Abuse Using Evidence-Based Practice: Screening, Brief Intervention, and Referral to Treatment (SBIRT)	136
A 03 - Nursing Education: Substance Abuse Interventions.....	138
Integrating Substance Abuse Screening Brief Intervention and Referral to Treatment Into Nursing Curriculum	138
A 04 - Advanced Practice Fellowships	140
The Lived Experience of New Graduate Nurse Practitioners Who Participated in an Academic-Based Fellowship Program.....	140
A 04 - Advanced Practice Fellowships	142
Advancing the Practice of Nursing Through Specialty Fellowship Development.....	142
A 06 - Interprofessional Collaboration in Education	144

Application of Interprofessional Simulation-Based Clinical Examination in Extended Nursing Experimental Teaching Practice.....	144
A 06 - Interprofessional Collaboration in Education.....	145
Developing a Creative Collaboration to Promote Interprofessional Education for Baccalaureate Nursing Students.....	145
A 17 - Advancing Global Health Through Education.....	147
Influencing Global Health: Creating an Interprofessional Global and Rural Health Certificate Program.....	147
A 17 - Advancing Global Health Through Education.....	148
Providing Future Nurses With Experiential Learning Opportunities in Global Nursing: The Belize Experience	148
B 01 - Strategies to Assist Patients Exposed to Violence.....	150
Knowledge Mobilization of Methods and Findings of Intimate Partner Violence Research in Canada's North	150
B 01 - Strategies to Assist Patients Exposed to Violence.....	152
Transforming Research to a Global Application for Assessment of Women and Children Exposed to Violence.....	152
B 02 - Advancing Nursing Education.....	154
Advancing Nursing Education: BSN Completion Messaging Materials for Associate Degree Nursing (ADN) Faculty.....	154
B 02 - Advancing Nursing Education.....	157
Integrated Application Process for Nursing Student Clinical Practicum.....	157
B 03 - Promoting Mental Health in Vulnerable Populations.....	158
Perceptions of Stigma by Parental Caregivers With Mentally Ill Family Members.....	158
B 03 - Promoting Mental Health in Vulnerable Populations.....	160
Whole Person Wellness: Integrating Care to Improve Physical Health of Persons With Serious Mental Illness.....	160
B 04 - Promoting Health Through Immunizations.....	161
Improve Competency With Evidence-Based Immunization Practice Education.....	161
B 17 - Advancing the Nurse Practitioner.....	163
The Nurse Practitioner Clinical Ladder Program: A Journey to Professional Nursing Excellence.....	163
B 17 - Advancing the Nurse Practitioner.....	165
The Nurse Practitioner (NP) Mentorship Program: Supporting Role Transition Into Practice.....	165
C 01 - Student Nurse Communication Skills.....	168
A Global Measure of Nursing Student Communication: The Interpersonal Communication Assessment Scale (ICAS).....	168
C 01 - Student Nurse Communication Skills.....	170
How Baccalaureate Student Nurses Use Art Therapy to Facilitate Therapeutic Communication.....	170
C 02 - Domestic Violence and the Promotion of Mental Health.....	173
The Relationship Between Marginalization and Mental Health Symptoms in Abused Women.....	173
C 02 - Domestic Violence and the Promotion of Mental Health.....	175
A Cognitive-Behavioral Therapy Program for Youth Who Engage in Domestic Violence Against Their Parents.....	175
C 03 - Nursing Student Support Strategies.....	178

Those Entitled Millennials: Comparative Analyses of Nursing Faculty and Student Narcissism and Organizational Support Measurements	178
C 03 - Nursing Student Support Strategies.....	180
Embedding a Clinical Therapist as Staff Into a Faculty/School of Nursing	180
D 13 - Clinical Care Practices.....	181
Clinical Practice Characteristics of Nurse Practitioners Managing the Care of Older Adults	181
D 13 - Clinical Care Practices.....	182
The Value of Fracture Liaison Services: A Focus Group Study.....	182
D 13 - Clinical Care Practices.....	184
The Effect on Inter-Rater Consistency Using a Standardized Assessment Tool/Framework in Musculoskeletal Examinations	184
D 16 - Developing Faculty Globally	185
Using the Lived Experience to Increase the Cadre of Nursing Faculty Who Teach Online	185
D 16 - Developing Faculty Globally	187
Developing Nurse Educators and Leaders: A Collaborative Effort By National and International Faculty in Rwanda	187
D 16 - Developing Faculty Globally	189
Developing a Framework for Faculty Global Scholarship	189
E 01 - Health Promotion for Adolescents.....	191
Implementation of a Mentor-Led Physical Activity Program for Inner-City High School Students.....	191
E 01 - Health Promotion for Adolescents.....	193
Adolescents Using the Internet for General and Sexual Health Information: An Evidence Review	193
E 02 - Care Initiatives for Chronic Conditions	195
Improving Self-Management Practices Among Patients With Chronic Conditions: "We've Got an App for That!"	195
E 03 - Use of Technology in Nursing Education	198
Nursing Education in a Virtual World	198
E 03 - Use of Technology in Nursing Education	200
Replacing Hard Copies of Textbooks With e-Books in Bahrain: Effects on Nursing Student Learning.....	200
E 04 - Perspectives on Pediatric Health	202
Personalized Pediatric Pain Management: Myth or Reality?	202
E 04 - Perspectives on Pediatric Health	203
Perspectives From Europe and the United States on Perinatal Palliative Care and Current Ethical Dilemmas.....	203
E 05 - Promoting Health in the Older Adult.....	206
Assessment and Management of Alcohol Use Disorder in Older Adults: A Review of the Evidence.....	206
H 01 - Service Learning in Nursing Education	208
Using Service Learning to Increase Depression Awareness on College Campuses	208
H 01 - Service Learning in Nursing Education	209
How to Embrace (and Love?) Community Engagement.....	209
H 02 - Interprofessional Practice to Promote Health.....	211
A Pilot Interprofessional Education and Practice Project With Migrant Farm Workers	211

H 02 - Interprofessional Practice to Promote Health.....	213
An Interprofessional Collaborative Practice Model (IPCP) for Enhancing Population Health and Care Transitions.....	213
H 11 - Promoting Health Policy	215
Using Twitter to Engage Nurses in Policy Debate to Inform Health Strategy.....	215
H 11 - Promoting Health Policy	216
The Challenges of Online Education With Respect to Accessing Health Policy Expertise	216
I 01 - Promoting Health in Obese Patients.....	217
A College and a University Collaborating on “Moving On” Project: Reducing Hispanic Childhood Obesity.....	217
I 01 - Promoting Health in Obese Patients.....	219
Using Motivational Interviewing to Address Obesity: A Global Perspective.....	219
I 02 - Education Strategies in Academia.....	220
Self-Leadership in Male Learner Nurses during Their Training at a College in South Africa	220
I 14 - Promoting Safety and Clinical Outcomes	222
Adopting a High Performance Management System Utilizing a Lean Visual Management Tool to Sustain Improvements.....	222
I 14 - Promoting Safety and Clinical Outcomes	223
Improving Clinical Outcomes: A Study of the Impact of Audit and Feedback on Nurse Performance	223
J 14 - Promoting Interprofessional Teams	225
Interprofessional Collaboration: Nurses and Physicians Continue to View Collaboration Differently.....	225
J 14 - Promoting Interprofessional Teams	227
Post-Graduation Follow-Up of Graduates of an Interprofessional Simulation Curriculum: Is IPE Important in Clinical Settings?	227
J 14 - Promoting Interprofessional Teams	228
Empirical Evidence of Theorized Clinical Nurse Leader Integrated Care Delivery Model Domains.....	228
L 01 - Evidence-Based Practice in Nursing Education.....	231
Are Students Prepared to Engage in Evidence-Based Practice (EBP)? Developing Essential EBP Skills.....	231
L 01 - Evidence-Based Practice in Nursing Education.....	232
Empowering Nursing Through Evidence: Putting Evidence-Based Practice Back in the Classroom.....	232
L 01 - Evidence-Based Practice in Nursing Education.....	234
Impact of Community- and Hospital-Based Nurses' Beliefs Regarding Evidence-Based Practice on Mentoring Student Nurses.....	234
L 10 - Global Perspectives on Multi-Drug-Resistant Infections	236
Antimicrobial Stewardship: A Comprehensive Literature Review of the Nursing Role in Preventing Multi-Drug-Resistant Infections	236
L 10 - Global Perspectives on Multi-Drug-Resistant Infections	238
A Multicultural Approach to Decreasing Unnecessary Antibiotic Prescribing for Pharyngitis.....	238
L 10 - Global Perspectives on Multi-Drug-Resistant Infections	240
What Works to Improve Staff Compliance With Multi-Drug-Resistant Organism (MDRO) Screening	240
M 01 - Simulation and Transition to Practice	243

Evaluation of Three-Dimensional Computerized Simulation: Innovative Pedagogy to Prepare Graduate Nursing Students for Clinical Practice.....	243
M 01 - Simulation and Transition to Practice	245
Simulation and Transitioning to Professional Practice.....	245
M 02 - Support Initiatives to Promote Health	246
Home-Care Management Concerns and Perspectives By Patients With Head-and-Neck Cancer and Their Family Caregivers.....	246
M 02 - Support Initiatives to Promote Health	249
Effects of Support Groups on the Primary Family Caregivers	249
M 03 - Ethical Matters in Nursing Education.....	251
Beyond Silos: An Interprofessional, Campus-Wide Ethics Education Program.....	251
M 17 - Creating Patient-Centered Care	254
A 10-Year Journey Toward an Accountable and Sustainable Patient-Centered Care Model.....	254
M 17 - Creating Patient-Centered Care	256
Defensive Practices of Nurses.....	256
N 01 - Promoting Evidence-Based Practice Globally.....	257
An International Collaboration to Promote Evidence-Based Practice (EBP) in Japan.....	257
N 01 - Promoting Evidence-Based Practice Globally.....	259
Evidence-Based Leadership Institute: A Model to Develop Nurse Leaders.....	259
N 02 - Cultural Awareness in Nursing Education.....	261
Developing Cultural Competence in Practicing Nurses: A Qualitative Inquiry	261
N 02 - Cultural Awareness in Nursing Education.....	264
Mentoring the Culturally Diverse Nursing Student.....	264
N 03 - Evidence-Based Educational Strategies	266
The Case for Including Sleep Content in Nursing Curricula.....	266
N 03 - Evidence-Based Educational Strategies	268
Debriefing for Meaningful Learning (DML): Connecting the Dots	268
O 01 - Cultural Awareness in Public Health.....	269
Experience of Immigrant Care and the Need for Cultural-Competence Training Among Public Healthcare Providers	269
O 01 - Cultural Awareness in Public Health.....	271
Achieving Clinical Learning Outcomes in a Community/Public Health Nursing Course Through an International Immersion Experience.....	271
O 02 - Evidence-Based Initiatives on Sleep.....	273
Brief Behavioral Therapy for Insomnia in Lung Cancer Survivors: A RCT.....	273
O 02 - Evidence-Based Initiatives on Sleep.....	275
Emerging Nursing Roles in Collaborative Management of Sleep-Disordered Breathing and Obstructive Sleep Apnea (OSA)	275
O 03 - Improving Patient Outcomes Through Partnerships	277
Enhancing a Community's Health Through an Innovative Partnership With a Public Utility Company	277
O 03 - Improving Patient Outcomes Through Partnerships	279

The Role of an Academic Practice Partnership in Enriching Student Learning and Improving Patient Outcomes	279
O 04 - Mentoring in Academia.....	281
Nursing Faculty Members; Perceptions of Characteristics of Mentors for Research in Nursing.....	281
O 04 - Mentoring in Academia.....	284
Advancing the Science of Nursing Education Through Peer Mentoring	284
O 06 - Preventing Falls Using Evidence-Based Practice	286
Evaluation of the Efficacy of Repeat Falls Risk Assessments Using the Morse Falls Scale.....	286
O 06 - Preventing Falls Using Evidence-Based Practice	288
Prevalence and Trends of Falls on a Surgical Unit.....	288
O 07 - Promoting Clinical Outcomes in Veterans.....	290
Caring for Military Combat Veterans With Post-Traumatic Stress Disorder (PTSD).....	290
O 07 - Promoting Clinical Outcomes in Veterans.....	291
Supporting Veterans With Chronic Pain: Using 5As Framework to Improve Self-Care	291
O 08 - Simulation in Nursing Education	293
Evaluating the Outcomes of a Registered Nurse Empathy Education Program in an Academic Medical Center	293
O 08 - Simulation in Nursing Education.....	296
Pediatric Emergency Department (PED) Simulation: Undergraduate Nursing Students' Experience.....	296
O 09 - Technology in Practice	298
The Integration of Virtual Monitoring Technology to Empower Advanced Practice Nurses to Optimize Health Outcomes	298
O 09 - Technology in Practice	299
Bridging the Gap to Equal Access to Professional Development Meetings With Remote Virtual Technology..	299
P 01 - Global Mental Health Promotion	302
Evidence-Based Value and Availability of Self-Help Groups for Mood Disorders in U.S. and Ireland	302
P 01 - Global Mental Health Promotion	304
A Multiple Case Study: Mental Health Nurses' Experiences Using Psychosocial Interventions in Ireland	304
P 02 - Evidence-Based Patient Safety.....	306
Patient Safety Culture in Neonatal Intensive Care Units (NICUs): What Is the Evidence?.....	306
P 02 - Evidence-Based Patient Safety.....	308
Innovative, International, and Interprofessional: Nursing and Engineering Technology Students Creating New Patient Safety Technology.....	308
P 03 - Global Disease Prevention in Influenza	310
Influenza Virus: The Evolution of a Deadly Virus in Our World.....	310
P 03 - Global Disease Prevention in Influenza	311
An Evidence-Based Educational Strategy to Improve Influenza Vaccination Rates Among Hospital Nurses ..	311
P 04 - Global Strategies in Maternal Care	314
Social Networking for Improved Maternal Child Health in Rural Settings	314
P 04 - Global Strategies in Maternal Care	316

The Use of Donabedian Quality Model to Implement Quantification of Blood Loss: Preventing Maternal Hemorrhage.....	316
P 06 - Influences on Test Taking in Nursing Education	318
Test Anxiety Levels in Undergraduate Nursing Students	318
P 06 - Influences on Test Taking in Nursing Education	319
Academic and Social Factors That Affect BSN Students Who Fail the NCLEX-RN® Exam After Graduation	319
P 07 - International Collaborations to Promote Health.....	321
Global Health for the Young Professional: How to Align Your Work With Global Initiatives	321
P 07 - International Collaborations to Promote Health.....	322
Partnerships Among Nonprofit Organizations: Assessing the Impact on Global Health.....	322
P 08 - Promoting Clinical Outcomes in the Cardiac Patient	323
Implementation of an Evidence-Based Practice Checklist to Reduce 30-Day Readmission for Patients With Heart Failure.....	323
P 08 - Promoting Clinical Outcomes in the Cardiac Patient	325
Advanced Nurse-Led Referral Versus ED Physician Referral to a Nurse-Led Chest Pain Clinic: Patient Outcomes	325
Q 01 - Patient-Centered Outcomes	327
Enhancing Nursing Care in Rural Public Hospital Network Through Utilizing Transforming Care at Bedside Framework.....	327
Q 01 - Patient-Centered Outcomes	328
"Patient-Reported Outcome Measures" Enhance the Nursing Process and Patient-Centered Care in Heart Failure.....	328
Q 02 - Professional Nursing Initiatives.....	329
New Jersey-Bermuda Perianesthesia Nursing Collaborative	329
Q 02 - Professional Nursing Initiatives.....	330
Exploration of the Impact Undergraduate Health Policy Education Had on Nurses' Political Astuteness and Involvement	330
Q 03 - Promoting Alternative Health Practices	332
Patients Being Weaned From the Ventilator: Positive Effects of Guided Imagery	332
Q 03 - Promoting Alternative Health Practices	333
Promoting a Restraint-Free Culture Through Sensory Modulation	333
Q 06 - Global Surgical Safety Concerns.....	335
Prevention of Retained Surgical Items: Practice of Surgical Counts in Rwandan Operating Rooms.....	335
R 01 - Developing Nurse Leaders	337
Clinical Nurses and Executive Leaders Collaborating at the Bedside to Eliminate Hospital-Acquired Pressure Injuries	337
R 01 - Developing Nurse Leaders	339
Developing Future Nurse Leaders Through Shared Governance.....	339
R 01 - Developing Nurse Leaders	340
Nurses at the Forefront of Integration.....	340
S 01 - Alternative Practices in Women's Health.....	342

Effects of Aromatherapy Massage on Pregnant Women's Stress and Immune Function: A Randomized Controlled Trial	342
S 01 - Alternative Practices in Women's Health.....	343
The Home Birth Summits: Finding Common Ground to Transform Policy and Practice.....	343
S 02 - Health Practices for Immigrants	345
Impact of Social Support and Stress on Blood Pressure Among West African Immigrants.....	345
S 02 - Health Practices for Immigrants	347
El Sol: An Interdisciplinary Center for Guatemalan Healthcare	347
S 03 - Workplace Cultures	349
Setting the Scene for Workplace Mental Health Promotion in a Swaziland Sugar Mill	349
S 03 - Workplace Cultures	350
Building the Healing Organization: Strategies for Successful Implementation, Cultural Transformation, and Sustaining High-Value Outcomes.....	350
S 06 - Global Health Promotion.....	353
Prevalent Vitamin D Deficiency and Impact of Vitamin D Supplementation on Acute GVHD in HCT.....	353
S 06 - Global Health Promotion.....	355
Screening Recommendations for Baby Boomers With Chronic Hepatitis C and the Uncertainties That Surround Them	355
Research Oral Presentations	357
A 07 - Disease Prevention in Oncology Patients	358
Development of a Decision Aid for Unaffected BRCA Mutation Carriers.....	358
A 07 - Disease Prevention in Oncology Patients	360
A Global Perspective: Meaning, Coping, and Health of Younger and Older Women with Breast Cancer	360
A 08 - Global Interprofessional Health Disparities	363
Application of Evidence-Based Practices to Global Interprofessional Collaborations Aimed at Reducing Hearing-Related Health Disparities	363
A 08 - Global Interprofessional Health Disparities	365
Nurses Crossing Disciplines and Borders: A Participatory Research Approach to Global Water Challenges ..	365
A 09 - HPV Vaccine Promotion	368
Completeness of Human Papilloma Virus (HPV) Vaccination: A Systematic Review of the Literature.....	368
A 09 - HPV Vaccine Promotion	369
Knowledge, Attitude, and Intention to Obtain HPV Vaccination Among Undergraduate College Students in St. Lucia.....	369
A 10 - Effects of Intensive Care on Quality of Life	372
Living a Lie: The Biographical Disruption of Intensive Care Unit (ICU) Survivors.....	372
A 10 - Effects of Intensive Care on Quality of Life	374
Impact of Prior Intensive Care Unit (ICU) Experience on ICU Patients' Family Members' Psychological Distress	374
A 11 - Adolescent Health.....	376
Perceptions of Health, Healthy Decision-Making, and Living: A Study of Young Mothers Living in Jamaica ...	376
A 11 - Adolescent Health.....	378

Psychological Distress Among Adolescents in Laos, Mongolia, Nepal, and Sri Lanka.....	378
A 12 - Pediatric Care and Safety	380
Risks and Protector Factors: Access to a Diagnosis and Services for a Child With Autism	380
A 12 - Pediatric Care and Safety	383
Direct Clinical Application With Nurse-Led Research: Impact of "Boot Camp" Intervention for Caregiver Discharge Readiness	383
A 13 - Promoting Healthy Work Environments for the Clinical Nurse.....	385
A Model-Based Ergonomic Risk Management Program to Reduce the Musculoskeletal Symptoms of ICU Nurses	385
A 13 - Promoting Healthy Work Environments for the Clinical Nurse.....	388
Evaluation of a Planned Rest/Nap for Hospital Night-Shift Nurses.....	388
A 14 - Adherence in Hypertension Patients	391
Improved Adherence Status in Patients With Hypertension: A Community-Based Intervention.....	391
A 14 - Adherence in Hypertension Patients	393
Health Beliefs and Medication Adherence Among Omani Patients With Hypertension	393
A 15 - Research and Implementation	395
Strategies to Increase Research Productivity in a College of Nursing.....	395
A 15 - Research and Implementation	397
Making Your Research More Robust With Implementation Science	397
A 16 - Strategies in Disaster Preparedness.....	399
Crisis Leadership and Decision-Making: Hospital Administration and Nurse Leaders' Concerns for Disaster Response	399
A 16 - Strategies in Disaster Preparedness.....	401
American Red Cross Simulation and Student Nurse Disaster Preparedness.....	401
B 05 - Factors Affecting Oncology Patients	403
Skin Toxicity Assessment in Breast Cancer Patients: A Study on Interobserver Variability and Self-Reported Measures.....	403
B 05 - Factors Affecting Oncology Patients	406
Symptom Clusters and Oxidative Stress in Patients With High-Grade Brain Cancers: A Longitudinal Study...406	
B 06 - Cultural Impact in Nursing Education	407
Evaluating an Online Global Community of Practice: Student Nurse Experiences of a Cross-Cultural Blogging Activity	407
B 06 - Cultural Impact in Nursing Education	408
Long-Term Impact of Study Abroad in Undergraduate Nursing Education on RN Nursing Practice.....	408
B 07 - Global Interprofessional Health Promotion.....	411
Step Into Wellness: A Nurse Practitioner-Directed Interprofessional Intervention for Underserved Populations	411
B 07 - Global Interprofessional Health Promotion.....	413
Global Interprofessional Study Abroad Impact on Nurse Practitioners' and Medical Students' Perceptions About Role Definition	413
B 08 - Health Promotion	415
Herbal Supplements: Safety and Research Support	415

B 08 - Health Promotion	417
Planning an Efficacy Study of a Web-Based Yoga Intervention Based on Feasibility Findings	417
B 09 - Improving Baccalaureate Nursing Program Care Models	419
The Transformation of Knowledge and Practice as Undergraduate Baccalaureate Nursing Students Actualize Caring	419
B 09 - Improving Baccalaureate Nursing Program Care Models	422
Teaching Quality Improvement to Baccalaureate Nursing Students: Strategies That Work!	422
B 10 - Interprofessional Education Collaborations	424
Interprofessional Education and Team-Based Learning in a Research Methods Course	424
B 10 - Interprofessional Education Collaborations	426
Nursing and Physical Therapy Students Learning and Collaborating Together	426
B 11 - Stress and Burnout in the Nursing Profession	428
Nurses' Stress and Coping: In the Midst of Work and Back to School	428
B 11 - Stress and Burnout in the Nursing Profession	430
The Impact of Burnout on Doctorate Nursing Faculty's Intent to Leave Their Academic Position	430
B 12 - Pediatric Pain Management	431
Untreated Procedural Pain Increases Urine Markers of Adenosine Triphosphate (ATP) Utilization in Preterm Neonates	431
B 12 - Pediatric Pain Management	432
Frontline Nurse-Initiated Interventional Research: Use of Distraction Versus Oral Midazolam in Reducing Pediatric Perioperative Anxiety	432
B 13 - Care of Minority Populations	434
Clinicians and Bicultural Workers' Views on Coassessment to Improve Mental Health Assessments in Multicultural Clients	434
B 13 - Care of Minority Populations	436
Beliefs, Attitudes, and Perceptions of Spirituality: A Case Study of Homeless Women in Nevada	436
B 14 - Promoting Clinical Outcomes	437
Nurse-Led Diabetic Retinopathy Screening: A Revolutionary Approach to Vision Care for Canadian Aboriginal Peoples	437
B 14 - Promoting Clinical Outcomes	439
Symptom Management in Adults With Knee Osteoarthritis Using Transcranial Direct Current Stimulation: A Pilot Study	439
B 15 - Quality of Life in Cardiac Patients	441
Comparisons of Cardiometabolic Risk Between African American and Caucasian Women in a Worksite Wellness Program	441
B 15 - Quality of Life in Cardiac Patients	443
Cardiac Rehabilitation Improves Health-Related Quality of Life for Patients With Atrial Fibrillation: A Pilot Study	443
B 16 - Adolescent Sexual Health	446
Using Youth-Participatory Research to Address Health Disparities in Sexually Transmitted Infections Among Homeless Youth	446
B 16 - Adolescent Sexual Health	448

Understanding the Intersection of Adolescent Girls' Motives for Sex and Risk Profiles.....	448
C 04 - Challenges in Substance Abuse	451
A Retrospective Descriptive Study of Chemically Impaired Nurses in Texas	451
C 04 - Challenges in Substance Abuse	453
A Redemption Story: A Case Study of a Faith-Based Addiction Recovery Process.....	453
C 06 - Alternative Health Promotion	455
Relieving Pain and Anxiety via Sensory Modification	455
C 06 - Alternative Health Promotion	458
Anxiety-Reducing Efficacy of Inhaled Essential Oils: A Case Study and Literature Review	458
C 07 - Factors in Suicide	460
Suicide Risk Assessments: A Mixed-Methods Study of Nurses' and Patients' Experiences With Evidence-Based Practice.....	460
C 07 - Factors in Suicide	463
The Association Between School-Related Victimization, Depressive Symptoms, and Suicidality Among U.S. High School Students	463
C 08 - Global Midwifery Practices	465
Psychosocial Knowledge for Future Nursing and Midwifery Practice in Community Placement in Vietnam and Australia.....	465
C 08 - Global Midwifery Practices	469
Evidence-Based Research and Delayed Cord Clamping: Implications for Cross-Cultural Education, Research, and Policy.....	469
C 09 - Health Promotion for Clinicians.....	470
A Learning Collaboration to Deliver Onsite Health Promotion for Hospital Staff.....	470
C 09 - Health Promotion for Clinicians.....	472
Nurses With Activity Limitations: Implications for an Aging Nurse Workforce.....	472
C 10 - Interprofessional Education in Nursing Programs	475
Webinars and Weaving: An Innovative Model of Interprofessional Education in an Online DNP Program.....	475
C 10 - Interprofessional Education in Nursing Programs	477
An Interprofessional Collaborative Educational Experience With Nurse Practitioner Students and Community-Based Pharmacists.....	477
C 11 - Care of Dementia Patients.....	479
Resilience and Dementia Caregiving: An Integrative Review	479
C 11 - Care of Dementia Patients.....	480
Proxy Decision-Making and Dementia Care: Exploring Decision-Makers' Thinking Using Construal Level Theory	480
C 12 - Pediatric Safety	483
Identifying Child Physical Abuse: Who Is Reporting, and How Accurate Are Their Reports?.....	483
C 12 - Pediatric Safety	485
Measuring Harm in Hospitalized Children via a Trigger Tool.....	485
C 13 - Maternal Mental Health.....	487
Differentials in Health-Related Quality of Life of Employed and Unemployed Women With Normal Vaginal Delivery.....	487

C 13 - Maternal Mental Health.....	489
Factors Influencing the Grief, Depression, and Quality of Life in Taiwanese Women With Perinatal Loss.....	489
C 14 - Promoting Outcomes in the Clinical Setting.....	491
Misconceptions About Peripheral Intravenous Catheter Complications Rate Based on Insertion Settings: A Comprehensive Literature Review.....	491
C 14 - Promoting Outcomes in the Clinical Setting.....	493
A Comparison of EMLA and LMX4 for Managing Pain During Sharp-Wound Debridement.....	493
C 15 - Research in Academia.....	495
Assessment and Curricular Framework Development of Undergraduate Research in the School of Nursing..	495
C 15 - Research in Academia.....	496
Research Capacity Development in a Nursing Education Context.....	496
C 16 - Doctoral Nursing Education.....	498
Doctoral Nursing Students' Use of Evidence-Based Knowledge, Skills, and Attitudes of Scholarly Writing.....	498
C 16 - Doctoral Nursing Education.....	500
Impressions of Uses for Visual Thinking Strategies Among Doctorate of Nursing Practice Leadership Students.....	500
C 17 - Defining the Nurse Faculty Role.....	501
An Integrated Model of Learning and Role Development in Nursing Education.....	501
C 17 - Defining the Nurse Faculty Role.....	503
Description and Meaning of Clinical Competency: Perceptions of Nurse Managers and Baccalaureate Nurse Faculty.....	503
D 12 - Nursing Governance.....	504
Evaluation and Revision of a Nursing Professional Practice Model Using Focus Group Research Methodology.....	504
D 12 - Nursing Governance.....	506
Measuring Nurses' Perceptions of Collaborative Governance as a Method of Assessing Transformation of Organizational Culture.....	506
D 12 - Nursing Governance.....	508
The Theory of Psychological Ownership: Measurement and Uses in Nurse Work Environment Research.....	508
D 14 - Cardiac Disease Health Promotion.....	511
Preventing Heart Failure Readmissions By Using a Risk-Stratification Tool.....	511
D 14 - Cardiac Disease Health Promotion.....	513
Demoralization Syndrome Affects Health-Related Quality of Life (HRQOL) in Patients With Heart Failure.....	513
D 14 - Cardiac Disease Health Promotion.....	514
Partnering With Community Health Workers and Faith-Based Organizations to Provide Hypertension Management in Haiti.....	514
D 15 - Clinical Competency Progression.....	516
Evolution of Expertise Among Critical Care Nurses.....	516
D 15 - Clinical Competency Progression.....	518
State of the Science on Clinical Evaluation of Competence in Nursing Education.....	518
D 15 - Clinical Competency Progression.....	520

Rochester Nursing Competence (RNC) Theory	520
E 06 - Factors Influencing Patient Care for the Advanced Practice Registered Nurse	522
Development Trajectory of a Fall Detection Device Involving Community-Dwelling Older People	522
E 07 - Global Health Equity	524
Half the Sky: Use of Literature to Teach Undergraduate Nursing Students About Global Health Equity.....	524
E 07 - Global Health Equity	526
Human Trafficking: A Call for Inclusion in Nurse Practitioner (NP) Education	526
E 08 - Cancer Screening Practices.....	527
Addressing Breast, Cervical, and Colorectal Cancer Screening-Related Health Disparities and Practices in Asian-Indio Women	527
E 08 - Cancer Screening Practices.....	529
Knowledge, Attitude, and Practice of Men Towards Colorectal Cancer (CRC) and Its Prevention in Tobago ..	529
E 09 - Improving Clinical Outcomes Through Physical Activity	532
Evaluation of an Email-Mediated County Extension-Delivered Walking Intervention	532
E 09 - Improving Clinical Outcomes Through Physical Activity	535
Improving Clinical Outcomes and Physical Activity in Older Adults With Comorbidity: A Randomized Controlled Trial	535
E 10 - Care of Moms and Babies	538
Suctioning of the Neonate on Nasal Continuous Positive Airway Pressure (NCPAP): Building the Evidence..	538
E 11 - Nursing Student Interprofessional Collaboration	540
Preparing Students for Interprofessional Collaboration: A Grounded Theory Study.....	540
E 12 - Postpartum Health	542
Social Determinants of Rural Hispanic Women at Risk for Postpartum Depression.....	542
E 12 - Postpartum Health	544
A Randomized Trial Evaluating Connective Tissue Massage on Pain in Post-Cesarean Section Primiparous Women	544
E 13 - Declining Functional Status in the Aging Adult.....	545
Association Between Age-Related Hearing Loss and Disability in Older Adults: A Systematic Review	545
E 13 - Declining Functional Status in the Aging Adult.....	546
Hospital-Associated Functional Status Decline in Older Adults With Chronic Obstructive Pulmonary Disease (COPD).....	546
E 14 - Promoting Outcomes in the Infectious Patient	549
A Collaborative, Systemwide Approach to Reducing Healthcare Onset Clostridium Difficile (HOC-diff)	549
E 14 - Promoting Outcomes in the Infectious Patient	552
Predictors of Survival for Patients With a Diagnosis of Sepsis	552
E 15 - Retention Strategies for Entry-Level Nurses	554
Next Steps Program: Utilization of Multifaceted Retention Strategies to Retain American Indian Student Nurses	554
E 15 - Retention Strategies for Entry-Level Nurses	556
Measuring the Effect of a Nurse Residency Program on Person-Organizational Enculturation	556
E 16 - Student Nurse Success Strategies	559

Evaluation of Students' Perceptions Compared With Baccalaureate Program Objectives of a Peer-Tutoring Program.....	559
E 16 - Student Nurse Success Strategies	561
Nursing Students' Evaluation of Support Offered by Preceptors	561
E 17 - Use of Antibiotics	562
Reducing Antibiotic Use in the Management of Upper Respiratory Infections in the Urgent Care Setting	562
E 17 - Use of Antibiotics	563
Advance Practice Registered Nurses' (APRNs') Clinical Practice Strategies to Deter Antibiotic Overuse	563
F 13 - Promoting Outcomes in Obese Patients	565
Effectiveness of Weight Control Program on Nutritional Status and Knee Pain in Overweight Older Adults....	565
F 13 - Promoting Outcomes in Obese Patients	567
Evaluating Nursing Home Resident Monitoring Technology Use in Pressure Ulcer Prevention: A Mixed-Methods Approach	567
F 13 - Promoting Outcomes in Obese Patients	568
Comparison of Braden Nutritional Risk Screening to Dietary and Weight Outcomes: Clinical and Research Insights	568
H 05 - Transitions in Care of the Older Adult	570
Effects of Care Arrangements on Chinese Older Adults' Relocation to Long-Term Care Facilities	570
H 05 - Transitions in Care of the Older Adult	573
Participatory Approach to Build Capacity: Nurse-Led Research to Overcome Insufficient Mobility in Hospitalized Older Adults.....	573
H 06 - Chronic Illness Management	575
American Lymphedema Framework Project: An Overview of 8 Years in Moving the Lymphedema Field Forward	575
H 06 - Chronic Illness Management	578
Insomnia and Health-Related Quality of Life in Adults With Type 2 Diabetes.....	578
H 08 - Children in the Intensive Care Unit	580
Newly Licensed Nurses' Experiences With End-of-Life in the Pediatric Intensive Care Unit (PICU)	580
H 08 - Children in the Intensive Care Unit	583
Factors Affecting Time Nurses Spend With Fathers in the Neonatal Intensive Care Unit (NICU)	583
H 09 - Clinical Practice Initiatives	585
Advance Care Planning (ACP) Training: Your Role as a Nursing Leader	585
H 10 - Culturally Diverse HIV Health Education.....	587
Sex Education in the Mosque: An Abstinence-Based Approach to Prevent HIV, STDs, and Pregnancy	587
H 10 - Culturally Diverse HIV Health Education.....	589
Knowledge of HIV/AIDS Among Women in Rural Ugandan Villages.....	589
H 12 - Fall Prevention in the Aging Adult.....	591
Perceived Quality of Life Following Falls: Voices of Community-Dwelling Older Adults	591
H 13 - Global Influences on Cancer Screening.....	593
Understanding Patient-Level Variables That Influence Lung Cancer-Screening Behavior and the Nurse's Role	593

H 14 - Promoting Physical Activity in Women	595
Physical Activity in U.S. Asian Indian Women: Comparison of Acculturation Level and Immigrant Status	595
H 14 - Promoting Physical Activity in Women	597
Midlife African American Women's Maintenance of Lifestyle Physical Activity	597
H 15 - Use of Big Data to Influence Nursing Care	599
Data Acquisition Collaboration for Nursing-Cost Study Using	599
H 15 - Use of Big Data to Influence Nursing Care	601
Analytical Challenges in the Era of Big Data	601
H 16 - Socioeconomic Effects in Pediatrics	603
Association Between Household Resources and Child Mortality: Ghana as a Case Study.....	603
H 16 - Socioeconomic Effects in Pediatrics	605
Parenting Bedtime Behaviors and Sleep Among Toddlers Living With Socioeconomic Adversity.....	605
I 03 - Culturally Diverse Geriatric Health Practices	607
The Experiences of Elderly Immigrants of Mexican Origin With Life-Limiting Illness: A Critical Ethnography ..	607
I 03 - Culturally Diverse Geriatric Health Practices	610
"I Should Have Come Sooner": A Qualitative Study Describing Care Preferences of Elders with HF	610
I 04 - Closing the Theory-Practice Gap	611
Using Competency Testing to Close the Practice Gap With Undergraduate Baccalaureate Nursing Students	611
I 05 - Enhancing the Inpatient Hospital Experience	613
Perception and Acceptance of Hospital Meals Among Inpatients in a Tertiary Hospital in Nigeria.....	613
I 05 - Enhancing the Inpatient Hospital Experience	614
Nurse-Led Mobilization Activities in Intensive Care Unit (ICU) Settings	614
I 06 - Functional Status of Oncology Patients.....	617
The Power Over Pain Coaching Intervention Improves Functional Status in African Americans With Cancer Pain	617
I 06 - Functional Status of Oncology Patients.....	619
Effect of Exercise Training on Vascular Function in Cancer Survivors: A Meta-Analysis	619
I 07 - Global Perspectives on HIV Prevention.....	621
Predictors of Internet Use for HIV Prevention Among Hispanic Women in South Florida	621
I 08 - Health Promotion for Patients with Kidney Disease.....	623
Novel Barriers to Exercise for Patients With Chronic Kidney Disease.....	623
I 08 - Health Promotion for Patients with Kidney Disease.....	626
Causation and Confounding Factors for 30-Day Readmission of Kidney Transplant Patients: A Descriptive Study	626
I 09 - Improving Education Through Simulation	629
Measuring Nurse Tutor Simulation Education Confidence and Competence Following a Collaborative Nursing Education Certificate Program.....	629
I 09 - Improving Education Through Simulation.....	631
The Effect of Evaluator Training on Reliability in High-Stakes Assessment Simulations: Pilot Study Results ..	631
I 10 - Interventions in Birth Outcomes	633

The Critical Role of Fathers to Reduce Stillbirth in India	633
I 10 - Interventions in Birth Outcomes	636
Should Our Approach for Reducing Poor Birth Outcomes Differ in Urban and Rural Populations?.....	636
I 11 - Nursing Students and the Care of Vulnerable Populations	638
Using Trigger Films as a Bariatric Sensitivity Intervention to Improve Nursing Students' Attitudes and Beliefs	638
I 11 - Nursing Students and the Care of Vulnerable Populations	640
What Do Nursing Students Know About the Homeless and Their Care Experiences? A Qualitative Study	640
I 12 - Perinatal Health Promotion	642
Preconception Health Planning: Improving Outcomes	642
I 12 - Perinatal Health Promotion	644
Knowledge, Attitudes, and Competency about Providing Perinatal Care to Women With Disabilities	644
I 13 - Service Learning in Undergraduate Nursing.....	646
A Diabetes Camp Impacts Nursing Students and Children: Evaluation of an Interprofessional Service Learning Course.....	646
I 15 - Clinical Practice Strategies.....	649
Implementing Best Practices Using Appreciative Inquiry.....	649
I 15 - Clinical Practice Strategies.....	650
Development of a Practice Change Model to Incorporate Tradition-Based Nursing Practices	650
I 16 - Promoting Research in Nursing.....	652
Measuring What Matters: A Multi-Site Study of Self-Reported and Objectively Measured Nursing EBP Knowledge.....	652
I 16 - Promoting Research in Nursing.....	654
Adult Attachment Style and Family Presence Preference During Invasive Nursing Procedures	654
J 13 - End-of-Life Care	655
The Closing Composition: End-of-Life Communication Strategies	655
J 13 - End-of-Life Care	658
Symptom Burden of Critically Ill Patients at High Risk of Dying: Reliability of Proxy Reports.....	658
J 13 - End-of-Life Care	661
Shall We Let Them Die? Factors Influencing the Withdrawal of Life-Sustaining Treatment in ICU	661
L 02 - Health Behaviors of At-Risk Adolescents and Young Adults	663
Orthorexia Nervosa and Its Relationship to Obsessive Compulsive Behaviors Among University Students in Southern California.....	663
L 02 - Health Behaviors of At-Risk Adolescents and Young Adults	665
Role of Race and Ethnicity on Trajectories of Health Risk Behaviors From Adolescence Into Adulthood.....	665
L 02 - Health Behaviors of At-Risk Adolescents and Young Adults	667
Mindfulness Intervention in At-Risk Adolescents: Participant Voices	667
L 03 - Faculty Retention	668
Leadership Practices, Job Satisfaction, and Faculty Stress Among Dutch Postdoctoral Nurses: A National Survey	668
L 03 - Faculty Retention	670
Burnout and Intent to Leave Among Mid-Level Academic Nurse Leaders: An Unfolding Crisis	670

L 03 - Faculty Retention	672
A Comprehensive Needs Assessment to Gauge the Impact and Extent of the Nursing Faculty Shortage.....	672
L 04 - Competencies in Psychiatric Health	674
Enhancing Mental Health Competencies in Advanced Practice Nursing Graduates	674
L 04 - Competencies in Psychiatric Health	676
Mental Health Stigma and Perceived Practice Competence Among Nurse Practitioners: A Cross-Sectional Descriptive Study.....	676
L 04 - Competencies in Psychiatric Health	678
MRI Outcomes of Emotional Regulation: A Feasibility Study	678
L 07 - Global Management of Chronic Conditions	679
Developing and Validating a Problem-Solving Tool for Caregivers to Manage Antineoplastic Treatment for Family Members	679
L 07 - Global Management of Chronic Conditions	681
The Value of Peer Contact in Patients Impacted By "Rare" Diseases	681
L 07 - Global Management of Chronic Conditions	682
Self-Management of Medication Regimen in Chronic Disease: Analysis of the Portuguese Nursing Information System (NIS)	682
L 08 - Conversations on Intimate Partner Violence.....	684
Economics and Intimate Partner Violence: Reducing Risk Through Economic Solvency	684
L 08 - Conversations on Intimate Partner Violence.....	685
Opportunities for International Interdisciplinary Research Collaborations to Improve Health Outcomes for Intimate Partner Strangulation Survivors	685
L 08 - Conversations on Intimate Partner Violence.....	687
Prevalence and Predictors of Intimate Partner Violence in Mexican and Non-Mexican Hispanic Women from SEPA.....	687
L 09 - Nursing Leadership	688
A Review and Synthesis of Literature Examining Healthcare Managers' Use of Knowledge in Their Practice.....	688
L 09 - Nursing Leadership	690
Leadership Insights of Senior Nurse Executives	690
L 09 - Nursing Leadership	692
A Global Exploration of Leadership Competencies for Academic Nurse Educators.....	692
L 11 - Interprofessional Collaboration Enhancing Clinical Outcomes.....	694
Interprofessional Oral-Systemic Health Standardized Patient and Case Study Experience.....	694
L 11 - Interprofessional Collaboration Enhancing Clinical Outcomes.....	695
ABCDE Bundle Adherence: The Influence of Access to ABCDE-Enhancing Supplies and Equipment.....	695
L 11 - Interprofessional Collaboration Enhancing Clinical Outcomes.....	697
Interprofessional Collaboration in Fall Prevention: Home Care Providers' Experience	697
L 12 - Nursing Ethics	699
Legal and Ethical Accountability for Nursing Errors: Disclosure and Apology	699
L 12 - Nursing Ethics.....	701
The Impact of Conscience and Ethical Climate Among Nurses in the Hospital Setting.....	701

L 12 - Nursing Ethics	703
A Collaborative State of the Science Initiative: Transforming Moral Distress to Moral Resiliency in Nursing ...	703
L 13 - Health Promotion in Asthma Patients	705
Commencement of Global Dissemination and Implementation of a School-Based Academic Asthma Education and Counseling Program	705
L 13 - Health Promotion in Asthma Patients	708
Can an Asthma Self-Management Intervention Improve Quality of Life in Children Who Have Asthma?	708
L 13 - Health Promotion in Asthma Patients	710
Use of Spirometry to Measure Asthma Control in Patients With Sickle Cell Disease	710
L 14 - Perinatal Health.....	712
"You're Not Alone": The Power of Peer Mentoring for Pregnant Women With Substance Use Disorder.....	712
L 14 - Perinatal Health.....	714
Perinatal Nurse Home Visiting and Rates of Diabetes and Hypertension Among Child-Bearing Mothers.....	714
L 14 - Perinatal Health.....	716
Longitudinal Evaluation of a Prenatal Mentoring Program for Decreasing Maternal Anxiety in a Military Sample	716
L 16 - Transitioning From Military to Civilian Nurse	718
Personal and Professional Transition From Military to Civilian Nursing Practice.....	718
L 16 - Transitioning From Military to Civilian Nurse	719
Understanding the Experiences of Veterans Enrolled in Prelicensure Nursing Programs in the United States.....	719
L 16 - Transitioning From Military to Civilian Nurse	721
The Reintegration Experience of Nurses Who Served in the Iraq and Afghanistan Wars	721
M 04 - Cultural Education Initiatives	723
A Global Approach to Promoting EBP Knowledge: Validating the Translated Version of EKAN Into Spanish	723
M 04 - Cultural Education Initiatives	726
Influencing Global Health Through Cultural Nursing Education Assignments: Results of a Mixed-Methods Study	726
M 06 - Genetic Health	727
An Innovative Approach to Teaching Genetics to Graduate Nursing Students Using Interprofessional Teaching Modalities	727
M 06 - Genetic Health	729
Improving Global Health and Advancing Nursing Science: Parental Knowledge on Genetic Screening and Immunization	729
M 07 - Global Practices for Pressure Ulcers.....	731
Description of Medical-Surgical Nurses' Care of Patients at Risk for Pressure Ulcers (PU).....	731
M 07 - Global Practices for Pressure Ulcers.....	733
Understanding Pressure Injuries: A Case Study of Adult Patients Treated in Their Own Homes.....	733
M 08 - Health Promotion of Patients With Catheters	735
The One Million Global Peripheral Intravenous Catheter Study: Findings From a Large Urban Hospital.....	735
M 08 - Health Promotion of Patients With Catheters	739

Association of Catheter-Associated Urinary Tract Infection (CAUTI) With the Practice Environment at the Unit Level.....	739
M 09 - Improving Health in the Psychiatric Patient	741
Improving Dual Diagnosis Care in Acute Psychiatric Inpatient Settings Through Education	741
M 09 - Improving Health in the Psychiatric Patient	742
Working Together to Treat Tobacco Dependence Among Smokers With Serious Mental Illness	742
M 10 - Male Sexual Health and Substance Abuse.....	744
Substance Use Experiences of HIV-Positive and HIV-Negative Young Black Men Who Have Sex With Men.....	744
M 10 - Male Sexual Health and Substance Abuse.....	746
Substance Use Among Middle-Aged Hispanic Men Who Have Sex With Men (HMSM) in South Florida.....	746
M 11 - Pain-Management Strategies	748
Pain-Management Challenges in Rural Communities Impacted By Multi-Drug Overdoses.....	748
M 11 - Pain-Management Strategies	750
Supporting Veterans With Chronic Pain: Utilizing an Evidence-Based Self-Care Model	750
M 12 - Civility in Education and Practice	752
Upward Violence in Nursing: A Scoping Review of a Phenomenon of Importance for Nursing	752
M 12 - Civility in Education and Practice	754
Perceptions of Self-Reported Civility Among Undergraduate Nursing Students.....	754
M 13 - Promoting Health Globally.....	756
Re-Engendering Sexual and Reproductive Health (S&RH) Services: Evaluation and Strategy Directions for RH Clinics.....	756
M 13 - Promoting Health Globally.....	759
Listen to Me: Noncaregiving Adult Children's Needs From Healthcare Providers	759
M 14 - Promoting Outcomes in Oncology Patients	761
Cancer Nursing Research in Africa: Scoping the Landscape	761
M 14 - Promoting Outcomes in Oncology Patients	763
Collaboration and Communication in Pediatric Oncology: A Case for the Clinical Nurse Leader (CNL)	763
M 15 - Cognitive Impairment Effects on Clinical Outcomes	766
Perceived Cognitive Deficits in Persons With Multiple Sclerosis (MS)	766
M 15 - Cognitive Impairment Effects on Clinical Outcomes	768
Psychometric Properties of the Problem-Solving Inventory in Caregivers of Persons With Memory Loss	768
M 16 - Enhancing Quality of Patient Care Through Communication.....	770
A Systematic Review of the Impact of Intentional Rounding on Patient Safety in Acute Care.....	770
M 16 - Enhancing Quality of Patient Care Through Communication.....	772
Quality Improvement Initiative Evaluation to Determine Effectiveness of Provider-Patient Communication in a Wound Clinic	772
N 04 - Communication Care Practices	775
Communication, Power Distance, and Medication Errors: An Ethnographic Exploration of Cultural Care Practices.....	775
N 04 - Communication Care Practices	776
Trust Development Between Patient and Nurse: A Grounded Theory Study	776

N 06 - Gerontological Nursing Care.....	778
Developing Clinical Guidelines to Improve the Care of Older People With Diabetes.....	778
N 06 - Gerontological Nursing Care.....	780
Changing Attitudes With a Gerontological Nursing Course	780
N 07 - Global Retention.....	782
Perceived Strategies to Decrease Attrition Rates Among Nurses Practicing at Healthcare Institutions in India	782
N 08 - Improving Health Using Dogs	783
Man's Best Friend: The Role of Companion Animals in the Lives of the Homeless	783
N 08 - Improving Health Using Dogs	786
Service Dogs' Influence on Military Veterans' Health: A Qualitative Study	786
N 09 - Improving Outcomes in Patients With Neurological Injury	787
Comparison of a Nurse-Driven Mobility Protocol to Multidisciplinary Mobility Protocol for Subarachnoid Hemorrhage Patients.....	787
N 09 - Improving Outcomes in Patients With Neurological Injury	789
Patient and Facility Characteristics Related to Hypertension Control After a Transient Ischemic Attack (TIA).789	789
N 10 - Maternal Education in Preterm Infants.....	792
Behavioral Intervention With Maternal Participatory Guidance Improves Preterm Infant Outcomes	792
N 10 - Maternal Education in Preterm Infants.....	794
Development and Evaluation of a Tailored Mother-Infant Interaction Program for Premature Infants.....	794
N 11 - Palliative Care in Education.....	796
Using Multicultural Role-Play to Improve End-of-Life Care Education.....	796
N 11 - Palliative Care in Education	798
Transforming Nursing Students' Attitudes Toward End-of-Life Care	798
N 12 - Preventing Childhood Obesity	799
The Impact of Feeding and Parenting Guidance on the Prevention of Child Obesity	799
N 12 - Preventing Childhood Obesity	801
Smart Nutrition and Conditioning for Kids (SNACK): An Interprofessional Approach to Nutrition and Physical Education.....	801
N 13 - Enhancing Patient Care With the Use of Technology	803
Mobile App to Prevent Depression in the Dominican Republic: Sociocultural Adaptations and International Collaborations.....	803
N 13 - Enhancing Patient Care With the Use of Technology	805
Patient Care Technology: Where the Patient Meets the Nurse	805
N 14 - Promoting Well-Being in the Workforce	808
Promoting Health and Well-Being: A Review of the Effectiveness of Interventions to Prevent Workplace Bullying	808
N 14 - Promoting Well-Being in the Workforce	810
Nursing Workforce Well-Being and Quality of Life: Predictions and Recommendations	810
N 15 - Simulation Education for Entry-Level Nurses.....	813
Impact of High-Fidelity Simulation on Teaching Medical Nursing.....	813

N 15 - Simulation Education for Entry-Level Nurses.....	814
Integrating Simulation-Based Education Into the Healthcare Setting: Newly Licensed Nurses Learn to Transition	814
N 16 - Surgical Pain Management.....	816
Effect of Paravertebral Block on the Outcomes of Patients Undergoing Video-Assisted Thoracic Surgery.....	816
N 16 - Surgical Pain Management.....	818
Transforming Practice With Scripted Messages: Improving Pain Management in Outpatient Surgical Patients	818
N 17 - Telehealth.....	819
What Do Nurses Ask About? A Review of Nursing Questions in a Brazilian Telemedicine System.....	819
N 17 - Telehealth.....	821
Factors Associated With the Successful Implementation of Telehealth in a Retail Health Clinic.....	821
O 10 - Global Concerns for Cancer Clinical Trials	823
Informed Consent Practice in Cancer Clinical Trials in Taiwan	823
O 10 - Global Concerns for Cancer Clinical Trials	824
Impact of Health Literacy on Clinical Trial Enrollment for Breast Cancer Patients.....	824
O 11 - Palliative Care Simulation.....	826
Assessing Interprofessional Palliative Care Movie Simulation and Debriefing: A Multisite, Multinursing Track Perspective.....	826
O 11 - Palliative Care Simulation.....	829
A Patient's Last Breath: An Analysis of Hospice Clinical vs. Hospice Simulation Experiences	829
O 12 - Global Sexual Health.....	831
Peruvian, Spanish, and American Nursing Faculty Attitudes to Caring for People Living With HIV/AIDS	831
O 12 - Global Sexual Health.....	833
Determining Knowledge, Attitudes, and Beliefs About Pre-Exposure Prophylaxis (PrEP) Among Transgender Men	833
O 13 - Community-Based Health Promotion.....	835
Strengthening the Evidence for Community-Based Wellness: An Academic-Practice Approach to Support Evaluation and Dissemination	835
O 13 - Community-Based Health Promotion.....	837
Participatory Rural Appraisal for Community Assessment of Health Needs in Rural Haiti: A Pilot Study	837
O 14 - Psychological Health in Minority Women	838
Caught in the Middle: Intersectionality and Mental Health Among Asian Indian Women.....	838
O 14 - Psychological Health in Minority Women	840
Psychological Stress and Acculturation Impact on Health Promotion Lifestyle Behaviors' Adoption Among Arab American Women	840
O 15 - Infant Safety Interventions.....	842
Parental Readiness for Infant Safe-Sleep Interventions	842
O 15 - Infant Safety Interventions.....	845
Change in Caregiving Activities in Preterm Infants Over the First 14 Days of Life	845
O 16 - Symptoms and Treatment of Cancer	847

Global mHealth Interventions for Self-Management of Symptoms Following Breast Cancer Treatment.....	847
O 16 - Symptoms and Treatment of Cancer	849
Hope and Symptom Interference Predicting Quality of Life in Colorectal Cancer Survivors: A Pilot Study	849
O 17 - Educational Learning Environment	851
Diverse Educational Strategies Enhance Multigenerational Learning in the Classroom and Workplace.....	851
O 17 - Educational Learning Environment	853
A Systematic Literature Review of the Effect of Culture on Learning	853
P 09 - Enhancing Education Through Storytelling	855
Using Digital Stories to Increase Nurse Educator Cultural Competence in Ontario, Canada	855
P 09 - Enhancing Education Through Storytelling	856
Using Storytelling to Teach SBAR as a Crucial Conversation Skill to Improve Patient Safety	856
P 10 - NCLEX Success	858
The Relationships Among Standardized Exam Results, Remediation Time, and Licensure Success.....	858
P 10 - NCLEX Success	861
Nursing Students and NCLEX-RN® Success: Impact of a Standardized Review Course on Outcomes.....	861
P 11 - Patient Education in Oncology Patients	863
Feasibility of a Breast Health Education Intervention for Vietnamese-American Immigrant Women	863
P 11 - Patient Education in Oncology Patients	866
Innovative Use of Electronic Tablets for Newly Diagnosed Cancer Patient Education	866
P 12 - Preventing Injury and Infection in Resident Care	868
Urinary Incontinence in the Nursing Home Resident: Exploring CNA Caregivers' Attitudes and Beliefs Regarding UI	868
P 12 - Preventing Injury and Infection in Resident Care	869
Describing Avoidable Transfers and Decisions to Transfer Residents From Long-Term Care to Emergency Departments.....	869
P 13 - Creating Nursing Competence Using Simulation	870
Use of Standardized Patients (SPs) With Disabilities in an Undergraduate Nursing Program.....	870
P 13 - Creating Nursing Competence Using Simulation	872
Does a Culturally Infused High-Fidelity Human Simulation (HFHS) Scenario Accurately Depict the Culture?	872
P 14 - Public Health Promotion	874
Exploring Water, Sanitation, and Hygiene Practices in Gatinneau, Haiti	874
P 14 - Public Health Promotion	876
Evaluating the Use of an Evidence-Based Test for Tuberculosis Screening	876
P 15 - Sleep Disturbances.....	878
Prevalent SleepDisordered Breathing and Obstructive Sleep Apnea (OSA) Despite Treatment for Acromegaly	878
P 15 - Sleep Disturbances.....	880
Sleep Disturbances Experienced by Military Burn Survivors	880
P 16 - Technologies to Influence Palliative Care	882
A New Kind of Team! A Nurse-Led Technology-Enabled Interprofessional Palliative Home Care Model	882

P 16 - Technologies to Influence Palliative Care	884
Utilizing Clinical Decision Support Within the Electronic Health Record to Screen for Palliative Care	884
P 17 - The Student/Faculty Relationship	886
Academic Factors That Contribute to Nursing Students' Persistence: Pre-Program Support.....	886
P 17 - The Student/Faculty Relationship	887
Exploring Faculty-Student Relationships and Their Implications for Persistence in African American Senior Nursing Students	887
Q 07 - Global Perceptions of Pain Management.....	889
Clinical Decision-Making Regarding the Management of Pain: Differences Between Novice, Intermediate, and Expert Nurses.....	889
Q 07 - Global Perceptions of Pain Management.....	890
Knowledge, Attitudes, and Practices of Nurses on Pain Assessment and Management in Manila, Philippines	890
Q 08 - Innovative Teaching Strategies	893
Utilization of Innovative Teaching Strategies Following a Nursing Education Certificate Program in Guyana..	893
Q 08 - Innovative Teaching Strategies	895
Case-Based Learning in a Flipped Classroom to Promote Critical Reasoning.....	895
Q 09 - International Research Collaborations	897
Challenges and Opportunities in Conducting International Research Study: Family-Witnessed Resuscitation in Two European Countries.....	897
Q 09 - International Research Collaborations.....	899
Multinational Research Collaboratives, Interaction Costs, and Time to Productivity: An Empirical Model to Support Success	899
Q 10 - Novice Nurse Faculty	901
Developing Novice Nurse Faculty: Finding an Authentic Leadership Voice.....	901
Q 10 - Novice Nurse Faculty	903
A Structured Mentorship Program to Support Expert Clinicians in New Roles as Clinical Faculty	903
Q 11 - Cooperative Simulation Learning.....	905
Cooperative Learning Versus Independent Learning and the Haptic Intravenous (IV) Simulator	905
Q 11 - Cooperative Simulation Learning.....	906
iHuman Project: Implementation and Evaluation of Cloud-Based, Virtual-Patient, Case-Based Simulation.....	906
Q 12 - Creative Therapy Methods to Enhance Clinical Reasoning	907
Poetry, Paintings, and a Short Story: Humanities Foster Success in Developing Clinical Reasoning Skills.....	907
Q 12 - Creative Therapy Methods to Enhance Clinical Reasoning	909
Reflective Practice Journaling and Clinical Reasoning: A Qualitative Inquiry Study.....	909
Q 13 - Emergency Situations.....	912
Development and Implementation of a University Active Shooter Drill Using Cross-Sector Collaboration and Nursing Leadership	912
Q 13 - Emergency Situations.....	914
Differences and Similarities in Emergency Department Crowding Between a Developing Country and a Developed Country	914
Q 14 - Public Safety	916

Using Community Engagement and Multisectoral Collaboration to Address Health and Public Safety	916
Q 14 - Public Safety	918
Effects of Insecticide Exposure Prevention Program on Exposure and Blood Cholinesterase Levels in Thai Farmers	918
Q 15 - Smoking Cessation Interventions	920
Effect of RCT Testing on a CBPR-Developed Cessation Intervention for Culturally Diverse, Low Socioeconomic Women	920
Q 15 - Smoking Cessation Interventions	923
Tribal College Students' Access to and Use of Mobile Communication and Technology for Health Information	923
Q 16 - Technology and Learning Strategies	924
Active Learning Strategies for Course Enhancement: Monitoring Adverse Event Reporting in Twitter	924
Q 16 - Technology and Learning Strategies	926
Using the "Kahoot.it" Game to Enhance Undergraduate Nursing Students' Learning	926
Q 17 - Theory Into Practice	927
Factors Influencing Undergraduate Students' Intention to Use Evidence-Based Practice (EBP) After Graduation	927
Q 17 - Theory Into Practice	929
Strategies to Promote Student Publication in an Evidence-Based Practice Course	929
R 02 - Experiences of Pregnant Women	930
Improving Care of High-Risk Obstetrics Patients By Creating an Evidence-Based Nurse-Driven Process	930
R 02 - Experiences of Pregnant Women	932
Differences Between Chinese and American Women and Their Experience of Stress Urinary Incontinence in Pregnancy	932
R 02 - Experiences of Pregnant Women	934
Experiences of Women With Physical Disabilities Related to Pregnancy.....	934
R 03 - Promoting Evidence-Based Practice.....	936
A Systematic Review of the Factors Influencing Healthcare Managers' Engagement in Evidence-Informed Practice.....	936
R 03 - Promoting Evidence-Based Practice.....	938
Influence of Nurse Social Networks on Evidence-Based Practice (EBP): Results of an Exploratory Study	938
R 03 - Promoting Evidence-Based Practice.....	941
Driving Evidence-Based Practice Through Remote and/or Mobile Applications.....	941
R 04 - Quality Improvement Outcomes	942
Implementation and Sustainability of Quality Improvement (QI) in Home and Community-Based Service (HCBS) Settings.....	942
R 04 - Quality Improvement Outcomes	945
A Description of Work Processes Used By Clinical Nurse Specialists (CNS) to Improve Patient Outcomes....	945
R 04 - Quality Improvement Outcomes	949
The Influence of Multimorbidity on Rehabilitation Outcomes in Stroke and Amputation.....	949
R 06 - Provider Perceptions of the HIV Patient.....	950

Perspectives of People Living With HIV Toward Healthcare Providers: Insights Into Multicultural Health Literacy	950
R 06 - Provider Perceptions of the HIV Patient.....	952
Barriers and Facilitators of Couples' HIV Testing and Counseling: Providers' Perceptions From an HIV Epicenter	952
R 06 - Provider Perceptions of the HIV Patient.....	955
Quality of Care at Primary Healthcare Facilities: Perceptions of Tuberculosis and HIV Co-Infected Patients ..	955
R 08 - Using Simulation in Nursing Education	956
Hands Off: Student Experiences in Objective Data Collection in Virtual Clinical Simulation.....	956
R 08 - Using Simulation in Nursing Education	959
The Impact of Clinical Simulation on Beginning Nursing Students' Self-Efficacy and Learning.....	959
R 08 - Using Simulation in Nursing Education	961
Validating Targeted Behavioral Markers for Baccalaureate Nursing Student Teamwork Performance Outcomes in Simulation	961
R 09 - Using Photovoice in Healthcare	965
Finding Meanings: Using Photovoice to Explore Smoking in Rural Low-Income Women	965
R 09 - Using Photovoice in Healthcare	967
Photovoice Empowerment Activity: Engaging High-Risk Youth in Civic Engagement and a Leadership Program	967
R 09 - Using Photovoice in Healthcare	968
Curling and Rural Women's Health in Canada: A National Photovoice Study	968
S 04 - Creating a Culture of Patient Safety	970
The Development and Testing of a Measure for Turbulence in Intensive Care	970
S 04 - Creating a Culture of Patient Safety	973
Registered Nurses' Perceptions of Patient Safety Culture and Safety Outcomes in the Workplace.....	973
S 07 - Cross-Country Health Systems.....	975
Making a Cross-Country Comparison of Health Systems: What Are the Possible Study Design Frameworks?	975
S 07 - Cross-Country Health Systems.....	977
A Case-Oriented, Cross-Country Comparison of Three High-Income Countries' Health Systems and Healthcare Accessibility	977
S 08 - Effective Teaching Methods.....	978
Student-Centered Teaching Methodology in an Undergraduate Nursing Programme at Two Nursing Institutions in Kingston, Jamaica	978
S 08 - Effective Teaching Methods.....	979
Leadership Initiatives: Challenges and Implications for a Remote Nursing Education Program.....	979
Evidence-Based Practice Poster Presentations	981
EBP PST 1 - Evidence-Based Practice Poster Session 1	982
The Influence of Leader-Member Exchange and Structural Empowerment on Nurses' Perceptions of Patient Safety	982
EBP PST 1 - Evidence-Based Practice Poster Session 1	984

Memory-Focused Interventions for People With Cognitive Disorders: A Meta-Analysis of Randomized Controlled Studies	984
EBP PST 1 - Evidence-Based Practice Poster Session 1	986
Implementing an Acuity Adaptable Care Model in an Existing Academic Medical Center	986
EBP PST 1 - Evidence-Based Practice Poster Session 1	987
A Standardized Handover and Transport Process for Critically Ill Pediatric Patients: An Interdisciplinary Collaboration	987
EBP PST 1 - Evidence-Based Practice Poster Session 1	989
The Utilization of a Nurse Manager Audit Toolkit to Re-Envision the Nurse Manager Role	989
EBP PST 1 - Evidence-Based Practice Poster Session 1	990
Discharging Patients Before 10:00 a.m.: A Pilot Study	990
EBP PST 1 - Evidence-Based Practice Poster Session 1	992
The Relationships Between Critical Care Nurses' Experience, Decision-Making, and Their Attitudes Toward Physical Restraint Use.....	992
EBP PST 1 - Evidence-Based Practice Poster Session 1	993
Career Maturity Characteristics of Mid-Career Japanese Nurses Working in Small and Mid-Sized Hospitals	993
EBP PST 1 - Evidence-Based Practice Poster Session 1	994
Nurses' Work-Related Fatigue and Related Factors.....	994
EBP PST 1 - Evidence-Based Practice Poster Session 1	996
Using Diverse Strategies to Enhance the Quality of Emergency Nursing.....	996
EBP PST 1 - Evidence-Based Practice Poster Session 1	998
Does Nail Polish Have Significance on Pulse Oximetry Readings?: A Literature Review	998
EBP PST 1 - Evidence-Based Practice Poster Session 1	1000
A Method of Analyzing Defects in Preoperative Preparation Process Using a Computerized Control System	1000
EBP PST 1 - Evidence-Based Practice Poster Session 1	1001
Describing the Contribution and Value of Public Health Nurses to Health System Outcomes.....	1001
EBP PST 1 - Evidence-Based Practice Poster Session 1	1002
Evaluation of Comprehensive Screening to Support Initial Depression Diagnosis Among Military Adolescent Beneficiaries	1002
EBP PST 1 - Evidence-Based Practice Poster Session 1	1003
Nursing Student Simulation: A Three-Tiered Model Approach	1003
EBP PST 1 - Evidence-Based Practice Poster Session 1	1006
Engaging Nurses to Promote Clinical Outcomes	1006
EBP PST 1 - Evidence-Based Practice Poster Session 1	1007
Fostering Nurse Renewal Through Compassion: A Model for Alleviating Nurse Workplace Stress	1007
EBP PST 1 - Evidence-Based Practice Poster Session 1	1009
Feasibility of Using Appreciative Inquiry to Improve Maternity Services in District Hospitals of Malawi	1009
EBP PST 1 - Evidence-Based Practice Poster Session 1	1010
Engaging Nurses in the Diagnostic Process.....	1010
EBP PST 1 - Evidence-Based Practice Poster Session 1	1012

Reducing Preventable Transfers From Short-Stay Care	1012
EBP PST 1 - Evidence-Based Practice Poster Session 1	1014
Depression and Its Predictors in Hemodialysis Patients in Taiwan	1014
EBP PST 1 - Evidence-Based Practice Poster Session 1	1015
Personalized Bleeding Risk Score to Optimize Post Coronary Intervention Outcomes.....	1015
EBP PST 1 - Evidence-Based Practice Poster Session 1	1017
Predictors of Implementation of Evidence-Based Fall Management Among Nursing Staff in Geriatric Hospitals	1017
EBP PST 1 - Evidence-Based Practice Poster Session 1	1018
Effectiveness of Oral Sodium Phosphate Bowel Preparation for Colonoscopy: A Meta-Analysis.....	1018
EBP PST 1 - Evidence-Based Practice Poster Session 1	1019
Comparison of Oral Health and Oral QOL Among Community Residents and Patients With Renal Insufficiency	1019
EBP PST 1 - Evidence-Based Practice Poster Session 1	1021
Implementation of "Creative Joint-Defense Network" to Improve Nursing Quality for Endotracheal Intubation	1021
EBP PST 1 - Evidence-Based Practice Poster Session 1	1023
Personality Type and the Configuration of Online Learning Groups.....	1023
EBP PST 1 - Evidence-Based Practice Poster Session 1	1024
Nurse's Self-Confidence of Family Presence During Resuscitation in Japanese Pediatric Emergency and Critical Care Field	1024
EBP PST 1 - Evidence-Based Practice Poster Session 1	1026
Does Completing a Post Graduate Advanced Clinical Assessment Paper Influence Nursing Practice: An Exploratory Study?	1026
EBP PST 1 - Evidence-Based Practice Poster Session 1	1027
Personality Traits Are Important Predictors of Glycemic Control in Patients With Diabetes	1027
EBP PST 1 - Evidence-Based Practice Poster Session 1	1029
The Effect of Elevating Head of Bed for Esophageal Cancer Patients With Nocturnal Reflux Symptom.....	1029
EBP PST 1 - Evidence-Based Practice Poster Session 1	1030
Development and Psychometric Tests of the Chinese Version of Patient Satisfaction With Nurse Practitioner Scale	1030
EBP PST 1 - Evidence-Based Practice Poster Session 1	1031
An Innovative Interdisciplinary Response to CVC-Related Complications in TPN-Dependent Pediatric Patients: A Comprehensive Educational Initiative	1031
EBP PST 1 - Evidence-Based Practice Poster Session 1	1033
Outcomes of an Innovative Evidence-Based Project: Building a Difficult Access Team in an Emergency Department.....	1033
EBP PST 1 - Evidence-Based Practice Poster Session 1	1034
Identifying Acute Cardiac Deterioration in a Critical Care Setting and Establishing a New Recognition Protocol	1034
EBP PST 1 - Evidence-Based Practice Poster Session 1	1035
Green Care as Psychosocial Intervention for Depressive Symptoms: What Might Be the Active Ingredients?	1035

EBP PST 1 - Evidence-Based Practice Poster Session 1	1038
Lessons Learned in Creating Evidence-Based Electronic Oncology Care Plans	1038
EBP PST 1 - Evidence-Based Practice Poster Session 1	1040
Compare the Traditional Brush Hand or Dry Hand Disinfection Methods: A Randomized Controlled Trial	1040
EBP PST 1 - Evidence-Based Practice Poster Session 1	1042
Collaborative Use of KDOQI Guideline to Improve Chronic Kidney Disease Care	1042
EBP PST 1 - Evidence-Based Practice Poster Session 1	1044
Therapeutic Hypothermia Improvement Project	1044
EBP PST 1 - Evidence-Based Practice Poster Session 1	1046
Depression and Sleep Impairment Impact on Pain and Quality of Life for Sickle Cell Patients	1046
EBP PST 1 - Evidence-Based Practice Poster Session 1	1048
Follow-Up of the Joint Function and Quality of Life After Total Joint Arthroplasty	1048
EBP PST 1 - Evidence-Based Practice Poster Session 1	1049
Effects of a Nursing Intervention on Illness Perceptions and Quality of Life in Injured Patients	1049
EBP PST 1 - Evidence-Based Practice Poster Session 1	1050
Best Practices for Reducing Catheter-Associated Urinary Tract Infections (CAUTIs) in the Medical Intensive Care Unit	1050
EBP PST 1 - Evidence-Based Practice Poster Session 1	1051
Developing a Guideline for Transferring Premature Infants From Incubator to Open Crib in the NICU	1051
EBP PST 1 - Evidence-Based Practice Poster Session 1	1053
Evaluating the Effectiveness of a Community Partnership to Raise Toxic Stress Awareness in Early Childhood	1053
EBP PST 1 - Evidence-Based Practice Poster Session 1	1055
Impact of NICHE Preparation on Nursing Knowledge of Geriatric Patient Care	1055
EBP PST 1 - Evidence-Based Practice Poster Session 1	1057
In-Home Air Pollution is Associated With Respiratory Symptoms in Patients With Chronic Obstructive Pulmonary Disease	1057
EBP PST 1 - Evidence-Based Practice Poster Session 1	1058
Implementing Project Echo: Complex Care Management, Using Technology to Support Primary Care Nurses	1058
EBP PST 1 - Evidence-Based Practice Poster Session 1	1060
Text Message Quality Improvement Intervention Improves Influenza Vaccination Rate Among Pediatric Patients With Asthma	1060
EBP PST 1 - Evidence-Based Practice Poster Session 1	1062
Assessing Nurse Learners' Stress Using Technology to Measure Physiologic Adaptation Within Interprofessional Patient Care Simulation.....	1062
EBP PST 1 - Evidence-Based Practice Poster Session 1	1065
Development of Smartrek a Theory Driven Mobile App to Prevent Alcohol Use Among College Students....	1065
EBP PST 1 - Evidence-Based Practice Poster Session 1	1069
Factors Associated With Development of Pressure Ulcers in Patients With Assist Device Tubes in ICUs.....	1069
EBP PST 1 - Evidence-Based Practice Poster Session 1	1071

Simulation Training for Obstetrical Emergencies: Improving Nurse's Clinical Skills During a Shoulder Dystocia	1071
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1074
Establishing an American Heart Association International Training Center in Port-au-Prince, Haiti	1074
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1076
Xiangya-UCLA HIV Nursing Research Training Program: A Global Health Collaboration Between the U.S. and China	1076
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1078
Evaluation of PFDs by Vietnamese Commercial Fishermen in the Gulf of Mexico	1078
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1080
Facilitation on the Run: Enabling Work-Based Facilitation in the Midst of Practice	1080
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1081
Muslim Patients and Carers Satisfaction on the Hospital Hygienic Practices in Meeting Their Spiritual Needs	1081
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1082
Developing a Culturally Tailored Social Risk Assessment Tool for Depression Among Hispanic Women	1082
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1084
Effectiveness of Cultural Competence Educational Intervention on Patient and Health Professional Outcomes: A Systematic Review	1084
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1085
Growing in Recovery: A Service Learning Case Study.....	1085
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1086
Cultivating a Culture of Resilience.....	1086
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1087
De-Stigmatization of Mental Illness and Addiction Requires Increased Content in Undergraduate Nursing Curricula Globally	1087
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1088
Changing the Delivery Landscape of Native American Health	1088
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1090
Nursing Self-Care: Current Evidence and Implementation Strategies for Improving Patient Outcomes and Nurse Well-Being	1090
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1092
Working With the Obese Client: Helping Achieve Lifestyle Changes to Meet Their Weight Loss Goals	1092
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1094
Healthcare Literacy and Communication With Health Professionals: Achieving Healthy Outcomes Among Diverse Populations.....	1094
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1096
Community-Based Nurse Led Biomedical HIV Prevention Service: A Tale of Two Sites	1096
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1098
Combining Literature Review, Qualitative Descriptive Analysis, and Computerized Lexical Analysis to Investigate HRQoL in Schizophrenia.....	1098
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1101

Enhancing Nursing Knowledge and Application of Education to Opioid Addicted Pregnant Women: A Literature Review.....	1101
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1103
Deaf and Hard-of-Hearing Youth: Needs for Health Risk Prevention Interventions?.....	1103
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1104
Purposeful Proactive Hourly Rounding: A Positive Influence on Outcomes and Experience	1104
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1106
A Pilot Study Evaluating the Effectiveness of Diabetes Prevention in a Medically Underserved Community	1106
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1108
I Got the Money! Key Strategies to Secure Grant Funding for Research and Evidence-Based Practice	1108
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1110
Improving Hypertension Management Through Computer-Based Staff Education, Simulation, and Incentivization: One Organization's Quality Improvement Journey.....	1110
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1113
Nursing Rounds: A Best Practice Implementation	1113
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1115
Incorporating a Collaborative Perioperative Training Program in Undergraduate Nursing Education	1115
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1117
Starting the Conversation on Hypertension Self-Management in Primary Care to Improve Cardiovascular Outcomes	1117
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1119
Teaching Strategies for the Promotion of Effective Patient Communication in Vulnerable Women.....	1119
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1122
A Prospective Evaluation of Health-Related Quality of Life in Lymphedema Treatment	1122
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1123
Identifying Exercise Barriers for Nurses Working in Sedentary Work Roles.....	1123
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1124
Polysubstance Use, Decision Making, and Geosocial Networking App Use Among MSM.....	1124
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1126
Food and Activity: A Competence Enhancement Project for Persons With Developmental Disabilities and Caregivers	1126
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1127
Bed Climate for Infants and Their Mothers: From the Viewpoint of Absolute Humidity.....	1127
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1128
Determining the Level of Engagement in the Ohio State University Wellness Innovator Program	1128
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1129
The Association with Social Skills and Self-Monitoring in Japan	1129
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1132
Unspoken: Decreasing Attitudes of Stigma Towards Obese Women By Healthcare Providers	1132
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1133
The Risk Factors Affecting Survival in Colorectal Cancer in Taiwan	1133

EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1135
From Novice to Competent: Developing an Innovative Nurse Residency to Increase Confidence and Job Satisfaction.....	1135
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1137
Meeting the Needs of Women Veterans in Civilian Primary Care Practices.....	1137
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1140
Impact of Cultural and Linguistic Diversity on Success of the First Attempt of the NCLEX-RN®.....	1140
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1142
Stress, Burden, and Health Status in Caregivers of Heart Failure Patients.....	1142
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1143
Everything is Alright: Teaching an Online Nursing Course Using Technology.....	1143
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1144
Using Focus Groups to Explore the Facilitators and Barriers of Evidence-Based Nursing Among Clinical Nurses.....	1144
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1145
The Relationship Between Activities of Daily Living and Depression Among Community-Dwelling Older Adults.....	1145
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1147
The Doctor of Nursing Practice: Promoting Partnerships and Reducing Health Disparities Among Vulnerable Populations.....	1147
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1148
Introducing Simulation to BSN Students and Faculty Situated in a Rural Setting in North India.....	1148
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1149
A Phenomenological Exploration of the Experience of Antepartum Bed Rest in Mothers: Beyond Postpartum.....	1149
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1152
Rapid Curricular Innovation Using Lean Methodology.....	1152
EBP PST 2 - Evidence-Based Practice Poster Session 2.....	1153
Using the MDS-HC to Assess Health Status and Care Needs of the Elderly Living Alone.....	1153
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1154
Redesign of a Post-Licensure Population Health Course Using an Online Virtual Community Environment.....	1154
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1156
Use of Integrative Medicine Approaches for Treating Adults With Sleep Disorders.....	1156
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1157
Traveling Well: Leading Students on the Path to Human Flourishing.....	1157
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1159
Professional Development of Nurse Leaders.....	1159
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1160
Cinemeducation: An Innovative Way to Enhance Nursing Students' Communication Skills.....	1160
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1162

Transforming DNP Practice Partnerships Through Meaningful Student Initiatives and Structured Collaborations	1162
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1164
Creating a Successful Online Learning Environment for Introverted Nursing Students.....	1164
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1166
The Development and Incorporation of Combined Maternal-Child and Pediatric Global Learning Experiences Undergraduate Nursing Students	1166
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1167
Transformative Learning and Development of Public Health Nursing Practice From a Philosophical Perspective of Personhood	1167
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1169
Using Team STEPPS® to Improve Teamwork and Collaboration in the Emergency Department	1169
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1170
The Effectiveness of Online Case Studies Among Medical-Surgical Nursing Students	1170
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1172
Quality Enhancement Plan: Interprofessional Educational Program to Improve Nursing Students' Self-Efficacy in Scholarly Written Communication	1172
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1174
Lessons Learned: Incorporating Global Health Patient Experiences Into a BSN Curriculum	1174
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1175
Implementation of Faculty Clinical Research Mentorship to Improve Academic Clinical Partnerships and Nurse Led Projects.....	1175
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1177
Dietary and Supplemental Therapy in Crohn's Disease: Promoting Self-Care Through Knowledge	1177
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1178
Is This the Profession for Me? Pre-Nursing Students Simulated Hospital Day Observations.....	1178
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1179
Implementing a Dedicated Education Unit for Senior Year Baccalaureate Nursing Students in Primary Care	1179
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1181
Evidence-Based Tool Dissemination to Assess Bruising as a Forensic Bio-Marker of Abuse in Nursing Homes	1181
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1183
Implementing Care Coordination and Transition Management in a Critical Care Telemetry Unit.....	1183
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1184
The Clinical Clusters Education Model Supporting Nursing Student Learning: An Implementation Case Study	1184
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1186
The Integration of Mental Health Competencies Into a Primary Care Nurse Practitioner Curriculum.....	1186
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1188
The Dauntless Nurse: Communication Confidence Builder.....	1188
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1190

Human Resource for Health Development in Rwanda: Challenges and Opportunities in Nursing Education and Training.....	1190
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1192
Intentional Nurse Leader Rounding on Patients Daily	1192
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1193
Grit: The Power of Passion and Perseverance in Nursing.....	1193
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1194
Creating a Culture of Evidence-Based Practice: A Journey From Vision to Outcomes	1194
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1196
The Opportunity for the Clinical Nurse Leader Role in Transitional Care Leadership.....	1196
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1198
Incorporating Flipped Classroom Strategies Into a Nursing Research Course.....	1198
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1199
Improving the Confidence of Health Professionals Searching for Best Evidence Using PICO	1199
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1201
Using Context-Inquiry Teaching Model to Enhance Advanced Clinical Medical Writing.....	1201
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1202
NICU Nurses and Families Partnering to Provide Family-Centered Developmental Care.....	1202
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1204
The "Cost of Caring" for Cancer Patients: Mixed Methods Research With Victories and Hazards Exposed..	1204
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1206
Getting Back to the Basics: Handwashing 101	1206
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1207
Building Integrity into Nursing Curriculum and Culture	1207
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1209
A Nurse-Led Heart Failure Education Program to Improve Knowledge and Self-Care and Reduce 30-Day Readmission.....	1209
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1211
Nursing Clinical Practicum: Integrated Application Process	1211
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1212
An Orientation Program to Improve Teaching Competency in Clinical Nurse Faculty	1212
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1213
Enhancing Academic Writing Atmosphere Among Nurses in the Emergency Department	1213
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1214
Nursing Programs and Supportive Housing Sites: Mutual Benefits of Multigenerational Engagement Through Innovative Academic-Practice Partnerships	1214
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1216
Connection of Partner Violence and Women's Loss of Fertility Control and Impact on Health.....	1216
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1217
A Nursing Educational Intervention for Patient-Initiated Verbal Aggression	1217

EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1221
Need for Mental Health and Addiction Curriculum in Undergraduate Nursing Education in Canada and Globally	1221
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1223
Enhancing Interventions to Impact Healthcare Transition Readiness and Preparation of HIV-Infected Young Adults.....	1223
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1226
Advancing Population Health in the BSN Program through Interprofessional Simulation: Creating Curriculum to Create Change	1226
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1227
Effect of Simulation Training on Nursing Students in Adult Nursing	1227
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1228
Impact of Standardized Surgical Checklist on Communication and Teamwork Among Interdisciplinary Surgical Team	1228
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1229
The Use of Case Studies and Smart Device Apps to Increase Student Engagement	1229
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1232
Envisioning Magnet Designation: Raising the Bar for a Nursing Culture of EBP Awareness and Practice	1232
EBP PST 3 - Evidence-Based Practice Poster Session 3.....	1234
Utilizing Simulation to Improve Communication and Collaboration in Intraprofessional Nursing Teams	1234
Research Poster Presentations.....	1236
RSC PST 1 - Research Poster Session 1.....	1237
Using Staffing Analytics to Support Optimal Clinical Resource Scheduling Across a Safety Net Hospital System	1237
RSC PST 1 - Research Poster Session 1.....	1239
Impact of Handfeeding Assistance on Nutritional Intake for Nursing Home Residents.....	1239
RSC PST 1 - Research Poster Session 1.....	1240
Effects of Provider Communication Behaviors and Shared Decision Making on QOL Among Advanced Cancer Patients.....	1240
RSC PST 1 - Research Poster Session 1.....	1241
Nursing Students Attitudes' Toward the Homeless.....	1241
RSC PST 1 - Research Poster Session 1.....	1244
Teaching to Develop a View of Life and Death in Nursing Students.....	1244
RSC PST 1 - Research Poster Session 1.....	1246
Comparative Analysis of the Similarities and Differences in Approach to Integrative Scholarly Reviews	1246
RSC PST 1 - Research Poster Session 1.....	1248
Innovative Nursing Education Pathways and Racial/Ethnic Diversity	1248
RSC PST 1 - Research Poster Session 1.....	1250
The Perceived Leadership Characteristics, Behaviors, and Self-Esteem: Conducting Your Leadership Orchestra as a Hispanic Nurse.....	1250
RSC PST 1 - Research Poster Session 1.....	1252
Resuscitating our Nursing Team by Increasing Resilience in Labor and Delivery Nurses.....	1252

RSC PST 1 - Research Poster Session 1.....	1254
Predictors of Readiness for Disaster Management Skills Among Hospital Nurses.....	1254
RSC PST 1 - Research Poster Session 1.....	1255
Hoping to Pass: A Multi-Site Study Examines How a One-Time Intervention Affects High-Stakes Test Scores	1255
RSC PST 1 - Research Poster Session 1.....	1259
Adherence a Review: T2DM in Haitian-Americans.....	1259
RSC PST 1 - Research Poster Session 1.....	1262
International Perspective, International Collaborations: Logistic Considerations for Survey Research in Nursing Study Abroad and Exchange.....	1262
RSC PST 1 - Research Poster Session 1.....	1264
Perceptions/Recollections of Acquisition of the Nurse Advocate Role by Practicing Direct Care Nurses.....	1264
RSC PST 1 - Research Poster Session 1.....	1265
Ambulatory Playbook: Externs and Delay to Practice New Registered Nurses.....	1265
RSC PST 1 - Research Poster Session 1.....	1267
Review of Methodological Quality of Systematic and Integrative Reviews in Nursing.....	1267
RSC PST 1 - Research Poster Session 1.....	1269
Professional Socialization of Nurses and Nursing Students: An Integrative Literature Review.....	1269
RSC PST 1 - Research Poster Session 1.....	1270
Mental Injury: Exploring the Factors Related to Abusive Behavior Among Health Professionals.....	1270
RSC PST 1 - Research Poster Session 1.....	1273
Identifying the Impact of a DEU Experience on Critical Thinking in Associate Degree Nursing Students.....	1273
RSC PST 1 - Research Poster Session 1.....	1275
Nursing Leadership Influence on Male Graduate Nurses Retention Experiences Explored in the Professional Practice Environment.....	1275
RSC PST 1 - Research Poster Session 1.....	1277
Cognitive Apprenticeship in Hospital Orientation for Newly Graduated Nurses.....	1277
RSC PST 1 - Research Poster Session 1.....	1279
Using Story-Guided Online Deliberate Practice to Develop BSN Students' Critical Incident Reporting Skill..	1279
RSC PST 1 - Research Poster Session 1.....	1281
The Teaching Implementation of Hospital Experts Effects on the Self-Efficacy of Nursing Students.....	1281
RSC PST 1 - Research Poster Session 1.....	1283
Matched Preceptor-Preceptee Learning Styles on Student Self-Efficacy in Midwifery Students.....	1283
RSC PST 1 - Research Poster Session 1.....	1285
Innovative Leadership in Nursing Education for Maryland Healthcare Systems: Supporting Professional Advancement in Nursing.....	1285
RSC PST 1 - Research Poster Session 1.....	1287
The Effects of Task Characteristics and Cognitive Loading on Clinical Examination Performance in Nursing Students.....	1287
RSC PST 1 - Research Poster Session 1.....	1288

Measuring Changes in Cultural Awareness, Sensitivity, and Behaviors Among Online Graduate Nursing Students	1288
RSC PST 1 - Research Poster Session 1.....	1290
Attempting Shared Governance Within a School of Nursing	1290
RSC PST 1 - Research Poster Session 1.....	1292
E-Learning in Tertiary-Level Nursing Education in Germany and the Role of the Nurse Educator.....	1292
RSC PST 1 - Research Poster Session 1.....	1294
Relationships Between Personality Traits and Teaching Self-Efficacy in Clinical Nursing Preceptors	1294
RSC PST 1 - Research Poster Session 1.....	1295
Exploratory Study on Evaluating the Effectiveness of Implementing the Culture of Huddling in Ambulatory Care	1295
RSC PST 1 - Research Poster Session 1.....	1297
Effectiveness of an Evidence-Based Practice Training Program on School Nurses' Knowledge, Attitudes, and Skills	1297
RSC PST 1 - Research Poster Session 1.....	1298
Examining Nurse Attitudes and Knowledge Gaps Related to Substance Use Disorder	1298
RSC PST 1 - Research Poster Session 1.....	1300
Pediatric Behavioral Health in the ED: A New Normal?.....	1300
RSC PST 1 - Research Poster Session 1.....	1301
Reinvigorating a Shared Governance (SG) Model in a Community Hospital.....	1301
RSC PST 1 - Research Poster Session 1.....	1303
Explore the Clinical Nurses' Viewpoint and Expectations Toward Nursing Assistantship in Taiwan: A Triangulation Method.....	1303
RSC PST 1 - Research Poster Session 1.....	1304
Improvement Project for Dental Medical Instrument Management in Oral Surgical Ward	1304
RSC PST 1 - Research Poster Session 1.....	1305
Male-Factor Infertility: The Process to Seeking Treatment.....	1305
RSC PST 1 - Research Poster Session 1.....	1306
"Analogy" as Methodology in Solving Modern Day Problems By Learning from F. Nightingale's Work.....	1306
RSC PST 1 - Research Poster Session 1.....	1307
Does Transformational Leadership of Nurse Managers Change Over Time?: A Longitudinal Study	1307
RSC PST 1 - Research Poster Session 1.....	1308
Importance of Palliative Care in End-Stage Liver Disease: A Rising Global Issue	1308
RSC PST 1 - Research Poster Session 1.....	1310
Efficiency of Authentic Leadership on Turnover Rate of Nursing Staff	1310
RSC PST 1 - Research Poster Session 1.....	1312
Different Perception of Necessity of Management Skills Between Presidents and Nurse Administrators	1312
RSC PST 1 - Research Poster Session 1.....	1313
Professional Identity in the Lived Experience of Hospital Nurses	1313
RSC PST 1 - Research Poster Session 1.....	1315
Supporting Nurses to Speak Up for Patient Safety Using an Employee Engagement Survey	1315

RSC PST 1 - Research Poster Session 1.....	1317
Prevalence, Virological Status, and Improvement of Depression Symptoms During a One-Year HIV Cohort Study	1317
RSC PST 1 - Research Poster Session 1.....	1318
Functioning and Personal Experience Predict Job Satisfaction of Dedicated Nurses Working in Infection Isolation Rooms.....	1318
RSC PST 1 - Research Poster Session 1.....	1319
Health Failure Self-Management Support.....	1319
RSC PST 1 - Research Poster Session 1.....	1322
Effectiveness of Visual Inspection With Acetic Acid in the Detection of Cervical Neoplasia Intraepithelial.....	1322
RSC PST 1 - Research Poster Session 1.....	1324
What Pregnant Adolescents Think About Antenatal Care: A Contemporary Review for Midwives.....	1324
RSC PST 1 - Research Poster Session 1.....	1326
Neonatal Autonomic Function and Outcomes at 12-Months in Infants With Congenital Heart Disease	1326
RSC PST 1 - Research Poster Session 1.....	1328
Private Mobile Phones as a Source of Nursing Team Interruption During Medication Division and Administration	1328
RSC PST 1 - Research Poster Session 1.....	1329
Clinical Outcome of Comprehensive Care for Teenage Pregnancy in Ramathibodi Hospital.....	1329
RSC PST 1 - Research Poster Session 1.....	1330
Comparing Outcomes Between Vascularized Lymph Node Transfer and Lymphovenous Anastomosis in the Primary Lymphedema	1330
RSC PST 1 - Research Poster Session 1.....	1331
Substance-Abusing Patients' Perceptions of Nursing Care	1331
RSC PST 1 - Research Poster Session 1.....	1332
Global Utilization of Fertility Services in Developed Nations.....	1332
RSC PST 1 - Research Poster Session 1.....	1333
A Qualitative Study on Nurse Mental Health Consumer Empathy Experiences During Conflict or Discord....	1333
RSC PST 1 - Research Poster Session 1.....	1334
Systematic Analysis of the Global Nursing Trust Research Literature.....	1334
RSC PST 1 - Research Poster Session 1.....	1337
Somatic Countertransference Experiences of Nurse Therapeutic Touch Practitioners: A Content Analysis, Part 1: Body	1337
RSC PST 1 - Research Poster Session 1.....	1338
Using e-Health Technology to Establish a Tailored Survivorship Care Plan for Breast Cancer Survivors.....	1338
RSC PST 1 - Research Poster Session 1.....	1339
Validation of the Chinese Short-Form Cancer Survivor's Unmet Needs (CaSUN-SF) for Women With Breast Cancer.....	1339
RSC PST 1 - Research Poster Session 1.....	1340
The Diurnal Patterns of Fatigue in Patients on Hemodialysis: A Pilot Study	1340
RSC PST 1 - Research Poster Session 1.....	1341

Hot Flash-Related Daily Interference Scale Short Form.....	1341
RSC PST 1 - Research Poster Session 1.....	1342
Collaborative Work of Patients and Providers: Symptoms, Challenges, Shared Meaning, and Planning the Work	1342
RSC PST 1 - Research Poster Session 1.....	1344
Catheter-Associated Urinary Tract Infection (CAUTI) Prevention Strategy Using Education in an Intensive Care Unit (ICU).....	1344
RSC PST 1 - Research Poster Session 1.....	1346
Families and Surrogate Decision Makers of Critically Ill Patients in Saudi Arabia.....	1346
RSC PST 1 - Research Poster Session 1.....	1348
Effects of Acupression on Pericardium 6-Point With Wrist Band on Postoperative Complications of Patients	1348
RSC PST 1 - Research Poster Session 1.....	1349
Effects of Activity Group Therapy for Children With ASD on Social Skills and Self-Esteem.....	1349
RSC PST 1 - Research Poster Session 1.....	1352
Comparison of Skin Temperature and Bed Climate of Bedridden Elderly Patients in Summer and Winter....	1352
RSC PST 1 - Research Poster Session 1.....	1354
A Neglected Subject in Nursing: Eye Care.....	1354
RSC PST 1 - Research Poster Session 1.....	1355
Mother's Anxieties Before the Proton Beam Therapy of Child.....	1355
RSC PST 1 - Research Poster Session 1.....	1357
Exploring the Relationship Between Docetaxel-Induced Peripheral Neuropathy and Quality of Life in Breast Cancer Survivors.....	1357
RSC PST 1 - Research Poster Session 1.....	1358
Feeding Behaviors for Premature Infants Who Received Extended Tube Feedings.....	1358
RSC PST 1 - Research Poster Session 1.....	1360
Invisible Nature of Self-Care: Clinical Issues Raised By People With Multiple Long-Term Conditions.....	1360
RSC PST 1 - Research Poster Session 1.....	1362
An Analysis of Maternal Near Misses and Failure to Rescue Using Two National Data Sets.....	1362
RSC PST 1 - Research Poster Session 1.....	1364
Care Models of Individuals With Dementia and Properties of Care at the Home.....	1364
RSC PST 1 - Research Poster Session 1.....	1365
Restorative Justice in Mental Health Communities: The Importance of Interagency Cooperation.....	1365
RSC PST 1 - Research Poster Session 1.....	1367
Discrepancies in Necessary Support for Long-Term Care From Perspective of Patient's Family in Japan....	1367
RSC PST 1 - Research Poster Session 1.....	1368
Anemia is Associated With Rehospitalizations of Patients With Heart Failure.....	1368
RSC PST 1 - Research Poster Session 1.....	1370
"Gift of Life": Comparing Factors Involving Non-Directed Kidney Donor Motivation for Social Workers and Nurses.....	1370
RSC PST 1 - Research Poster Session 1.....	1373

Regular Sport Activity Is Positively Associated With Biopsychosocial Outcomes in Adults With Congenital Heart Disease.....	1373
RSC PST 1 - Research Poster Session 1.....	1374
The Emerging Adults' Lived Experience of Perinatally Acquired Human Immunodeficiency Virus (PAHIV)...	1374
RSC PST 1 - Research Poster Session 1.....	1376
Someone to Watch Over Me: Feeling Safe and Cared for in Clinical Settings	1376
RSC PST 1 - Research Poster Session 1.....	1378
Developing Clinical Guidelines to Improve Home Care for Patients After Prostatectomy.....	1378
RSC PST 1 - Research Poster Session 1.....	1380
Evaluation of the Use of Standard Operating Procedures in the Professional Practice of Nursing.....	1380
RSC PST 1 - Research Poster Session 1.....	1382
Use ISBAR Communication Tool to Reduce the Rate of Unplanned Endotracheal Extubation in Neonates..	1382
RSC PST 1 - Research Poster Session 1.....	1383
Systematic Review of Cyberbullying Interventions for Youth and Parents	1383
RSC PST 1 - Research Poster Session 1.....	1384
Factors Predicting Readmission Among Coronary Artery Disease.....	1384
RSC PST 1 - Research Poster Session 1.....	1386
Disclosure of Mental Health Symptoms: A Concept Analysis.....	1386
RSC PST 1 - Research Poster Session 1.....	1387
Evaluating Differences of Implementing Fall Prevention Strategies on Low and High Risk of Falling Inpatients	1387
RSC PST 1 - Research Poster Session 1.....	1389
Effectiveness of Small-Bore Pigtail Catheters for Management of Spontaneous Pneumothoraxes : A Meta-Analysis	1389
RSC PST 1 - Research Poster Session 1.....	1390
Risk Factors of Pressure Ulcer Development During Spinal Surgery	1390
RSC PST 1 - Research Poster Session 1.....	1391
Characteristics of Mortality Cases With Advance Care Planning Issues	1391
RSC PST 1 - Research Poster Session 1.....	1392
Perspectives of Emergency Nurses With Overcrowding State in Taiwan.....	1392
RSC PST 1 - Research Poster Session 1.....	1393
Neuropathic Pain and Related Factors in Patients After Lumbar Spine Surgery: A Prospective Study.....	1393
RSC PST 1 - Research Poster Session 1.....	1394
Hope and Health-Related Quality of Life of Older Women Who Have Had Heart Attacks.....	1394
RSC PST 1 - Research Poster Session 1.....	1396
Gaps in Palliative Care Provision in Saskatchewan, Canada: Learning From Palliative Care Management..	1396
RSC PST 1 - Research Poster Session 1.....	1397
Improving Care for the Veteran Population Through Respectful Interprofessional Collaboration: One College's Experience	1397
RSC PST 1 - Research Poster Session 1.....	1399

Applying Social Network Analysis to the Spread of Moods and Emotions Among Graduate Nursing Students	1399
RSC PST 1 - Research Poster Session 1.....	1401
Health-Related Quality of Life and Treatment Outcomes for Individuals With ESRD Treated By Hemodialysis	1401
RSC PST 1 - Research Poster Session 1.....	1402
A Frontline Approach to Investigating Nurses' Handover: A Focus on Content and Structure	1402
RSC PST 1 - Research Poster Session 1.....	1404
Effects of Lower Extremity Strength Training on Physical Recovery in Patients Underwent Total Knee Replacement	1404
RSC PST 1 - Research Poster Session 1.....	1405
Right Time in Medication Administration: A Multifaceted Concept.....	1405
RSC PST 1 - Research Poster Session 1.....	1406
Outcomes of Study on Quality Life and Perception of Dyspnea: Patients With Advanced Lung Cancer.....	1406
RSC PST 1 - Research Poster Session 1.....	1407
Travel Motivation and Influencing Factors of Travel Decision Making in Hemodialysis Patients	1407
RSC PST 1 - Research Poster Session 1.....	1408
An Early Rehabilitation Intervention for Enhancing Oxygenation and Recovery From Lung Cancer Surgery	1408
RSC PST 1 - Research Poster Session 1.....	1410
The Important Factors to Improve Nurse's Self-Confidence in Utilizing of Nursing Information Systems (SIMKEP).....	1410
RSC PST 1 - Research Poster Session 1.....	1412
Life Meaning in Patients Diagnosed With End-Stage Liver Cancer: An Interpretive Phenomenological Approach	1412
RSC PST 1 - Research Poster Session 1.....	1414
A Holistic Wellness Program for Low-Income Women: A Pilot Study	1414
RSC PST 1 - Research Poster Session 1.....	1415
Clinical Alert System to Reduce Hospital Unexpected Cardiac Arrest Event.....	1415
RSC PST 1 - Research Poster Session 1.....	1416
Status of Foot Care for Chronic Dialysis Patients and Issues With Implementation.....	1416
RSC PST 1 - Research Poster Session 1.....	1417
Using a Bundle Prophylactic Approach in Post-Operative Total Knee and Hip Arthroplasty	1417
RSC PST 1 - Research Poster Session 1.....	1419
Using Barthel Index and Performance Status Scale to Predict Inpatient Bowel Preparation Quality.....	1419
RSC PST 1 - Research Poster Session 1.....	1420
PTSD in Neurology Nurses Coping With Verbal and Physical Abuse From Patients and Families	1420
RSC PST 1 - Research Poster Session 1.....	1421
Uncertainty and Depression as Mediators of Quality of Life in Patients With Heart Failure.....	1421
RSC PST 1 - Research Poster Session 1.....	1422
Assessment of Human Trafficking Awareness	1422
RSC PST 1 - Research Poster Session 1.....	1423

Validity and Reliability of the Social Adjustment Scale for Adolescents With Tourette Syndrome	1423
RSC PST 1 - Research Poster Session 1	1424
Improving Door-to-ECG Time for Patients Presenting With Chest Pain in the Adult Emergency Department	1424
RSC PST 1 - Research Poster Session 1	1425
A Prospective Study to Explore Pain, Anxiety, and Acute Confusion in Patients With Abdominal Surgery	1425
RSC PST 1 - Research Poster Session 1	1426
Is There Gender Difference in Maintenance of Peritoneal Dialysis: Analysis Using Competing Risk Model ..	1426
RSC PST 1 - Research Poster Session 1	1427
The Relationship Between Magnet® Hospitals and Nurse-Driven Patient Outcomes	1427
RSC PST 1 - Research Poster Session 1	1430
Factor Influencing Satisfaction about Using PCA of Postoperative Patients a General Ordered Logistic Regression Analysis	1430
RSC PST 1 - Research Poster Session 1	1431
The Effects of Music on Anxiety of Hospitalized Psychiatry Patients.....	1431
RSC PST 1 - Research Poster Session 1	1432
Women's Experience of Perinatal Loss: A Collaboration to Develop a Learning Resource for Nurses	1432
RSC PST 1 - Research Poster Session 1	1433
Preschool Children: What They Know About Asthma and How They Learn	1433
RSC PST 1 - Research Poster Session 1	1434
Pain-Me-Free: A Video Game to Improve Geriatric Pain Management Using a Multi-Discipline Approach....	1434
RSC PST 1 - Research Poster Session 1	1435
Does 3D Technology Have Clinical Application in Nursing Assessment of Wounds in Adult Care Settings?.	1435
RSC PST 1 - Research Poster Session 1	1437
Innovative Use of Video Telerounding to Improve Patient Satisfaction and to Expedite Discharge.....	1437
RSC PST 1 - Research Poster Session 1	1439
Nursing Care Technology and Patient Safety.....	1439
RSC PST 1 - Research Poster Session 1	1441
Testing Validity of Evaluating Skin Blood Perfusion by Our Developed Device in the Elderly	1441
RSC PST 1 - Research Poster Session 1	1443
Derek Hoy: The Legacy of the First Scottish Nursing Informatician.....	1443
RSC PST 1 - Research Poster Session 1	1444
Early Detection of Stage I Pressure Ulcers Identifying Non-Blanchable Erythema Using Electric Impedance	1444
RSC PST 1 - Research Poster Session 1	1445
The Tele-Case-Management Program Improves Resilience, Symptoms Distress, Fatigue, and Depressive Symptoms in Heart Transplant Recipients.....	1445
RSC PST 1 - Research Poster Session 1	1446
Effect of Massage Balls on Breast Engorgement for Taiwanese Postpartum Women: A Randomized Clinical Trial	1446
RSC PST 2 - Research Poster Session 2	1447
Adaptation to Curriculum Delivered via iPad Technology	1447

RSC PST 2 - Research Poster Session 2.....	1449
Growing the Next Generation of Nurse Leaders in Palliative Care: An International Case Study.....	1449
RSC PST 2 - Research Poster Session 2.....	1450
Prelicensure International Immersion Illuminates Shared Professional Values and Discovery of Nursing Voice in Cultural Humility	1450
RSC PST 2 - Research Poster Session 2.....	1452
Advancing Caring Science in Global Health: Assessment of Mental Health Needs in Bondeau, Haiti	1452
RSC PST 2 - Research Poster Session 2.....	1454
Changes in Providers' Viewpoint Eight Years After Implementation of a Neonatal Palliative Care Program..	1454
RSC PST 2 - Research Poster Session 2.....	1456
Perceptions of Nursing Students of Study Abroad Experiences	1456
RSC PST 2 - Research Poster Session 2.....	1457
Incontinence Associated Dermatitis Assessment Scale: Study of Inter-Observer Compliance	1457
RSC PST 2 - Research Poster Session 2.....	1458
Selecting Internationally Educated Nurses (IEN) to Participate in a Program of NCLEX-RN® Preparation ...	1458
RSC PST 2 - Research Poster Session 2.....	1459
Leveraging Statistical Simulations to Gain Insights From Data: A New Type of Simulation for Nurses.....	1459
RSC PST 2 - Research Poster Session 2.....	1460
Assuming Caucasianess in Pressure Injury Research: A Literature Review	1460
RSC PST 2 - Research Poster Session 2.....	1462
International Clinical Experiences for Required Clinical Contact Hours in U.S. Schools of Nursing	1462
RSC PST 2 - Research Poster Session 2.....	1463
Enriching the PhD Experience Through International Doctoral Student Seminars	1463
RSC PST 2 - Research Poster Session 2.....	1465
Disaster Response Preparedness and Training: A Capabilities Assessment of Asia Pacific Partners	1465
RSC PST 2 - Research Poster Session 2.....	1467
Safety Culture: Medication Adverse Event Tracking at a Pediatric Oncology Hospital in Guatemala.....	1467
RSC PST 2 - Research Poster Session 2.....	1469
Capacity Building: Writing Abstracts and Disseminating Research Through Video Conferencing From Different Countries	1469
RSC PST 2 - Research Poster Session 2.....	1470
Children of War: Implementation of Non-Specialist Mental Health Interventions.....	1470
RSC PST 2 - Research Poster Session 2.....	1472
Identification of Barriers, Facilitators, and Recommendations for Chiropractic Health Systems Change for Tobacco Cessation Activities.....	1472
RSC PST 2 - Research Poster Session 2.....	1474
Structural Violence in Elderly With Functional Dependence	1474
RSC PST 2 - Research Poster Session 2.....	1475
The Role of Religion and Spirituality in Parent Decision-Making for Critically Ill Young Children	1475
RSC PST 2 - Research Poster Session 2.....	1477

Exploration of Lesbian, Gay, Bisexual, Transgender, and Questioning Adolescents Experiences in Healthcare: A Cultural Examination	1477
RSC PST 2 - Research Poster Session 2.....	1478
Culturally Based Stressors and Depressive Symptoms for Latino/a Adolescents	1478
RSC PST 2 - Research Poster Session 2.....	1480
Educating Healthcare Providers to Identify and Heal Victims of Sex Trafficking	1480
RSC PST 2 - Research Poster Session 2.....	1482
Low-Income Pregnant Women's Experiences With Prenatal Care Education	1482
RSC PST 2 - Research Poster Session 2.....	1483
The Traditional Chinese Medical Body Constitution Status and the Related Factors of Coronary Artery Patients	1483
RSC PST 2 - Research Poster Session 2.....	1484
A Multivariate Testing of Illness Perception, Self-Management, and Quality of Life of Taiwanese Cancer Patients.....	1484
RSC PST 2 - Research Poster Session 2.....	1486
Facilitators and Barriers Faced By Student Veteran Population Upon Transitioning From Military to Academic Life.....	1486
RSC PST 2 - Research Poster Session 2.....	1489
Cultural Competence: Gaps in Knowledge of Navy Healthcare Personnel During Global Health Engagement Missions.....	1489
RSC PST 2 - Research Poster Session 2.....	1492
How Does Obesity and Intentional Weight Loss Impact Health Related Quality of Life in Adults?	1492
RSC PST 2 - Research Poster Session 2.....	1493
Balance Self-Efficacy: Does It Affect Psychosocial Well-Being in Older Adults?	1493
RSC PST 2 - Research Poster Session 2.....	1494
Developing a New Cognitive Impairment Measure for Korean Cancer Patients.....	1494
RSC PST 2 - Research Poster Session 2.....	1495
Adolescent Success Promotion: Can Timelines Help?	1495
RSC PST 2 - Research Poster Session 2.....	1496
An Investigation of the Personality Traits, Emotional Intelligence, Coping Behavior, and Job Stress Among Preceptors	1496
RSC PST 2 - Research Poster Session 2.....	1497
Influencing Factors of Cultural Competence Among South Korean Clinical Nurses.....	1497
RSC PST 2 - Research Poster Session 2.....	1498
Healthcare Provider Attitudes and Beliefs Toward Family-Witnessed Resuscitation in Saudi Arabia	1498
RSC PST 2 - Research Poster Session 2.....	1500
Family Situations and Sleep Disturbance of Chinese Elderly in Taiwan.....	1500
RSC PST 2 - Research Poster Session 2.....	1502
Do New Nurse Practitioners Support a Post-Graduate Residency for the Transition to Practice?	1502
RSC PST 2 - Research Poster Session 2.....	1504
Educational Strategies Applied to Facilitate Cultural Confidence to Care for a Refugee Population.....	1504

RSC PST 2 - Research Poster Session 2.....	1506
Promoting Mental Health in a Refugee Community Using the RHS-15 and Pathways to Wellness	1506
RSC PST 2 - Research Poster Session 2.....	1507
Low Acuity Emergency Department Visits: Comparing Demographics and Patient Profiles for an Accountable Care Organization	1507
RSC PST 2 - Research Poster Session 2.....	1508
Nursing as a Manifestation of Love	1508
RSC PST 2 - Research Poster Session 2.....	1509
Factors That Influence the Development of Cultural Competence in Undergraduate Nursing Students	1509
RSC PST 2 - Research Poster Session 2.....	1511
Identifying Teaching Strategies to Increase Cultural Competence Among Undergraduate Nursing Students	1511
RSC PST 2 - Research Poster Session 2.....	1513
Rapid Response Team Sustainability Factors: Leadership, Funding, and Demonstrating Program Results..	1513
RSC PST 2 - Research Poster Session 2.....	1515
Complementary Medicine and Spirituality: Practices to Attain and Maintain Health Among Indian Immigrants	1515
RSC PST 2 - Research Poster Session 2.....	1516
Clinical Decision-Making in Last Semester Senior Baccalaureate Nursing Students	1516
RSC PST 2 - Research Poster Session 2.....	1517
Bibliographic Review of Maternal Eating Practices and Their Relationship with the Weight of the Child	1517
RSC PST 2 - Research Poster Session 2.....	1518
Understanding the Role of Family Management in Ethnically Diverse Children With ADHD.....	1518
RSC PST 2 - Research Poster Session 2.....	1520
Factors Influencing Retention Rates for RN to BSN Students.....	1520
RSC PST 2 - Research Poster Session 2.....	1521
Can Incident Report Learning Predict Incident Reporting Attitude and Satisfaction Among Nursing Home Staff?	1521
RSC PST 2 - Research Poster Session 2.....	1522
Do Double Gloves Reduce the Risk of Intraoperative Blood Borne Infection?	1522
RSC PST 2 - Research Poster Session 2.....	1523
Improving the Health of Populations Through an Academic-Community Partnership	1523
RSC PST 2 - Research Poster Session 2.....	1525
Do Educational Experiences With Culture Diversity Make a Difference in Patient Care?.....	1525
RSC PST 2 - Research Poster Session 2.....	1527
Deliberate Practice: An Online Method to Develop Students' Interprofessional Critical Incident Reporting Skill	1527
RSC PST 2 - Research Poster Session 2.....	1529
"Hope" for People With Motor Neurone Disease in Japan.....	1529
RSC PST 2 - Research Poster Session 2.....	1531
Prescription Drug Spending and Medication Adherence in a National Heart Failure Sample.....	1531

RSC PST 2 - Research Poster Session 2.....	1533
The Effects of Tai Chi Exercise on Cardiovascular Functions: A Meta-Analysis	1533
RSC PST 2 - Research Poster Session 2.....	1534
Cultural Competence Among Nursing Students in Three Countries: A Cross-Sectional Study	1534
RSC PST 2 - Research Poster Session 2.....	1537
Understanding School Nurses' Diabetes Education and Transitional Care for Students With Type 1 Diabetes	1537
RSC PST 2 - Research Poster Session 2.....	1539
Experience of Dutch Post-Doctoral Nurses of Leadership and Career Development: A Qualitative Explorative Study	1539
RSC PST 2 - Research Poster Session 2.....	1540
Correlation Between Presence of Biomarkers Associated With Sarcopenia and Quality of Life in the Elderly	1540
RSC PST 2 - Research Poster Session 2.....	1542
Creating a Culture of Health With a Clinical Trial to Promote Physical Activity.....	1542
RSC PST 2 - Research Poster Session 2.....	1543
Nursing Leadership: Influence in Moral Courage.....	1543
RSC PST 2 - Research Poster Session 2.....	1544
Use of Biomarkers for the Evaluation of a Psychoeducational Program in Mexican Informal Caregivers	1544
RSC PST 2 - Research Poster Session 2.....	1545
Cognitive Concepts Predicting Medication Adherence and Asthma Control in Inner-City Adolescents.....	1545
RSC PST 2 - Research Poster Session 2.....	1547
Partner Communication for HIV Prevention Among Refugee Hispanic Women in South Florida.....	1547
RSC PST 2 - Research Poster Session 2.....	1549
Time Perspectives and Health Behaviors of Adults With Hypertension: A Feasibility Study.....	1549
RSC PST 2 - Research Poster Session 2.....	1552
1991-2015 Trends of Adolescent Smoked First Whole Cigarette Before Age 13 in the U.S.	1552
RSC PST 2 - Research Poster Session 2.....	1554
Characteristics of Nurse Directors That Contribute to High Registered Nurse Satisfaction Scores.....	1554
RSC PST 2 - Research Poster Session 2.....	1556
Barriers and Facilitators to Timely Epinephrine Administration for Anaphylaxis in Schools: A Systematic Review	1556
RSC PST 2 - Research Poster Session 2.....	1557
1991-2015 Longitudinal Prevalence Trends of Suicide Ideation Among High School Students in the U.S. ...	1557
RSC PST 2 - Research Poster Session 2.....	1559
Parental Perceived Barriers and Facilitators to HPV Vaccination.....	1559
RSC PST 2 - Research Poster Session 2.....	1561
Strategies to Engage Lower-SES, Working-Age Adults in Health Research: Results From the SMART Life Study	1561
RSC PST 2 - Research Poster Session 2.....	1563

Process Evaluation of the Implementation of Cancer Treatment Summaries for Cancer Survivors in England	1563
RSC PST 2 - Research Poster Session 2.....	1565
Does Oral Health Predict Cognitive Decline Among Older Adults? The Health and Retirement Study	1565
RSC PST 2 - Research Poster Session 2.....	1567
"Smoke Another One": The Experiences of South African Family Members Caring for Cancer Patients.....	1567
RSC PST 2 - Research Poster Session 2.....	1569
Exploring the Experiences of Three Management Strategies in Auditory Hallucinations in Chronic Schizophrenic Patients	1569
RSC PST 2 - Research Poster Session 2.....	1570
Augmenting Sickle Cell Anemia/Sickle Cell Disease Genetic Knowledge Through Simulation: A Descriptive Pilot Study	1570
RSC PST 2 - Research Poster Session 2.....	1572
Evaluation of Community-Based Program on Health Indicators in Food Insecure Population.....	1572
RSC PST 2 - Research Poster Session 2.....	1573
Measuring High-Fidelity Simulation Instruction: Its Effects to Knowledge, Skills, and Attitudes Toward Patient Safety	1573
RSC PST 2 - Research Poster Session 2.....	1575
The Relationship Between Student Engagement and Outcomes for Online MSN Students	1575
RSC PST 2 - Research Poster Session 2.....	1577
KATTS Framework and Kaplan Resources Remain Effective for NCLEX-RN® Success After 2013 Passing Standard Increase	1577
RSC PST 2 - Research Poster Session 2.....	1580
Mothering From the Inside Out: A Mentalization-Based Intervention for Mothers Enrolled in Mental Health Services.....	1580
RSC PST 2 - Research Poster Session 2.....	1583
Access to Healthcare for Transgendered People	1583
RSC PST 2 - Research Poster Session 2.....	1585
An Evidence-Based Nursing Framework to Improve the Hepatitis C Care Continuum in HIV Co-Infection....	1585
RSC PST 2 - Research Poster Session 2.....	1587
Nursing Students' Technological Equipment Usage Status and Individual Innovation Levels	1587
RSC PST 2 - Research Poster Session 2.....	1589
The Experience of Adult Daughters Living With Mother's Breast Cancer	1589
RSC PST 2 - Research Poster Session 2.....	1590
Common Care Challenges From Female Spouse of the COPD Patient: Content Analysis.....	1590
RSC PST 2 - Research Poster Session 2.....	1591
Walking Pre-Heart Transplant Patients With Percutaneously Placed Axillary-Subclavian Intra-Aortic Balloon Pump	1591
RSC PST 2 - Research Poster Session 2.....	1592
Maternal Peripartum Antibiotic Usage and Depressive Symptoms at One-Month Postpartum.....	1592
RSC PST 2 - Research Poster Session 2.....	1594

Exploring Milieu of Sexual Preference, Sexual Orientation, and Sexual Risk Behavior Among HIV+ Latino Males	1594
RSC PST 2 - Research Poster Session 2.....	1598
Healthy Siblings of Children Living With Chronic Diseases: A Systematic Review.....	1598
RSC PST 2 - Research Poster Session 2.....	1600
New Male Contraception: College Students' Attitudes and Perceived Behaviors Related to Non-Hormonal Injectable Gel.....	1600
RSC PST 2 - Research Poster Session 2.....	1603
Psychometric Evaluation of the Patient Health Questionnaire-9 Depression Scale in the Korean Population.....	1603
RSC PST 2 - Research Poster Session 2.....	1605
The Grieving Mr. Mom: Exploring Life After Maternal Death	1605
RSC PST 2 - Research Poster Session 2.....	1606
The Maternal Opioid Morbidity Study (MOMS)	1606
RSC PST 2 - Research Poster Session 2.....	1607
Facilitation of Self-Leadership in Nurse Educators	1607
RSC PST 2 - Research Poster Session 2.....	1609
Reactive Depression's Relationship to Rehospitalization in Heart Failure Patients.....	1609
RSC PST 2 - Research Poster Session 2.....	1610
Community Resiliency Model Training to Improve Mental Well-Being.....	1610
RSC PST 2 - Research Poster Session 2.....	1611
Factors Associated With Hospitalized Preterm Infants' Sleep/Wake Patterns.....	1611
RSC PST 2 - Research Poster Session 2.....	1612
Effect of Communication Technology Usage on Sleep and Physical Activity Level in Nursing Students	1612
RSC PST 3 - Research Poster Session 3.....	1614
Effect of Handwashing Poster and Voice Message on Handwashing Behaviors.....	1614
RSC PST 3 - Research Poster Session 3.....	1615
Developing and Validating a Tool to Improve Self-Management of Antineoplastic Therapy at Home	1615
RSC PST 3 - Research Poster Session 3.....	1616
Who Decides?: Analysis of Decision-Makers in the Adoption of Virtual Patients for Nursing Education	1616
RSC PST 3 - Research Poster Session 3.....	1618
Technological Solutions to Foster Communication in Multisite, Longitudinal Studies.....	1618
RSC PST 3 - Research Poster Session 3.....	1619
The Effectiveness of Using High-Fidelity Simulation Team Training on Advanced Cardiac Life Support.....	1619
RSC PST 3 - Research Poster Session 3.....	1620
Effective Design Characteristics of Virtual Simulation in Nursing	1620
RSC PST 3 - Research Poster Session 3.....	1621
Elevating Caring Qualities of Emergent Myocardial Infarction Patients Through Systematic Information	1621
RSC PST 3 - Research Poster Session 3.....	1622
Refugee Health Education: "Learn to Succeed. Together We Build Our Community."	1622
RSC PST 3 - Research Poster Session 3.....	1624

Nurse Practitioner Knowledge, Attitudes, and Practices Regarding Lung Cancer Screening in the United States	1624
RSC PST 3 - Research Poster Session 3.....	1626
Prevalence of Metabolic Syndrome and Its Components Among Korean Cancer Survivors.....	1626
RSC PST 3 - Research Poster Session 3.....	1628
Delaying the Second Pregnancy Among Teen Mothers: An Innovative Community Collaboration	1628
RSC PST 3 - Research Poster Session 3.....	1630
Factors of Metabolic Syndrome and Quality of Life Among Korean Postmenopausal Women	1630
RSC PST 3 - Research Poster Session 3.....	1631
Psychosocial Predictors of Emotional Eating in Lebanese Young Males	1631
RSC PST 3 - Research Poster Session 3.....	1633
Factors Associated With Postpartum Depression Among Women Who Conceived With Infertility Treatment	1633
RSC PST 3 - Research Poster Session 3.....	1634
Drug Costs vs. Charges: You Can. Should You?	1634
RSC PST 3 - Research Poster Session 3.....	1635
Proper Mobilization of Elderly People With Hip Fracture	1635
RSC PST 3 - Research Poster Session 3.....	1638
The Correlation of Patients with Spinal Cord Injury and Psychiatric Disorders.....	1638
RSC PST 3 - Research Poster Session 3.....	1639
Injury Factors and Medical Conditions of Motorcycle Riders Were Analyzed By Trauma Database in Taiwan	1639
RSC PST 3 - Research Poster Session 3.....	1640
Teeth for Two: Oral Health in Pregnancy and Early Childhood	1640
RSC PST 3 - Research Poster Session 3.....	1641
Investigating Physical Activity and Exercise Motivation in Women With Systemic Lupus Erythematosus.....	1641
RSC PST 3 - Research Poster Session 3.....	1642
Factors Associated With Implementation of Early Goal-Directed Therapy in Septic Patients.....	1642
RSC PST 3 - Research Poster Session 3.....	1644
Self-Reported Parenting Stress and Salivary Cortisol Following Mindfulness-Based Stress Reduction Intervention.....	1644
RSC PST 3 - Research Poster Session 3.....	1647
A Grounded Theory Investigation Into Depression in Freshman College Students.....	1647
RSC PST 3 - Research Poster Session 3.....	1649
Difficulties Associated With the Support for Autism Spectrum Disorders (ASD).....	1649
RSC PST 3 - Research Poster Session 3.....	1650
Postpartum Contraceptive Use Among Adolescent Mothers in Thailand	1650
RSC PST 3 - Research Poster Session 3.....	1652
Experience of Being a Young Adult Who Abstains From Alcohol Consumption	1652
RSC PST 3 - Research Poster Session 3.....	1654
The Effect of the Program "Don't Bite Your Nails, Cut Them" Behavior of Biting.....	1654

RSC PST 3 - Research Poster Session 3.....	1655
Nursing Students' Attitudes Toward Complementary and Alternative Therapies for Stress Relief	1655
RSC PST 3 - Research Poster Session 3.....	1657
The Effect of Safe-Movement and Walking Program on Reducing the Fear of Falling in Elderly	1657
RSC PST 3 - Research Poster Session 3.....	1659
The Association of Health Literacy, Understanding of Health Information, and Food Choice in Female Caregivers	1659
RSC PST 3 - Research Poster Session 3.....	1660
Fact-Finding Survey of Defecation Behavior in Young Japanese Adults.....	1660
RSC PST 3 - Research Poster Session 3.....	1663
Uncovering Issues Most Important to Parents After Their Child's Suicide Attempt: A Comparison Study.....	1663
RSC PST 3 - Research Poster Session 3.....	1665
An Emergency Department Nurse-Led Educational Intervention of Bystander Hands-Only Cardiopulmonary Resuscitation in the Homeless Community	1665
RSC PST 3 - Research Poster Session 3.....	1667
Helping Relationships Intervention Enhances Health-Promoting Lifestyle and Quality of Life.....	1667
RSC PST 3 - Research Poster Session 3.....	1669
Physical Activity Habits and Its Relationship to the Weight of Children	1669
RSC PST 3 - Research Poster Session 3.....	1670
Public Health, the Environment, and Nursing Practice: Health Promotion in a Toxic World	1670
RSC PST 3 - Research Poster Session 3.....	1671
Talkin' Bout My Generation: Divergence of Academic Atmosphere Evaluations in Nursing Student and Faculty Cohorts.....	1671
RSC PST 3 - Research Poster Session 3.....	1673
The Effect of Cinnamon in Blood Glucose Level of Patients With Type II Diabetes Mellitus	1673
RSC PST 3 - Research Poster Session 3.....	1674
Impacting Congenital Abnormalities and Infectious Complications During Pre-Conception Through Pregnancy: The Zika Prevention Program (ZPP)	1674
RSC PST 3 - Research Poster Session 3.....	1675
Effects of Mindfulness on Outcomes in Cardiac Rehabilitation Participants: A Pilot Study	1675
RSC PST 3 - Research Poster Session 3.....	1676
Physical Activity and Cognitive Function Among Mild Cognitive Impairment Community-Dwelling Elderly Adults: The Transtheoretical Model	1676
RSC PST 3 - Research Poster Session 3.....	1677
Factors Associated with Non-Acceptance of Testing and Evaluation of Household Contacts Exposed to Tuberculosis	1677
RSC PST 3 - Research Poster Session 3.....	1678
Deployment-Related Needs of Children of Army Reserve Soldiers.....	1678
RSC PST 3 - Research Poster Session 3.....	1680
The Antimicrobial Effects of Water-Soluble Essential Oils in the Nursing Practice.....	1680
RSC PST 3 - Research Poster Session 3.....	1682

Factors of Risk Behaviors for Exposure to Endocrine Disruptors in Female College Students in Korea.....	1682
RSC PST 3 - Research Poster Session 3.....	1683
Development of an Educational Program for Women's Health Related to Endocrine Disruptors	1683
RSC PST 3 - Research Poster Session 3.....	1684
Bibliographic Review About Anthropometric Measurements in Mother-Child Dyads.....	1684
RSC PST 3 - Research Poster Session 3.....	1686
Effect of Health Belief Model-Based Osteoporosis and Fall Prevention Program on Early Old-Aged Women	1686
RSC PST 3 - Research Poster Session 3.....	1688
The Impact of Bar Code Medication Administration Technology on Faculty Supervision of Nursing Students	1688
RSC PST 3 - Research Poster Session 3.....	1690
Food Insecurity, Early Childhood Feeding, and Weight Outcomes in Hispanic Children and Their Mothers..	1690
RSC PST 3 - Research Poster Session 3.....	1692
Use of Outside Services and Other Needs of Informal Caregivers of Adult Oncology Patients.....	1692
RSC PST 3 - Research Poster Session 3.....	1694
The Effect of Music Therapy on Hospitalized Psychiatric Patients	1694
RSC PST 3 - Research Poster Session 3.....	1695
Related Factors on Sexual Risk Behaviors Among Adolescent at Vocational School in Thailand.....	1695
RSC PST 3 - Research Poster Session 3.....	1697
Behaviour Development of Early Detection of Breast Cancer Among University Students With Peer Education Model.....	1697
RSC PST 3 - Research Poster Session 3.....	1698
Encouraging Healthy Coping, Self-Care Efficacy, and Agency in Nursing Students	1698
RSC PST 3 - Research Poster Session 3.....	1700
Factors Associated With Intermittent and Light Smoking Among Korean Adolescents	1700
RSC PST 3 - Research Poster Session 3.....	1701
Lived Experience of Emergency Service Personnel in Pediatric Resuscitation and Unexpected Death: A Phenomenological Study.....	1701
RSC PST 3 - Research Poster Session 3.....	1702
The Prevalence Rate of Deviations in Body Constitutions and Related Factors in Breast Cancer Patients ...	1702
RSC PST 3 - Research Poster Session 3.....	1703
Light Therapy on Sleep Phase-Shift in Shift Workers: A Meta-Analysis	1703
RSC PST 3 - Research Poster Session 3.....	1704
Mental Healthcare Utilization Among School-Based Adolescents in La Union, Philippines.....	1704
RSC PST 3 - Research Poster Session 3.....	1707
Implementation of Current Technology in Online Learning.....	1707
RSC PST 3 - Research Poster Session 3.....	1709
Exploring the Trajectories of Cognitive Symptoms in Advanced Cancer Patients Receiving Aggressive Immunotherapy: Preliminary Findings	1709
RSC PST 3 - Research Poster Session 3.....	1711

Using Cognitive Rehearsal to Address Nurse-to-Nurse Incivility: Six Months Later, How Are They Doing? ...	1711
RSC PST 3 - Research Poster Session 3	1713
Mediator Role of Memory Function on Diabetes Self-Care Management in Older Adults	1713
RSC PST 3 - Research Poster Session 3	1715
Collaboration With Special Olympics: Graduate Nursing Program Successful Clinical Experience	1715
RSC PST 3 - Research Poster Session 3	1716
Students' Perceptions of Stress When Experiencing Loss and the Support From Academia That is Needed	1716
RSC PST 3 - Research Poster Session 3	1719
How Do Student Nurses in Malawi Choose, Adapt to Career Transition, and Construct Careers?	1719
RSC PST 3 - Research Poster Session 3	1720
Walking for Our Health: Evaluation of Randomized Spousal Physical Activity Pilot Intervention.....	1720
RSC PST 3 - Research Poster Session 3	1723
Applying a Nursing Framework to Understand a Governmental Health Promotion Strategy	1723
RSC PST 3 - Research Poster Session 3	1725
Application of the "Attentively Embracing Story" Theory in Older Persons Living in Long-Term Care Facilities	1725
RSC PST 3 - Research Poster Session 3	1726
Predictors of Academic Performance of Nursing Students at a University in the Western Cape, South Africa	1726
RSC PST 3 - Research Poster Session 3	1728
Graduate Students' Perceived Genetic Knowledge: A Preliminary Study	1728
RSC PST 3 - Research Poster Session 3	1729
Attitudes Toward the Elderly Among Pre-Licensure Nursing Students.....	1729
RSC PST 3 - Research Poster Session 3	1731
Focus on Fidelity: Delivering What's Intended in a Multi-Site Randomized Clinical Trial.....	1731
RSC PST 3 - Research Poster Session 3	1732
Assessing Learning Styles: How Do Nursing Students in a Baccalaureate Nursing Program Learn?	1732
RSC PST 3 - Research Poster Session 3	1734
Chronic Disease Burden and the Impact on Nursing Practice in South Texas	1734
RSC PST 3 - Research Poster Session 3	1736
Auscultation Skills: Gown Versus Skin?	1736
RSC PST 3 - Research Poster Session 3	1738
Effects of Forest Therapy on Children in Socially Disadvantaged Families: A Systematic Review	1738
RSC PST 3 - Research Poster Session 3	1740
Health Professionals' Knowledge, Attitudes, Experiences, Confidence, and Behaviors Regarding Advance Directives.....	1740
RSC PST 3 - Research Poster Session 3	1742
Toxic Stress and Protective Factors in Multiethnic School-Age Children	1742
RSC PST 3 - Research Poster Session 3	1745
Evaluation of a Comprehensive Pro-Active Intervention on Quality of Life for Community Frail Older Adults	1745

RSC PST 3 - Research Poster Session 3.....	1746
What Is My Role As Professional Nurse in Guiding Students to Professionalism?.....	1746
RSC PST 3 - Research Poster Session 3.....	1748
Predicting Success: An Analysis of the Characteristics of Applicants to the Ontario PHCNP Program.....	1748
RSC PST 3 - Research Poster Session 3.....	1749
Integrative Review of Virtual Simulation in Nursing	1749
RSC PST 3 - Research Poster Session 3.....	1750
Transition to College Campus Living With a Chronic Condition: Type 1 Diabetes Exemplar	1750
RSC PST 3 - Research Poster Session 3.....	1753
Breastfeeding Practices: Attachment and Positioning, a Health Center Level Study in Sinazongwe District, Zambia.....	1753
RSC PST 3 - Research Poster Session 3.....	1755
Does Playing the Role or Wearing Clinical Attire Improve Self-efficacy in Culturally Diverse Nursing Students?	1755
RSC PST 3 - Research Poster Session 3.....	1757
Meta-Synthesis of Studies on Self-Stigma in Chronic Disease.....	1757
RSC PST 3 - Research Poster Session 3.....	1759
Integrative Review of Self-Care Measurement in Diabetes Nephropathy	1759
RSC PST 3 - Research Poster Session 3.....	1761
An Application of Machine Learning for the Identification of Adolescent Smoking Risk Factors.....	1761
RSC PST 3 - Research Poster Session 3.....	1763
Perceptions of Baccalaureate Nursing Students Before and After Placement on a Behavioral Health Unit ...	1763
RSC PST 3 - Research Poster Session 3.....	1765
Cultural Humility and Nursing Education for Study Abroad Nursing Students	1765
RSC PST 3 - Research Poster Session 3.....	1766
Professional Formation: Facilitating Integration of Personal and Professional Values in Nursing Education	1766
RSC PST 3 - Research Poster Session 3.....	1767
Second Career Nurses' First Year of Nursing Practice Experiences	1767
RSC PST 3 - Research Poster Session 3.....	1769
Using Art to Boost the Self-Confidence of BSN Graduating Nurses	1769
RSC PST 3 - Research Poster Session 3.....	1770
The Influence of Transcultural Nursing Course on Stereotypes of Foreign Spouses in Taiwanese Nursing Students	1770
RSC PST 3 - Research Poster Session 3.....	1771
Incivility Between Nursing Students in the Classroom: A Review of the Literature.....	1771
RSC PST 3 - Research Poster Session 3.....	1772
The Work Readiness of Senior Nursing Students in Turkey.....	1772
RSC PST 3 - Research Poster Session 3.....	1773
Comparison of Negative Stereotypes Toward Aging in Students of Nursing in Mexico and Peru	1773
RSC PST 3 - Research Poster Session 3.....	1775

Predictors in Titulation Exam of Nursing at University of Coahuila, Mexico.....	1775
RSC PST 3 - Research Poster Session 3.....	1777
The Feasibility of Developing an Evidence-Based Workplace Violence Simulation for Undergraduate Nursing Students	1777
RSC PST 3 - Research Poster Session 3.....	1779
How Does Negotiating a Partnership Agreement Influence Relationships in a BSN Clinical Experience?	1779
RSC PST 3 - Research Poster Session 3.....	1780
Attitudes Change During an Interprofessional Simulation With Physical Therapy and Nursing Students.....	1780
RSC PST 3 - Research Poster Session 3.....	1782
Students' Perceptions of Front-End Loading of Didactic and Simulation Classes in a Maternal Child Course	1782
RSC PST 3 - Research Poster Session 3.....	1784
Impact of an Integrated Care Clinical Experience on Skills and Confidence of Nurse Practitioner Students..	1784
RSC PST 3 - Research Poster Session 3.....	1786
Do Nursing Residency Programs Influence New Graduate Nurses' Professional Self-Concept?.....	1786
RSC PST 3 - Research Poster Session 3.....	1788
Understanding Work Value Profiles and Exploring Factors Affecting Work Values of Student Nurses	1788
RSC PST 3 - Research Poster Session 3.....	1790
A Longitudinal Study of Body Weight Loss in Patients Receiving Radiotherapy for Head/Neck Cancers	1790
RSC PST 3 - Research Poster Session 3.....	1791
Exchanging Expertise: Collaborative Teaching Opportunities in Research Courses.....	1791
RSC PST 3 - Research Poster Session 3.....	1793
An Assessment of Errors and Near-Misses From Pre-Licensure Student Nurses	1793
RSC PST 3 - Research Poster Session 3.....	1795
The "Lived Experience" of Nursing Faculty Following the Sudden Death of a Student	1795
RSC PST 3 - Research Poster Session 3.....	1796
Use of Crib Sheets and Exam Performance in an Undergraduate Nursing Course.....	1796
RSC PST 3 - Research Poster Session 3.....	1797
The Value of the Caring Moment in Patient Advocacy	1797
RSC PST 3 - Research Poster Session 3.....	1799
An Investigation of the Integration of Technology to Enhance Consistency in Grading Clinical Skills	1799
RSC PST 3 - Research Poster Session 3.....	1801
Pandora's Box: Unveiling the Hidden Curriculum in a Military Teaching and Learning Environment	1801
RSC PST 3 - Research Poster Session 3.....	1803
Treatment Options for Chronic Lymphocytic Leukemia Tumors Chimeric Antigen Receptor Modified T Cells Therapy (CART-19)	1803
RSC PST 3 - Research Poster Session 3.....	1805
Relationship Between Japanese Nursing Faculty Activities for Prevention Nursing Student's Medical Accident and Their Attributes	1805
RSC PST 3 - Research Poster Session 3.....	1807
One Million+ Nurses Become Second Victims Annually: Nursing Education's Role in Prevention?	1807

RSC PST 3 - Research Poster Session 3.....	1809
Postgraduate Student Support in Open Distance Learning: Using a Caring Curriculum Approach.....	1809
RSC PST 3 - Research Poster Session 3.....	1810
Holistic Review Impacts Success of Underrepresented Minority Nursing Students: A Case Study.....	1810
RSC PST 3 - Research Poster Session 3.....	1813
Faculty Collaboration for Horizontal Integration of Nursing Curriculum: Innovative Teaching Strategy.....	1813
RSC PST 3 - Research Poster Session 3.....	1815
The Meaning Baccalaureate Nurse Educators Ascribe to Their Remediation Experiences: Qualitative Study.....	1815
RSC PST 3 - Research Poster Session 3.....	1817
Exploring the Impact of International Field School Experiences on Nursing Students and Their International Hosts.....	1817
RSC PST 3 - Research Poster Session 3.....	1819
Reducing Test Anxiety Through Mind Relaxation.....	1819
RSC PST 3 - Research Poster Session 3.....	1821
Development and Testing of the Global Interprofessional Therapeutic Communication Scale (GITCS®).....	1821
RSC PST 3 - Research Poster Session 3.....	1823
The Effect of Hybrid Team-Based Learning in a Professional Nursing Course.....	1823
RSC PST 3 - Research Poster Session 3.....	1824
The Development of Professional Self-Concept and Leadership Skills Among New Graduate Nurses.....	1824
RSC PST 3 - Research Poster Session 3.....	1825
Engaging Nursing Students in the Classroom With Cell Phones and Software.....	1825
RSC PST 3 - Research Poster Session 3.....	1826
The Creation and Implementation of a Military Veteran to Bachelor of Science in Nursing Pathway.....	1826
RSC PST 3 - Research Poster Session 3.....	1827
A Collaborative Program Between Academia and Practice Enhancing Preceptors' Teaching Efficacy.....	1827
RSC PST 3 - Research Poster Session 3.....	1828
Empathy, Attitude Toward Dementia, and Pain Attitudes in Dementia Patients of Nursing Students in Korea.....	1828
RSC PST 3 - Research Poster Session 3.....	1829
A Conceptual Framework for Nurse Educationalists and Professional Nurses to Facilitate Professionalism Amongst Learner Nurses.....	1829
RSC PST 3 - Research Poster Session 3.....	1831
Adult Field Undergraduate Perceptions of Higher Education Involvement With Their Practice Placement Learning.....	1831
RSC PST 3 - Research Poster Session 3.....	1834
Interprofessional Simulation in Nursing Education: An Integrative Review.....	1834
RSC PST 3 - Research Poster Session 3.....	1835
Pediatric Oral Health Interprofessional Clerkship.....	1835
RSC PST 3 - Research Poster Session 3.....	1836

Mastery of Core Mental Health Concepts Through Simulation, Clinical Performance, and Interactive Practices	1836
RSC PST 3 - Research Poster Session 3.....	1838
Does a Study Aboard Program Encourage Nursing Students to Embrace Cross Cultural Experiences?.....	1838
RSC PST 3 - Research Poster Session 3.....	1839
Research on the Effectiveness of the Nurse Staffs Training Program.....	1839
Invited Posters	1840
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1841
The Effects of an Uncompleted Suicide Attempt: A Parent's Perspective	1841
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1843
Psychological and Psychosocial Deficits Among Pediatric Survivors of Hematological Neoplasms and Their Risk Factors.....	1843
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1845
Combating Childhood Obesity With Provider Education: A Quantitative Study	1845
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1846
Development and Testing of Cancer Treatment Shared Decision-Making Scale for Nurses (SDMS-N)	1846
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1848
Harm Reduction in Nursing Practice: Compassionate Care for Persons With Addiction	1848
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1850
Common Adverse Effects of Novel Therapies for Multiple Myeloma (MM) and Their Self-Management Strategies	1850
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1852
Exploring Staff Nurses' Perceptions of Specialty Certification at a Large Urban Academic Medical Center...1852	1852
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1854
Predictors of Anti-Müllerian Hormone, a Biomarker of Ovarian Reserve: A Systematic Review of the Literature	1854
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1856
Evaluation of a Novel Evidence-Based Practice Mentorship Program in a Pediatric Quaternary Care Setting	1856
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1858
Readmission Factors of Patients With Type II Diabetes.....	1858
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	1859

The Association of Kangaroo Mother Care, Energy Conservation, Procedural Pain, and Bonding in Preterm Neonates	1859
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	
.....	1862
Analyzing Influenza-Like Illness With Unsupervised Machine Learning	1862
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	
.....	1865
Side Effects and Dysfunction in Patients With Gastrointestinal Stromal Tumor (GIST) Receiving Targeted Therapy	1865
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	
.....	1866
Improving Nursing Care in Infants With Neonatal Abstinence Syndrome	1866
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	
.....	1868
Irritable Bowel Syndrome and Probiotics: Effective or Not?.....	1868
RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1	
.....	1871
Is Cancer-Related Fatigue Related to Levels of Physical Activity and Body Weights in HNC Survivors?	1871
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1874
Influence of Comorbidities on Symptom Severity in Cancer Patients	1874
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1876
Professional Development of Nursing Leaders: A Case Study of Canadian Nurses Association Presidents (CNA).....	1876
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1877
A Comparison of Fatigue Among Resectable Colorectal and Pancreatic Cancer Patients	1877
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1879
Depression Screening and Glycated Hemoglobin Levels: Diabetes Follow-Up Measures	1879
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1880
Is Less More? Pediatric Intractable Migraine and OnabotulinumtoxinA Treatment	1880
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1881
Evolving Attitudes Toward Research in Undergraduate Nursing Honors Students	1881
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1883
Nurse Manager Perspectives on Internationally Educated Nurses (IENs) and Hiring Practices in Long-Term Care.....	1883
RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	
.....	1884
Use of a Wellness Coaching Model Among Urban-Dwelling, Low-Income Older Adults	1884

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2	1885
.....	1885
The Prevalence and Perceived Benefit of Prescribed Anti-Anxiety Medications Used by BSN Students in Virginia.....	1885
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1886
.....	1886
Sexual Decision-Making of Rural Men Who Have Sex With Men.....	1886
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1888
.....	1888
Association Among Cachexia Syndrome, Symptom Distress, and Quality of Life in Pancreatic Cancer Patients	1888
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1889
.....	1889
Decisions of Chinese Dialysis Patients and Caregivers About Care Priorities at Final Stage of Life.....	1889
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1892
.....	1892
Screening for Palliative Care Patients By Utilizing Clinical Decision Support Within the Electronic Health Record	1892
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1894
.....	1894
Using Participatory Action Research to Develop Culturally Appropriate Aboriginal and Torres Strait Islander Health Resources	1894
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1896
.....	1896
Impact of Motivational Workshops on Lifestyle Modification to Increase Physical Activity	1896
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1898
.....	1898
Fear of Cancer Recurrence: Experiences and Related Factors in Early Stage Lung Cancer Patients.....	1898
RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3	1899
.....	1899
Comparative Analysis of Nursing Faculty and Student Measures of Entitlement, Narcissism, and Perceptions of Support.....	1899
Evidence-Based Symposia	1901
D 01 - A Collaborative Curricular Response to Rehabilitative Challenges in a Global Setting	1902
.....	1902
Development of a Collaborative Relationship With a Baccalaureate Nursing Program in a Developing Country	1902
Adapting Rehabilitative Activities to Improve Clinical Outcomes in a Limited Resource Setting.....	1902
The Integration of Rehabilitative Practices in a Baccalaureate Nursing Curriculum in Haiti	1903
D 02 - The Doctor of Nursing Practice: Reflections on the Past and the Vision for the Future	1905
.....	1905
The Doctor of Nursing Practice: Reflections on the Past and Visions for the Future.....	1905
Integrating the Doctor of Nursing Practice in Practice Settings: Implications for Clinical Outcomes and Scholarship.....	1905

Improving Care Coordination: Impact of a Doctorate of Nursing Practice Prepared Clinical Nurse Specialist	1906
D 03 - Supporting the Needs of Low-Income Families to Improve Parent and Child Outcomes	1908
Perceived Benefits of a Mindfulness-Based Intervention Among Homeless Women and Young Children.....	1908
Baby Beep: A Tele-Health Intervention for Depressed, Low-income Mothers	1909
Using Condition Cash Transfer Programs for Engaging Low-Income Parents in Health Promoting Programs	1911
D 04 - Career Transitions: Capitalizing on Your Leadership Competencies.....	1913
The Phases of Leadership and Your Leadership Brand	1913
Moving Up the Leadership Ladder: Using a Career Coach	1913
The Ultimate Leadership Suite: The Corner Office	1914
D 06 - Strategies for Educating Nursing Students to Address Social Justice and the Social Determinants of Health.....	1916
Culturally Sensitive Teaching Strategies to Improve Health for Refugees in San Antonio, Texas.....	1916
Impacting Practice: Using a Poverty Simulation to Develop Leadership Skills in Baccalaureate Nursing Students	1917
Upstream Healthcare: Values Training for Low-Income Children Using Baccalaureate Nursing Students and Community Youth	1918
D 17 - Simulation Research: Informing Best Practices in Nursing Education.....	1920
Integrating Virtual Simulation into the Curriculum: An Exploratory Study	1920
Using Simulation to Enhance Clinical Reasoning During Medication Administration: A Multi-Site Qualitative Study	1921
Using Virtual Simulation to Enhance Student Learning: A Case-Based Approach	1922
F 01 - Innovative Evidence-Based Strategies for BSN Education.....	1924
Evidence-Based Educational Strategies That Promote Handoff Effectiveness: Connecting the Dots Between Senders and Receivers	1924
Using Service Learning to Enhance Cognitive Development of Nursing Research for Complex Social Issues	1926
The Use of Condition Mapping to Teach Situational Awareness	1927
Innovative Pedagogical Approaches to Undergraduate Nursing Research: Avoiding the Cursory Critique....	1929
Using Evidenced-Based Educational Practices to Improve Graduation Rates for RN-BSN Students From Disadvantaged Backgrounds.....	1930
F 02 - Improving Nursing Care and Outcomes for Mother-Infant Dyads Impacted by Opioid Use Disorders	1933
The Impact of Kangaroo Mother Care on Mother-Infant Dyads Affected by Neonatal Abstinence Syndrome	1933
Infant Feeding Decisions Among Mothers Receiving Medication Assisted Treatment for an Opioid-Use Disorder	1934
Building an Inter-Professional, Community-Informed, County-Wide Neonatal Abstinence Syndrome Collaborative.....	1936
F 03 - Leading Change Through Collaborative Partnership: Implementation of a Statewide Cultural-Competence Initiative in the United States.....	1939
Leading Change: The Power of Vision and Collaborative-Partnership	1939
State of the Evidence, Making Sense of the Data: Culturally Competent Nursing Practices in Pennsylvania	1940
Fostering Cultural Competency: The Pennsylvania Action Coalition's Exemplar	1941

F 04 - Ethical Considerations of Veteran- and Military Family-Focused Academic and Research Initiatives	1943
Development of an Evidence-Based Online Veteran Healthcare Course.....	1943
Improving Health Outcomes of Military Children Through Research and Policy Initiatives.....	1944
Conducting Ethical Research With Veterans.....	1945
F 06 - Family-Centered Care or Child-Centered Care? Evidence and Ethics	1947
Family-Centred Care or Child-Centred Care: Generating the Evidence and Ethics	1947
Measures of Family Centeredness from the U.S.: Deconstructing Components of Decision Making and Parents Needs	1947
Child and Family-Centered Care: Consensus Recommendations From a Panel Meeting	1949
Fostering and Sustaining Family-Focused Healthcare Across the Life-Course: A Transferrable Model Between Countries?	1950
F 07 - Facilitation: The Cornerstone of Practice Development and Person-Centredness, a Journey From Aristotle to the Bedside	1952
Human Flourishing: From Notion to Reality	1952
A Concept Analysis: Facilitation and Practice Development Analyzing Evidence From the Literature and Beyond	1952
Developing Novice/Proficient Facilitators, Two Frameworks to Create Conditions for Person-Centred Cultures: A PAR Study.....	1953
F 08 - High Reliability: Practical Application and Tips for the Journey	1955
Psychological Safety: A Work Environment Characteristic in a High Reliability Organization	1955
Practical Tools for the High Reliability Journey.....	1957
Practical Application of High Reliability Principles in Healthcare to Promote Clinical Quality and Safety Outcomes	1958
F 09 - Health Information Technology Tools to Support the Implementation of a Complex Care Management Program	1961
Development of a Dashboard to Provide Decision Support for Complex Care Management in Primary Care	1961
Development of a Nursing Scorecard to Track Metrics to Support Complex Care Management	1962
Structured Data in Electronic Health Records to Capture Nursing Work in Complex Care Management.....	1963
G 08 - When Healthcare Is Needed: Violence Has Strained Relations and Law Enforcement Is Involved	1966
When Healthcare is Needed: Violence has Strained Relations and Law Enforcement is Involved.....	1966
When Healthcare is Needed, and I Feel Victimized.....	1966
Simulation in Law Enforcement: Safe Learning Spaces for Law Officers	1967
J 01 - Building EBP Capacity and Getting Results: What a Difference One Year Makes ...	1969
Building EBP Competence and Capacity by Leveraging Opportunities and Planning	1969
Overcoming Buzzwords and Variability Through a Nurse EBP Mentor Program.....	1970
EBP in Action: Ensuring Best Practice is Standard Practice.....	1971
J 02 - Cognitive and System Factors Impacting Nurses' Postoperative Pain Management	1974
Human Factors Engineering in Healthcare.....	1974
Cognitive and System Factors Impacting Nurses Postoperative Pain Management	1977
Evidence-Based Pain Management Solutions.....	1978

J 03 - Engaging Non-Traditional and Innovative Partners Across the Nursing Research Process	1981
Non-Traditional Community Partnerships for Recruiting Hispanic Research Participants	1981
Innovative Academic-Retail Partnership for Carbon Monoxide Intervention Funding	1982
Partnering With Students to Enhance the Pipeline of Future Nursing Researchers	1982
Responding to a Community-Partner Identified Knowledge Gap	1983
J 04 - International Collaboration: A Cross-Cultural Brazil and U.S. Perspective in Practice, Education, and Research	1985
Establishing International Research Collaborations: A Cross Cultural Perspective	1985
How International Interchange Can Bring Benefits into Professional Lives	1986
Student and Faculty International Exchanges	1987
J 05 - Improve Nursing Practice: Outcomes, Technologies, and Clinical Supervision	1989
Validity and Reliability of Self-Management Style Instrument	1989
Clinical Utility of Self-Management Style Instrument	1990
Nursing Outcomes Related to Self-Care	1991
The Value of Educational Technology in the Nursing Care: Benefits in Clinical Practice	1993
Nursing Clinical Supervision in Integrated Continuous Care Unit	1994
Research Symposia	1996
D 07 - Advancing World Health Through Nursing Students' Study Abroad Experiences: Shared Insights	1997
Preparing Nursing Students for International Learning Experiences	1997
Six Continents: One Undergraduate Public and Global Health Nursing Course	1997
Nuts and Bolts of Nursing Study Abroad: Logistics and Funding	1999
Outcomes of a Global Health Nursing Course: Does the End Justify the Means?	2000
D 08 - A Transformative Vision for Health: Promoting Nursing Colleges	2002
An Action Framework for Leading the Transformation Process	2002
Key Principles for Action	2003
Evidence of Transformation Process	2004
D 09 - Academic-Practice Partnerships and Dedicated Educational Units: The Past, Present, and Future of Clinical Nursing Education	2007
Academic Practice Partnerships: Mutual Benefits and Sustainability of a Dedicated Educational Unit	2007
Staff Nurses Perceptions of Utilizing the Dedicated Educational Unit Model for a Senior Capstone Experience	2008
Dedicated Educational Nursing Units: Clinical Instructors Role Perceptions and Learning Needs	2010
D 10 - Global Research and International Collaborations in the Pacific Rim	2013
Global Research and International Collaborations in the Pacific Rim	2013
Like Mother, Like Child: Maternal Attitudes and Behaviors on Weight-Related Health Behaviors in Their Children	2013
Disparities in Self-Rated Health Among Chinese Immigrants: Exploring Inequality Identities	2015
Obesity Indicators, Accuracy of Body Weight Perception, and Chronic Illness Among Chinese-Americans ..	2016
D 11 - Building an Evidence-Based Nursing Enterprise: Critical Components for Success	2018
Building EBP Competence and Capacity By Leveraging Opportunities and Planning Strategically	2018

Utilizing a High Reliability Framework to Build Evidence-Based Practice in a Complex Organization.....	2019
The Importance of Follow-up in the Teaching, Implementing and Sustaining of Evidence-Based Practice....	2020
F 10 - "What Did That Mean?" An Examination of Personal Disposition in Nursing Education and Practice	2021
Personal Disposition and With-It-Ness in the Nursing Classroom: Implications for the Science of Nursing Education.....	2021
Shattered Assumptions: Examining Discrepant Perceptions of "Reasonable" Accommodations Among Faculty and Student Nurses with Disabilities	2022
"I Won't Dance, Don't Ask Me": Concerning Why Workplace Bullying Bystanders Simply Stand By.....	2023
F 11 - Self-Care and Nursing Image: Impact and Opportunities	2025
The Impact of the Image of Nursing on Nurses' Perception of Self and the Profession.....	2025
A Mindfulness-Based Approach to Student Self-Care	2026
Promoting Healthy Behaviors in Nursing Students	2027
F 12 - Vitamin D and Its Impact Across the Lifespan	2030
Can Vitamin D Supplementation Improve Poor Cognition in People with Type 2 Diabetes?	2030
Depression and Vitamin D3 Supplementation in Women with Type 2 Diabetes.....	2031
What is the Relationship Between Pregnancy Symptoms, Vitamin D Status, and Quality of Life?	2033
F 14 - Nurse-Managed Technology to Enhance Cancer Care Outcomes for Survivors With Breast Cancer or Head/Neck Cancer	2035
Mobile Platform for Assessment, Early Detection, and Management of Breast Cancer-Related Lymphedema	2035
Health Information Technology (IT) to Promote Patient-Centered Care	2036
Cancer Registry and Electronic Medical Record Data In Head and Neck Cancer Research	2037
Assessment of Head and Neck Lymphedema with Ultrasonography	2038
F 15 - Improving Quality of Nursing Worklife: A Global Perspective	2040
Quality of Nursing Worklife: A Review of the Science	2040
Including Human Resources Professionals and Practices to Improve Nursing Worklife	2041
Staffing Optimization: Improving Staffing to Improve Nursing Worklife.....	2041
F 16 - Direct Oral Anticoagulant Management in Patients Undergoing Cardiac Implantable Electronic Device Procedures	2043
Trends in Direct Oral Anticoagulant Management in Patients Undergoing Cardiac Implantable Electronic Device Procedures	2043
Factors Influencing Management of Direct Oral Anticoagulants in Patients Undergoing Cardiac Implantable Electronic Device Procedures.....	2044
Complication Rates Associated with Direct Oral Anticoagulants in Patients Undergoing Cardiac Implantable Electronic Device Procedures.....	2045
F 17 - Enhancing Health/Wellness of Students, Faculty and Staff in Academic Settings: Evidence-Based Strategies for Success.....	2048
Enhancing Health/Wellness of Students, Faculty and Staff in Academic Settings: Evidence-Based Strategies for Success	2048
Incorporating Wellness into Nursing Education	2049
Findings from the Building Healthy Academic Communities Million Hearts® Challenge Program	2050
Mental Health and Healthy Lifestyle Behaviors in First-Year Health Sciences Graduate Students	2051

J 07 - Psychological Stress and Multi-Omics Interactions on Health Disparities Among African Americans	2053
Genetic and Perceived Racism-Discrimination on Blood Pressure Among African-Americans in the Jackson Heart Study.....	2053
Effects of Perceived Racial Discrimination and DNA Methylation on Blood Pressure Among African-American Women	2054
Parenting Stress and DNA Methylation Among African-Americans in the Intergen Study.....	2055
J 08 - Improving Nursing Care and Outcomes for Patients Living With End-Stage Renal Disease	2058
Sodium-Restricted Diets and Symptoms in End-Stage Renal Disease: A Randomized Controlled Trial.....	2058
Nurse-Sensitive Indicators and Patient Transition Safety in Outpatient Hemodialysis Units	2059
Stakeholder Perspectives on Care Transition Needs of Patients on Hemodialysis Therapy	2060
J 09 - Translational Research: Dissemination and Implementation of Interventions From Research to Practice	2062
Implementation of Project Students are Sun Safe (SASS) in Rural and Underserved High Schools	2062
Implementation of a Diabetes Self-Management Intervention for Mexican-American Families in the Arizona-Mexico Border Region	2063
Dissemination and Implementation of Colon Cancer Screening Program for Latinos Living Near the U.S.-Mexico Border	2063
Dissemination and Implementation of a Cervical Cancer Screen and Treatment Program in Ethiopia	2064
J 10 - Advancing Science in Community-Engaged Research: Increasing Capacity to Reach Diverse Populations and Address Health Disparities	2066
Community-Engaged Strategies for Recruitment and Retention of Asian Immigrant Women in a Church-Based Randomized Trial	2066
Training and Consultation are Effective Strategies to Build Capacity for Community Engaged Research	2067
Church-Based Recruitment of African Immigrants: Evidence and Lessons Learned from the Afro-Cardiac Study	2069
Contribution of Community-Research Advisory Councils to Research Institutions: An Effective Strategy to Inform Community-Engaged Research	2070
J 11 - Nursing Research on Sexual Assault: Utilizing Data to Increase Knowledge and Improve Practice	2072
Descriptive Study of 2,300 Sexual Assault Victims: Identifying Vulnerabilities to Promote Healthy Communities	2072
Understanding Peri-Traumatic Symptoms of Sexual Assault: Transforming Nursing Care of Victims World-Wide	2074
Sexual Assault Evidence Kits: Interprofessional Research on Submission Rates and Implications on Practice	2075
J 12 - Addressing the Global Burden of Alcohol Use in Nursing Curricula	2078
Integrating Alcohol-Use-Related Content in Nursing Curricula.....	2078
Alcohol Screening, Brief Intervention, and Referral to Treatment: Evidence for Use in Older Adults	2078
Alcohol Screening, Brief Intervention, and Referral to Treatment for Nurses Working with Persons with HIV/AIDS	2079
L 05 - Transforming Nursing Knowledge, Education, and Practice Through Pre-Briefing and Debriefing.....	2081
Simulation Pre-Briefing: Supporting Competency and Judgment Development in Nursing Learning.....	2081
Using Debriefing for Meaningful Learning to Foster Clinical Reasoning and Transform Nursing Practice	2082

Transforming Debriefing by Exploring Faculty Preparation and Use with the Debriefing for Meaningful Learning Inventory.....	2083
L 15 - Educating for Person-Centredness: Leading Collaborative Research	2085
Leading Collaborative Research with a Person-Centred Academic Culture Project.....	2085
Leadership within an International Community of Practice for PhD Students: Person-Centred Practice Research	2085
The MSC Person-Centred Practice Framework Curriculum: Underpinning Philosophy and Model.....	2086
R 07 - Building Evidence-Based Practice in a Complex System: The Visionary Approach in the U.S. Air Force.....	2088
Building a Program to Bring Evidence-Based Practice to the U.S. Air Force Nursing Enterprise	2088
Implementation of Programs and Infrastructures to Sustain Evidence-Based Decision Making and Practice	2089
Outcomes of an Evidence-Based Practice Transformation Across the USAF Nursing Enterprise	2090

**Sigma Theta Tau International's 28th
International Nursing Research
Congress Abstracts
Plenary Sessions**

Special Sessions

G 01 - SPECIAL SESSION: The STTI Chapter Development Process: How to Start a Chapter

Jenny Hoffman, BS, USA

Abstract

Chapter establishment is a six-phase process. To establish a new chapter, groups must first form a local honor society at their institution of higher education. This developing honor society shall complete the tasks outlined within each phase of development to learn, grow, apply, and transition into a successful and sustainable chapter. Chapter development staff are available to guide groups through the process.

In phase 1, Inquiry, Institutions of higher education that are interested in starting a chapter shall contact STTI staff to inquire about the requirements, process, and timeline. Most groups complete phase 1 in approximately 1-3 months.

After a school of nursing receives information and pre-approval to proceed with the STTI honor society and chapter development process, the school of nursing shall form an independent, local nursing honor society. In phase 2, Formation of a Developing Honor Society, the honor society agrees to follow STTI's recommended honor society procedures and policies while forming and operating the honor society with intent to apply for official chapter status. During phase 2, groups will complete tasks such as strategic planning, program planning, communications, and budgeting to establish the foundation or groundwork of the prospective chapter. Most groups complete phase 2 in 3-6 months.

In phase 3, Operation as a Developing Honor Society, the newly formed nursing honor society shall induct members and operate according to STTI developing honor society bylaws for one year or more. One year is marked from the day of the developing honor society's first induction ceremony (which is the first task in phase 3). Developing honor societies are asked to operate for more than one year so they become familiar with STTI bylaws, guidelines, and recommended operations and so they may demonstrate sustainability to become an official chapter. Developing honor societies must operate for a minimum of 12-18 months before they are eligible to submit the chapter charter application.

Application submission marks the beginning of phase 4, Application Submission & Review. After operating as an honor society for one year or more (one year begins at the first induction ceremony) and meeting specific milestones such as acquiring more than 50 active members, conducting a renewal cycle, and building the treasury to one-year's worth of operating expenses, the honor society may be eligible to apply for chapter status. By phase 4, reviewers expect applicants to consistently meet or exceed all bylaws requirements and guidelines while also demonstrating sustainability in the areas of membership, leadership, and finances. Applications for chapter charters are accepted twice annually. Application review takes approximately 4 months. Applications are reviewed by staff, 2 reviewers of the Charter Review Task Force, the entire Charter Review Task Force, the STTI Governance Committee, and the STTI Board of Directors.

A chapter designate is an honor society that has received final approval to become a chapter and is awaiting and planning the chartering ceremony. In phase 5, the Chapter Designate phase, staff work with approved groups to begin the transition from a developing honor society to an official chapter, including preparing for and planning the official chartering ceremony.

After the STTI chartering ceremony, the chapter designate is now considered an official STTI chapter. All chartering members and future inducted members will become members of STTI and the chapter. In addition to the benefits that the chapter will provide, active members are eligible for valuable STTI resources throughout their entire nursing career. In phase 6, the New Chapter phase, staff continue to transition the developing honor society to an official chapter and provide structured training, consultation, and support to the new chapter for a period of 2 years.

References

2015-2017 Bylaws for the Honor Society of Nursing, Sigma Theta Tau International.
<http://www.nursingsociety.org/connect-engage/chapters/starting-an-stti-chapter>

Contact

jenny@stti.org

G 02 - SPECIAL SESSION: The United Nations and the Sustainable Development Goals

Cynthia Vlasich, MBA, BSN, RN, USA

Abstract

Sigma Theta Tau International provides a solid nursing presence at the United Nations and continues to conduct outreach around the world to help our nurse members better understand the work and aims of the United Nations, including the 17 Sustainable Development Goals.

In July 2012, the United Nations Economic and Social Council granted Special consultative status to Sigma Theta Tau International, which refers to expertise in the field of nursing and global health. This move helps Sigma Theta Tau International demonstrate its commitment to achieving international cooperation toward solving humanitarian related issues while at the same time providing a blueprint for how the organization can support its mission and goals.

Special consultative status grants Sigma Theta Tau International greater privileges and access to nearly all intergovernmental processes at the United Nations dealing with economic and social development. This designation allows Sigma Theta Tau International to participate on United Nations committees through which it has a voice. As part of this affiliation, Sigma Theta Tau International commits to disseminate information and raise public awareness about the purposes and activities of the United Nations and related issues of global concern. The United Nations Sustainable Development Goals is one way chapters can achieve the mission of Sigma Theta Tau International.

To help fulfill our mission, STTI has three volunteers – one United Nations liaison, two United Nations youth representatives - who are the ‘eyes and ears’ at various United Nations activities and events. Their purpose is to represent STTI to the United Nations by attending briefings, presentations and as appropriate, participating in United Nations committees, working groups, activities, and events.

The United Nations also provides a forum for its members to express their views in the General Assembly, the Security Council, the Economic and Social Council, and other bodies and committees. By enabling dialogue between its members, and by hosting negotiations, the United Nations has become a mechanism for governments to find areas of agreement and solve problems together.

References

<http://www.un.org/en/index.html>

<https://sustainabledevelopment.un.org/sdgs>

<http://www.nursingsociety.org/connect-engage/our-global-impact/stti-and-the-united-nations>

<http://www.nursingsociety.org/connect-engage/our-global-impact/stti-and-the-united-nations/un-representatives>

<http://www.nursingsociety.org/connect-engage/our-global-impact/stti-and-the-united-nations/this-is-your-united-nations>

Contact

cynthia@stti.org

G 04 - SPECIAL SESSION: Domestic Violence and Abuse: Preparation of Preregistration Nursing and Midwifery Students

Parveen Ali, PhD, MScN, RN, SFHEA, FRSA, United Kingdom

Abstract

Intimate partner violence (IPV), which is also referred to as domestic violence and abuse (DVA). It is a major social and public health concern affecting millions of individuals globally (World Health Organisation, 2015). DVA impacts significantly on the physical and mental health and wellbeing of those who experience abuse. Nurses and midwives working in any health care settings can play a crucial role in identification, prevention and management of DV (NICE, 2014) as they may regularly encounter DVA victims, who visit health care settings frequently (Houry et al., 2008). However, effective identification and the provision of support for those who have experienced DVA is essential but is dependent on the provision of the appropriate training, preparation and on-going professional development for nurses as well as other care professionals.

On the other hand, DVA victims report feeling blamed for the abuse they experience. They feel that health care professionals (HCPs) do not show a concern, and do not address the abuse even when DVA is disclosed to them or is obvious. Evidence also suggests that nurses and other HCPs are often unprepared to deal with DVA victims (Sundborg, Saleh-Stattin, Wandell, & Tornkvist, 2012). To be able to effectively identify and respond to DV victims, nurses, midwives as well as pre-registration nursing and midwifery students need to understand DV and associated complexities. However, not much emphasis is placed on preparing nursing and midwifery students and registered nurses and midwives to deal with DV issues in clinical practice. There is a need to explore DV related knowledge, attitude and skills of registered nurses, midwives and nursing and midwifery students. Such knowledge will help in identifying the training and education needs of nurses, midwives and nursing and midwifery students. The aim of this session to share findings of my DVA related work and specifically findings of a cross sectional national survey conducted to measure registered nurses, midwives, pre-registration nursing and midwifery students' level of knowledge, attitude and skills related to DV and its management. Responses collected from more than 900 nurses, midwives and pre-registration nursing and midwifery students from England and Wales provide useful information about the training needs of the future workforce.

References

- Houry, D., Kaslow, N. J., Kemball, R. S., McNutt, L. A., Cerulli, C., Straus, H., . . . Rhodes, K. V. (2008). Does Screening in the Emergency Department Hurt or Help Victims of Intimate Partner Violence? *Annals of Emergency Medicine*, 51(4), 433-442.e437.
- McGarry J, Baker C, Wilson C and Felton A. (2015) 'Freedom to Speak up': the development of safeguarding teaching and learning and effective support for students within pre-registration nursing curricula *Nursing Standard*. 30(14), 44-48
- NICE. (2014). *Domestic violence and abuse: how social care, health services and those they work with can identify, prevent and reduce domestic violence and abuse*. Retrieved from <http://www.nice.org.uk/guidance/ph50>
- Sundborg, E., Saleh-Stattin, N., Wandell, P., & Tornkvist, L. (2012). Nurses' preparedness to care for women exposed to Intimate Partner Violence: a quantitative study in primary health care. *BMC Nursing*, 11(1), 1.

Contact

parveen.ali@sheffield.ac.uk

G 06 - SPECIAL SESSION: Mobile Health Technologies and Precision Health

Ryan Jeffrey Shaw, PhD, RN, USA

Abstract

Current care delivery models often revolve around a series of episodes, rather than functioning as a continuum. These single data points are collected where patients spend little lift time, and are compared with the patient's history and analyzed to make presumptive diagnoses and care recommendations. This neglects significant amounts of potentially meaningful data from patients' daily lives and results in less-informed treatment and scheduling of follow-up visits. This prevents clinicians from delivering precision healthcare that can predict changes in health status in real-time and prevent future illness before it occurs (1).

Advances in information technology are enabling the development and delivery of affordable health interventions beyond the traditional office visit and across populations. Over one billion users have mobile broadband and connect with mobile application marketplaces, and an estimated 75% of the world population has access to mobile communications (2)(3). Healthcare providers have an opportunity to use these interactive capabilities to connect with patients and enable personalized health interventions in real-time. By using technologies from cell phones to wearable sensors, providers can monitor patients and families outside of the traditional office visit and across inpatient and outpatient settings. The ability to objectively see a patient's biological, behavioral, environmental, and social environment in real-time can allow for high level of analytics such as predictive modeling to occur. This continuous stream of data has the potential to yield new insight into disease processes and can enhance our understanding of the longitudinal effect of care delivery, medications, and health behaviors – known as precision health.

Creating the ability to obtain continuous streams of data and to intervene in near real-time with patients and populations requires new software tools to developed, data science techniques that can analyze multiple streams of data, integration into electronic health record systems, and new of models of care delivery. Across several clinical research trials, our team developed a web-based software platform that assembles data from patients and their devices into a single aggregate secure database. This aggregation of data allows for real-time data analysis and in an automated feedback loop sends a response to patients, their social network, and to clinicians. This response can take a variety of forms including but not limited to the following: text and voice messaging feedback; physical prompts using wearables or sensors in a patient's environment; alerts to a smartphone or an electronic health record; and visualization of data to clinicians and patients that allow for a longitudinal view of data and predictive factors.

We demonstrate how this system is used to intervene with patients to self-manage diabetes, manage weight loss, promote smoking cessation, and monitor patients in a variety ways as a follow-up tool (4)(5)(6). We describe how these tools and their data can be integrated into health systems in a resourceful way. The aggregation of data in software and then analysis allow for the majority of feedback to patients and the health system. This automated system is resourceful and help patients manage during their everyday lives with limited need for clinician intervention and resources. The first level of intervention involves the software guiding patients to collect correct data and within specific parameters to take health-related actions. A second level of intervention occurs when the software alerts the health system to trends and changes in patients' conditions. Similar to a model in an inpatient telemetry floor, a technician intervenes as needed as the first step. If further clinical intervention is needed then a registered nurse is alerted to intervene (7). As care needs escalate, other providers are involved to adjust medications, change treatment, and to recommend in-person follow-up.

Challenges with integrating such a system into care delivery are not without its challenges. These include data quality, technical issues, data science challenges, integration into electronic health records, privacy, security, and regulations, among others. Finally, we discuss future directions and the next generation of mobile health tools for precision health. These tools include point-of-care diagnostics, environmental

sensors, biomechanics, wearable tattoos, ingestibles, implantables, and the merging of genomics with mobile health.

As mobile technologies and access to the Internet become universal, healthcare systems will leverage capabilities that allow the transfer of data on a daily and hourly basis, analysis of this data, and near real-time intervention. More important, this will reflect the unique environment patients reside in, taking into account the different exposures, stressors, and influences on their disease state (1) – known as precision health.

References

1. Shaw, R. J., Bonnet, J. P., Modarai, F., George, A., & Shahsahebi, M. (2015). Mobile Health Technology for Personalized Primary Care Medicine. *The American journal of medicine*, 128(6), 555-557.
2. World Bank. Information, Communication Technologies, & infoDev (Program). (2012). *Information and Communications for Development 2012: Maximizing Mobile*. World Bank Publications.
3. PricewaterhouseCoopers, E. I. U. (2012, June). Emerging mHealth: paths for growth. New York, NY: PwC.
4. Shaw, R. J., Steinberg, D. M., Bonnet, J., Modarai, F., George, A., Cunningham, T., ... & Bosworth, H. B. (2016). Mobile health devices: will patients actually use them?. *Journal of the American Medical Informatics Association*, ocv186.
5. Shaw, R. J., Pollak, K., Zullig, L. L., Bennett, G., Hawkins, K., & Lipkus, I. (2016). Feasibility and Smokers' Evaluation of Self-Generated Text Messages to Promote Quitting. *Nicotine & Tobacco Research*, 18(5), 1206-1209.
6. Shaw, R. J., Bosworth, H. B., Silva, S. S., Lipkus, I. M., Davis, L. L., Ronald, S. S., & Johnson, C. M. (2013). Mobile health messages help sustain recent weight loss. *The American journal of medicine*, 126(11), 1002-1009.
7. Shaw, R. J., McDuffie, J. R., Hendrix, C. C., Edie, A., Lindsey-Davis, L., & Williams Jr, J. W. (2013). Effects of nurse-managed protocols in the outpatient management of adults with chronic conditions.

Contact

ryan.shaw@duke.edu

G 07 - SPECIAL SESSION: Nurse Entrepreneurship: Where Nursing Research Meets Opportunity

Kenneth W. Dion, PhD, MBA, RN, USA

Abstract

Nurses are the source of many revolutionary innovations. All too often, non-nurses reap the profits from nursing innovation. The session is for nurses and nurse researchers interested in exploring of commercializing their efforts. Many of the topics covered in this session are transferable to the research grant application process. This session is applicable for nurse entrepreneurs, aspiring nurse entrepreneurs, nurse researchers and treasurers, given the strong financial component of the session.

Entrepreneurs will face a gamut of both personal and professional challenges during the lifecycle of the business endeavor undertaken. The least of which may be the failure of the business. The challenges of entrepreneurship will be discussed so that the attending will be able to complete a self-assessment of readiness to embark on the entrepreneurial journey.

Entrepreneurs often have great ideas. Successful entrepreneurs identify a customer need. Clearly identifying a single customer for the product or service and determining their purchasing motivation is the cornerstone on which all successful enterprises are formed. Techniques for customer segmentation and uncovering customer motivations will be explored as the precursor to business plan development.

The business planning process closely parallels the research grant development process. The plan guides the effort so it remains on track during all of the challenges it will face as it progresses through its lifecycle. Sections of the business plan will be identified. An exploration of each section will identify questions that will need to be answered in order to produce a marketable plan. Specific attention will be given to the relationship between the financial projections and each section of the plan itself.

"What makes a rocket go up? Funding!" Funding is the life blood of the business enterprise. There is a broad spectrum of funding sources. Each source may fit with a specific type of business or a specific stage in the business lifecycle. Each source definitely comes with its own risk which may outweigh the rewards. Funding requirements, sources, benefits and risks will be explored.

References

- Dion, K. (2016, March 10). My relentless pursuit of opportunity. *Reflections on Nursing Leadership*. Retrieved from http://www.reflectionsonnursingleadership.org/Pages/Vol42_1_Dion_Entrepreneur.aspx
- Kawasaki, G. (2004). *The Art of the Start*. London, Penguin Books, Ltd.
- Lebow, R. (2005). *A Journey into the Heroic Environment*. Rocklin, CA, Prima Publishing.
- Sandler, D. H. (2003). *You Can't Teach a Kid to Ride a Bike at a Seminar*, Stevenson, PA, Bay Head Publishing.

Contact

dion.ken@gmail.com

H 03 - SPECIAL SESSION: How to Amend Your STTI Chapter to Add a College of Nursing or Practice Setting

Jenny Hoffman, BS, USA

Abstract

When an existing chapter adds a school of nursing or practice setting to its existing charter, the process is called charter amendment. There is an application and review process for amending a charter. The process is somewhat faster than chartering a brand new chapter because the STTI Board of Directors gives final approval for amending a chapter's charter. Groups wishing to pursue a chapter charter amendment shall follow the charter amendment process.

MINIMUM REQUIREMENTS TO ADD AN INSTITUTE OF HIGHER EDUCATION TO A CHAPTER

The minimum requirements for a school of nursing to begin the process of joining a STTI chapter include:

- School of nursing grants a minimum of a baccalaureate or equivalent degree in nursing
- School of nursing's programs are accredited by an appropriate accrediting agency recognized by STTI Governance Committee
- University administration and school of nursing officials agree to support an STTI chapter at the university

MINIMUM REQUIREMENTS TO ADD A PRACTICE SETTING TO A CHAPTER

The minimum requirements for a practice setting to begin the process of joining a STTI chapter include:

- A practice setting is an entity where professional (registered) nursing is practiced.
- Practice setting must be accredited by an appropriate accrediting agency recognized by the STTI Governance Committee (such as the Joint Commission or equivalent).
- Practice setting administration and chief nursing officer officials must agree to support a STTI chapter at the university.

PROCESS:

Contact STTI Headquarters chapter development staff to inquire about charter amendment process and requirements.

The STTI chapter and the joining school(s) or practice setting(s) shall conduct an

- Why the joining group wants to join the established chapter
- How the collaboration will benefit the chapter and the joining group
- What contributions can the joining group add to the established chapter (resources, leadership, perspective, financial or in-kind donations)
- Ways the joining group could engage potential student and professional nurse candidates
- Potential barriers
- Leadership Inclusion-- Representatives from the joining groups will need to be included and take an active role within the prospective at-Large chapter to ensure collaboration among all schools and practice settings involved
- Per STTI bylaws and guidelines, at-Large chapters are required to have a counselor at each school and practice setting.
- A vice president is highly recommended at each school or practice setting to assist with program planning and development
- How physical distance between the schools and/or practice settings will affect operations
- Where, when, and how events, programs, and inductions will take place
- How finances will be handled for each location
- How future elections and chapter leadership will be structured to ensure equal representation and workload
- How will members perceive the collaboration? Will they realistically attend events at the school(s) or practice setting(s)? Will leader candidates be put off at having to attend meetings/events at the various locations?

- How to best serve clinical nurse members who work 2nd shift, or weekend schedules

Chapter Board Vote — If all parties agree to pursue a chapter charter amendment, the board of directors of the established chapter must vote to approve this action. Be sure to document this vote in the meeting minutes, including:

- Date the chapter board of directors voted to amend chapter
- Number of board members present
- Number of votes to approve charter amendment
- Number of votes to not approve charter amendment
- Number of voters who abstained
- Chapter leaders and school or practice setting representatives should talk to the following groups to for having an at-large chapter of STTI. Letters of support for the collaboration will need to be submitted from each of the following as part of the chapter charter amendment application.
 - Each university or college already affiliated with chapter
 - Administrator
 - Dean or head of the school of nursing
 - Each practice setting interested in joining chapter
 - Chief nursing officer or head nurse
 - Hospital administrator

Continue to consult with STTI Headquarters staff

The chapter's board of directors and representatives from the new school(s) or practice setting(s) to be added to the chapter should meet to discuss and agree upon how chapter

- There should be an equal partnership among all parties involved in the new at-large chapter.
- All groups should demonstrate an ability to work together and document efforts as evidence of this collaboration (on average this will take a minimum of six months or more).
- Documentation may include:
 - Copies of meeting minutes
 - Copies of policies and procedures
 - Statements and appendices requested on application
 - Reviewers will expect high levels of inclusion and collaboration in the areas of leadership, programming and events, inductions, communications, board planning, and finances. Supporting documentation submitted with the application should reflect this.

Draft proposed at-large chapter bylaws

- If your chapter is already an at-large chapter and it is just adding the new practice setting(s), submit a revised copy of the chapter's current at-large bylaws (including each new school or practice setting name to be added within the heading and Article 1, as the proposed at-large bylaws).
- You may also add revisions in the allowable, sections of the chapter bylaws. (Consult Chapter Bylaws Guidelines — areas you are allowed to revise are highlighted in yellow. Additional changes must be approved by the STTI Governance Committee.)

Membership Vote — The membership must vote to add a school(s) or clinical setting(s) to the chapter's charter and

- The vote can be electronic, by mail, or at a chapter meeting (check local laws in your area).
- Notice of the vote must be sent to all members at least 30 days prior (60-90 days' notice is recommended).
- If the vote is conducted electronically or by mail, $\frac{3}{4}$ of the ballots must be favorable.
- If the vote is at a chapter meeting, the opportunity to vote should be announced with the notice of the meeting. $\frac{3}{4}$ of those present and voting must vote in favor of the charter amendment.
 - If you do not give 30 days' notice of the vote, 100 percent of the ballots returned or completed must be favorable.(If no notice is given, unanimous approval is required.)

Chapter should send

- Hold informational meetings and orientations.
- Promote chapter collaboration with school(s) or practice setting(s) and all chapter events via flyers, newsletters, etc., at the practice setting(s).
- Ask chapter members that are employed by this practice setting to invite colleagues to next chapter event.

After above tasks are completed, please utilize the Charter Amendment Application Readiness Checklist with staff to determine readiness to submit and official application.

APPLICATION SUBMISSION AND REVIEW

Please contact staff to request an application. Submitted applications will be reviewed by staff, the Charter Review Task Force, the STTI Governance Committee, and the STTI Board of Directors. Final approval of the application is given by the STTI Board of Directors.

Application Submission Date	Final Approval Date	Potential Chartering Date
15 June 2016	September 2016	After 1 February 2017
15 February 2017	June 2017	After 1 October 2017
15 June 2017	October 2017	After 1 February 2018

Approval and the Charter Amendment Ceremony

If approved by the Board of Directors, a charter amendment ceremony will be arranged with headquarters and the new at-large chapter. The amendment ceremony is required and consists of two parts:

- Official chartering of the new practice setting(s) to be included in the chapter
AND
- A chapter induction

STTI will identify and pay travel expenses for the STTI leader who will officiate at the chartering ceremony.

Ceremonies will be scheduled:

- For U.S. chapters — no earlier than 12 weeks after final board approval.
- For international chapters — no earlier than 16-20 weeks after final board approval (extra time needed for packages shipped to clear customs).

Newly chartered amendments will be recognized during the biennial convention House of Delegates session(s):

- 2017 Biennial Convention in Indianapolis, Indiana, USA
- 2019 Biennial Convention (location to be announced)

References

2015-2017 Bylaws for the Honor Society of Nursing, Sigma Theta Tau International.
<http://www.nursingsociety.org/connect-engage/chapters/starting-an-stti-chapter>

Contact

jenny@stti.org

H 04 - SPECIAL SESSION: Secrets of the Most Successful Nurse Educators

Suzanne Prevost, PhD, RN, FAAN, USA

Abstract

Successful nurse educators make a profound impact on their students, their workplaces, their communities, and the profession. The wisdom they impart can prevent complications, save money, and save lives, both today and for years to come. What does it take to become the best of the best in nursing education? Is it the powerful presentations, the clinical expertise, the publications and research funding? Are all of these skills required to be successful as a nurse educator? How do these expectations vary across the global regions of Sigma Theta Tau? What is the role of collaboration, partnerships, and networks?

In this session, sponsored by the Center for Excellence in Nursing Education, we will share our observations and unwrap the strategies and secrets used by highly successful nurse educators around the globe. Join in the discussion to share your insights regarding - what makes an educator successful? Is one type of educational preparation better than others? Are successful educators a product of successful academic environments? What role does mentorship play? What techniques and interpersonal skills are most important? How should we measure the impact and outcomes of successful nurse educators?

We will explore the attributes of the most successful nurse educators and strategies for developing those attributes. The session will include a description of the programs and resources available through Sigma Theta Tau and the Center for Excellence in Nursing Education. These programs include: The Faculty Knowledge Skills Development Program, The Faculty Professional Role Development Program, The Nurse Faculty Leadership Academy, The Experienced Nurse Faculty Leadership Academy, and The Emerging Educational Administrator Institute. Finally, we will share recommendations for finding your niche, targeting the right audience, expanding your influence, and making an impact that will last beyond your years. The best nurse educators leave a legacy for their students and their profession. This session will challenge participants to take the next step in developing a legacy of their own.

References

- Delgado, C. & Mitchell, M. (2016). A survey of current valued academic leadership qualities in nursing. *Nursing Education Perspectives*, 37 (1), 11-15.
- Hinds, P., Britton, D., Coleman, L., & Engh, E. (2015). Creating a career legacy map to help assure meaningful work in nursing. *Nursing Outlook*, 63, 11-218.
- Horton-Deusch, S., Pardue, K., Young, P., Morales, M., Halstead, J. & Pearsall, C. (2013). Becoming a nurse faculty leader: Taking risks by doing the right thing. *Nursing Outlook*, 62(2), 89-96.
- Morin, K. (2015). Faculty: What legacy will you leave? *Journal of Nursing Education*, 54(2), 63-64.
- Patterson, B. & Krause, A. (2015). Competencies for leadership in nursing education. *Nursing Education Perspectives*, 36(2), 76-82.

Contact

sprevost@ua.edu

H 07 - SPECIAL SESSION: Sigma Theta Tau International Global Initiatives

Cynthia Vlasich, MBA, BSN, RN, USA

Abstract

The history of Sigma Theta Tau International (STTI) is varied and rich. It includes a deliberate decision to become international, including global expansion, which was formalized at the 1985 Biennial Convention in Indianapolis, when the House of Delegates voted to add "International" to Sigma Theta Tau's name. The international work of STTI undertaken since that time has led to the current Global Initiatives department.

Focusing on the past five years, STTI has made great strides in its global advancement. For example, STTI has its first president, elected by the full House of Delegates, from outside of North America. STTI launched its first formal presence outside of America, contracting with a nursing organization in South Africa to specifically conduct work to advance the organization, under the auspices of STTI. STTI launched its first International Leadership Institute based outside of North America, with the Maternal-Child Health Nurse Leadership Academy in Africa. Global regions were identified and Regional Coordinators elected from around the world. More than 735 institutions are now engaged with STTI, through 529 chapters, located in 30 countries. Currently, over 135,000 members can be found in 92 countries across the globe.

The International Nursing Research Congress annually hosted by STTI is held in rotating global regions around the world. Over the past five years, this event has been held in Brisbane, Australia; Prague, The Czech Republic; Hong Kong, SAR, the People's Republic of China; San Juan, Puerto Rico; and Cape Town, South Africa. And our Biennial Convention, held in the United States every other year, brings in STTI members and nurse leaders from dozens of countries around the world.

The Global Initiatives department focuses on five key strategies: Global Expansion; the Global Advisory Panel on the Future of Nursing; Relationship Building; Member Engagement and Member Growth. This session will include discussion on STTI's global initiatives, and invite dialogue on efforts to enhance member growth and engagement.

References

Sigma Theta Tau International, 2017

Contact

cynthia@stti.org

H 17 and I 17- SPECIAL SESSION: Nurse Faculty Leadership Academy Sustainable Advancements in Nursing Education

Deborah Cleeter Bailey, EdD, MSN, RN, USA
Larry Z. Slater, PhD, RN-BC, CNE, USA
Barbara J. Patterson, PhD, RN, ANEF, USA
Jackie L. Michael, PhD, APRN, WHNP-BC, USA
Jodie C. Gary, PhD, RN, USA
Carolyn Hart, PhD, RN, CNE, USA

Abstract

The Nurse Faculty Leadership Academy (NFLA) is an international leadership development experience designed for doctorally prepared nurse educators with under seven years of full-time teaching experience. Administered by Sigma Theta Tau International and funded by the Elsevier Foundation, the NFLA is currently conducting its third cohort. The purpose of the NFLA is to: facilitate personal leadership development; foster academic career success; promote nurse faculty retention and satisfaction; and cultivate high performing supportive work environments in academe.

The NFLA curriculum is constructed upon three learning domains: individual leadership development, advancing nursing education through leadership of a team project, and the Scholar's expanded scope of influence. A mentoring triad serves as the Academy relationship foundation as each Scholar and Leadership Mentor dyad is connected with a Faculty Advisor for the entire NFLA experience to accomplish the Academy goals. Kouzes and Posner's "Leadership Challenge" model of five exemplary leadership practices provides the theoretical foundation of the curriculum. The leadership practices include: model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart.

Successful individual leadership development in the Nurse Faculty Leadership Academy (NFLA) is initiated through in-depth targeted assessments and ongoing re-assessments of leadership behaviors. Scholars design an individualized leadership development plan that seeds the development of strategic leadership behaviors with life-long results.

Leadership development in the NFLA is actively realized through a team project that advances nursing education. Scholars learn to identify and engage stakeholders, build a collaborative team, and gather institutional and evidence-based data, all of which are essential for project planning, development, implementation, and sustainability. Completion of the project not only assists the Scholar in achieving personal leadership and career development goals set during the Academy, but also provides measurable benefit to the Scholar's organization in terms of educational programming and evaluation.

Through the triad relationships and dynamic mentorship, Scholars are guided to cultivate high performing, supportive work environments in academe. Leadership Mentors are essential to the success of the Academy. Their role of behaviorally oriented mentorship is distinctly different from traditional content expertise mentoring.

Through guided leadership development, nurse faculty Scholars expand their scope of influence within institutions, communities, and on a national or international level as part of the nursing profession. The NFLA process offers opportunity to intentionally impact broader networks and lead significant change through expanded influence.

The future of nursing education exists outside the silos of schools of nursing; thus, it is crucial for developing academic nurse leaders to be cognizant of what is happening in higher education broadly examining the educational landscape as a whole, not just through a local scope of influence within the nursing community. Leaders need to be knowledgeable and have the evidence readily available or know how to retrieve it. External drivers impacting nursing education include funding and regulatory issues, resource allocations, and shifts in healthcare delivery such as the increase push for primary care at the

BSN level. While overlapping, drivers within the profession focus on nursing roles and role preparation, maintaining a nursing identity in a time of transdisciplinary education and care, as well as being prepared to take risks for faculty, students, and ultimately the society we serve.

References

Bean, N. M., Lucas, L., & Hyers, L. L. (2014). Mentoring in higher education should be the norm to assure success: Lessons learned from the faculty mentoring program, West Chester University, 2008–2011.

Cleeter, D. (2011). Guest editorial. Faculty leadership development: Concept or reality? *Nursing Outlook*, 59, 109-110.

Delgado, C., & Mitchell, M.M. (2016). A survey of current valued academic leadership qualities in nursing. *Nursing Education Perspectives*, 37, 10-15. doi:10.5480/14-1496

Fox, L. (2012). A personalized faculty peer support program: Less can be more. *Journal of Faculty Development*, 26(2), 55–61.

Kouzes, J., & Posner, B. (2012). *The leadership challenge: How to make extraordinary things happen in organizations* (5thed.). San Francisco, CA: Jossey-Bass.

Contact

debcleetersli@comcast.net

larry.slater@nyu.edu

bjpatterson@mail.widener.edu

michaels@uta.edu

gary@tamhsc.edu

carolyn.hart@wilson.edu

J 06 - Making a Mentoring Match: Advancing the Profession Through Communication

Matthew S. Howard, MSN, RN, CEN, CPEN, CPN, USA

Margarett Alexandre, MS, RN, USA

Robin Bartlett, PhD, RN, USA

Mary Lou Bond, PhD, RN, CNE, ANEF, FAAN, USA

Patricia M. Davidson, PhD, MEd, RN, FAAN, USA

Kathleen Flores Eviza, MSN, RN, Philippines

Geralyn M. Frandsen, EdD, RN, USA

Carole Marie Kulik, DNP, MSN, RN, ACNP-BC, HCI-C, USA

Claudia Kam Yuk Lai, PhD, RN, FAAN, China

Lois S. Marshall, PhD, RN, USA

Karen H. Morin, PhD, RN, ANEF, FAAN, USA

Larry Z. Slater, PhD, RN-BC, CNE, USA

Abstract

Purpose: The purpose of this project was to use technology to provide an avenue for nurses from different geographical backgrounds to stay connected and provide support in a way that has not been done before. A new web-based technology has allowed experienced nurses to connect and mentor or coach new nurses to support their transition into their current practice.

Relevance/ Significance: Globally, the populations of the world are experiencing poor access to care, insufficient resources, and nursing shortages of overwhelming proportion. The integration of best available evidence is associated with improved patient outcomes, reduced treatment costs and need for clinical interventions. Lack of professional support and a dissatisfying work environment are associated with high levels of job-related burnout and nurses' intent to leave their job. A distance-mediated formal mentoring program has been shown to provide the support new nurses need to grow in the profession.

Strategy and Implementation: A task force was convened of nurse researchers, academicians, and clinicians from around the world to develop a distance-mediated nurse mentoring program. Over the span of five months, the task force met via web-based technologies to develop a comprehensive, formal mentoring program designed to advance and encourage nurses to pursue lifelong learning opportunities, demonstrate new competencies in systems thinking, quality improvement, and care management that will better prepare them to improve health care outcomes in academic and/or clinical settings around the world.

The task force developed criteria to match nurse mentors with nurse mentees from around the world based on the needs, or perceived needs, of the nurse mentee and the experience and expertise of the nurse mentor. An online educational course is completed to ensure that program expectations are known and agreed to prior to enrolling in the program. Utilizing new technologies, nurses are matched based on their provided mentoring topics, nursing specialty, career stage, global region, spoken language(s) and time commitment. Software then allows nurse mentors and mentees to agree to be matched. Once a match has been confirmed, both parties then agree to which venue or form their communication will take place.

Evaluation: Once a match has been confirmed, mentors and mentees are expected to complete periodic program evaluations. Data is measured via online evaluations performed four times during the first year and each year after that based on the initial match date. Along with demographic data, an adapted version of the Johns Hopkins University School of Nursing Mentorship Effectiveness Scale (2002) is used throughout the evaluation period.

Implications for Practice: To address the nursing shortage issue, it is critical to create supportive and positive environments to promote the well-being and professional development of nurses. This distance-

mediated formal mentoring program, located at <http://bit.ly/SigmaMentoring>, will provide one avenue of support and encouragement nurses so desperately need.

References

- Cangelosi, P. R. (2014). Novice nurse faculty: In search of a mentor. *Nursing Education Perspectives*, 35(5), 327-329.
- Chen, C., & Lou, M. (2013). The effectiveness and application of mentorship programmes for recently registered nurses: A systematic review. *Journal of Nursing Management*, 22(4), 433-442.
- Casey, D., & Clark, L. (2012). A collaborative approach to support trainee sign-off mentors. *Nursing Standard*, 27(7), 44-47.
- Crooks, N. (2013, April). Mentoring as the key to minority success in nursing education. *ABNF Journal*, 24(2), 47-50.
- Cziraki, K., Mckey, C., Peachey, G., Baxter, P., & Flaherty, B. (2013, March 27). Factors that facilitate registered nurses in their first-line nurse manager role. *Journal of Nursing Management*, 22(8), 1005-1014.
- Gray, O., & Brown, D. (2016). Evaluating a nurse mentor preparation programme. *British Journal of Nursing*, 25(4), 212-217.
- Jacobson, S. L., & Sherrod, D. R. (2012). Transformational mentorship models for nurse educators. *Nursing Science Quarterly*, 25(3), 279-284.
- Jokelainen, M., Tossavainen, K., Jamookeeah, D., & Turunen, H. (2013). Seamless and committed collaboration as an essential factor in effective mentorship for nursing students: Conceptions of Finnish and British mentors. *Nurse Education Today*, 33(5), 437-443.
- Lankau, M. J., Riordan, C. M., & Thomas, C. H. (2005). The effects of similarity and liking in formal relationships between mentors and protégés. *Journal of Vocational Behavior*, 67(2), 252-265.
- Leggat, S. G., Balding, C., & Schifan, D. (2015). Developing clinical leaders: The impact of an action learning mentoring programme for advanced practice nurses. *Journal of Clinical Nursing*, 24(11-12), 1576-1584.
- Mccloughen, A., O'brien, L., & Jackson, D. (2013). Journey to become a nurse leader mentor: Past, present and future influences. *Nursing Inquiry*, 21(4), 301-310.
- Mcintosh, A., Gidman, J., & Smith, D. (2013). Mentors' perceptions and experiences of supporting student nurses in practice. *International Journal of Nursing Practice*, 20(4), 360-365.
- Morrell, N., & Ridgway, V. (2014). Are we preparing student nurses for final practice placement? *British Journal of Nursing*, 23(10), 518-523.
- Myler, L. A., Buch, C. L., Hagerty, B. M., Ferrari, M., & Murphy, S. L. (2014). Mentor satisfaction using a new model of clinical education. *Nursing Education Perspectives*, 35(6), 367-371.
- Nowell, L., White, D. E., Mrklas, K., & Norris, J. M. (2015). Mentorship in nursing academia: A systematic review protocol. *Systematic Reviews*, 4(1).
- Sawatzky, J. V., & Enns, C. L. (2009). A mentoring needs assessment: Validating mentorship in nursing education. *Journal of Professional Nursing*, 25(3), 145-150.
- Slimmer, L. (2012). A teaching mentorship program to facilitate excellence in teaching and learning. *Journal of Professional Nursing*, 28(3), 182-185.
- Faiman, B., Miceli, T. S., Richards, T., & Tariman, J. D. (2012). Survey of experiences of an e-mentorship program: Part II. *Clinical Journal of Oncology Nursing*, 16(1), 50-54. doi:10.1188/12.CJON.50-54
- Cowan, M. (2012). Mentorship. *Nursing Standard*, 26(31), 59.
- Kendall-Raynor, P. (2013). 'If we want caring nurses we must ensure time for good mentoring'. *Nursing Standard*, 27(32), 12-13.
- Morgan, P., & Dyer, C. (2015). Implementing an e-assessment of professional practice. *British Journal of Nursing*, 24(21), 1068-1073. doi:10.12968/bjon.2015.24.21.1068

Contact

matthew@stti.org

J 15a - SPECIAL SESSION: "Finding a Balance Point": A Concept Central to Family Caregiving for Older Persons in Taiwan

Yea-Ing Lotus Shyu, PhD, RN, Taiwan

Abstract

Using a grounded theory approach, a conceptual framework was developed to explain the caregiving process in Taiwanese families that taking care of older persons. "Finding a balance point" was the basic process used by Taiwanese caregivers to achieve or preserve interactive equilibrium in caregiving while facing competing needs. This process can be explained using the analogy of the concept of *tiao biaoan dan*. *Biaoan dan* is a flat carrying pole, usually made of bamboo, which laborers or farmers in Taiwan use to transport objects in balance. The carrier must adjust the weights of the two loads while continuously adjusting the position of his or her shouldering in order to maintain balance and continue to walk forward. Similarly, family caregivers need to adjust their daily priorities and efforts among competing needs while moving forward with everyday life. For example, a caregiver needs to find a balance point in facing the competing needs of doing housework and fulfilling the needs of the care receiver. Caregivers who did better in finding a balance point between competing needs often can plan ahead for upcoming competing needs, simulate their choices and flexibly use a wide variety of different balancing strategies, and were shown to have more positive caregiving consequences, including better quality of care for disabled elders, better caregiver outcome and less negative impact on the family as a whole. The Finding a Balance scale was then developed to measure the degree to which a caregiver is able to handle competing caregiving demands simultaneously based on the prior study. Adequate reliabilities and appropriate validities of the Finding a Balance scale was established and an optimal cutoff was also determined. The validated Finding a Balance scale can provide an assessment tool to explore the competing responsibilities, conditions and difficulties for family caregivers of elders with dementia in Taiwan. Model testing of the developed conceptual framework was also conducted in a different study. We found that the associations of caregiving demand with role strain and depressive symptoms were mediated by balancing the competing needs of the care receiver and other responsibilities. Another study found that providing discharge consultation to family caregivers on balancing possible competing needs was effective in preventing institutionalization of the patients with stroke 6 to 12 months following hospital discharge. This model may also be applicable for explaining family caregiving process for older persons in areas with Chinese context. A series of studies from theory development to theory testing and its application in family caregiving process for vulnerable older persons will be presented.

References

- Liu, H.-Y., Wang, Y.-N., Huang, H.-L., Hsu, W.-C., Lin, Y.-E, Huang, T.-H., & Shyu, Y.-I. L. (2014). Psychometric properties of the finding a balance scale for family caregivers of elders with dementia in Taiwan. *Research in Nursing & Health*, 37, 336-346. doi: 10.1002/nur.21603
- Shyu, Y. I. (2000). Patterns of caregiving when family caregivers face competing needs. *Journal of Advanced Nursing*, 31(1), 35-43.
- Shyu, Y. I. (2002). A conceptual framework for understanding family caregiving process to frail elders in Taiwan. *Research in Nursing & Health*, 25, 111-121.
- Shyu, Y. I., Archbold, P., & Imle, M. (1998). Finding a balance point: A process central to understanding family caregiving in Taiwanese families. *Research in Nursing & Health*, 21, 261-270.
- Shyu, Y.-I. L., Yang, C.-T., Huang, C.-C., Kuo, H.-C., Chen, S.-T., & Hsu, W.-C. (2010). Influences of mutuality, preparedness and balance on caregivers of patients with dementia. *The Journal of Nursing Research*, 18(3), 155-163. doi: 10.1097/JNR.0b013e3181ed5845

Contact

yeaing@mail.cgu.edu.tw

J 15b - SPECIAL SESSION: Computer-Tailored Interventions to Increase Cancer Screening: Building a Program of Research

Susan M. Rawl, PhD, RN, FAAHB, FAN, USA

Abstract

Susan M. Rawl, PhD, RN, FAAHB, FAAN, is a Professor of Nursing at Indiana University and Co-leader of the Cancer Prevention and Control Program at the Indiana University Simon Cancer Center. For the past 20 years, Rawl has conducted patient-centered research testing interventions to increase cancer screening among people at increased risk, including those with limited resources, low literacy levels, and minority populations. Rawl's research has been funded by the National Cancer Institute, the National Institute for Nursing Research, the American Cancer Society, and the Walther Cancer Foundation. She has developed and tested tailored print, telephone, and computer-based interventions to promote screening. Currently, she is conducting a comparative effectiveness trial, funded by the Patient Centered Outcomes Research Institute (PCORI) to increase colorectal cancer screening among low-income and minority patients who have cancelled or did not attend their colonoscopy appointment. She is also collaborating on a multi-behavior intervention trial to increase colon, breast, and cervical cancer screening among rural women in Indiana and Ohio. During this presentation, she will provide an overview of the global impact of colorectal cancer – a preventable cancer that remains the third leading cancer killer in the United States. She will describe the theoretical rationale for tailoring, evidence of the effectiveness of computer-tailored interventions to help people change a variety of health behaviors, and future directions for research in this area. Rawl will describe the development of her program of research beginning with descriptive studies, instrument development work, the process of developing computer-tailored interventions, as well as the results of randomized clinical trials testing their effects. Lessons learned along the way will be shared with the goal of providing guidance for young nurse scientists who are early in their careers. As the daughter of Irish immigrants, Dr. Rawl is deeply honored to be named to the International Nurse Researcher Hall of Fame this year in Dublin.

References

- Rawl SM, Perkins SM, Tong Y, Christy SM, Krier C, Wang HL, Huang AM, Smith-Howell E, Russell K, Rhyant B, Lloyd F, Willis D, Imperiale TF, Myers LJ, Springston J, Champion V, Skinner, CS. A Randomized Controlled Trial of a Computer-tailored intervention that increased colorectal cancer screening in low-income African Americans (under review).
- Carter-Harris L., Schwindt R, Bakoyannis G, Ceppa DP, & Rawl SM. Current smokers preferences for receiving cessation information in a lung cancer screening setting. (in press)
- Schwartz PH, Perkins SM, Schmidt KK, Muriello PF, Althouse S, & Rawl SM. Providing Quantitative Information and a Nudge to Undergo Stool Testing in a Colorectal Cancer Screening Decision Aid: A Randomized Clinical Trial (in press)
- Christy SM, Mosher C, Rawl S, Haggstrom D. Masculinity Beliefs and Colorectal Cancer Screening in Male Veterans. *Psychology of Men and Masculinity*. Epub ahead of print: doi.10.1037/men0000056.
- Carter-Harris L., Davis LL., & Rawl SM. (2016) Lung cancer screening participation: Developing a conceptual model to guide research. *Research and Theory for Nursing Practice: An International Journal*; 30 (4), 1-21.
- Skinner CS, Gupta S, Bishop W, Ahn C, Tiro J, Halm E, Farrell D, Marks E, Morrow J, Julka M, McCalliser K, Sanders J, & Rawl, SM. (2016). Tailored information increases patient/physician discussion of colon cancer risk and testing: The Cancer Risk Intake System Trial. *Preventive Medicine Reports*; April 30, 4: 6-10. PMID: 27413654
- Carter-Harris L, Warrick A, Ellis R, & Rawl SM. (2016) Recruitment of Long-Term Smokers via Social Media versus Newspaper Advertisement: Comparison of Methods and Cost Analysis. *Journal of Medical Internet Research*; 18(6): e117. doi:10.2196/jmir.5502. PMID 27306780
- Champion VL, Rawl SM, Bourff SA, Champion KM, Smith LG, Buchanna AH, Fish LJ, Monahan PO, Stump TE, Springston JK, Gathirua-Mwangi WG, Skinner CS. (2016). Randomized trial of DVD, telephone and usual care for increasing mammography adherence *Journal of Health Psychology*; 21 (6): 916-26. PMID: 25070967
- Carter-Harris L, Slaven J, Monahan PO, & Rawl SM. Development and psychometric evaluation of the lung cancer screening health beliefs scales. *Cancer Nursing*. 2016 May 27. [Epub ahead of print] PMID: 27244666
- Carter-Harris L, Ceppa DP, Hanna N, & Rawl SM. (2016) Lung cancer screening: What do long-term smokers know and believe? *Health Expectations*, 1-10. Epub ahead of print December 23, 2015. doi 10:1111/hex.12433. PMID 26701339.

Gathirua-Mwangi WG, Monahan PO, Stump T, Rawl SM, Skinner CS & Champion VL. (2016) Mammography Adherence in African American Women: Results of a randomized controlled trial. Annals of Behavioral Medicine. 50 (1): 70-78. PMID 26416127.

Brittain K., Christy SM, Rawl SM. (2016). African American patients' intent to screen for colorectal cancer: Do cultural factors, health literacy, knowledge, age and gender matter? Journal of Healthcare for the Poor and Underserved 27 (1): 51-67.

Skinner CS, Halm EA, Bishop WP, Ahn C, Gupta S, Farrell D, Morrow J, Julka M, McCallister K, Sanders JM, Marks E, Rawl SM. (2015) Impact of risk assessment and tailored versus nontailored risk information on colorectal cancer testing in primary care: A randomized controlled trial. Cancer Epidemiology, Biomarkers and Prevention 24 (10): 1523-30. PMID 26025212.

Rawl SM, Christy SM, Monahan P, Tong Y, Krier C, Champion VL, & Rex D. (2015) Tailored telephone counseling increases colorectal cancer screening. Health Education Research. 30(4): 622-37. PMID 26025212

Pittman JA, Bakas, T, Ellett, M, Sloan, R & Rawl SM (2014). Psychometric Evaluation of the Ostomy Complication Severity Index. Journal of Wound, Ostomy, Continence Nursing 41 (2): 1-11. PMID:24418964

Wang HL, Skinner CS, Champion VL, Springston J, Perkins SM, Tong Y, Krier C, Gebregziabher N, Christy S, Rawl SM.(2014). Predictors of Stage of Adoption for Colorectal Cancer Screening Among African American Primary Care Patients. Cancer Nursing. 37 (4): 241-51. PMID: 24145250

Christy SM, Mosher KE, Rawl SM. (2014). Integrating Men's Health and Masculinity Theories to Explain Colorectal Cancer Screening Behavior. American Journal of Men's Health, 8 (1); 54-65. PMID: 23813927

Christy SM & Rawl SM (2013). Shared decision-making about colorectal cancer screening: A conceptual framework to guide research. Patient Education and Counseling, 91(3): 310-317. PMID: 2341932752.

Christy SM, Perkins SM, Tong Y, Gebregziabher N, Krier C, Champion V, Skinner CS, Springston JK, Imperiale T, Rawl SM.(2013). Promoting Colorectal Cancer Screening Discussion: A randomized controlled trial. American Journal of Preventive Medicine, April 44 (4): 325-9. doi:10.1016/j.amepre.2012.11.032 PMID: 23498096

Wang HL, Keck J, Weaver M, Mikesky A, Bunnell K, and Rawl SM. (2013) Shoulder Pain, Functional Status, and Health-related Quality of Life after Head and Neck Cancer Surgery. Rehabilitation Research and Practice. Epub Dec 25.2013:601768. doi: 10.1155/2013/601768. PMID: 24455274

Rawl SM, Skinner CS, Perkins SM, Springston J, Wang HL, Russell KM, Tong Y, Gebregziabher N, Krier C, Smith-Howell E, Brady-Watts T, Myers LJ, Ballard D, Rhyant B, Willis DR, Imperiale T, Champion VL. (2012). Computer-delivered tailored intervention improves colon cancer screening knowledge and health beliefs of African Americans. Health Education Research 27 (5): 868-85. PMID: 22926008.

Wang HS, Kroenke K, Wu J; Wanzhu T, Theobald D, Rawl SM. (2012). Predictors of cancer-related pain improvement over time Psychosomatic Medicine 74 (6): 642-7. PMID: 22753637

Liu, CJ and Rawl, SM. (2012). Effects of text cohesion on comprehension and retention of colorectal cancer screening information: A preliminary study. Journal of Health Communication, 17 Suppl 3: 222-40. Doi: 10.1080/10810730.2012.712614. PMID: 23030572

Rand K, Cripe L, Monahan P, Tong Y, Schmidt, K, and Rawl SM. (2012). Illness appraisal, religious coping and psychological responses in men with advanced cancer. Supportive Care in Cancer 20 (8):1719-28. PMID: 21927993

Rawl, SM, Menon, U, Breslau, E, & Burness, A. (2012) Interventions to promote colorectal cancer screening: An integrative review. Nursing Outlook 60 (4): 172-181. PMID: 22261002

Mitchell, KA, Rawl, SM, Champion, VL, Jeffries, PR, Welch, JL. (2012). Development and psychometric testing of the colonoscopy embarrassment scale. Western Journal of Nursing Research 34 (4): 548-64. Epub ahead of print on June 6, 2011. PMID: 21646636

Contact

srawl@iu.edu

J 16a - SPECIAL SESSION: Advancing Research and Researcher Training by International Research Collaboration

Katri Vehviläinen-Julkunen, PhD, Lic HC, MSc, RN, RM, Finland

Abstract

This presentation will discuss background and current experiences of international and multidisciplinary research collaboration between European and USA partners in advancing care of cancer patients and their family caregivers. This session will highlight the importance of a clear, longstanding program of research for knowledge and innovation development as well as impact on health policy and practice.

International research collaboration has been a high priority in national research strategies in major research economies (European Science Foundation 2010, Adams & Kurney 2016). Research is driven by international collaboration between research groups. Research problems are complex and that is why multidisciplinary and international approaches are imperative. Collaboration contributes to impact and relevance of research results on several levels. Research intensive universities usually have active international research collaboration with joint projects, publications and systematic researcher career support. As such the demand of nursing to be global is evident (Callister et al. 2006, O'Keefe et al. 2016). International nurse organizations such as Sigma Theta Tau International (STTI) Honor Society of Nursing (<http://www.nursingsociety.org>) and International Council of Nurses (ICN) (<http://www.icn.cd>) emphasize the international research collaboration.

During the presentation the background of European Union funded INEXCA project (www.uef.fi/inexca) for four years 2015-2019 will be described as well as challenges faced so far in international research collaboration. Inexca –project was built on two main activities: exchange of researchers in different career phases as well as actual research and data collection on cancer patients, their family caregivers and health professionals. The countries involved are Belgium, Denmark, Finland, Italy, Finland, United Kingdom and USA as well as a business partner and hospital from Finland. The project aims to provide multi-scientific research data to promote evidence-based health care across borders. The project outcomes will strengthen the roles played by patients, employees, employers and researchers in modern health care service sectors and research institutions.

References

Adams J & Kurney KA (2016) The Implications of International Research Collaboration for UK Universities. Research assessment, knowledge capacity and the knowledge economy. Digital Research Reports. Digital Science, UK.
Callister LC, Getmanenko NI, Khalaf I, Garvrish N, Semenik S, Vehviläinen-Julkunen K & Turkina NV (2006) Collaborative international Research. *The Journal of Continuing Education in Nursing* **37**, 39-45.
O' Keefe LC, Frith KH & Barnby E (2016) Nurse faculty as international research collaborators. *Nursing and Health Sciences* doi:10.1111/nhs.12312.
Research Careers in Europe Landscape and Horizons. (2010) European Science Foundation.
<http://www.nursingsociety.org>
<http://www.icn.ch>
<http://www.uef.fi/inexca>

Contact

katri.vehvilainenjulkunen@uef.fi

J 16b - SPECIAL SESSION: Developing the Evidence for Airway Management of Critically Ill Ventilated Patients

Mary Lou Sole, PhD, RN, CCNS, FAAN, FCCM, USA

Abstract

Background. Many practices in critical care lack evidence to support the best patient outcomes. Additionally, it is challenging to conduct clinical studies in the environment of a fast-paced critical care unit. This session will describe a program of research focused on airway management of critically-ill patients who require mechanical ventilation. Mechanically-ventilated patients are at risk for infection and other complications associated with the artificial airway, such as aspiration and ventilator-associated conditions. Strategies for conducting successful studies in the critical-care setting will also be addressed.

Objectives. To detail a successful research trajectory for studying airway management practices in the critically-ill ventilated patient, and discuss strategies that facilitated conduct of research in the critical-care setting.

Methods. After established a broad research focus on use of technology to assess oxygenation and circulation, the research focus was narrowed to emphasize airway management strategies. Both nurses and respiratory therapists (in the U.S.) manage the patient with an artificial airway. Management strategies include oral care, oral suctioning, endotracheal suctioning, and care of the endotracheal tube. Equipment to facilitate airway management is also required. Airway management is important to prevent aspiration of oral and gastric secretions, and ventilator-associated pneumonia and conditions. The researcher has conducted many descriptive, pilot, and interventional studies addressing airway management strategies. The most recent is a large clinical trial investigating the impact of enhanced oral suctioning on prevention of aspiration and ventilator-associated events. Each study has laid the groundwork for future studies.

Results. Study findings have identified the importance of strategies to reduce complications associated with mechanical ventilation. Nurses and respiratory therapists often differ in their airway management practices, which may affect patient outcomes. Additional and ongoing research is needed to establish the best practices for oral suctioning, endotracheal suctioning, and management of the endotracheal tube cuff to prevent complications such as aspiration and infection. Strategies for success have included a spirit of inquiry along with self-motivation and determination to make a difference in nursing practice. Collaboration and partnerships provide support needed for success. Team-building is one of the most important parts of a successful trajectory and includes personnel from many disciplines. Each has a unique and synergistic role in the success of the study.

Conclusions. A successful program of research will impact nursing care and patient outcomes. Tenacity, time, and teams are essential!

References

- Sole, M.L., Middleton, A., Talbert, S., Bennett, M., & Deaton, L. (In press). Enrollment challenges in critical care nursing research. *American Journal of Critical Care*.
- Sole, M.L., Bennett, M., & Ashworth, S. (2015). Clinical indicators for endotracheal suctioning in adult patients receiving mechanical ventilation. *American Journal of Critical Care, 24*, 318-324.
- Sole, M.L., & Marinski, A. (2014). Ventilator-associated events: A new outcome measure. *American Nurse Today, 9*(8), epub.
- Sole, M.L., Conrad, J., Middleton, A., Bennett, M., Allen, K., Ashworth, S., & Mehta, D.I. (2014). Pepsin and amylase in oral and tracheal secretions: A pilot study. *American Journal of Critical Care, 23*(4), 334-338.
- Sole, M.L., & Bennett, M. (2014). Comparison of airway management practices between nurses and respiratory care practitioners. *American Journal of Critical Care, 23*(3), 191-199.

Contact

mary.sole@ucf.edu

J 17 - SPECIAL SESSION: Publishing: A Career Road for You?

Susan Gennaro, PhD, RN, FAAN, USA

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN, USA

Abstract

Career opportunities for nurses interested in publication will be presented. Specific and detailed advice on how to become a manuscript reviewer, editorial board member, associate editor and journal editor will be provided. Each role will be examined and a discussion will be held about the benefits of becoming involved in each of these very distinct publication opportunities. A conversation about an overall career trajectory in publishing will be held by two editors of top rated nursing journals. Often before one strives to become an editor or an associate editor other roles, such as manuscript reviewer or editorial board member are appropriate. Participants will have the opportunity to discuss their experiences and their interest in publication. In nursing we particularly need peer reviewers so the role of the manuscript reviewer will be discussed in depth. This session is designed for all nurses (academics, administrators or those involved in clinical practice) who are interested in becoming involved in publication. Each role will be carefully discussed and advice on how to move from one role to the next will be provided. This is an interactive session for those interested in how nurses can help in dissemination of quality work through roles other than authorship. Authors appreciate the work, mostly voluntary, of peer reviewers and editorial board members and so this is an opportunity to learn how these roles work and how people move into these very important roles. There are many, many opportunities for nurses who are interested in publications so the presenters will spend some time thinking about fit between an individual's interests and publication opportunities. Additionally, there will be a discussion of how much time each of these activities take so that participants can think about whether or not they wish to become involved in publication activities. Becoming involved in publication activities can be a very rewarding part of a scholarly nurses' career.

References

Algase, D., (2014). Are you a future nursing journal editor. *Research & Theory for Nursing Practice*,28(4): 271-273.
Odom-Forren J; The mysterious life and work of a nurse editor. *Journal of PeriAnesthesia Nursing*, Dec2008; 23(6): 367-370

Contact

susan.gennaro@bc.edu

Melnyk.15@osu.edu

K 01 - SPECIAL SESSION: From Cherry Ame's Nursing Dreams to Sigma Theta Tau International Hall of Fame

Jane M. Armer, PhD, RN, CLT, FAAN, USA

Abstract

"Before you can make a dream come true, you must first have one."

Ronald E. McNair, PhD, was a mission specialist on the 1986 *Challenger* space shuttle, and the first African-American astronaut for the United States' mission in space. His legacy was memorialized by establishment of the Ronald E. McNair Post-Baccalaureate Achievement Program and the McNair Scholars Program in 1986. This quote is the motto for the McNair Scholars Program.

This session focuses on the value of dreams in setting and achieving our goals. Dreams are the first steps in intrinsic motivation and setting goals, even when they may seem out of reach.

In this session, the life story of a successful nurse researcher will be shared. The narrative will begin with childhood perceptions and aspirations of becoming a nurse based on the images portrayed in the popular 1960s-era book series *Cherry Ames*. The story will continue through the educational journey (training and certification as a nurse's aide, a medication aide, a diploma nurse, a bachelor's prepared nurse, a clinical nurse specialist in gerontology, a PhD-prepared nurse faculty, a post-doctoral fellow, a specialist in lymphedema management, and an NIH fellow in genetics) to becoming a nurse clinician, educator, mentor, and researcher. Establishment of programs of research in community-based gerontology; multi-generational and multi-cultural health beliefs and behaviors and chronic disease; and breast cancer survivorship will be shared. Professional service includes membership on the Board of Directors of the Lymphology Association of North America, on the Medical Advisory Committee and editorial committee of the National Lymphedema Network, and as founding director of the American Lymphedema Framework Project which aims to increase awareness of lymphedema and improve care for persons with lymphedema in the US and around the world. Outcomes contributing to a research legacy will be summarized. Recognition of career accomplishments have come in the form of a three-time National Lymphedema Network 'Making a Difference Day' award; the International Lymphoedema Framework's Outstanding Contribution to Research award; induction as a Fellow of the American Academy of Nursing; being named 'Extraordinary Faculty' at University of Western Cape, Republic of South Africa; and now the 2017 Sigma Theta Tau International Nurse Researcher Hall of Fame. Opportunities, diversions, and decision points will be noted. Motivational strategies and accumulated wisdom will be summarized. Opportunities for questions and answers will conclude the session.

References

- Sun, Y., Shigaki, C.L., Armer, J.M. (2016). Return to work among breast cancer survivors: A literature review. *Supportive Care in Cancer*. 1-10. doi: 10.1007/s00520-016-3446-1
- Hulett, J. M., & Armer, J. M. (2016). A Systematic Review of Spiritually Based Interventions and Psychoneuroimmunological Outcomes in Breast Cancer Survivorship. *Integrative Cancer Therapies*. 15(4), 405-423. doi:10.1177/1534735416636222
- Armer, J. M., Feldman, J. L., Ostby, P. L., Thrift, K. M., Lasinski, B. B., Beck, M. S., . . . Stewart, B. R. (2016, invited). Simplifying evidence-based management of breast cancer-related lymphedema. *Expert Review of Quality of Life in Cancer Care*, 389-402. doi: 10.1080/23809000.2016.1230019
- Wanchai, A., Armer, J.M., & Stewart, B.R. (2016). A Qualitative Study of Factors Influencing Thai Women with Breast Cancer to Use Complementary and Alternative Medicine. *Pacific Rim International Journal of Nursing Research*, 20(1), 60-70.
- Ostby, P. & Armer, J. (2015). Complexities of adherence and post-cancer lymphedema management. *Journal of Personalized Medicine*. 5(4), 370-388. doi:10.3390/jpm5040370
- Voss, R.K., Cromwell, K.D., Chiang, Y.J., Armer, J.M., Ross, M.I., Lee, J.E., Gershenwald, J.E., Royal, R.E., Lucci, A., Stewart, B.R., Shaitelman, S.F., & Cormier, J.N. (2015). The long-term risk of upper extremity lymphedema is two-fold higher in breast cancer compared to melanoma patients. *Journal of Surgical Oncology*, 112(8), 834-840.
- Cromwell, K.D., Chiang, Y.J., Armer, J.M., Heppner, P.P., Mungovan, K., Ross, M.I., Gershenwask, J.E., Lee, J.E., Royal, R.E., Lucci, A., & Cormier, J.N. (2015). Is surviving enough? Coping and impact on activities of daily living among melanoma patients with lymphedema. *European Journal of Cancer*, 24(5), 724-733. doi:10.1111/ecc.12311

Chance-Hetzler, J., Armer, J., Van Loo, M., Anderson, B., Harris, R., Ewing, R., & Stewart, B. (2015). Prospective lymphedema surveillance in a clinic setting. *Journal of Personalized Medicine*, 5(3), 311-325. doi:10.3390/jpm5030311

Hulett, J., Armer, J., Stewart, B., & Wanchai, A. (2015). Perspectives of the breast cancer survivorship continuum: Diagnosis through 30 months post-treatment. *Journal of Personalized Medicine*, 5(2), 174-190. doi:10.3390/jpm5020174

Homan, S., Yun, S., Stewart, B., & Armer, J. (2015). Breast cancer survivorship care: Targeting a colorectal cancer education intervention. *Journal of Personalized Medicine*, 5(3), 296-310. doi:10.3390/jpm5030296

Ostby, P.L., Armer, J.M., Dale, P.S., Van Loo, M.J., Wilbanks, C.L., & Stewart, B.R. (2014). Surveillance Recommendations in Reducing Risk of and Optimally Managing Breast Cancer-Related Lymphedema. *Journal of Personalized Medicine*, 4(3), 424-447. doi:10.3390/jpm4030424

Radina, M.E., Armer, J.M. & Stewart, B.R. (2014). Making self-care a priority for women at-risk for breast cancer-related lymphedema. *Journal of Family Nursing*, 20(2), 226-49. doi: 10.1177/1074840714520716

Lu, G., Han, K., DeSouza, G., Armer, J., Shyu, CR. (2014). A new algorithm for 3D registration and its application in self-monitoring and early detection of lymphedema. *Journal of Innovation and Research in BioMedical Engineering*. 35(6). 370-384. doi:10.1016/j.irbm.2014.10.003.

Fu, M., Deng, J., Armer, J.M. (2014). Putting evidence into practice: Cancer-related lymphedema evolving evidence for treatment and management from 2009-2014. *Clinical Journal of Oncology Nursing*, 18(6), 68-79. doi:10.1188/14.CJON.S3.68-79.

Shaitelman, S. F., Cromwell, K. D., Rasmussen, J. C., Stout, N. L., Armer, J. M., Lasinski, B. B., & Cormier, J. N. (2015). Recent progress in the treatment and prevention of cancer-related lymphedema. *CA: A Cancer for Journal Clinicians*, 65(1), 55-81. doi:10.3322/caac.21253

Armer, J. M., Hulett, J. M., Bernas, M., Ostby, P., Stewart, B. R., & Cormier, J. N. (2013, invited). Best-Practice Guidelines in Assessment, Risk Reduction, Management, and Surveillance for Post-Breast Cancer Lymphedema. *Current Breast Cancer Reports*, 5(2), 134-144. doi:10.1007/s12609-013-0105-0

Contact

armer@missouri.edu

K 02 - SPECIAL SESSION: The Nurse Scientist in a Practice Organization

Diane L. Carroll, PhD, RN, FAAN, USA

Abstract

The advancement of nursing research outside of the academic environment continues to grow. In a practice organization, the demands of patient care often challenge the ability of the nurse to generate nursing knowledge. Strategies to promote a culture of inquiry, to support the implementation of research projects, and to disseminate the findings that impact patient outcomes are required. The organization that welcomes and rewards those who develop and implement a nursing research agenda have the support from the Chief Nurse and nursing leadership. And the presence of a nurse scientist demonstrates this commitment to advancing a nursing research agenda within this setting.

The nurse scientist advances a culture of clinical inquiry by focusing the nurse on their practice. Connecting research to clinical practice makes every nurse a potential investigator, and patients who receive research-based care have better outcome. Clinical triggers from the bedside can be constant reminders of opportunities for nurses to examine their practice. These triggers are gathered from the patient/family healthcare experience, current practices that improve illness management, quality and safety goals, and designing or implementing innovative technology to improve care. These triggers can create a nursing research agenda that develops nursing science.

Nurses are charged with using the research process to generate and disseminate new knowledge that may lead to innovations in nursing practice. Key to the development of nursing research in a practice organization is to reduce perceived barriers to undertaking a research project, development of the skills and confidence in the nurse, and passion to ask and answer the research question. The nurse scientist, in her/his unique role, can support research activities by educating and mentoring the nurse in the conduct of research.

The nurse scientist uses various strategies, as a part of a clinical research model, to capture clinical research questions, to evaluate the questions in relation to organizational priorities, assist in the identification of a research workgroup that can include members of the multidisciplinary healthcare team, and verify that the project has measurable patient outcomes. Acting as a mentor, the nurse scientist can create the spirit of inquiry, reduce system barriers, create capacity and guide the research workgroup through the process. The workgroup members must be willing to attend meetings, review the literature gathered by the librarians, write and edit the research proposal, participate in the implementation of the research project, and work on the final research report. This model is practice driven using a team approach, and utilizes a research mentor, the nurse scientist.

One example of a practice-driven research projects that used this model is the project: 'Improving Venous Thromboembolism Prophylaxis with mechanical modalities in a Surgical Intensive Care Unit'. Paula Restrepo, a staff nurse, was the principal investigator with a research librarian and a nurse scientist. This project was published in 2015 in *Journal of Nursing Care Quality*.

Venous thromboembolism (VTE) remains a significant source of morbidity and mortality in the surgical population. Surveillance for signs/symptoms of VTE is a part of nursing care. Non-invasive mechanical devices, graduated compression stockings (GCS) and intermittent pneumatic compression (IPC) devices, are widely used as the sole or adjunct method of VTE prophylaxis in the Surgical ICU (SICU). The success of the GCS and IPC devices relies on actual use and compliance with these mechanical devices. The purpose of this study is to measure the compliance rate of VTE prophylaxis with GCS and IPC devices pre/post the development of a VTE prophylaxis guideline in a SICU. This pre/post observational study used a VTE prophylaxis guideline development as the intervention. During each observation period (3 weeks), data were collected, twice a day, on the presence of a physician order for VTE prophylaxis mechanical devices, and correct application of these devices on all patients in SICU. Following the pre-observation period an intervention of a written guideline was completed and approved, and initial

implementation occurred. A follow-up post-observational period (3 weeks) occurred 3 months after guideline implementation. A compliance score was calculated by dividing the number of compliant evaluations by the total number of evaluations of mechanical device use. There were 610 pre and 602 post observations made during these 2 three-week periods. There were 95 pre and 92 post subjects, mean age 61.4- 60.9 years respectively, with a total of 123 males and 64 females. The majority (58%) were trauma/general surgical patients. Using observation data, the compliance rate pre was 80% and post was 78% of all mechanical device evaluations ($p > .79$). These results are comparable to other compliance studies. In the surgical patient, VTE prophylaxis is limited to mechanical devices, monitoring of compliance with VTE mechanical devices is essential.

With a comprehensive review of the literature completed as a part of this project and the SICU guideline, the investigators discussed results with the interdisciplinary surgical quality team. They supported a change in practice that the IPC device is the mechanical device of choice. With this decision, the GCS were removed from the surgical order template and there was a cost saving of about \$45 000 per year on reductions in GCS use. With support from the American Academy of Nursing's Expert Acute and Critical Care Panel, a Choosing Widely campaign was initiated to share the knowledge of IPC devices as the mechanical method of choice. Nurses play an important role in risk assessment, application of correctly sized IPC devices, and evaluation of signs and symptoms of VTE. They also can impact practice to provide safe quality patient care.

Nurses are an integral component to the advancement of patient care, the enhancement of the practice environment, and the culture of care. The role of the nurse scientist is to explore and engage nurses in the pursuit of knowledge through inquiry. Knowledge-based care is safe, efficient, and promotes high quality patient outcomes that can be leveraged to improve the health care delivery system globally.

References

- Ives Erickson, J., Ditomassi, M., Jones, D.A. (2015). *Fostering a research intensive organization: An interdisciplinary approach for nurses from the Massachusetts General Hospital*. Indianapolis IN: Sigma Theta Tau.
- Ives Erickson, J., Jones, D.A., Ditomassi, M. (2013). *Fostering nurse-lead care: Professional practice for the bedside leader from the Massachusetts General Hospital*. Indianapolis IN: Sigma Theta Tau.
- Parkosewich, J.A. (2013). An infrastructure to advance the scholarly work of staff nurses. *Yale Journal of Biology and Medicine*, 86, 63-77.
- Restrepo, P. Jameson, D. Carroll, D.L. (2015). Improving Venous Thromboembolism Prophylaxis with mechanical modalities in a Surgical Intensive Care Unit. *Journal of Nursing Care Quality*, 30, 31-37.
- Watson, F., & Rebar, A. (2014). The art of noticing: Essential to nursing practice. *British Journal of Nursing*, 23, 514-517.

Contact

dc Carroll3@mgh.harvard.edu

K 03 - SPECIAL SESSION: The International Nurse Researcher Hall of Fame: One Nurse's Journey

Trisha Lynette Dunning, PhD, MEd, AM, RN, CDE, ACN-DLF, Australia

Abstract

The aim of my presentation is to outline my journey from trainee nurse to induction into the STTI International Researcher Hall of Fame.

I will share my journey through pictures and story vignettes that exemplify my key transitions and learnings as I developed into a nurse researcher and that led me to the honour of being inducted into the STTI Researcher Hall of Fame. I will trace my journey from trainee nurse in an Australian country hospital to one of the top 40 Universities in the world.

I will share some significant outputs and impacts from my research. My philosophy of nursing and research will emerge from the story. I will share some of the things I learned such the difficulty separating the academic researcher and clinician from the person: they enhance and balance each other. Research is a collaborative endeavor: there are strength in partnerships that enhance individual contributions. The research field is very competitive. It values 'track.' Researchers must learn how to market themselves and their research. They must be creative and recognise and make opportunities, which often means selecting 'the path less travelled', which can make all the difference to a research career. At least it did for me.

Along the way I learned that:

- All types of research are valuable..
- It is important for nurses to engage in research at the level of their knowledge and competence research.
- It is important to seek, recognise and make opportunities for research activities.
- It is useful to be able to 'think outside the square.'
- Researchers must encourage, support and acknowledge the contribution of relevant others.
- Researchers have an obligation to inform research participants, colleagues, service providers and others about their research findings and how they could apply them.
- It is vital to care for oneself throughout the research journey.

References

- Dunning, T., Speight, J., Bennett, C. (2017). Language, the "Diabetes restricted code/dialect" and what it means for people with diabetes and clinicians. *The Diabetes Educator*, vol. 43, no.1,18-26.
- Dunning, T., Duggan, N., & Kennedy, M. (2016). Caring for older people with diabetes: combining ancient wisdom and modern knowledge to find relevant care solutions. *Australian Diabetes Educator* 19 (4), 26-29.
- Dunning, T., Duggan, N., Savage, S., (2016). Caring for people with diabetes at the end of life. *Current Diabetes Reports*, 16 (11), 1-8.
- Dunning T, Savage S, Duggan. (2014) The McKellar Guidelines for Managing Older people with Diabetes in Residential and other Care Settings. centre for Patient Safety and quality Research Barwon Health Partnership.

Contact

trisha.dunning@barwonhealth.org.au

K 04 - SPECIAL SESSION: Getting the Most Out of Existing Data Sources for Nursing Research Questions

Veronica D. Feeg, PhD, RN, FAAN, USA

Abstract

Some researchers' program of study follows a single line of inquiry that delves deeper and deeper, peeling back the layers to get at underlying phenomena. Other researchers take a more circuitous route, using the research process and analytics, combined with opportunity, to answer questions that arise from a more practical than theoretical origin. This special session will provide a summary of the winding road that this researcher's career has taken in the evolution of a body of work that spans three seemingly disparate paths: (1) the information technology revolution that provided a vehicle for process and products of research; (2) the clinical pediatrics and decision-making areas of inquiry that incorporated technological strategies to answer questions; and (3) the methodologic and analytical skill sets that developed along the way and prompted organizations to fund requests for technical assistance and secondary analysis of existing data.

In this session, participants will be taken on a journey from the early days of electronic health records and personal computers to the presenter's recent research efforts that have incorporated technology and methods. In the middle of these two bookends, the presenter focused her professional work on children with special health needs – including children facing life-limiting illnesses – and served as editor of a pediatric clinical journal. Over 25 years, child health, illness, and palliative care were frequent editorials among a variety of policy focused research and papers. These publications helped to foster international collaborators with shared interests and clinical areas of inquiry in child and family centered care. Several important results from this role derived from her work on the scientific advisory board of Children's Hospice International, and several studies – including the earliest versions of “standards of pediatric palliative care” – were the products of collaborative research.

At the same time, her early research on computer use and building clinical trials around a personal computer version of an electronic nursing documentation system, were part of this researcher's informatics trajectory before electronic health records (EHRs) were commonplace. Several funded pilot studies resulted in the development of computerized support of decision-making (used in clinical areas of inquiry) and educational studies that prepared students to work in an electronic world. Advanced mathematical modeling for decision-support using the Analytical Hierarchy Process (AHP) was tested and published in *Nursing Research*.

Over the same years, the opportunities to mentor dozens of PhD doctoral students were central to this presenter's research productivity. With well-developed methodology and analytical skills, her research path included additional directions to explore secondary analysis of large data sets leading to several important publications that have informed nursing educators. Simultaneously, these opportunities were cultivated numerous entry-points for doctoral students to be mentored in these research techniques toward their own dissertation successes. In recent years, several articles have been published on nursing workforce issues and student loan debt.

Today, with over 30 active students in the PhD program and over 25 successfully mentored dissertations, this presenter will describe a research career that wandered on three disparate trails connected with numerous intersecting points where opportunity and access to data sources paved the way for research. In the informatics world, pediatrics world, and nursing education, this presenter has had the good fortune to be able to collaborate internationally, to leverage technology and to foster opportunities that contributed toward a successful academic research career.

References

- Battle, C. & Feeg, V.D. "Incorporating Standards into Children's Hospice Services to Improve Quality of Care." Presented at the Children's Hospice International 8th Conference, Sydney, Australia, June 10, 1993

and at the Association for the Care of Children's Health (ACCH) Annual Conference, Toronto, Canada, May 24, 1994.

- Feeg, V. "Using the Analytic Hierarchy Process (AHP) as a Methodology in Complex Decision-Making: Restructuring a Nursing Service Case Example." Presented at the International Society of Analytic Hierarchy Process (ISAHP) Conference, Vancouver, BC, July, 1996.
- Feeg, V. & Hunter, J. "Using the Internet to Develop the International Child Health Nursing Alliance." Presented at the International Council of Nursing (ICN) Conference, Vancouver, B.C.: June 20, 1997.
- Feeg, V. & Kodadek, M. "Toward Developing a Model for End-of-Life Decisions: An Exploratory Study of Multicriteria Decision Making" Poster session at the Society of Pediatric Nurses Research Conference, Breckenridge, CO, July 27, 1997.
- Feeg, V. & Kodadek, M. Developing an Analytic Hierarchy Process (AHP) Model to Assist Family Members in End-of-Life Decisions. Presented at the 8th Annual Meeting of the Society of Pediatric Nurses Research Sessions, Orlando, FL, April 28, 1998.
- Feeg, V.D. (1999). Using the analytic hierarchy process as an alternative weighting technique to magnitude estimation scaling. *Nursing Research*, 48(6), 207-214.
- Feeg, V.D. (2001). Developmental promotion and early childhood intervention: A review of related nursing science. *Journal of Child and Family Nursing*, 4(1), 3-14.
- Kodadek, M. & Feeg, V.D. (2002). Using vignettes to explore how parents approach end-of-life decision making for terminally ill infants. *Pediatric Nursing*, 28(4): 333-343.
- Feeg, V. & Elebiary, H. (2005). Exploratory study on end-of-life issues: Barriers to palliative care and advance directives. *American Journal of Palliative and Hospice Medicine*, 22(2), 119-124.
- Thompson, L., Knapp, C., Feeg, V., Madden, V., & Shenkman, E. (2010). Pediatricians' management practices for chronic pain. *Journal of Palliative Medicine*, 13(2), 171-178.
- Feeg, V., Candelaria, L., Krenitsky-Korn, S., Vessey, J. (2014). The relationship of obesity and weight gain to childhood teasing. *Journal of Pediatric Nursing*, 29, 511-520.
- Feeg, V., Paraszczuk, A., Çavuşoğlu, H., Shields, L., Pars, H., & Mamun, A.A. (2015). How is Family Centered Care Perceived by Healthcare Providers from Different Countries? An International Comparison Study. *Journal of Pediatric Nursing*, 31(3), 267-276.
- Betz, C., Cowell, J., Faulkner, M., Feeg, V., Greenberg, C., Krajicek, M., Lipman, T., Lobo, M., Nehring, W., Craft-Rosenberg, M., & Vessey, J. (2015). Advancing the Development of the Guidelines for the Nursing of Children, Adolescents, and Families: 2014 Revision: Process, Development, and Dissemination, *Journal of Pediatric Healthcare*. 30(3), 284-288.
- Feeg, V. International Survey Results of Children's Hospice Care. Paper presented at the 1999 World Congress of Children's Hospice International (CHI), Vienna, Austria, November 3-6, 1999. (Published summary, Alexandria, VA: CHI).
- Feeg, V. & Stewart, H. *Barriers of Children's Hospice Care*. Accepted poster/oral presentation session: State of the Science Conference in Pediatric Oncology Nursing, National Institutes of Health, February, 2000
- Feeg, V. *Demographics and Perceived Barriers of Children's Hospice Care*. Panel presentation with Winsness, J., & Ramenofsky-Stewart, J.: *When Children are Dying: Complex Issues We Face* Fourth International Congress on Ethics and Policy in Nursing Education. George Mason University, Fairfax, VA, October 3, 2000.
- Feeg, V., Saba, V. & Feeg, A. (2008). Development and testing of a bedside PC Clinical Classification System (CCCS©) for nursing students using Microsoft Access®. *Computers, Informatics, Nursing*, 26(6), 339-349.
- Mannino, J. & Feeg, V. (June, 2011). Field testing a PC electronic documentation system using the Clinical Care Classification (CCC©) System with Nursing Students. *Journal of Healthcare Engineering*, 2, 2, 223 – 240.
- Feeg, V., Bashatah, A. & Langley, C. (2005). Development and Testing of a CD-ROM Based Tutorial for Student Nurses: Getting Ready for HIPAA. *Journal of Nursing Education*, 44(8), 1-7.
- Feeg, V., Smith, K., Cullinan, M. & Prager, L. (2014). Predictors of mental illness stigma and attitudes among college students: Using vignettes from a campus common reading program. *Journal of Mental Illness Nursing*. 35, 694-703.
- Feeg, V. & Mancino, D. (September 2014). Nursing student loan debt: A secondary analysis of the National Student Nurses' Association Annual Survey of New Graduates. *Nursing Economic\$* 32(5), 231-239, (C.E. Article).

Contact

vfeeg@molloy.edu

K 05 - SPECIAL SESSION: Lymphedema Symptom Science: Precision Phenotyping, Genotyping, and Intervention

Mei R. Fu, PhD, RN, FAAN, USA

Abstract

The purpose of the presentation is to share the experience of establishing a program of research on lymphedema symptom science.

Each year, 1.38 million women worldwide are diagnosed with breast cancer and more than 40% of the women suffer lymphedema, a chronic condition of more than 20 distressful symptoms and currently no surgical or medical approach can provide a cure. Starting with qualitative inquiry to understand patients' daily symptom experience and self-care of lymphedema and symptoms, the researcher has developed and tested instruments to effectively assess symptoms, pushing the boundaries of using cutting-edge technology for quantifying lymphedema, accomplished much-needed prospective investigation to discover the biological pathway of lymphedema symptomology using genomic and biomarker approach, and let prospective randomized intervention trails to test interactive and personalized interventions which are technology-driven and cost-effective. From her early career of scientific inquiry, the researcher has purposefully built her program of research in two synergetic lines of inquiry: (1) lymphedema symptom science to discover the biological pathways and significant relationships between symptoms and objective measures of lymphedema; and (2) technology-driven intervention to develop pragmatic symptom assessment and self-care mHealth (mobile health) intervention to reduce the risk of lymphedema and optimize lymphedema management through symptom assessment and management.

This presentation focuses on the methods for precision phenotyping and investigation of biological mechanisms of symptoms to develop an innovative and pragmatic assessment and precision interventions for lymphedema. Discussions will be focused on definition and process of precision phenotyping for lymphedema, including limb volume measurement, level of fluid level and symptoms. Descriptions of research methods will be discussed to explore to the relationships between lymphedema symptoms and limb volume and fluid level as well as genomic research to discover the biological underpinning of symptoms related lymphedema. Finally, discussions will be on the process of developing pragmatic patient-center risk assessment and intervention based on phenotyping characteristics and biological mechanism of symptoms for risk reduction and symptoms symptom management.

References

- [1] Fu, M.R., Rhodes, V.A., & Xu, B. (2002) The Chinese translation: The index of nausea, vomiting, and retching (INVR). *Cancer Nursing*, 25(2), 134-140. PMID: 11984101 [Based on this article, Dr. Mei R. Fu was awarded *Eminent Scientist of the Year 2003* by International Research Promotion Council (IRPC), an international organization committed to promote academic and research programs in science and medicine in the world.] Over 50 researchers from China, Taiwan, Australia, and United States requested permission for the use of this instrument.
- [2] Fu, M., LeMone, P., McDaniel, R., & Bausler, C. (2001). A multivariate validation of the defining characteristics of fatigue. *Nursing Diagnosis: International Journal of Nursing Language and Classification*, 12(1), 15-27. [This article was awarded *Outstanding Journal Article Award 2000-2002* by the North American Nursing Diagnosis Association, April 2002.]
- [3] Fu M.R., McDaniel R.W., & Rhodes V.A. (2007) Measuring symptom occurrence and symptom distress: development of the symptom experience index. *Journal of Advanced Nursing* 59(6), 623–634. PMID: 17672849 [62 researchers from the United States, China, Australia, Brazil, and Korea requested permission for the use of this instrument. The Korean and Portuguese version of the instrument has been translated and tested for reliability and validity.]
- [4] Fu, M.R. & Rosedale, M. (2009). Breast cancer survivors' experience of lymphedema related symptoms. *Journal of Pain and Symptom Management*, 38(6), 849-859. PMID: 19819668 [Based on this study and other two studies, Dr. Mei R. Fu was awarded *Young Investigator Award: Tactile Systems Technology Young Investigator Award*. The 22nd International Society of Lymphology Congress, Sydney, Australia, Sep. 21-25, 2009.]
- [5] Fu, M.R., Chen, C., Haber, J., Guth, A., & Axelrod, D. (2010). The effect of providing information about lymphedema on the cognitive and symptom outcomes of breast cancer survivors. *Annals of Surgical Oncology*, 17(7), 1847-1853. Epub 2010 Feb 6. PMID: 20140528. DOI 10.1245/s10434-010-0941-3 [Based on this study, Dr. Mei R. Fu was awarded the Oncology Nursing Society 2009 Excellence in Cancer Nursing Research Award].

- [6] Fu, M.R., Axelrod, D., Guth, A., Cartwright- Alcarese, F., Qiu, Z., Goldberg, J., Kim, J., Scagliola, J., Kleinman, R., Haber, J., & (2014). Proactive approach to lymphedema risk reduction: a prospective study. *Annals of Surgical Oncology*, 21(11), 3481-3498. Online First. DOI: 10.1245/s10434-014-3761-z
- [7] Fu, M.R., Axelrod, D., Guth, A., Fletcher, J., Qiu, J.M., Scagliola, J., Kleinman, R., E. Ryan, C. E., Nicholas, C., Haber, J. (2015). Patterns of obesity and lymph fluid level during the first year of breast cancer treatment: A prospective study. *Journal of Personalized Medicine*, 5(3):326-40. [PMID: 26404383 DOI: 10.3390/jpm5030326]
- [8] Fu, M.R., Axelrod, D., Cleland, C.M., Guth, A.A., Qiu, Z., Kleinman, R., Scagliola, J., & Haber, J., (2015). Symptom reporting in detecting breast cancer-related lymphedema. *Breast Cancer: Targets and Therapy*, 7; 345-352 (#1825502). DOI: <http://dx.doi.org/10.2147/BCTT.S87854> PMID: 26527899
- [9] Fu, M.R., Conley, Y.P., Axelrod, D., Amber, G.A., Yu, G., Fletcher, J., Zagzag, D. (2016). Precision assessment of heterogeneity of lymphedema phenotype, genotypes and risk prediction. *The Breast*.DOI: <http://dx.doi.org/10.1016/j.breast.2016.06.023>. Epub ahead print. PMID: 27460425
- [10] Fu, M.R., Axelrod, D., Guth, A.A., Rampertaap, K., El-Shammaa, N., Hiotis, K., Scagliola, J., Yu, G., Wang, Y. (2016) mHealth self-care interventions: managing symptoms following breast cancer treatment. *mHealth* 2016; 2:28. DOI: 10.21037/mhealth.2016.07.03. PMID: 27493951

Contact

mf67@nyu.edu

K 06 - SPECIAL SESSION: Using the Decisional Involvement Scale (DIS) to Gauge Staff Nurse Unit Decisional Involvement

Donna S. Havens, PhD, RN, FAAN, USA

Abstract

Introduction- It has long been recognized that involving the front line workforce in decisions about the work that they are performing is associated with positive outcomes. This is particularly true of professionals working in organizations such as professional nurses delivering care to patients. Staff nurse decisional involvement -- defined as the pattern of distribution of authority for decisions and activities that govern nursing practice policy and the practice environment. For decades, enhancing staff nurse decisional involvement in matters of nursing practice and patient care has been identified as a long-term strategy to improve the quality of the nursing practice environment and the safety and quality of patient care (Begun, 1985; Heydebrand, 1983; Scott, 1982, Aydelotte, 1981, 1983; Maas & Jacox, 1977; and McClure, Poulin, Sovie, & Wandelt, 1983). Central to any initiative to enhance nurse involvement in decision making is the ability to measure staff nurse decisional involvement. Thus, the Decisional Involvement Scale (DIS) was developed for this purpose (Havens, 1990; Havens & Vasey, 2003, 2005). The purpose of this study was to describe staff nurse reports of actual and desired decisional involvement, decisional dissonance and dissonance between staff nurse and unit manager perceptions of staff involvement.

Methods – IRB approval was granted for the parent study – a five year project focused on improving the nursing practice environment. A secondary analysis was conducted for the study reported here to explore staff nurse reports of actual and desired decisional involvement at the unit level. The DIS (Havens, 1990; Havens & Vasey 2003, 2005) was used to measure staff nurse reports of actual and preferred decisional involvement and decisional dissonance (the gap between actual and desired). The DIS is a 21 item psychometrically valid and reliable scale developed from the sociology literature on professionals working in organizations and the literature on professional nursing practice (Havens, 1990). The DIS consists of six empirically derived subscales: decisions about unit staffing, quality of professional practice, governance and leadership, quality of support staff, and collaboration/liaison activities (Havens & Vasey, 2005). Response choices are as follows: administration/management only = 1; primarily administration/management with some staff nurse input = 2; equally shared by administration/ management and staff nurses = 3; primarily staff nurses with some administration/management input = 4; and staff nurses only = 5. Results can be considered by individual items, by subscale, or as an overall scale. The sample consisted of 1,066 clinical staff nurses working in six acute care community hospitals in Pennsylvania in the U.S. For the most part, sample demographics matched those of the state and the U.S. The DIS was administered to staff RNs as part of an anonymous questionnaire that participants completed and deposited into a sealed box on their work unit. Questionnaires were sent to the study coordinator in the sealed envelopes and then were then scanned into a data base. Descriptive statistics were used to evaluate staff nurse reports of actual and desired levels of involvement in unit decision making, the dissonance between staff nurses and their unit managers perceptions as well as to identify staff nurse decisional dissonance – decisional involvement either above or below the actual or desired level.

Findings- Overall, staff RNs reported that they were not at the point where they were sharing decision making with unit managers, they perceived that in general most decisions were made entirely by managers or in a few cases, with some staff nurse input. They reported that they preferred to share decision making with managers for five of the six subscales and in no area, did staff report wanting to be entirely responsible for decision making with no manager input. Decisional dissonance was reported as well as dissonance between perceptions of staff nurses and managers on the same unit.

Implications -- Enhanced staff nurse decisional involvement may not be a simple case of “one size fits all”, because control may not be equally desired by all staff nurses. Decisional dissonance is an important decisional state that must be considered in efforts to improve the nursing practice environment. Assessing nurse perceptions of actual and desired levels of decisional involvement as well as nurse

manager perceptions may provide rich opportunities for “important” unit conversations about the work environment and shared governance.

References

- Aydelotte, M. (1981). Structure of nursing practice departments: Governance and professionalization. In J. McCloskey & H. K. Grace (Eds.), *Current issues in nursing* (2nd ed., pp. 394-404). Boston: Blackwell Scientific Publications.
- Aydelotte, M. (1983). Professional nursing: The drive for governance. In N. Chaska (Ed.), *The nursing profession: A time to speak* (pp. 830-842). New York: McGraw-Hill Book Company.
- Begun, J. (1985). Managing with professionals in a changing health care environment. *Medical Care Review*, 42 (1), 3-10.
- Havens, D. S. (1990). Analysis of the nature and extent of implementation and projected implementation of a model proposed to support professional nursing practice in acute care hospitals. Unpublished doctoral dissertation, The University of Maryland, Baltimore.
- Havens, D. S. & Vasey, J. (2003). Measuring staff nurse decisional involvement: The Decisional Involvement Scale (DIS). *Journal of Nursing Administration*, 33(6), 331-336.
- Havens, D.S. & Vasey, J. (2005). The staff nurse decisional involvement scale: Report of psychometric assessments. *Nursing Research*, 54 (6), 376–383.
- Heydebrand, W. (1983). Technocratic corporatism: Toward a theory of occupational organizational transformation. In R. Hall & R. Quinn (Eds.), *Organizational theory and public policy*. Beverly Hills: Sage Publications.
- Maas, M. & Jacox, A. (1977). *Guidelines for nurse autonomy/ patient welfare*. New York: Appleton-Century-Crofts.
- McClure, M., Poulin, M., Sovie, M., & Wandelt, M. (1983). *Magnet hospitals: Attraction and retention of professional nurses*. Kansas City, MO: American Academy of Nursing.
- Scott, R. (1982). Managing professional work: Three models of control for health organizations. *Health Services Research*, 17(3), 213-240.

Contact

dhavens@email.unc.edu

K 07 - SPECIAL SESSION: The Tale of Two Tengu: A Program of Research in a Child's World

Christine Kennedy, PhD, RN, PPCNP-BC, FAAN, USA

Abstract

Highlights from a career program of research focused on the influence of illness, media and culture on children's health will be shared. From children's TV habits and behavior in working class neighborhoods to influencing health policy engagement this brief précis will demonstrate the tenet that 'research is all about relationships.' Using an analogy from the retelling of a Japanese folktale - concepts such as serving two masters, undefined expectations and how cooperation can underpin a research career path will be shared.

Dr. Kennedy's research has spanned the globe; with a particular focus on Pacific Rim countries and populations whose historical presence in California is critical to appreciate in primary care. Her research team is currently funded to study various aspects of health literacy and its role in clinical care and outcomes to reduce health disparities among underserved populations. Her research broadly addresses the impact of daily life activities on children's development, specifically on the behavioral underpinnings to health in early childhood (3-8 years of age).

Collaborative work with colleagues in pediatric oncology with an emphasis on symptom science has been a secondary line of enquiry. Her work over the past twenty-five years has built on relationships with colleagues and students around the world. Findings from early work on risk taking and injuries lead to examining how media, especially how television was influential in young children's perception of the "real world" and was grounded in her dual role in clinical practice as a PNP and graduate academic teaching in pediatric behavior and development. Interventions to change sedentary behaviors and increase healthy lifestyles in families use of mobile phone visual pictorial apps to facilitate physical activity in low health literacy populations and other relevant findings from this body of work will be reviewed.

Research for knowledge generation alone is at times insufficient and translation of evidence to practice with a measurable impact on policy can bring nursing science full circle. Policy activity has had a direct relationship to this program of research. Examples from legislation in the late 1990's from tobacco product taxes and the eventual Universal health care program for children in California; and more recently with Dr. Malpass and her examination of aspects of the Affordable Care Act and the needs of special health care children will be shared to illustrate this perspective.

References

1. Keim-Malpass, Letzkus, L., & Kennedy, C. (2015). Health literacy and the Affordable Care Act: A policy analysis for children with special health care needs in the USA. *Risk Management and Health Care Policy*, 8, 31-36. doi: 10.2147/RMHP.S80699
2. Bender, M. S., Kennedy, C., & Martinez, S. (2015). Designing a culturally appropriate visually enhanced mobile low-text mobile health app promoting physical activity for Latinos: A qualitative study. *Journal of Transcultural Nursing*, 1-9. DOI: 10.1177/1043659614565249
3. Keim-Malpass, J., Letzkus, L. C., & Kennedy, C. (2015). Parental/caregiver health literacy among children with special health care needs: A systematic review. *BMC Pediatrics*, 15
4. Keim-Malpass, J., Stegenga, K., Loudin, B., Kennedy, C., & Kools, S. (2016). "It's back, my remission is over": Online communication of disease progression among adolescents with cancer. *Journal of Pediatric Oncology Nursing*, 33(3), 209-17.
5. Kanyamee, M., Fongkaew, W., Chotibang, J., Aree, P., & Kennedy, C. (2013). An intervention study of changing eating behaviors and reducing weight in Thai children aged 10-12. *Pacific Rim International Journal of Nursing Research*, 17(4), 317-328. doi:10.1177/1043454215600424 (92), 1-10. doi:10.1186/s12887-015-0412-x
6. Kennedy, C., & Chen, J. L. (2009). Changes in childhood risk taking and safety behavior after a peer group media intervention. *Nursing Research*, 58(4), 264. doi:10.1097/NNR.0b013e3181ac12dd
7. Chen, J. L., Wall, D., Kennedy, C., Unnithan, V., & Yeh, C. H. (2007). Predictors of increased body mass index in Chinese children. *Progress in Cardiovascular Nursing*, 22(3), 138-144.

8. Chen, J. L., Unnithan, V., & Kennedy, C. (2006). Comparing physical fitness and physical activity in Chinese children in Taiwan and the United States. *Asian Journal of Nursing Science*, 9(1), 17-25.
9. Chen, J. L., & Kennedy, C. (2005). Cultural variations in children's coping behavior, TV viewing time, and family functioning. *International Nursing Review*, 52(3), 186-195. 10.

Contact

cmk4k@virginia.edu

K 08 - SPECIAL SESSION: A Program of Research: Cancer Symptom Management

Susan C. McMillan, PhD, MS, ARNP, FAAN, USA

Abstract

The purpose of this presentation is to describe the program of cancer symptom research conducted over a 30 year academic career and how that research fit into teaching and service efforts of this oncology nursing faculty member. Dr. Susan McMillan from the University of South Florida in Tampa, Florida, begins by describing her early unfunded exploratory and descriptive studies conducted at the beginning of her research career, as she served on committees and boards in local cancer centers, general hospitals, veterans administration hospitals and hospices, and founded and implemented the only oncology nurse practitioner program in the state of Florida. She will then demonstrate how this program of research built to include large funded clinical trials that brought in more than \$12 million dollars in research funding to her university. Her research has been funded by the American Cancer Society, the U.S. Veterans Administration, the National Cancer Institute, the National Institute for Nursing Research, and the Patient Centered Outcomes Research Institute. She has studied pain and side effects in patients in surgical units, intensive care units, cancer center in-patient units, and several local hospices. Results of her early descriptive studies changed practice outcomes in some local settings where cancer patients receive care.

Results generally reveal that 1). pain is poorly assessed and poorly managed with nurses giving patients a fraction of what is ordered for pain each day while they report significant pain; 2). hospice family caregivers are able to give more effective care resulting in better outcomes for both hospice patients with cancer and the caregivers themselves when they are taught a systematic approach to symptom management such as COPE; 3). Nurses do not know enough about pain management and have attitudes that interfere with their success in pain management for persons with cancer; 4). Opioid-induced constipation is under-recognized and under treated in persons with cancer; 5). COPE as a symptom management approach is more effectively taught to family caregivers than to the patients themselves. Research in these important areas needs to continue.

References

- McMillan, S.C., Rodriguez, R., Wang, H., Elliott, A. (2016). Symptom Occurrence and Symptom Distress Faced by Patients with Cancers of the Head and Neck, *Head and Neck Nursing Journal* 34(4), 10-15.
- McMillan, S.C., Rodriguez, R., Wang, H., Elliott, A. (2015). Issues Faced by Family Caregivers of Hospice Patients with Head and Neck Cancers. *Journal of the Society of Otolaryngology Head and Neck Nursing*, 33(2),8-15. PMID 26263580
- Sherman, D. & McMillan, SC. (2015). The Physical Health of Patients with Advanced Pancreatic Cancer and the Psychological Health of their Family Caregivers When Newly Enrolled in Hospice. *Journal of Hospice and Palliative Nursing* Volume 17, (3), 235-241. PMID 26617469
- McMillan, SC, Tofthagen, C, Choe, R., Rheingans, J. (2015). Assessing Symptoms Experienced by Patients with Cancer: Occurrence, Intensity, Distress, Interference and Frequency. *Journal of Hospice and Palliative Nursing*, 17 (1), 56-65.
- McMillan, SC, Tofthagen, C, Small, BJ, Karver, S & Craig, D. (2013). Trajectory of Medication-induced Constipation. *Oncology Nursing Forum*, 40(3):E92-E100. Doi: 10.1188/13.ONF.E92-E100. PMID 23615153

Contact

smcmilla@health.usf.edu

K 09 - SPECIAL SESSION: Nurse-Initiated Protocols Save Lives: The QASC Trial

Sandy Middleton, PhD, RN, Australia

Abstract

The Quality in Acute Stroke Care (QASC) Trial was a cluster randomised controlled trial conducted in 19 stroke units in New South Wales (NSW), Australia's most populous state and involved 1696 patients. We used proven implementation strategies consisting of: examination of barriers and enablers, provision of education; reminders and clinical champion support to introduce three nurse-initiated clinical protocols to manage fever, hyperglycaemia and swallowing following acute stroke. Results demonstrated decreased death and dependency by 16% ($p=0.002$); reduced temperatures ($p=0.001$); reduce glucose levels ($p=0.02$); and improved swallowing management ($p<0.001$).¹

A subsequent follow-up study was conducted to determine long-term all-cause mortality. Data were obtained from the National Death Index. Cox proportional hazards regression was conducted. Median time for follow-up was 4.1 years (minimum 0.3- maximum 70 months). Of the 1076 participants, 264 (24.5%) died during study follow-up (intervention $n = 134$ (22.3%); control $n = 130$ (27.3%)). After adjusting for age, sex, marital status, education, stroke severity and correlation within stroke units, patients cared for in intervention stroke units had improved long-term survival (>20%) (adjusted HR:0.77, 95% CI 0.59-0.99, $p=0.045$).²

We then conducted a large-scale, 12-month translational study promoting upscale and spread of this proven intervention into all 36 NSW stroke services. Collaborations with government agencies, academics, clinicians and the Stroke Foundation were formed. We mirrored the QASC trial implementation process. Medical record audits measured protocol adherence using a pre-test/ post-test study design. All 36 NSW (100%) stroke services participated with 2144 patients (pre-implementation: $n=1062$; post-implementation: $n=1082$). Significantly increased proportions of patients received care according to the fever (pre: 69%; post: 78%; $P=0.003$), hyperglycaemia (pre: 23%; post: 34%; $P=0.0085$), and swallowing (pre: 42%; post: 51%; $P=0.033$) protocols post intervention.³

We showcase three inter-related studies that provide evidence for: i) the effectiveness of nurse-initiated care protocols for management of fever, hyperglycaemia, and swallowing dysfunction post-stroke in reducing death and dependency; ii) the potential long-term and sustained benefit of these protocols; iii) state-wide translation of evidence into routine clinical practice on a limited budget, in a short timeframe with applicability beyond acute stroke care. These protocols should be a routine part of acute stroke care internationally and now are being implemented in up to 300 stroke units across Europe as part of a continent-wide translational project.

References

1. Middleton S, McElduff P, Ward J, Grimshaw JM, Dale S, D'Este C, et al. Implementation of evidence-based treatment protocols to manage fever, hyperglycaemia, and swallowing dysfunction in acute stroke (QASC): a cluster randomised controlled trial. *Lancet*. 2011;378 (9804):1699-706.
2. Middleton S, Lydtin A, Comerford D, Cadilhac DA, McElduff P, Dale S, Hill K, Longworth M, Ward J, Cheung NW, D'Este C on behalf of the QASCIP Working Group and Steering Committee. From QASC to QASCIP: successful Australian translational scale-up and spread of a proven intervention in acute stroke using a prospective pre-test/ post-test study design. *BMJ Open* 2016; 6(5):e011568.
3. Middleton S, Coughlan K, Mnatzaganian G, Choy N, Dale S, Jammali-Blasi A, Levi C, Grimshaw J, Ward J, Cadilhac D, McElduff P, Hiller J, D'Este C. Mortality reduction for fever, hyperglycaemia and swallowing nurse-initiated stroke intervention: QASC trial follow-up. *Stroke*. In Press. Accepted 7 February 2017.

Contact

sandy.middleton@acu.edu.au

K 10 - SPECIAL SESSION: Physical Restraint and Falls in Older Hospitalized Adults: Where Do We Go From Here?

Lorraine Mion, PhD, RN, FAAN, USA

Abstract

Since the 1980s, physical restraint practices and hospital falls have been major care issues in hospitalized older adults in the United States and the two have remained inexorably linked. Despite over two decades of research and legal and economic sanctions against hospital falls, fall rates have remained basically unchanged. Similarly, national accrediting organizations and federal regulations have placed restrictions on physical restraint practices. Unlike fall rates that have remained relatively unchanged, rates of physical restraint use have decreased on general adult units but remain a common practice in the intensive care units.

A number of qualitative and quantitative studies have been conducted to examine factors predictive of physical restraint or hospital falls. One major organizational variable has been staffing levels and staffing mix. The National Quality Forum has designated both physical restraint and hospital falls as a nurse-sensitive indicator. However, the number and skill mix of nursing personnel have remained inconclusive for either indicator. Similarly, numerous guidelines exist that purport to reduce fall rates. Yet few clinical trials exist demonstrate the evidence of these 'evidence based' guidelines. The mounting pressure from external forces, such as the Centers for Medicare and Medicaid, as well as internal forces of administration and leadership, have influenced nurses' practices to revert. Evidence is emerging that nurses' fear of reprisals have led to enhancing bedrest and immobility at the very least, and increasing physical restraint use at the very worst.

There are a number of gaps related to fall prevention strategies. For example, patient education and patient reminders are universal strategies for hospital fall prevention. However, few studies have addressed this in the acute hospital setting. There is a dearth of knowledge on the most effective ways to provide education and reminders to patients, and to do so in a cost-effective manner. Similarly, 'leadership support' is also promoted in most fall prevention guidelines. There is a dearth of knowledge on the level of leadership needed, the intensity or frequency of leadership involvement, and what does staff consider as supportive versus repressive. The next generation research is needed to elucidating the best strategies targeted to amenable variables at the levels of the organization, the nursing staff and the patient.

References

- Staggs, V.S., Mion, L.C., Shorr, R.I. (2015). Consistent differences in medical unit fall rates: Implications for research and practice. *J Am Geriatr Soc*, 63(5), 983-7.
- Staggs, V.S., Mion, L.C., Shorr, R.I. (2014). Assisted and unassisted falls: Different events, different outcomes, different implications for quality of hospital care. *Joint Commission Journal on Quality and Patient Safety*, 40(8), 358-364.
- Waters, T.M., Chandler, A.M., Mion, L.C., Daniels, M.J., Kessler, L.A., Miller, S.T., Shorr R.I. (2013). Use of ICD-9-CM codes to identify inpatient fall-related injuries. *J Am Geriatr Soc*, 61(12), 2186-91.
- Mion, L.C., Chandler, A.M., Waters, T., et al. (2012). Is it possible to identify risks for injurious falls in hospitalized patients? *Jt Comm J Qual Patient Saf*, 38(9), 408-413.
- Bouldin, E.D., Andresen, D.M., Dunton, N.E., Simon, M., Waters, T.M., Liu, M., Daniels, M.J., Mion, L.C., Shorr, R.I. (2013). Falls among adult patients hospitalized in the United States: Prevalence and trends. *Journal of Patient Safety*, 9(1), 13-17.
- Shorr, R.I., Chandler, A.M., Mion, L.C., Waters, T.M., Liu, M., Daniels, M.J., Kessler, L.A., Miller, S.T. (2012). Increasing bed alarm use to prevent falls in hospitalized patients: A cluster-randomized trial. *Ann Intern Med*, 157(10), 692-699.
- Sandhu, S.K., Mion, L.C., Khan, R.H., et al. (2010). Likelihood of ordering physical restraints: Influence of physician characteristics. *J Am Geriatr Soc*, 58, 1272-1278.
- Mion, L.C., Sandhu, S.K., Khan RH, et al. (2010). Effect of situational and clinical variables on the likelihood of physicians ordering physical restraints. *J Am Geriatr Soc*, 58, 1279-1288.

Mion, L.C., Fogel, J., Sandhu, S., Palmer, R.M., Minnick, A.F., Cranston, T., Bethoux, F., Merkel, C., Berkman, C., Leipzig, R. (2001). Targeted restraint reduction programs in the acute care hospital: Outcomes of a two-site quality improvement initiative. *The Joint Commission Journal on Quality Improvement*, 27(11), 605-618.

Contact

mion.3@osu.edu

K 11 - SPECIAL SESSION: Self-Management of Insomnia Among Patients With Stable Heart Failure: Evolution of a Research Program

Nancy S. Redeker, PhD, MSN, RN, FAHA, FAAN, USA

Abstract

Chronic heart failure (HF) afflicts as many as 26 million people world-wide and is associated with high levels of morbidity, mortality, poor quality of life, decrements in functional performance, and excessive health care costs. Sleep disturbance is common among people with HF occurs in as many as 75%, and there is increasing evidence that it contributes to important HF outcomes. The purpose of this presentation is to describe the evolution of a program of research focused on improving this problem and developing and testing an efficacious self-management intervention focused on improving sleep disturbance and sleep-related outcomes among this vulnerable population.

We conducted a series of funded studies focused on characterizing the nature of sleep and sleep disturbance among HF patients; understanding correlates and consequences of sleep and sleep disturbance; and designing and testing a self-management intervention for sleep disturbance among patients with stable HF. This ongoing program contribute to significant advances in knowledge regarding this important problem. Following is a summary of key findings:

- 75% of patients with stable HF reported sleep disturbance.
- Actigraphic and self-report indicators of sleep indicated more sleep disturbance among HF patients than a group of matched healthy controls.
- Half of HF patients reported insomnia symptoms that were not explained by sleep disordered breathing, another common and prevalent sleep disorder in these patients.
- Insomnia, but not sleep disordered breathing, was associated with fatigue, daytime sleepiness, depressive symptoms, and both self-reported and objectively measured functional performance (Six Minute Walk Test).
- The association between insomnia and fatigue was higher in younger patients, in contrast to older adults.
- Daytime symptoms, including fatigue, depression, and excessive daytime sleepiness mediated the relationship between insomnia and functional performance.
- Participants in a qualitative study indicated that insomnia was important to them and rarely addressed by health care providers, and they disliked taking hypnotic medications.
- Our pilot randomized clinical trial of a self-management intervention (cognitive behavioral therapy for insomnia - CBTI) was feasible, acceptable, and had large effects on insomnia and fatigue, compared with an attention control condition that included HF self-management education. There were trends that suggested that the patients who received CBTI were less likely to be rehospitalized.
- We are now conducting a randomized clinical trial to evaluate the sustained effects of CBTI on sleep; sleep-related symptoms and symptom clusters; functional performance; and health care resource utilization. We are also exploring the effects of CBTI on event-free survival.

Based on our research to date, it is evident that sleep disturbance, including insomnia symptoms is an important problem for HF patients. Self-management focused on insomnia has high potential to improve significant outcomes, including symptoms, function, and health care resource utilization, for this large and growing group of HF patients.

References

- Redeker, N. S., Knies, A., Hollenbeak, C., Yaggi, H.K., Cline, J., Andrews, L., Jacoby, D., Sullivan, A., O'Connell, M., Iennacco, J., Finioia, L., & Jeon, S. (2017). Cognitive behavioral therapy for insomnia in stable heart failure: Protocol for a Randomized Controlled Trial. *Contemporary Clinical Trials*, 15, 16-23.
- Jeon, S., & Redeker, N. S. (2016). Sleep Disturbance, Daytime Symptoms, and Functional Performance in Patients With Stable Heart Failure: A Mediation Analysis. *Nursing Research*, 65(4), 259-267.
- Conley, S., & Redeker, N. S. (2015). Cognitive behavioral therapy for insomnia in the context of cardiovascular conditions. *Current Sleep Medicine Reports*, 1 (3), 157-165.

Redeker, N. S., Sangchoon, J., Andrews, L., Cline, J., Jacoby, D., & Mohsenin, V. (2015). Feasibility, acceptability and preliminary efficacy of a self-management intervention for stable heart failure. *Journal of Clinical Sleep Medicine*, 11, 1109-1119.

Andrews, L. K., Coviello, J., Hurley, E., Rose, L., & Redeker, N. S. (2013). "I'd eat a bucket of nails if I thought it would help me sleep;" Perceptions of patients with heart failure about insomnia. *Heart & Lung*, 42, 339-345.

Redeker, N. S., Adams, L., Blank, L., Freudenberger, R., Gilbert, M., Walsleben, J., Zucker, M. J., & Rapoport, D. M. (2012). Nocturia, sleep and daytime function in stable heart failure. *Journal of Cardiac Failure*, 18, 569-575.

Redeker, N. S., Jeon, S., Muench, U., Campbell, D., Walsleben, J., & Rapoport, D. M. (2010). Insomnia symptoms and daytime function in stable heart failure. *Sleep*, 33, 1210-1216.

Contact

nancy.redeker@yale.edu

K 12 - SPECIAL SESSION: Research Passages in Cancer Symptom Management and Lymphedema

Sheila Hedden Ridner, PhD, RN, FAAN, USA

Abstract

Dr. Ridner began her research career in 2006. She quickly became recognized internationally as nurse scientist because of her expertise in cancer symptom management, and more specifically, her research related to lymphedema. Dr. Ridner's research has included clinical descriptive studies that established the first known lymphedema symptom cluster and identified social marginalization of patients with lymphedema as a significant problem. Her longitudinal descriptive study of patients with head and neck cancer found a high rate of lymphedema in survivors of head and neck cancer (about 90%), bringing this previously unknown problem to the forefront. She has been a team member on two studies that addressed economic issues related to lymphedema that established: 1) increased cost to patients and the healthcare system when breast cancer patients develop lymphedema subsequent to their cancer treatment; and, 2) the health and economic benefit of using pneumatic compression pumps as a component of lymphedema self-care.

Dr. Ridner has been actively involved in the development of both self-report and physiological patient assessment tools for use in the cancer and lymphedema populations. With a team of Vanderbilt scientists, Dr. Ridner assisted in the development and testing of the Vanderbilt Head and Neck Symptom Survey (VHNSS) Versions 1 and 2, and in the initial testing of a self-report symptom assessment tool for patients with recurrent cancer of the head and neck. The VHNSS is the most used symptom assessment tool for patients with head and neck cancer in the USA. She is leading the development and testing of a battery of self-report symptom assessment tools for patients with lymphedema. The Lymphedema Symptom Intensity and Distress Survey-Arm has been published and leg, truncal, and head and neck tools are in final testing. The LSIDS-A has been translated to Turkish and is being used in international clinical and research settings in both English speaking (Australia) and non-English speaking (Turkey) countries. Her physiological measurement studies served as some of the foundational work that lead to the development of recommendations for lymphedema measurement standards for Accredited Breast Centers in the United States. Another of her studies established that breast cancer survivors with lymphedema can and will use bioelectrical impedance to self-monitor their arm swelling and that such use improves self-care. In Sept. 2016 Dr. Ridner's team successfully conducted the first human factors study for a new lymphedema self-measurement bioelectrical impedance device.

Interventional studies have also been a focus of Dr. Ridner's program of research.

One study demonstrated the effectiveness of advanced pneumatic compression devices on arm and truncal swelling; another demonstrated the effectiveness of low-level lasers on arm swelling and skin condition in breast cancer survivors with lymphedema. A third found that tailored Yoga improved the symptom burden of head and neck cancer survivors, while a fourth study found that a web-based multi-media intervention improved mood in breast cancer survivors with chronic lymphedema.

Currently, Dr. Ridner is the PI for a large, international, multi-site lymphedema prevention study. The study will enroll over 1,000 patients world-wide, approximately 800 have been enrolled to-date.

Dr. Ridner's work has been impactful. One area of major impact to science has been in developing assessment and measurement tools that filled gaps for both patient self-report instruments and physiological monitoring of lymphedema. This improves the quality of patient assessment in clinical environments and adds value to the clinical service provided. A second area of impact has been in conducting and disseminating information from studies regarding the psychosocial and physical impact of cancer related lymphedema on patients. These studies provided information regarding previously unidentified and poorly understood symptoms experienced by patients with cancer and cancer survivors. Dr. Ridner has been sought out by industry to assist in the development and testing of medical devices that will affect not only cancer patients and those with lymphedema, but also obese patients and those

with congestive heart failure. This demonstrates that nurses can assume leadership in non-traditional research environments.

Dr. Ridner's program of research will leave a lasting legacy for nursing science, as she has mentored multiple new nurse scientists to successful independent careers and is currently an active mentor to multiple other future nurse scientists.

References

- Ridner, S. H. (Nov 2005). Quality of life and a symptom cluster associated with breast cancer treatment-related lymphedema. *Supportive Care in Cancer*, 13(11), 904-911. doi: 10.1007/s00520-005-0810-y. PMID: 15812652
- Murphy, B. A., Gilbert, J., Cmelak, A., & Ridner, S. H. (Oct 2007). Symptom control issues and supportive care of patients with head and neck cancers. *Clinical Advances in Hematology and Oncology*, 5(10), 807-822. PMID: 179988
- Ridner, S. H., McMahon, E., Dietrich, M. S., Hoy, S. (Jul 2008). Home-based lymphedema treatment in patients with cancer-related lymphedema or noncancer-related lymphedema. *Oncology Nursing Forum*, 35(4), 671-680. doi: 10.1188/08.ONF.671-680. PMID: 18591171
- Ridner, S. H., Dietrich, M. S., Deng, J., Bonner, C. M., & Kidd, N. (2009). Bioelectrical impedance for detecting upper limb lymphedema in nonlaboratory settings. *Lymphatic Research and Biology*, 7(1), 11-15. doi: 10.1089/lrb.2008.1003. PMID: 19231915, PMCID: PMC2678847.
- Shih, Y. C., Xu, Y., Cormier, J. N., Giordano, S., Ridner, S. H., Buchholz, T. A., Perkins, G. H., & Elting, L. S. (Apr 2009). Incidence, treatment costs, and complications of lymphedema after breast cancer among women of working age: A two-year follow-up study. *Journal of Clinical Oncology*, 27(12), 2007-2014. doi: 10.1200/JCO.2008.18.3517. PMID: 19289624
- Murphy, B. A., Dietrich, M. S., Wells, N., Dwyer, K., Ridner, S. H., Silver, H. J., Gilbert, J., Chung, C. H., Cmelak, A., Burkey, B., Yarborough, W. G., Sinard, R., & Netterville, J. (Jan 2010). Reliability and validity for the Vanderbilt Head and Neck Symptom Survey (VHNSS): A new tool to assess symptom burden in patients undergoing chemoradiation. *Head and Neck*, 32(1), 26-37. doi: 10.1002/hed.21143. PMID: 19626644
- Ridner, S. H., Murphy, B., Deng, J., Kidd, N., Galford, E., & Dietrich, M. S. (Dec 2010). Advanced pneumatic therapy in self-care of chronic lymphedema of the trunk. *Lymphatic Research and Biology*, 8(4), 209-215. doi: 10.1089/lrb.2010.0010. PMID: 21190493, PMCID: PMC3008167.
- Deng, J., Ridner, S. H., & Murphy, B. A. (Jan 2011). Lymphedema in patients with head and neck cancer. *Oncology Nursing Forum*, 38(1), E1-E10. doi: 10.1188/11.ONF.E1-E10. PMID: 2118
- Ridner, S. H., Bonner, C. M., Deng, J., & Sinclair, V. G. (Jan-Feb 2012). Voices from the Shadows: Living with lymphedema. *Cancer Nursing*, 35(18), E18-26. doi: 10.1097/NCC.0b013e31821404c0. PMID: 21558848, PMCID: PMC3172392.
- Ridner, S. H., Murphy, B., Deng, J., Kidd, N., Galford, E., Bonner, C., Bond, S. M., Dietrich, M. S. (Jan 2012). A randomized clinical trial comparing advanced pneumatic truncal, chest, and arm treatment to arm treatment only in self-care of arm lymphedema. *Breast Cancer Research and Treatment*, 131(1), 147-58. doi: 10.1007/s10549-011-1795-5. PMID: 21960113
- Cooperstein, E., Gilbert, J., Epstein, J. B., Dietrich, M. S., Bond, S. M., Ridner, S. H., Wells, N., Cmelak, A., & Murphy, B. A. (Jun 2012). Vanderbilt Head and Neck Symptom Survey Version 2.0: Report of the development and initial testing of a subscale for assessment of oral health. *Head and Neck*, 34(6), 797-804. doi: 10.1002/hed.21816. PMID: 22127786
- Deng, J., Ridner, S.H., Murphy, B.A. & Dietrich, M.S., (Aug 2012). Preliminary development of a lymphedema symptom assessment scale for patients with head and neck cancer. *Supportive Care in Cancer*, 20(8), pp.1911-1918. doi: 10.1007/s00520-011-1294-6. PMID: 22072048
- Ridner, S.H., Deng, J., Fu, M.R., Radina, E., Thiadens, S.R., Weiss, J., Dietrich, M.S., Cormier, J.N., Tuppo, C.M. & Armer, J.M. (Sep 2012). Symptom burden and infection occurrence among individuals with extremity lymphedema. *Lymphology*, 45(3), 113-23. PMID: 23342931
- Deng, J., Ridner, S. H., Dietrich, M. S., Wells, N., Wallston, K. A., Sinard, R. J., Cmelak, A. J., & Murphy, B. A. (Nov 2012). Factors associated with external and internal lymphedema in patients with head and neck cancer. *International Journal of Radiation Oncology, Biology, Physics*, 84(3), e319-28. doi: 10.1016/j.ijrobp.2012.04.013. PMID: 22652102
- Ridner, S. H., Sinclair, V., Deng, J., Bonner, C., Kidd, N., Dietrich, M.S. (Dec 2012). Breast cancer survivors with lymphedema: Glimpses of our daily lives. *Clinical Journal of Oncology Nursing*, 16(6), 609-614. doi: 10.1188/12.CJON.609-614. PMID: 2317835
- Deng, J., Murphy, B. A., Dietrich, M. S., Wells, N., Wallston, K. A., Sinard, R. J., Cmelak, A. J., Gilbert, J., Ridner, S. H. (Jul 2013). Impact of secondary lymphedema after head and neck cancer treatment on symptoms, functional status, and quality of life. *Head and Neck*, 35(7), 1026-35. doi: 10.1002/hed.23084. PMID: 22791550, PMCID: PMC4017911
- Ridner, S. H., Poage-Hooper, E., Kanar, C., Doersam, J. K., Bond, S. M. & Dietrich, M.S. (Jul 2013). A pilot randomized trial evaluating low-level laser therapy as an alternative treatment to manual lymphatic drainage for

breast cancer-related lymphedema. *Oncology Nursing Forum*, 40(4), 383-93. doi: 10.1188/13.ONF.383-393. PMID: 23803270, PMCID: PMC3887507

Rhoten, B. A., Murphy, B., & Ridner, S. H. (Aug 2013). Body image in patients with head and neck cancer: A review of the literature. *Oral Oncology*, 49(8), 753-60. doi: 10.1016/j.oraloncology.2013.04.005. PMID: 23683468

Rane, S., Donahue, P. M., Towse, T., Ridner, S. H., Chapell, M., Jordi, J. Gore, J. C., & Donahue, M. J. (Dec 2013) Clinical feasibility of noninvasive visualization of lymphatic flow with principles of spin labeling MR imaging: Implications for lymphedema assessment. *Radiology*, 269(3), 893-902. doi: 10.1148/radiol.13120145. PMID: 23864103, PMCID: PMC4485559

Deng, J., Fu, M. R., Armer, J. M., Cormier, J., Radina, E., Thiadens, S., Dietrich, M., Weiss, J., Tuppo, C., & Ridner, S. H. (Dec 2013). Self-reported information sources and knowledge in individuals with lymphedema. *Lymphology*, 46(4), 173-83. PMID: 25141460

Deng J., Ridner, S. H., Dietrich, M. S., Wells, N., & Murphy, B. A. (Sep 2013). Assessment of external lymphedema in patients with head and neck cancer: a comparison of four scales. *Oncology Nursing Forum*, 40(5), 501-6. doi: 10.1188/13.ONF.501-506. PMID: 23989023

Shah, C., Vicini, F., Beitsch, P., Laidley, A., Anglin, B., Ridner, S. H. Lyden, M. (Dec 2013). The use of bioimpedance spectroscopy to monitor therapeutic intervention in patients treated for breast cancer related lymphedema. *Lymphology*, 46(4), 184-92. PMID: 251414

Ridner, S. H., Bonner, C. M., Doersam, J. K., Rhoten, B. A., Schultze, B., & Dietrich, M. S. (Mar 2014). Bioelectrical impedance self-measurement protocol development and daily variation between healthy volunteers and breast cancer survivors with lymphedema. *Lymphatic Research and Biology*, 12(1), 2-9. doi: 10.1089/lrb.2013.0020. PMID: 24502422, PMCID: PMC3961792

Deng, J., Fu, M., Armer, J., Cormier, J., Radina, E., Thiadens, S., Dietrich, M., Weiss, J., Tuppo, C., & Ridner, S.H. (Sep-Oct 2015). Factors associated with reported infection and lymphedema symptoms among individuals with extremity lymphedema. *Rehabilitation Nursing*, 40(5):310-9. doi: 10.1002/rnj.171. PMID: 25042377

Rhoten B. A., Deng J., Dietrich M. S., Murphy B., Ridner S. H. (Nov 2014). Body image and depressive symptoms in patients with head and neck cancer: An important relationship. *Supportive Care in Cancer*, 22(11), 3053-60. doi: 10.1007/s00520-014-2312-2. PMID: 24925049, PMCID: PMC4184937.

Ridner, S. H., Shih, Y. C., Doersam, J. K., Rhoten, B. A., Schultze, B. S., Dietrich, M. S. (Dec 2014) A randomized pilot trial evaluating lymphedema self-measurement with bioelectrical impedance, self-care adherence, and health outcomes. *Lymphatic Research and Biology*, 12(4), 258-66. doi: 10.1089/lrb.2014.0017. PMID: 25412401, PMCID: PMC4267706.

Deng, J., Ridner, S. H., Wells, N., Dietrich, M., Murphy, B.A., (Feb. 2015). Development and preliminary testing of head and neck cancer related external lymphedema and fibrosis assessment criteria. *European Journal of Oncology Nursing*, 19(1), 75-80. doi: 10.1016/j.ejon.2014.07.006. PMID: 25190635.

Deng, J., Radina, E., Fu, M. R., Armer, J. M., Cormier, J. N., Thiadens, S. R., Weiss, J., Tuppo, C. M., Dietrich, M. S., & Ridner, S. H. (Mar 2015). Self-care status, symptom burden, and reported infections in individuals with lower-extremity primary lymphedema. *Journal of Nursing Scholarship*, 47(2), 126-34. doi: 10.1111/jnu.12117. PMID: 25475008.

Jackson, L. K., Deng, J., Ridner, S. H., & Murphy, B. A. (May 2016). Preliminary testing of a patient-reported health outcome measure for recurrent or metastatic head and neck cancer. *American Journal of Hospice and Palliative Medicine*. 33(4), 313-20. doi: 10.1177/1049909115569591. PMID: 25667146.

Deng, J., Ridner S. H., Aulino, J. M., & Murphy, B. A. (May 2015). Assessment and measurement of head and neck lymphedema: State-of-the-science and future directions. *Oral Oncology*, 51(5), 431-7. doi: 10.1016/j.oraloncology.2015.01.005. PMID: 25703799.

Ridner, S. H. & Dietrich, M.S. (Oct 2015). Development and validation of the lymphedema symptom and intensity survey-arm. *Supportive Care Cancer*, 23(10), 3103-12. doi: 10.1007/s00520-015-2684-y. PMID: 25752884, PMCID: PMC4554806.

Karaca-Mandic, P., Hirsch, A.T., Rockson, S. G., & Ridner, S. H. (Nov 2015). The cutaneous, net clinical, and health economic benefits of advanced pneumatic compression devices in patients with lymphedema. *JAMA Dermatology*. 151(11), 1187-93. doi: 10.1001/jamadermatol.2015.1895. PMID: 26444458.

Deng J, Murphy B.A., Dietrich, M.S., Sinard R.J., Mannion, K. & Ridner, S. H. (Mar 2016). Differences of symptoms in head and neck cancer patients with and without lymphedema. *Supportive Care Cancer*. 24(3), 1305-16. doi: 10.1007/s00520-015-2893-4. PMID: 26314703.

Shah, C., Arthur, D.W., Wazer, D., Khan, A., Ridner, S., & Vicini, F. (June 2016). The impact of early detection and intervention of breast cancer-related lymphedema: a systematic review. *Cancer Medicine*. 5(6), 1154-1162. doi: 10.1002/cam4.691. PMID: 26993371.

Stolldorf, D. P. Dietrich, M. S., & Ridner, S. H. (June 2016) Symptom frequency, intensity, and distress in patients with lower limb lymphedema. *Lymphatic Research and Biology*. 14(2), 78-87. PMID: 26824629.

Ridner, S. H., Rhoten, B. A., Radina, M. E., Adair, M., Bush-Foster, S. & Sinclair, V. (2016). Breast cancer survivors' perspectives of critical lymphedema self-care support needs. *Supportive Care in Cancer*. 24(6):2743-275

Rhoten, B. A., Radina, M. E., Adair, M., Sinclair, V., & Ridner, S. H. (Feb 2015) Hide and Seek: Body image-related issues for breast cancer survivors with lymphedema. *Journal of Women's Health Issues and Care*, Vol. 4, Is. 2. doi: 10.4172/2325-9795.1000180.

Sohl, S.J., Birdee, G.S., Ridner, S.H., Wheeler, A., Gilbert, S., Tarantola, D., Berlin, J. & Rothman, R.L., (Jan 2016). Intervention Protocol for Investigating Yoga Implemented During Chemotherapy. *International Journal of Yoga Therapy*, 26(1), pp.103-111. PMID: 27797662

Stolldorf, D.P., Dietrich M.S., Ridner, S. H. (May 2016) A Comparison of the Quality of Life in Patients with Primary and Secondary Lower Limb Lymphedema: A Mixed-Method Study. *West Journal Nursing Research*, 2016 May 5. Pii: 0193945916647961.[Epub ahead of print] PMID: 27151079.

Deng, J., Dietrich, M.S., Ridner, S.H., Fleischer, A.C., Wells, N., & Murphy, B.A. (June 2016) Preliminary evaluation of reliability and validity of head and neck external lymphedema and fibrosis assessment criteria. *European Journal of Oncology Nursing*. 2016; 22:63-70. doi: 10.1016/j.ejon.2016.02.001 PMID: 27179894.

Jackson, L.K., Ridner, S.H., Deng, J., Bartow, C., Mannion, K., Niermann, K., Gilbert, J., Dietrich, M.S., Cmelak, A.J. & Murphy, B. A. (May 2016). Internal Lymphedema Correlates with Subjective and Objective Measures of Dysphagia in Head and Neck Cancer Patients. *Journal of Palliative Medicine*, doi:10.1089/jpm.2016.0018. PMID: 27227341.

Ridner, S.H., Dietrich, M.S., Niermann, K., Cmelak, A., Mannion, K., & Murphy, B. (Epub June 2016). A Prospective Study of the Lymphedema and Fibrosis Continuum in Patients with Head and Neck Cancer. *Lymphatic Research and Biology*. doi:10.1089/lrb.2016.0001, PMID: 27305456.

Deng, J., Ridner, S., Rothman, B., Murphy, B., Sherman, K., Moore, L., Hall, K., & Weiner, B. (Epub Nov 2016) Perceived symptom experience in head and neck cancer patients with lymphedema. *Journal of Palliative Medicine*. doi:10.1089/jpm.2016.0174.

Donahue, P.M., Crescenzi, R., Scott, A.O., Braxton, V., Desai, A., Smith, S.A., Jordi, J., Meszoely, I.M., Grau, A.M., Kauffmann, R.M., Sweeting, R.S., Spotanski, K., Ridner, S.H., Donahue, M.J. (March 2017). Bilateral Changes in Deep Tissue Environment After manual Lymphatic Drainage in Patients with Breast Cancer Treatment-Related Lymphedema. *Lymphatic Research and Biology*. 2017; 15(1):45-56 doi: 10.1089/lrb.2016.0020. PMID: 28323572

Contact

sheila.ridner@vanderbilt.edu

K 13 - SPECIAL SESSION: Improving Health and Wellness for Persons With Chronic and Disabling Conditions: Evidence for Practice

Alexa Stuijbergen, PhD, RN, FAAN, USA

Abstract

Purpose: One of the most significant and intriguing questions for both researchers and clinicians interested in developing interventions to prevent disability and promote quality of life among persons with chronic conditions is: What factors (other than biological impairment and disease process) influence the development of functional limitations and explain the progression of functional limitations to disability? For more than 25 years we have explored this question with persons experiencing a variety of chronic disabling conditions through descriptive and intervention research using both qualitative and quantitative methods. The extensive data underlying this program of research comes from persons with a variety of disabilities and diagnoses including those with multiple sclerosis (MS), post-polio syndrome, fibromyalgia, diabetes, mobility impairments, HIV and cancer survivors.

Methods: Initially we explored whether persons with chronic and disabling conditions considered the philosophical perspective of health promotion as relevant to their lives. Descriptive and longitudinal data were used to design and test wellness interventions with persons with a variety of chronic disabling conditions.

Results: Our early work revealed that these individuals had strong interest in this perspective and that they were challenged by a lack of information about how to practice health promotion within the context of their specific condition. The majority of participants viewed their health as good or excellent despite the fact that they were living with an often serious and limiting chronic condition or disability (Stuijbergen, Becker, Inglasbe & Sands, 1990). Participants had strong interest in improving the skills and knowledge needed to improve health behaviors and address barriers. They identified the positive impact of health behaviors as enhancing their overall well-being, managing difficult symptoms (e.g. fatigue, weakness), and enhancing the social connectedness in their lives (Stuijbergen & Rogers, 1997). A large descriptive study with more than 800 persons with MS as exemplars of those with chronic conditions was used to develop and test a model of health promotion and quality of life for persons with chronic disabling conditions. Findings indicated that health promoting behaviors mediated the impact of functional limitations on quality of life (Stuijbergen, Seraphine & Roberts, 2000). The model was subsequently cross-validated in a sample of 1,600 persons with post-polio syndrome (Stuijbergen, Seraphine, Harrison, & Adachi, 2005).

The initial large descriptive study with persons with MS continued as a longitudinal study, *"Health Promotion and Quality of Life in Chronic Illness"* and is now in its 21st year of data collection. The data from this study allow detailed exploration of how selected self-directed psychosocial and behavioral factors may influence the trajectory of functional limitations, disability, and quality of life in persons with MS. Most recently we have documented that the practice of health behaviors – specifically exercise – over an eleven-year period improves the trajectory of functional limitations for those with MS (Stuijbergen, Blozis, Becker, Harrison & Kullberg, 2016).

Building on the findings from descriptive and longitudinal research, our team developed a theoretically and empirically-based lifestyle intervention for women with MS (Stuijbergen, Becker, Rogers, Timmerman & Kullberg, 1999). In a randomized-controlled trial, the women in the intervention group had significant improvements in self-efficacy for health behaviors, the frequency of health behaviors and mental health and pain scores compared to those in the control group (Stuijbergen, Becker, Blozis, Timmerman & Kullberg, 2003). Next, the team developed a process for adapting interventions for persons with other chronic conditions (Stuijbergen, Harrison, Becker & Carter, 2004) and the lifestyle based intervention was subsequently adapted and tested for persons with fibromyalgia syndrome, cancer survivors, women with HIV, men with MS, and cancer survivors with functional limitations (Becker, Henneghan, Volker & Mikan, 2017; Meraviglia, Stuijbergen, Parsons, & Morgan, 2013; Stuijbergen et al, 2010).

Conclusion: Low cost health promotion interventions may hold substantial promise as a complementary strategy for decreasing the burden of functional limitations among persons with chronic disabling conditions. Persons with chronic conditions generally have positive perceptions of their health and a strong interest in health promotion activities. An emerging body of evidence supports the positive impact of health promotion/wellness interventions on quality of life outcomes for persons with chronic disabling conditions (Stuifbergen, Morris, Jung, Pierini, & Morgan, 2010).

References

- Becker H, Henneghan AM, Volker DL, Mikan SQ. (2017). A Pilot study of a cognitive behavioral intervention for breast cancer survivors. *Oncology Nursing Forum*, 44(2): 255-264.
- Meraviglia M, Stuifbergen A, Parsons D, & Morgan S. (2013). Health promotion for cancer survivors: Adaptation and implementation of an intervention. *Holistic Nursing Practice* May-Jun;27(3):140-7.
- Stuifbergen A, Becker H, Blozis, S, Timmerman G, & Kullberg V. (2003). A randomized clinical trial of a wellness intervention for women with multiple sclerosis. *Archives of Physical Medicine and Rehabilitation*, 84, 467-476.
- Stuifbergen A, Becker H, Ingalsbe K & Sands D. (1990). Perceptions of health among adults with disabilities. *Health Values*, 14(2), 18-26.
- Stuifbergen A, Becker H, Rogers S, Timmerman G & Kullberg V. (1999). Promoting wellness for women with multiple sclerosis. *Journal of Neuroscience Nursing*, 31(2), 73-79.
- Stuifbergen, A, Blozis, S, Becker, H, Harrison, T & Kullberg, V. (2016) Selected health behaviors moderate the progression of functional limitations in persons with multiple sclerosis: Eleven years of annual follow-up. *Disability and Health*, 9(3): 472-8.
- Stuifbergen AK, Blozis S, Becker H, Phillips L, Timmerman G, Kullberg V, Taxis C & Morrison J. (2010). A randomized controlled trial of a wellness intervention for women with fibromyalgia syndrome. *Clinical Rehabilitation*, 24(4) 305-318.
- Stuifbergen A, Harrison T, Becker H & Carter P. (2004). Adaptation of a wellness intervention for women with chronic disabling conditions. *Journal of Holistic Nursing*. 22 (1), 12-31.
- Stuifbergen, A., Morris, M, Jung, J, Pierini, D, & Morgan, S. (2010). Benefits of wellness interventions for persons with chronic and disabling conditions: A review of the evidence. *Disability and Health Journal*, 3(3), 133-145.
- Stuifbergen, A & Rogers, S. (1997). Health promotion: An essential component of rehabilitation for persons with chronic disabling conditions. *Advances in Nursing Science*, 19(4), 1-20.
- Stuifbergen, A, Seraphine, A, Harrison, T, & Adachi, E. (2005) An explanatory model of health promotion and quality of life for persons with post-polio syndrome. *Social Science & Medicine* 60, 383-393.
- Stuifbergen, A, Seraphine, A & Roberts, G. (2000). An explanatory model of health promoting behavior and quality of life for persons with chronic disabling conditions. *Nursing Research*, 49(3), 122-129.

Contact

astuifbergen@mail.utexas.edu

K 14 - SPECIAL SESSION: The Evolving World of Qualitative Methodology as a Tool for Nursing Knowledge Development

Sally Thorne, PhD, RN, FAAN, FCAHS, Canada

Abstract

Since the early 1980s, when nurses began to take up the qualitative research methods of the social sciences as a way of engaging with certain forms of knowledge relevant to their practice knowledge development, there has been considerable tension between those who advocate conventional as opposed to the more applied forms of qualitative inquiry (Thorne, 2014b). Over time, the qualitative methodology conversation has become increasingly intertwined with the more philosophical debates within nursing thought, including the relationship between knowledge of the general and that which pertains to the particular, the standardizing forces of an evidence-based care agenda, the nature of nursing's distinctive epistemological position on matters of health and health care, and the moral implications of a social justice mandate (Thorne, 2014a, 2016b; Thorne & Sawatzky, 2014). Nurses have long wrestled with how to appease the extant methodological rules structures while simultaneously producing knowledge forms that have demonstrable relevance for the work of the discipline. And over recent decades, the communities of scholars oriented toward formal theorizing (such as conventional social science) and application (including nursing and the applied practice disciplines) are becoming increasingly differentiated (Thorne, 2016a).

It is exhilarating to stand witness to an era in which we are reaping the benefits of nursing's longstanding passion for philosophizing about the discipline as it is now being played out in the arena of applied qualitative methods development. Increasingly, we have access to new qualitative research design options that offer the "look and feel" of a legitimate nursing inquiry process rather than merely conforming to a set of rules and conventions developed for the purposes of other disciplinary knowledge projects. These newer applied approaches allow us to integrate our disciplinary intelligence and insight into the kinds of research questions we generate, guide us to determine study samples and data construction approaches that reflect the nature and diversity of the phenomena we wish to study, allow for critical, cross comparative, and deep interpretive analysis at a level reflective of a solid grounding in the body of knowledge available to the discipline, and steer us toward articulating findings of a nature that can "speak" to the intended audience with disciplinary relevance and epistemological authority (Thorne, Stephens & Truant, 2016). In keeping with the nursing discipline's deep commitment to knowledge that is "of use" to the profession, knowledge translation is therefore integrated into study design from the outset, such that the user community becomes an inherent stakeholder in the interpretive engagement of ideas throughout the entire process.

Qualitative research designed to align with the logic of the nursing discipline lends itself to a wide range of study forms, from the largescale formal inquiries that can enter such dimensions as patient perspective and human subjectivity into the evidence dialogue within a field to the smaller practice based kinds of studies in which teams of nurses build sensitivity, understanding and insight around the complexities of the clinical phenomena they encounter. As we continue to build our disciplinary sophistication around how we can know good qualitative research when we see it, and gain confidence in designing the kinds of qualitative studies that will be best suited to answering the questions our profession most urgently needs to ask, we are increasingly well positioned to play a leadership role in the evolving evidence-based practice discourse, thereby ensuring that patient voices and the capacity to individualize care remain -- long into the future -- a hallmark of what our nursing profession stands for.

References

- Thorne, S. (2014a). Nursing as social justice: A case for the emancipatory thrust of conventional theorizing. In Kagan, P., Smith, M., & Chinn, P.L. (Eds.), *Philosophies and practices of emancipatory nursing: Social justice as praxis* (pp. 79-90). New York: Routledge
- Thorne, S. E. (2014b). Applied interpretive approaches. In P. Leavy (Ed.), *The Oxford handbook of qualitative research* (pp. 99-115). New York: Oxford University Press.
- Thorne, S., & Sawatzky R. (2014). Particularizing the general: Sustaining theoretical integrity in the context of an evidence-based practice agenda. *Advances in Nursing Science*, 27(1), 5-18.

Thorne, S. (2016a). *Interpretive description: Qualitative research for applied practice* (2nd edn.). New York: Routledge.

Thorne, S. (2016b). The status and use value of qualitative research findings: New ways to make sense of qualitative work. In Lipscomb, M. (Ed.), *Exploring evidence-based practice: Debates and challenges in nursing* (pp. 151-164). London & New York: Routledge.

Thorne, S., Stephens, J. & Truant, T. (2016). Building qualitative study design using nursing's disciplinary epistemology. *Journal of Advanced Nursing*, 72(2), 451-460.

Contact

sally.thorne@nursing.ubc.ca

K 15 - SPECIAL SESSION: The Postpartum Transition: A Critical Life Course Juncture for Women's Behavioral and Psychosocial Health

Lorraine O. Walker, EdD, MPH, RN, USA

Abstract

The session describes a program of research related to psychosocial and behavioral health among women during the year after giving birth. In summary, the postpartum period is often seen as a brief stage of transient importance in the life course. This session will present a re-vision of the postpartum period as one of consequence for both maternal and infant health and well-being. Often care after childbirth involves a brief hospitalization and then, in the United States, it may involve no more than one or two health care visits up to 6 weeks postpartum. Development of the maternal role and breastfeeding are central concerns during this period in order to promote the health and development of the infant. The shift of the health care focus from the mother during pregnancy to the infant after birth often overshadows domains of maternal health that are of importance to immediate and long term health of women. Many of these areas also have implications for infant growth, development, and health. Of these domains, postpartum depressive mood has recently been given widespread attention, with some recent recommendations supporting universal screening of new mothers as well as pregnant women, for depression. However, other areas of psychosocial and behavioral health that have been well documented in studies of postpartum women include: body image dissatisfaction, shifts to less healthy diet after pregnancy, sedentary lifestyle, smoking relapse, and immoderate alcohol use. Despite these potential adverse changes after pregnancy, multiple studies indicate that only about 1 in 2 women report depression was discussed in any of their postpartum healthcare; 1 in 3 indicate physical activity or alcohol use discussed; and only 1 in 4 report smoking or diet discussed. Depression, or high depressive symptoms that do not rise to the level for a diagnosis of depression, may have an impact on maternal quality of life and their care of infants, and consequently an impact on the development of infants and young children. Body image dissatisfaction is of import not only for maternal well-being, but also because it is associated with increased postpartum smoking and depression among mothers. Unhealthy behaviors related to tobacco and alcohol use, as well as diet and physical activity, have been shown to provide an unhealthy context for infant health and development and, of course, also immediate and long-term maternal health. For example, smoking, high alcohol use, unhealthy diet and sedentary lifestyle are each related to development of chronic diseases, such as ischemic heart disease as well as certain cancers. Examples of strategies to increase attention to maternal psychosocial and behavioral health will be presented. Nurses are in an ideal position to foster such strategies because of their expertise in health education, community resources for health, and health communication.

References

- Walker, L. O., Im, E.-O., & Vaughan, M. W. (2012). Communication technologies and maternal interest in health promotion information about postpartum weight and parenting practices. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 41, 201-215.
- Walker, L. O., Im, E.-O., & Vaughan, M. W. (2012). New mothers' interest in web-based health promotion: Association with health care barriers, risk status, and user characteristics. *Telemedicine and e-Health*, 18,(10), 785-790.
- Walker, L. O., Im, E.-O., & Tyler, D. (2013). Maternal health needs and interest in screening for depression and health behaviors during pediatric visits. *Journal of Pediatric Health Care*, 27(4), 267-277.
- Walker, L. O., Sterling, B. S., Guy, S. & Mahometa, M. J. (2013). Cumulative poor psychosocial and behavioral health among low-income women at 6 weeks postpartum. *Nursing Research*, 62 (4), 233-242.
- Walker, L. O., Xie, B., Hendrickson, S. G., & Sterling, B. S. (2016). Behavioral and psychosocial health of new mothers and associations with contextual factors and perceived health. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 45(1), 3-16.
- Walker, L. O., Murphey, C. L., & Xie, B. (2016). Missed opportunities for postpartum behavioral and psychosocial healthcare and acceptability of screening options. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 45, 614-624.

Contact

lwalker@mail.nur.utexas.edu

K 16 - SPECIAL SESSION: Feeding and Dementia: Bridging the Gap

Roger Watson, PhD, BSc, RN, FRCN, FEANS, FFMRCSE, FAAN, United Kingdom

Abstract

In the commonest forms of dementia, especially Alzheimer's disease, there is a decline across the whole spectrum of activities of daily living and this includes the ability to self-feed. Patients inevitably lose weight, with the sequelae that involves and relatives and carers find the situation very distressing. Assistance is required by caring staff but there is little research to guide practice and to indicate what best practice is in this area. In addition, the area is fraught with ethical and legal issues. The missing link between the problem and interventions is assessment and the Edinburgh Feeding Evaluation in Dementia (EdFED) scale remains the only validated instrument internationally (Alzheimer's Disease International 2014).

The EdFED was developed by the author following clinical practice where the number of older people with dementia was rising and the problems associated with helping older people with dementia to feed were a major aspect of nurses' work. The scale was developed based on the best literature available in the early 1990s and the pattern of feeding difficulty was demonstrated to be cumulative using Guttman scaling. Later, a form of item response theory: Mokken scaling, was applied and the cumulative pattern was demonstrated again (Watson 1996) and - with only minor changes in item order - has been shown to be replicable across several studies.

The psychometric properties of the EdFED scale have been shown to be robust and its use has extended from assessment to measurement of change in the first rigorously conducted randomised controlled trials into an intervention aimed at alleviating feeding difficulty in older people with dementia. These interventions are based on Montessori and Spaced Retrieval techniques (Lin et al 2010) and rely on the fact that procedural memory remains intact in dementia. The interventions are successful at alleviating feeding difficulty in dementia in mild to moderate dementia as shown by a declining score on the EdFED scale. Other aspects of feeding difficulty in dementia such as nutritional status, however, have not been demonstrated to improve within the timescale of these trials. Work is currently underway to develop a short intervention based on Spaced Retrieval techniques.

References

Alzheimer's Disease International. (2014). *Nutrition and Dementia: a review of available research* London:

Alzheimer's Disease International.

Lin, L-C., Huang, Y-J., Su S-G., Watson, R., Tsai, BW-J., Wu, S-C.. (2010). Using spaced retrieval and Montessori-based activities in improving eating ability for residents with dementia. *International Journal of Geriatric Psychiatry*, 25, 953-959.

Watson, R.. (1996). Mokken scaling procedure (MSP) applied to feeding difficulty in elderly people with dementia. *International Journal of Nursing Studies*, 33, 385-393.

Contact

r.watson@hull.ac.uk

K 17 - SPECIAL SESSION: Can't Sleep at Night, Can't Function During the Day: Effect of Sleepiness on Daily Behaviors

Terri E. Weaver, PhD, RN, FAAN, USA

Abstract

Over 70 million individuals suffer from sleep problems. This session will share a program of research that explored the impact of these problems, centered on excessive daytime sleepiness, on daily behaviors and neurocognitive functioning. The development of a measure to assess the impact of daytime sleepiness on functional outcomes, the Functional Outcomes of Sleep Questionnaire, enabled the description of the impact of sleep disorders and the efficacy of treatment. Using this measure, it was determined that the affect is pervasive influencing general productivity, social interactions, activity, vigilance, and intimate and sexual relationships. The most common sleep disorder is obstructive sleep apnea (OSA) where the primary treatment is continuous positive airway pressure (CPAP). Twenty-eight percent of women and 26% of men suffer from obstructive sleep apnea. Untreated sleep apnea has been linked to diabetes, hypertension, cardiovascular disease, stroke, cancer and premature death, as well as impaired work performance and increased risk of work and driving-related accidents. CPAP had been previously established as the standard of care for severe obstructive sleep apnea, but because there was no such standard for milder cases, its application in this population was questionable. The first and largest controlled clinical trial in those with milder OSA (CATNAP study) demonstrated that CPAP treatment produced positive outcomes with improved quality of life, enhanced mood, better neurobehavioral functioning, and decreased daytime diastolic blood pressure. This program of research revealed the pattern of adherence to CPAP treatment. It was determined that the pattern was bimodal with half of patients treated with CPAP adherent using the device at least 6 hours per night and the other was not adherent using it on average three hours per night and skipping nights of treatment. This pattern of adherence is established early on in the first week of treatment. There are differences in self-efficacy between those who are and are not adherent as measured by the Sleep Apnea Self Efficacy Measure. This program of research documented a linear relationship between nightly CPAP use decreased objective and subjectively measured daytime sleepiness as well as improved functioning. This work established the nightly dose of CPAP to achieve optimal outcomes. However, the magnitude of the change was dependent on which concept was measured suggesting that recommendations for level of adherence are dependent on the goal, i.e., improved symptom of daytime sleepiness, physiologic daytime sleepiness or better daytime functioning. An unexpected finding of this study was that a segment of CPAP users continued to experience residual daytime sleepiness despite high hourly use. This formed the basis of a separate study that explored potential mechanisms for this phenomena where diffusion tensor MRI imaging showed brain white matter changes in the sleepy group compared to high users who were not sleepy.

References

- Weaver, T.E., Laizner, A., Evans, L.K., Maislin, G., Chugh, D.K., Lyons, K., Smith, P.L., Schwartz, A.R., Redline, S., Pack, A.I., Dinges, D.F. (1997). An instrument to measure functional status outcomes for disorders of excessive sleepiness. *SLEEP*, 20, 835 – 843.
- Weaver, T.E., Kribbs N.B., Pack A.I., Kline L.R., Chugh D.K., Maislin G, Smith P.L., Schwartz A.R, Schubert N.M., Gillen K.A., Dinges D.F. (1997). Night-to-night variability in CPAP use over first three months of treatment. *SLEEP*, 20,278 – 283.
- Weaver, T.E., Maislin G., Dinges D., Younger J., Cantor C., McCloskey S., Pack A. (2003) Self-efficacy in sleep apnea: Instrument development and patient perceptions of OSA risk, treatment benefit, and volition to use CPAP. *SLEEP*, 26,727-732.
- Weaver T.E., Maislin G., Dinges D.F., Bloxham T., George C.F., Greenberg H., Kader G., Mahowald M., Younger J., Pack A.I. (2007). Relationship between hours of CPAP use and achieving normal levels of sleepiness and daily functioning. *SLEEP* 30, 711-719.
- Weaver, T.E., Mancini C., Maislin G., Cater, J., Staley B, Landis J.R., Ferguson K.A, George C.F.P, Schulman D.A., Greenberg H., Rapoport D.M., Walsleben J.A., Lee-Chiong T., Gurubhagavatula I., Kuna S.T. (2012) Continuous positive airway pressure treatment of sleepy patients with milder obstructive sleep apnea. Results of the CPAP Apnea Trial North American Program (CATNAP) Randomized Clinical Trial. *American Journal of Respiratory and Critical Care Medicine*, 186,677-683.

Ziong Y., Shou X.J., Nisi R.A., Martin K.R., Karaman M.M., Cai K., Weaver, T (2016). Brain white matter changes in CPAP-treated obstructive sleep apnea patients with residual sleepiness. *Journal of Magnetic Imaging*. September 1, 2016. DOI: 10.1002/jmri.25463. 1 – 12.

Contact

teweaver@uic.edu

L 06 - SPECIAL SESSION: Gerontological Nursing Leadership Academy (GNLA): Leading Advancements in Interprofessional Care for Older Adults

Deborah Cleeter Bailey, EdD, MSN, RN, USA
Karen Reynolds, DNP, CNS-BC, FGnLA, USA
Deborah Ann D'Avolio, PhD, BC-ACNP, ANP, USA
Patricia Ann Kappas-Larson, DNP, APRN-BC, FAAN, USA

Abstract

As the world's population changes and we intentionally center more attention on caring for older adults in every practice setting, we must prepare and position nurse leaders to influence the advancements in interprofessional delivery of gerontological healthcare. This requires strong and effective leadership to address the growing need that exists for large scale improvements and directed change resulting in better health outcomes for older adults. Advancements in delivery of care and policy development must achieve measurable impact on health, cost and quality.

Currently conducting the fifth cohort, the international Gerontological Nursing Leadership Academy (GNLA) provides a deeply personal and guided professional development experience for mid-career nurse Fellows. The selected Fellows engage in eighteen months of rigorous leadership development through formal mentoring and faculty relationships. This triad serves as the foundation for an integrated experiential and intellectual curriculum, development of goal directed interprofessional leadership behaviors, and key partnerships with senior executives of healthcare organizations. Through extensive personal assessment and commitment, Fellows emerge as gerontological leaders and change agents demonstrated through learned behaviors and actualizing their potential. The GNLA Fellowship provides the foundation for ongoing and sustainable influence and impact in leading practice advancements and advocacy in caring for older adults ranging from frontline to policy and global forums.

Mentoring for leadership development of the GNLA Fellows is accomplished through intense relationship building, mentoring, and guidance of the Fellow's academy experience. The design, development, and implementation of the Fellow's interprofessional team project is the experiential vehicle that provides a dynamic environment for strategically guided leadership development. The "Triad" relationship between Faculty Advisor, Fellow, and Leadership Mentor is integral in providing support, feedback, and guidance throughout the Fellow's leadership journey.

The GNLA Fellows have achieved significant outcomes within the three curricular domains: individual leadership development; advancement of practice through leadership of interprofessional team projects; and expanded scope of influence at the organizational, community, and professional levels. Through this behaviorally focused leadership development experience, the GNLA Fellowship provides the foundation for ongoing and sustainable influence at the organizational, community, and professional levels.

As healthcare systems around the globe face many complex and interconnected challenges in providing high quality, innovation and cost-effective care; interprofessional leadership must be the cornerstone to the design, delivery, and implementation of new models of care. Nursing leaders can strategically respond to these change drivers by actively engaging care model design and policy development.

References

- Galuska, Lee A., Cultivating Nursing Leadership for our Envisioned Future. *Advances in Nursing*, 2012, Vol 35 No , Wolters, Kluwer Health, Lippincott;Wiliwmas & Williams, 333-345.
- Kouzes, J., & Posner, B. (2011). *Credibility: How Leaders Gain and Lose It, Why People Demand It* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Kouzes, J., & Posner, B. (2012). *The Leadership Challenge: How to Make Extraordinary Things Happen in Organizations* (5thed.). San Francisco, CA: Jossey-Bass.
- McBride, Angela Baron (2011). *The growth and development of nurse leaders*. New York, N.Y.: Springer.

Watkins, S. Corley, D. Cleeter, D. Moe, K. & Brockopp, D. (2014). Implementing a nurse leader fellowship model. *Nursing Management*, 45(7), 53-55. Doi: 10.1097/01.NUMA.0000451038.15082.b7

Contact

debcleetersli@comcast.net

karen-reynolds@smh.com

ddavolio@health.fau.edu

patricia.kappas-larson@medica.com

L 17 - SPECIAL SESSION: Getting Published

Susan Gennaro, PhD, RN, FAAN, USA

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN, USA

Abstract

The Editor of the Journal of Nursing Scholarship and the Editor of Worldviews on Evidence Based Nursing, both well-published nurse researchers will present this session on getting published. The presentation will start with defining what is a publishable manuscript? The presentation will then cover tips for planning and writing manuscripts for authors of all levels of experience, including deciding on the kind of manuscript, following author guidelines, formatting, and thinking about target audience. A typical outline of a databased paper will be reviewed. The presenters will discuss problems and common pitfalls often encountered by authors and how to avoid or address them effectively when writing a manuscript. This will include titles that don't match, structured abstracts, literature reviews, standards for reporting, validity and reliability, tables and figures, discussions that don't relate to the findings, and incomplete, old, or incorrectly formatted reference lists. Some tips for writing in teams will be covered, including how to set expectations and what constitutes being an author on a manuscript. Novice writers will be encouraged to find a writing mentor. The peer review process will be discussed. Presenters will summarize the three potential outcomes of submitting a manuscript (accept, revise and resubmit, and reject). Typical reasons for rejections will be discussed, as well as common emotions experienced by authors when they receive this news. Next the presenters will cover typical reasons for revising, and the importance of paying attention to the reviewers concerns. The presenters will cover strategies for resubmitting, including writing a cover letter, highlighting changes made, and meeting the resubmission deadline requested. The presenters will also speak about ethical issues related to writing and publishing manuscripts including authorship, duplicate publication, and conflicts of interest. Persistence will be encouraged as the key to success in getting published. A few helpful resources will be provided to the participants.

References

Betz, C.L., Smith, K., Melnyk, B.M., & Rickey, T. (2011). Disseminating evidence. In B.M. Melnyk & E. Fineout-Overholt (Eds.) Evidence-based practice in nursing & healthcare. A guide to best practice (2nd edition). Philadelphia: Wolters Kluwer/ Lippincott Williams & Wilkins. Broome, M. (2012). Disseminating findings of intervention studies. In B.M. Melnyk & D. Morris0n-Beeding. Designing, conducting, analyzing and funding intervention research. Philadelphia: Springer Publishing.

Contact

susan.gennaro@bc.edu

Melnyk.15@osu.edu

Evidence-Based Practice Oral Presentations

A 02 - Promoting Maternal-Child Health

Use of the Pediatric Infant Parent Exam: Screening Maternal-Infant Interactional Synchrony During Well-Infant Visits

Kathryn Sridaromont, PhD, RN, USA

Abstract

Maternal-infant interactional synchrony is a dyadic interaction between mother and infant that provides an observable mutually regulated pattern of contingent reciprocal rhythm as each member makes behavioral adjustments to maintain a balance in the system (Leclere et al., 2014). Reciprocal synchronous interaction results in greater maternal sensitivity and more secure infant attachment. A major anticipatory need has been identified to screen for altered maternal-infant interaction early in life to identify at risk dyads and guide appropriate interventions to ameliorate maladaptive patterns. Nurses are well suited to screen early maternal-infant interactional synchrony as a component of well-baby visits via direct observation of the dyad. A psychometrically sound instrument for use during clinic visits would satisfy such a need. One instrument that was found to be desirable for use in an outpatient clinic setting is the Pediatric Infant Parent Exam (Fiese, Poehlmann, Irwin, Gordon, Curry-Bleggi, 2001).

The purpose of the dissertation study was to determine the interrater reliability, overall impression, and scoring of typicality of the interaction and time required for nurses' use of the Pediatric Infant Parent Exam (PIPE) to screen the interaction of a convenience sample of 50 mother-infant dyads during a well-baby visit in a clinic setting. After IRB consent was obtained, the PI and three pediatric clinical nurses completed training based on the PIPE manual. The research assistant identified English speaking mother-infant dyads using the pediatric clinic as a medical home. Infants were between six and nine months of age. Exclusion criteria were infants with congenital anomalies, fever or illness. On reporting for the scheduled well-baby visits, Mothers who expressed an interest received further information about the study. Once they expressed an interest in participation, informed consent was obtained and the one time brief observations were carried out in the private exam room by the PI and pediatric clinical nurse. A book was presented to each dyad who participated. Raw scores were transformed with SAS, version 9.3 and analyzed using Cohen's *kappa*. The *kappa* was 0.809 and the weighted *kappa* was 0.840 for cumulative paired ratings of the various stages of the PIPE while the "overall synchrony" ratings did not meet the assumption of symmetric distribution making any *kappa* analysis questionable at best. As to the "judgement of typicality", *kappa* was 0.666. Two of the pediatric clinical nurses rated use of the Pediatric Infant Parent Exam as "somewhat easy" while one nurse rated the instrument as "easy to use". The time for scoring the observation ranged from 60 to 202 seconds with a mean of 90.57 seconds, a median of 67.5 seconds, and a standard deviation of 44.13 seconds.

Early identification of dyads at risk can expedite early treatment thereby creating a more favorable developmental trajectory for the maternal-infant dyad. The use of the PIPE offers one instrument to assist in this process. Nurses in an outpatient clinic used the instrument in screening maternal-infant interactional synchrony with outcomes to suggest the additional use by others who attend to infants early in life.

References

- Leclere, C., Viaux, S., Avril, M., Archard, C., Chetouani, M. Missonnier, S., and Cohen, D. (2014). Why Synchrony Matters during Mother-Child Interactions: A Systematic Review. *PLoS One* 9(12) E113571. DOI 10.1371/journal.pone.0113571
- McHugh, M. (2012). Interrater reliability: the kappa statistic. *Biochemia Medica* (3)22 retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3900052/>
- Tappen, R.M. (2011). *Advanced Nursing Research*. Sudbury, MA: Jones & Bartlett Learning.

Contact

kathy.sridaromont@ttuhsc.edu

A 02 - Promoting Maternal-Child Health

Abnormal Thermal Patterns in Very Preterm Infants Associated With Infection and Maternal Smoking

Robin B. Dail, PhD, RN, FAAN, USA

Abstract

Introduction: More than 63,000 very preterm infants (<32 weeks gestational age (GA)) are born annually in the United States¹ and survival free from major morbidity is a significant problem for them.² Up to 30%³ of these infants experience a neonatal infection and 5-15% of these infants acquire an infection or inflammation of the gastrointestinal (GI) track called necrotizing enterocolitis (NEC);^{4,5} NEC has a mortality rate as high as 50%.⁶

Hypothermia is related to increased morbidity and mortality in preterm infants⁷⁻¹¹ and continues to be a problem in very preterm infants.¹² Hypothermia is associated with an increased incidence of NEC in preterm infants.¹³ Abnormal postnatal circulation can lead to problems with feeding intolerance and intestinal motility, both associated with NEC.¹⁴ Continuous temperature monitoring is crucial to preventing hypothermia in very preterm infants due to their inability to self-regulate their body temperature.¹⁵ Abdominal temperature (AT) is measured with a covered thermistor on the skin surface, which reflects core temperature in preterm infants, and foot temperature (FT) is measured on the sole of a foot.¹⁶ When a preterm infant has central hypothermia, peripheral vasoconstriction should decrease blood flow to the feet to limit heat loss, but this mechanism is not operative in most very preterm infants in the first hours after birth.^{17,18} Inability to effectively dilate and constrict blood vessels affects thermoregulation negatively. Previously, we examined AT and FT in 10 very premature infants every minute over their first 12 hours of life. Only one infant exhibited peripheral vasoconstriction briefly and 7 of 10 infants kept their FT greater than AT for most of their first 12 hours, indicating altered vasomotor tone.¹⁷ Because of this finding, we wanted to examine thermal patterns longitudinally.

Purpose: The purpose of this study was to examine AT and FT in 30 very preterm infants over their first 2 weeks of life in relationship to morbidity and mortality using an exploratory case study approach.

Methods: After IRB approval, parents of infants expected to be born less than 29 weeks GA were consented for study participation, prior to their infants' birth. Infants were eligible for enrollment by 6 hours of age if their birth weight was between 500 and 1200 grams and if there were no visible anomalies or medical complications initially after birth. AT and FT was measured every minute using a thermistor secured to the skin, which stored temperatures into a data logger. Once the infant reached 2 weeks of age, temperatures were downloaded to a secure server, then imported into a SAS (Cary, NC) data set for analysis. Each physiological variable had 20,000 measures. The research nurse entered clinical data from the infants' medical record into a data form.

Results: We obtained study consent from 107 parents prior to their infants' births. Of those, 76 infants were not eligible for data collection because they did not meet birthweight or GA inclusion requirements. The remaining 31 infants were eligible for data collection; 22 of these infants had complete AT and FT data for a 14-day period for analysis. The remaining 9 infants were excluded for incomplete data. The mean GA of the 22 infants was 26 (SD =1.2) weeks with a mean birthweight of 860 (SD=135) grams with 32% males, 27% white, 68% African American, and 5% Hispanic infants. Infants were housed in heated, humidified incubators and on servo control at 36.5°C. However, the charted servo temperatures ranged between 36.0°C to 37.0°C between infants. Over all infants, the mean AT was 36.53°C ± 0.19° (36.09°C-36.81°C) and the mean FT was 35.91°C ± 0.28° (35.10°C-36.40°C). Each infant was evaluated for the percentage of minutes each day having a warmer FT than AT. The range for all days and all infants was 0 to 70.7%, with a 2 week mean of 7.32% to 38.51%. We used a Wilcoxon signed rank test to compare groups of infants with and without morbidity.

Three infants of the 22 were diagnosed with NEC by an abdominal radiograph between 33-60 days of age. NEC occurrence was too low for hypothesis testing; however, the 3 infants who acquired NEC prior

to discharge had a higher mean percentage of minutes (26.88%, SD 10.56%) in their first 2 weeks of life with warmer FT than AT compared to infants that did not acquire NEC (17.88%, SD 6.28%), $p < .11$. Four infants had infections during their hospital course. The infants who acquired an infection or UTI had a higher mean percentage of minutes (27.78%, SD 9.52%) over their first 2 weeks of life with warmer FT than AT compared to the 17 infants who did not acquire infection (16.44%, SD 5.34%), $p < 0.05$.

We also compared infants born to mothers who smoked during pregnancy to infants born to mothers who did not smoke during their pregnancies by self-report of smoking. Infants of mothers with a smoking history tended to have an increased mean percentage of minutes with warmer FT than AT over their first 2 weeks of life (26.6%, SD 25.75, $n=4$) than non-smokers (16.7%, SD 16.99, $n=18$), $p < 0.06$.

We examined the percentage of minutes with FT greater than AT and clinical events thought to be stressful on a day by day basis with all infants using mixed modeling with repeated measures evaluating the effect of intervening events. Over all infants, days when infants received blood transfusions had more mean percentage of minutes with FT greater than AT than on days without blood transfusions (22.42% vs 18.14%, $p < 0.26$). Infants also had a higher mean percentage of minutes with FT greater than AT while on CPAP than infants had on days without CPAP (20.19% vs 15.91%, $p < 0.06$) in contrast to infants who were intubated and on a ventilator had less mean percentage of minutes with FT greater than AT than non-intubated infants (14.60% vs 20.36%, $p < .03$).

The infants with the highest mean percentage of minutes with FT greater than AT over their first 2 weeks of life had more "risk" factors than infants with lower mean minutes. The infant with the highest mean minute percentage was an 880 gram, 27 weeks GA African American female infant who was born to a mother who smoked and used drugs during pregnancy by self-report. She acquired an infection in the neonatal period and NEC at 33 days of age. The infant had two blood transfusions, two PICC line attempts, and was fed days 4-11 and 14. The infant was also on dopamine and epinephrine for the first 4 days of life. This infant had 38.51% of her minutes over the first 2 weeks of life with a warmer FT than AT.

The only other infant with more than 30% of minutes with FT warmer than AT over their first two weeks of life was an 890 gram, 23 week GA African American female infant with 32.66% minutes. This infant was born to a mother who had chorioamnionitis and admitted to drug use during her pregnancy. The infant had presumed sepsis at birth. This infant also received two blood transfusions and three PICC line attempts in her first 2 weeks of life and was noted to have three episodes of abdominal distention. She was fed from 4-14 days of age.

Conclusion: Very premature infants with colder central temperatures (AT) and discordant warmer peripheral temperatures (FT) have an increased risk for infection. We also found infants who were diagnosed with NEC had more time in their first 2 weeks with warmer FT than AT compared to infants that did not acquire NEC; however, our sample was small and we did not have enough NEC cases for statistical comparison. The infants in our study were more likely to have colder AT than FT if they received a blood transfusion or were on CPAP. However, intubated infants had more time spent with warmer AT than FT. Infants in our study who were born to a mother who smoked during pregnancy were more likely to have warmer FT than AT over their first 2 weeks of life compared to those that did not have in utero exposure to tobacco. Approximately 12% of pregnant women smoke in the United States during pregnancy.¹⁹ Smoking during pregnancy is related to fetal growth restriction, preterm delivery and infant death with 23-34% of infant deaths from Sudden Infant Death Syndrome (SIDS) associated with maternal smoking. Maternal smoking also increases the risk for postnatal infections.²⁰ A larger study is needed to examine central and peripheral temperature in very preterm infants over their neonatal period in relationship to infection, NEC and maternal smoking. Continuous monitoring of AT and FT may guide acute clinical care in the future to decrease acute morbidity and identify infants who are high risk.

References

1. Hamilton BE, Martin JA, Osterman MHS, Curtin SC, Mathews TJ, Statistics DoV. Births: Final Data for 2014. Natl Vital Stat Rep 2015;64.
2. Fanaroff A, Hack M, Walsh M. The NICHD neonatal research network: changes in practice and outcomes during the first 15 years. Seminars in Neonatology 2003;27:281-7.

3. Stoll BJ, Hansen NI, Bell EF, et al. Trends in Care Practices, Morbidity, and Mortality of Extremely Preterm Neonates, 1993-2012. *JAMA* 2015;314:1039-51.
4. Stoll BJ, Hansen NI, Bell EF, et al. Neonatal outcomes of extremely preterm infants from the NICHD neonatal research network. *Pediatrics* 2010;126:443-56.
5. Yee WH, Soraisham AS, Shah VS, et al. Incidence and timing of presentation of necrotizing enterocolitis in preterm infants. *Pediatrics* 2012;129:e298-e304.
6. Blakely M, Lally K, McDonald S, Brown R, Barnhart D, Ricketts R. Postoperative outcomes of extremely low birth weight infants with necrotizing enterocolitis or isolated intestinal perforation. *Annals of Surgery* 2005;241:984-94.
7. Day RL, Caliguiri L, Kamenski C, Ehrlich F. Body temperature and survival of premature infants. *Pediatrics* 1964;34:171-81.
8. Hazan J, Maag U, Chessex P. Association between hypothermia and mortality rate of premature infants - revisited. *Am J Obstet Gynecol* 1991;164:111-2.
9. Buetow KC, Klein SW. Effect of maintenance of "normal" skin temperature of premature infants. *Pediatrics* 1964;34:163-70.
10. Vohra S, Frent G, Campbell V, Abbott M, Whyte R. Effect of polyethylene occlusive skin wrapping on heat loss in very low birth weight infants at delivery: A randomized trial. *The Journal of pediatrics* 1999;134:547-51.
11. Bauer J, Hentschel R, Zahradnik H, Karck U, Linderkamp O. Vaginal delivery and neonatal outcome in extremely-low-birth-weight infants below 26 weeks of gestational age. *Am J Perinatal* 2003;20:181-8.
12. Mank A, van Zanten HA, Meyer MP, Pauws S, Lopriore E, Te Pas AB. Hypothermia in Preterm Infants in the First Hours after Birth: Occurrence, Course and Risk Factors. *PloS one* 2016;11:e0164817.
13. Yu V, Bajuk J, Astbury J. Perinatal risk factors for necrotizing enterocolitis. *Archives of Disease in Childhood* 1984;59:430-4.
14. Robel-Tillig E, Knupfer M, Pulzer F, Vogtmann C. Blood flow parameters of the superior mesenteric artery as an early predictor of intestinal dysmotility in preterm infants. *Pediatr Radiol* 2004;34:958-62.
15. Knobel R. Fetal and neonatal physiology. *Newborn and Infant Nursing Reviews* 2014;14:45-9.
16. Simbrunner G. Thermoregulation of sick and low birth weight neonates. Germany: Springer-Verlag; 1995.
17. Knobel R, Holditch-Davis D, Schwartz T, Wimmer JE. Extremely low birth weight preterm infants lack vasomotor response in relationship to cold body temperatures at birth. *Journal of Perinatology* 2009;29:814-21.
18. Lyon AJ, Pikaar ME, Badger P, McIntosh N. Temperature control in very low birthweight infants during first five days of life. *Archives in Diseases of Childhood: Fetal/Neonatal Edition* 1997;76:F47-50.
19. Tong VT, Dietz PM, Morrow B, et al. Trends in smoking before, during, and after pregnancy--Pregnancy Risk Assessment Monitoring System, United States, 40 sites, 2000-2010. *MMWR Surveill Summ* 2013;62:1-19.
20. Jeppesen DL, Nielsen SD, Ersboll AK, Valerius NH. Maternal smoking during pregnancy increases the risk of postnatal infections in preterm neonates. *Neonatology* 2008;94:75-8.

Contact

robin.dail@duke.edu

A 03 - Nursing Education: Substance Abuse Interventions

Addressing Substance Abuse Using Evidence-Based Practice: Screening, Brief Intervention, and Referral to Treatment (SBIRT)

Marie N. Bremner, PhD, RN, USA

Barbara J. Blake, PhD, RN, ACRN, FAAN, USA

Mary Beth Maguire, DNS, MSN, BSN, RN, CNE, USA

Abstract

Significance: Nurses can have an important role in addressing substance use disorders among healthcare consumers. Approximately 20.8 million people (7.8 percent of the population) met the diagnostic criteria for a substance use disorder in 2015. Unfortunately, only 2.2 million individuals (10.4 percent) received any type of treatment (Center for Behavioral Health Statistics and Quality, 2016). The latest US Surgeon General report calls for a cultural shift in thinking about addiction as a disease rather than a personal weakness (U.S. Department of Health and Human Services, 2016). Nurses work in a variety of healthcare settings and are apt to encounter individuals at risk for substance abuse. Thus, they are in an ideal situation to make a meaningful contribution in addressing this crisis.

Evidenced Based Practice: Screening, Brief Intervention, and Referral to Treatment (SBIRT) is an evidence-based public health approach for providing early intervention and treatment for individuals at risk for developing substance use disorders. SBIRT incorporates motivational interviewing skills. Motivational Interviewing is a clinical approach that helps individuals make positive behavioral changes to support better health.

It respects patients' autonomy, is patient centered, and minimizes resistance to change. This interview style is collaborative, non-judgmental and recognizes patient responsibility.

In 2015, faculty teaching in an undergraduate nursing program located in the southeastern US, implemented a SBIRT training program. One hundred twenty students enrolled in a community health-nursing course completed the self-directed six-week training. The training consisted of five on-line modules, virtual training, and a 2 ½ hour face-to-face interactive workshop. This workshop required students to interview live standardized patients (SPs). Recordings of the SPs interviews were used to enhance reflection and learning during the debriefing session held immediately after the workshop. Funds from the Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment (SAMHSA CSAT) were used to implement the SBIRT training.

Evaluation Methodology: The Survey of Attitudes and Perceptions (SAP) instrument was used to evaluate changes in core knowledge, attitudes, and perceptions in nursing students. This survey was developed based on questions from the Alcohol and Alcohol Problem Perceptions Questionnaire (AAPPQ) and the Drug and Drug Problem Perceptions Questionnaire (DDPPQ) (Terhorst et al., 2013; Watson, Maclaren, Kerr, 2007). The SAP was administered to students prior to beginning the training and upon completion. In addition, a Training Satisfaction Survey was administered to the participants who completed the SBIRT training. The survey was given at the end of the training and again 30 days post training.

Process evaluation activities were performed upon conclusion of training and include key informant interviews with faculty and focus group discussions with students from the training. The goal of these process evaluation activities was to gather feedback on the training and solicit ideas and recommendations for improvement.

Key Findings and Recommendations: The majority of students found the SBIRT training to be very useful or useful because it provided them with the skill set to address sensitive topics such as substance use with patients. Results from the SAP indicated an increase in core knowledge and perceived competency among the students. The face to face interactive workshop was well-received, particularly the live standardized patients. Students verbalized that the workshop was valuable and simulated nursing

practice in the real world. Students recommended that on-line training could be enhanced by embedding audio into the Power Point presentations and requested more detailed patient history prior to the live interview.

Conclusion: Nurses' engage patients through guidance and negotiation rather than directing, which fits in well with the SBIRT approach. SBIRT is a technique nurses can use to provide effective risk reduction and intervention prior to a patient's need for more extensive treatment.

References

Center for Behavioral Health Statistics and Quality. (2016). *2015 National Survey on Drug Use and Health: Detailed Tables*. Substance Abuse and Mental Health Services Administration, Rockville, MD. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015/NSDUH-DetTabs-2015.pdf>

Terhorst, L., Gotham, H. J., Puskar, K. R., Mitchell, A. M., Talcott, K. S., Braxter, B., et al. (2013). Confirming the factor structure of the alcohol and alcohol problems questionnaire (AAPPQ) in a sample of baccalaureate nursing students. *Research in Nursing & Health*, 36(4), 412-422. Retrieved from DOI:[10.1002/nur.21537](https://doi.org/10.1002/nur.21537)

U.S. Department of Health and Human Services. (2016). *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC. Retrieved from <https://addiction.surgeongeneral.gov/surgeon-generals-report.pdf>

Watson, H., Maclaren, W., & Kerr, S. (2007). Staff attitudes towards working with drug users: Development of the drug problems perceptions questionnaire. *Addiction*, 102(2), 206-215. Retrieved from DOI:[10.1111/j.1360-0443.2006.01686.x](https://doi.org/10.1111/j.1360-0443.2006.01686.x)

Contact

mbremner@kennesaw.edu

A 03 - Nursing Education: Substance Abuse Interventions

Integrating Substance Abuse Screening Brief Intervention and Referral to Treatment Into Nursing Curriculum

Julie A. Fitzgerald, PhD, RN, CNE, USA

Abstract

It is estimated that about 30 percent of US adults experience a mental health or substance abuse disorder in a year, and many struggle with both. There is also wide geographical variation in the proportion of alcohol-attributable deaths and disability adjusted life years (DALYs), with the highest alcohol-attributable fractions reported in the WHO European Region (WHO, 2014). It is estimated that 15.3 million persons worldwide suffer from a substance use disorder (WHO, 2014). Globally, excess alcohol intake is responsible for approximately 6% of deaths. Culture, gender and religious norms impact alcohol consumption throughout the world. Substance abuse disorders are associated with high rates of disability and earlier mortality worldwide (Whiteford, Degenhart & Rehm, 2013). In the United States, 88,000 deaths are related to alcohol, making it the fourth leading cause of preventable deaths (Stahre, Roeber, Kanny, et.al., 2014). In spite of these grim statistics, universal screening for substance disorders is lacking.

Motivational interviewing is a person centered counselling style that can be utilized to promote a number of lifestyle changes (Ostlund, Wadensten, Kristofferzon & Haagstrom, 2015). Motivational interviewing has been used as an effective strategy in a variety of settings. Motivational interviewing has had a positive impact on medication adherence in bipolar disorder, (McKenzie & Chang, 2013), weight loss and increased physical activity (Hardcastle, Taylor, Bailey, Harley, & Hagger, 2013) and smoking cessation (Lindson-Hawley, Thompson, & Begh, 2015).

In spite of the prevalence of substance abuse, few nurses are taught to screen for substance abuse or use motivational interviewing to discuss change. To bridge this gap, a state college introduced Substance Abuse Screening, Brief Intervention and Referral for Treatment (SBIRT) into its undergraduate and graduate nursing curriculum. SBIRT is an evidence based practice that has been an effective strategy for risk reduction in persons with substance use disorders (Tanner-Smith & Lipsey, 2015). Studies have noted that SBIRT can take five to thirty minutes, depending on the patient's reported use and is appropriate for many settings. Nurse led integration of SBIRT into practice can identify patients at risk of substance abuse and allow intervention early in the addiction process.

To educate our undergraduate and graduate students in the use of SBIRT, we introduced the topic of substance abuse through required readings and an online education program on substance abuse. After completion of the introductory information students completed an online tutorial in motivational interviewing and "change talk". The nursing students then signed up to participate in role play using motivational interviewing techniques with their peers. Students were given case studies that described their substance use and willingness to change. They took turns playing the client and nurse and used motivational interviewing to discuss change. Instructor and peer feedback was provided after the role play.

Pre and post surveys assessing knowledge and skills in discussing use of substances showed increased knowledge, skills and attitude towards persons with substance abuse disorders after completion of the education. It is believed that early intervention in persons using substances can prevent long term dependence (Lacey, 2012). Nurse led integration of SBIRT into practice can identify patients at risk of substance abuse and allow intervention early in the addiction process. Widespread integration of SBIRT into the curriculum will allow for SBIRT to become a routine part of nursing care.

References

Hardcastle, S. J., Taylor, A. H., Bailey, M. P., Harley, R. A., & Hagger, M. S. (2013). Effectiveness of a motivational interviewing intervention on weight loss, physical activity and cardiovascular disease risk factors: a randomised

controlled trial with a 12-month post-intervention follow-up. *International journal of behavioral nutrition and physical activity*, 10(1), 1.

Lindson-Hawley, N., Thompson, T. P., & Begh, R. (2015). Motivational interviewing for smoking cessation. *The Cochrane Library*.

McKenzie, K., & Chang, Y. (2015). The Effect of Nurse-Led Motivational Interviewing on Medication Adherence in Patients With Bipolar Disorder. *Perspectives In Psychiatric Care*, 51(1), 36-44. doi:10.1111/ppc.12060

Östlund, A., Wadensten, B., Kristofferzon, M., & Häggström, E. (2015). Motivational Interviewing: Experiences of primary care nurses trained in the method. *Nurse Education In Practice*, 15(2), 111-118.

doi:10.1016/j.nepr.2014.11.005

Stahre M, Roeber J, Kanny D, Brewer RD, Zhang X. (2014). Contribution of Excessive Alcohol Consumption to Deaths and Years of Potential Life Lost in the United States. *Preventing Chronic Disease*; 11:130293. DOI:

<http://dx.doi.org/10.5888/pcd11.130293>

Tanner-Smith, E. E., & Lipsey, M. W. (2015). Brief alcohol interventions for adolescents and young adults: A systematic review and meta-analysis. *Journal of substance abuse treatment*, 51, 1-18.

Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E., ... & Burstein, R. (2013). Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *The Lancet*, 382(9904), 1575-1586.

World Health Organization. (2014). *Global status report on alcohol and health*. World Health Organization.

Contact

juliefitz99@gmail.com

A 04 - Advanced Practice Fellowships

The Lived Experience of New Graduate Nurse Practitioners Who Participated in an Academic-Based Fellowship Program

Michelle L. Edmonds, PhD, FNP-BC, CNE, USA

Hilary S. Morgan, PhD, MSN, BSN, ARNP, CNM, USA

Abstract

Purpose: The significance of this study helps to close the gap between theory and practice of NP transitions. Little is known about NP-specific “transition to practice” programs that originate from academia. Some employers offer NP residencies or “transition to practice” orientations, but they have very limited, competitive enrollment and only open to those employed with the organization. It is important to determine the benefits of offering an academic-based solution for a greater number of NP graduates prior to or concurrent with their first NP employment. This study sought and has begun to fill this need. The primary purpose of this qualitative descriptive study was to identify facilitators and barriers of the successful transition to FNP clinical practice. A secondary purpose was to evaluate the effectiveness of this unique academic-based NP Fellowship designed and implemented by the researchers to ease the transition to practice for their former FNP students.

The research question for this study was: What is the lived experience of family nurse practitioners' transition into clinical practice?

Methods: To evaluate the overall success of the academic-based NP Fellowship, the faculty researchers conducted a qualitative descriptive study to evaluate transitional experiences of FNPs during their first year in practice. Institutional Review Board approval was obtained from the university where the researchers are currently employed and where the NPs previously attended.

After obtaining their informed consent, a focus group of five participants from the academic-based NP fellowship were interviewed to share their transition experiences. Of those five participants, three remain in their first NP position and the remaining two have either changed positions or were planning to over the next few weeks. The focus group was conducted on the university campus for approximately two hours and was not recorded. The faculty researchers took notes during the focus group which were later reviewed first independently and then, jointly for common themes.

Interview questions were:

Describe your first year in practice.

What parts of your transition were successful? What plants were challenging? Why?

Why did you think you were successful? Was there something specific that prepare you?

How did you overcome the challenges? What resources if any would have helped you achieve an easier transition in that experience?

What would you do differently over this past year in regards to your transition?

Describe the support you received from your organization.

What recommendations would you make to a new NP graduate?

What benefits if any did you gain from participation in the NP fellowship?

Results: From the focus group of participants who completed an academic-based NP Fellowship program, three essential themes became evident in the data analysis: *role preparation, role initiation, role acquisition*. These themes described the essence of the NPs transition to their first year in practice.

1. **Role preparation:** Role preparation was the theme that described the participants' active engagement in securing the resources they needed to have a successful transition to practice.
2. **Role initiation:** The theme of role initiation was encompassed the myriad of feelings that new NP graduates experience in their first year of practice.
3. **Role acquisition:** The final theme, role acquisition, communicated a sense of achievement – a successful transition to NP.

Conclusion: Given that the topic of academic-based NP fellowships is scarce within the current literature, the implications from the findings in this study are promising. Immediate implications for nursing education are evident. Nurse educators can be empowered to offer similar opportunities for their NP graduates. There are growing residency experiences for RN graduates that have been extremely successful but limited offerings for NPs who also have a challenging transition to practice. The implications for nursing education include strengthening nursing curricula to include topics that help in the transition during the first year as well as providing support to NP graduates to ensure success on the certification exams and employment, both important measures for accreditation of NP programs.

The academic-based NP fellowship described in this study is unique to any other offerings noted within the current literature. Findings from a focus group of participants noted that the residency was an effective tool in helping to ease their transition to practice from RN to NP. Participants moved through phases as described by three themes: *role preparation*, *role initiation*, and *role acquisition*. The first two themes (*role preparation* and *role initiation*) received their foundation within the academic-based NP fellowship with the third theme (*role acquisition*) occurring after the fellowship ended. Topics presented in the fellowship were timely and relevant to the needs of the graduate NP and set the stage for a successful transition. Based on the findings of this study, it is recommended that future academic-based NP fellowships be offered, expanded, and studied to determine their impact on nursing practice.

References

- Barnes, H., (2015a). Exploring the factors that influence nurse practitioner role transition. *The Journal for Nurse Practitioners*, 11(2), 178-193
- Barnes, H. (2015b). Nurse practitioner role transition: A concept analysis. *Nursing Forum*, 50(3), 137-146.
- Faraz, A. (2016). Novice nurse practitioner workforce transition and turnover intention in primary care. *Journal of the American Association of Nurse Practitioners*, doi:10.1002/2327-6924.12381
- Goudreau, K.A., Ortman, M.I., Moore, J.D., Aldredge, L., Helland, M.K., Fernandez, L. A. & Gibson, S. (2011). A nurse practitioner residency pilot program: A journey of learning. *The Journal of Nursing Administration*, 41(9), 382-387.
- Poronsky, C. B. (2013). Exploring the transition from registered nurse to family nurse practitioner. *Journal of Professional Nursing*, 29(6), 350-358.
- Sargent, L. & Olmedo, M. (2013). Meeting the needs of new-graduate nurse practitioners: A model to support transition. *The Journal of Nursing Administration*, 41(11), 603-610.
- Thabault, P., Mylott, L & Patterson, A. (2015). Describing a residency program developed for newly graduated nurse practitioners employed in retail health settings. *Journal of Professional Nursing*, 31 (3), 226-232.

Contact

medmond@ju.edu

A 04 - Advanced Practice Fellowships

Advancing the Practice of Nursing Through Specialty Fellowship Development

Kelly Keefe Marcoux, MSN, APN, CPNP-AC, PPCNP-BC, CCRN, USA

Shayleigh K. Dickson, MSN, BA, APN, CPNP-AC, CPN, USA

Cathleen A. Cahill, MSN, APN, CPNP, USA

Christopher Haines, DO, MBA, FAAP, FACEP, USA

Abstract

In the United States, Advanced Practice Nurses (APNs) include nurse practitioners, clinical nurse specialists, nurse midwives and nurse anesthetists. This presentation will focus primarily on nurse practitioner APNs. Upon graduation from a master's or doctoral program in nursing, APNs are eligible for national certification and state licensure in one of six population foci. APNs are fully prepared to practice in a variety of inpatient and ambulatory settings upon graduation; however, for APNs who choose to further specialize their practice within one of these population foci, options for post-graduate training are limited. Historically, fellowship training has been utilized by physicians to further develop clinical acumen and skills as well as promote research within a specialized population. Previous research on APN "transition to practice" indicates that formal orientation programs are desired by APNs (Hart & Bowen, 2016) and positively correlated with successful role transition (Barnes, 2015). Additionally, mentorship by APNs and physicians within the context of an inter-professional fellowship increases provider confidence and development of clinical skills (Zapatka et al, 2014). This presentation describes the design, development, implementation, and outcomes of the first year of an APN Fellowship in Developmental-Behavior Pediatrics (DBP).

The APN Fellowship in DBP was designed to provide advanced didactic education, focused clinical experience, and professional mentoring to prepare APNs to provide optimal care to children with developmental needs. This particular specialty was selected for a fellowship to meet the growing national need for providers trained in this specialty. In the United States, the field of DBP currently has the second highest shortage of pediatric providers and wait-times for appointments that are seven times the national benchmark (Children's Hospital Association, 2012). The host organization is a national leader in the care of children with developmental disorders, particularly Autism Spectrum Disorder (ASD), and this data was integral in establishing need and financial feasibility of an APN fellowship program. In this organization, APNs are highly valued as evidenced by their status as members of the medical staff, ability to practice in a collaborative yet autonomous environment, and senior leadership support for innovative approaches to improving APN transition into practice and quality of care.

The APN Fellowship in DBP was implemented as an intensive 12-month program integrated with curriculum from the Accreditation Council for Graduate Medical Education (ACGME) Fellowship program in DBP. The APN fellow received comparable training and experience as the physician fellow in DBP in the first year. Didactic education included weekly lectures, completion of an online mental health fellowship (KYSS, Ohio State University), and attendance at an annual DBP conference. Clinical experience included hands on training under the supervision of experienced DBP physicians and APNs, formal training on the use of standardized DBP screening and diagnostic tools, and observation of other specialties and disciplines. APN role development including advocacy, research, professional growth and development was promoted by yearlong mentorship by an experienced APN. Finally, a research component included participation in an interdisciplinary research project related to the health care transition of adolescents & young adults with ASD.

Evaluation of the APN fellow occurred throughout the year on an ongoing basis. The fellow was expected to be deemed competent in all core competencies required for APN practice in the US based on the National Organization of Nurse Practitioner Faculties (NONPF, 2014), which included competencies in Scientific Inquiry, Practice & Policy, Leadership, Autonomous Practice, Ethics, Healthcare Delivery Systems, Quality, Practice Inquiry, and Technology & Information Literacy. Furthermore, the fellow was given DBP-specific competencies that required completion prior to the culmination of the fellowship. The

fellow had the opportunity to self-assess as well as be evaluated by each preceptor at least three times throughout the year.

The first year of the APN Fellowship in DBP will conclude in January 2017 and the outcomes of the first year of the APN Fellowship in DBP will be reported. The anticipated outcomes include successful completion of all core and specialty competencies, review of pre and post capstone assignment as developed by Ohio State KYSS fellowship, survey feedback from fellow and preceptors, timely transition into full time role and retention of fellow as full time medical staff member. Future outcomes to be assessed include time to transition to full time practice compared to non-fellow prepared new graduate APNs, time to meeting productivity measures, retention, customer satisfaction and APN satisfaction. The anticipated success of this program has led to continuation of the fellowship for a second year as well as development of an APN Fellowship in Physiatry.

References

- Barnes, H. (2015). Exploring factors that influence nurse practitioner role transition. *The Journal for Nurse Practitioners*, 11 (2), 178-183.
- Children's Hospital Association. (August 2012). *Pediatric specialist physician shortages affect access to care*. Retrieved from <https://www.childrenshospitals.org/issues-and-advocacy/graduate-medical-education/fact-sheets/2012/pediatric-specialist-physician-shortages-affect-access-to-care>.
- Hart, A.M., Bowen, A. (2016). New nurse practitioners' perceptions of preparedness for and transition into practice. *The Journal for Nurse Practitioners*, 12 (8), 545- 552.
- Kells, M, Dunn, K., Melchiono, M., & Burke, P. (2015). Advanced Practice Fellowships: Creating Awareness, Creating Opportunities. *Journal of Pediatric Health Care*, 29 (3), 297–301.
- Zapatka, S.A., Conellius, J., Edwards, J., Meyer, E., & Brienza, R. (2014). Pioneering a primary care adult nurse practitioner interprofessional fellowship. *The Journal for Nurse Practitioners*, 10 (6), 378-386.

Contact

Kkeefe-marcoux@childrens-specialized.org

A 06 - Interprofessional Collaboration in Education

Application of Interprofessional Simulation-Based Clinical Examination in Extended Nursing Experimental Teaching Practice

Hangjian Chen, MSN, RN, China

Abstract

Purpose: To explore the feasibility of inter-professional simulation-based clinical examination for nursing students in China. This study attempts to apply the simulation technology of evaluation on expanding experimental teaching to improve the ability of nursing students, to provide reference for more comprehensive evaluation of comprehensive ability of nursing students. At the same time, we would like to provide scientific basis for formation of medical cooperation education mode, which can help nursing educators and nursing students adapt to the change of the health care system, improve the medical and nursing quality, meet people's growing health needs of the diversification.

Methods: Ninety seniors in school of nursing and school of medicine were included in the study. Inter-professional cooperation, high-fidelity simulated patients and other simulation technology were used to evaluate students' clinical abilities. The teaching activity was consisted by three steps. The first step was construction of the collaborative team. The team members included students from nursing school and clinical school, teachers were also participants as the advisor of the team. The second step was to design the simulation cases which should be combined the clinical materials and theoretical knowledge. The last step was the procedure of evaluation. The performance of students was evaluated by five groups of examiners and the two examiners in each group conduct the evaluation simultaneously. Students' suggestions about the evaluation were collected after the test and correlation analysis was used to show the relationship between comprehensive ability evaluation scores and the total scores.

Results: The consistency coefficient of two examiners was 0.976; the score ranged from 7.21 ± 1.44 to 8.32 ± 2.13 ; There was significant correlation between the ability evaluation of cooperation and other ability evaluation.

Conclusion: Inter-professional simulation-based clinical examination can be used as an assessment tool for students' academic competition. Expanding nursing experimental teaching is considered as an important platform for students' practical ability and innovation quality, through the design of teaching contents, organization and evaluation, closely integrated experimental teaching and clinical practice. The ability of collaboration is very important for students as team members of health care unit and educators are suggested to apply the method of expanding experimental teaching to inter-professional training.

References

Ma Weiguang, Chen Jingli, Liang Tao, et al. Application of Simulation-based Objective Structured Clinical Examination in Comprehensive Ability Evaluation of Nursing Students before Graduation [J]. Journal of Nursing, 2015,22(10):5-7

Valentina Brashers, John Owen, Leslie Blackhall. A Program design for full integration and assessment of clinically relevant inter-professional education into the clinical /clerkship year for nursing and medical students[J]. Journal of Inter-professional Care, 2012, 26:242-244

Contact

chenhangjian9002@sina.com

A 06 - Interprofessional Collaboration in Education

Developing a Creative Collaboration to Promote Interprofessional Education for Baccalaureate Nursing Students

Tauna Fleming Gulley, PhD, RN, FNP-BC, USA

Abstract

In November 2012, the School of Nursing and the XXX College of Osteopathic Medicine at XXXX created a workgroup aimed at structuring interprofessional learning activities for students. Since that time, the interprofessional education (IPE) initiative has expanded to include the disciplines of optometry and social work at the University of XXX, the XX College of Pharmacy in XXX and the school of nursing from XXX .

The aim of this presentation is to describe how a small university in the central Appalachian region of the United States developed a creative collaboration among various disciplines to promote interprofessional educational experiences for their students. The collaboration was named the XXX.

The Baccalaureate Essentials for Nursing Education (2008) state interprofessional education provides opportunities for the baccalaureate prepared nurse to acquire knowledge of various practice disciplines, to develop confident communication skills, and to create effective collaboration techniques. Proficiency in each of these areas will result in optimal patient outcomes for the baccalaureate prepared nurse.

This interprofessional education project provides opportunities for nursing students to participate in IPE activities. For example, nursing students participate on an IPE team consisting of other student nurses, student physicians, student pharmacists, and student social workers. The IPE teams meet face to face in the fall and spring of each year. At that time, teams are presented with a case study. Teams are responsible for providing a final plan of care for the patient described in the case. Specific goals for the collaborative learning activity include the following: 1) Students will be able to work with individuals from other professions to maintain a climate of mutual respect and shared values, 2) Students will use knowledge of their role and those of other professions to develop a plan of care for a hypothetical patient, 3) Students will communicate effectively and 4) Students will learn and apply the principles of team dynamics.

Collaborative actions are demonstrated throughout the process. Case studies are created collaboratively among faculty members from each discipline. Faculty members from each discipline also serve as facilitators during the case study activity. Facilitators are provided a training luncheon prior to each activity. Training is focused on reviewing the goals of the activity and the facilitator's role in guiding the students through the case study.

Participants, students and faculty, complete surveys before the case study activity and immediately after the activity. Results indicate there are improvements of the knowledge base of each other's professional expertise and capabilities. In addition, there is a consistent awareness of the participants recognizing the need to work as a team in collaboration with each other in the healthcare arena. A positive interaction between each professional group was noted. Students from all disciplines reported higher levels of teamwork than the facilitators' assessment of the group experience. Following the case study activity, student physicians and student pharmacists rated student nurses higher in these categories: academic ability, professional competence, interpersonal skills, ability to make decisions, leadership ability, practical skills and competence.

Student testimonies included the following:

*Experience is the best teacher. I believe this should be done again during rotations for all students again to see how much true knowledge they acquire.

*This was a great learning opportunity. It was good to work with other professions to solve a problem.

*Great experience enjoyed communicating and solving the case!

*We had a great team! Thank you for the opportunity.

Future Endeavors: The XXX has been a successful way for nursing, medical, pharmacy and social work students to learn collaboration skills with, and from each other in order to provide optimal care and improve patient outcomes. Future endeavors include participation with the XXX College of Optometry and the XXX School of Law. Including optometry students and law students in this collaboration will provide valuable considerations when developing a plan of care for clients.

Results have been positive. Students learn the roles of disciplines other than their own and they practice essential communication skills. In addition, faculty members from the various disciplines create and share curriculum pearls for teaching interprofessional collaboration skills.

A goal of the XXX is to provide virtual experiences for participants who are unable to meet face to face. Virtual IPE experiences could include global collaborations among students with various cultural backgrounds living in different parts of the world.

References

- Charon, R., Hermann, N., & Devlin, M.J. (2016). Close reading and creative writing in clinical education: Teaching attention, representation, and affiliation. *Academic Medicine*, 91(3), 345-350.
- Debourgh, G.A. (2012). Synergy for patient safety and quality: Academic and service partnerships to promote effective nurse education and clinical practice. *Journal of Professional Nursing*, 28, 48-61.
- Hall, L.W., & Zierler, B. K. (2015). Interprofessional education and practice guide No. 1; Developing faculty to effectively facilitate interprofessional education. *Journal of Interprofessional Care*, 29(1), 3-7.
- Lockeman, K.S., Dow, A. W., Diazgranados, D., McNeilly, D.P., Nickol, D., Koehn, M. & Knab, M.S. (2016). Refinement of the IPEC competency self-assessment survey: Results of a multi-institutional study. *Journal of Interprofessional Care*, 30(6), 726-731.
- VanKuiken, D.M., Schaefer, J.K., Hall-Flaum, M., Browne, F.R. (2016). Integrating interprofessional education into the curriculum: Challenges and solutions for a university without a medical center. *Journal of Interprofessional Education & Practice*, 2, 5-11.
- World Health Organization (WHO) Framework for Action on Interprofessional Education & Collaborative Practice, 2010. http://www.who.int/hrh/resources/framework_action/en

Contact

taunagulley@upike.edu

A 17 - Advancing Global Health Through Education

Influencing Global Health: Creating an Interprofessional Global and Rural Health Certificate Program

Wendy Renee Thal, DNP, APRN, FNP-C, APHN-BC, USA

Emily S. Merrill, PhD, RN, FNP, BC, USA

Rosalinda Jimenez, EdD, MSN, APRN, FNP-C, USA

Abstract

This presentation details the development process and implementation of a graduate level, inter-professional global health certificate program in a graduate level nursing program. The on-line program was developed in direct response to an identified need from the student body within the HSC. The certificate program, a set of three core courses, a total of 12 credit hours, is designed to prepare professionals with in-depth knowledge to enhance the care of populations in underserved global and rural communities both at home and abroad. Healthy People 2020 (ODPHP, N.D.) and the United Nations Sustainable Development Goals (UN, N.D.) guided the development of the program content.

Course content is taught by expert health professionals from diverse backgrounds through various technological modalities. Foundational course content includes social determinants of health, application of theory, research, and current evidence related to access to care, culture, ethics, and health policy. Health care systems are explored, with community engagement a key concept threaded throughout the three course program. Current trends and issues in global health are explored including epidemiology, infectious and non-infectious disease processes. Health information technology, including telehealth and the application of informatics in a global health setting is explored through the use of technology with experts from around the world. The use of community health workers as part of the health care system is described through case studies and interactive activities via our online platform. The final course practicum is application of concepts as a Capstone project in a global community of the students choosing.

Completion of the program by the first pilot cohort was in summer 2016. Students reported a high overall satisfaction with the program and student reflections described personal satisfaction in working with medically underserved populations in diverse environments. Discussion will include challenges encountered in implementing the programs, lessons learned, and strategies for success.

References

Office of Disease Prevention and Health Promotion (ODPHP), (N.D.). Healthy People 2020, Retrieved at <https://www.healthypeople.gov/>

United Nations, (N.D.) Sustainable Development Goals. Retrieved at <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Contact

wendy.thal@ttuhsc.edu

A 17 - Advancing Global Health Through Education Providing Future Nurses With Experiential Learning Opportunities in Global Nursing: The Belize Experience

*Joann Marie Sands, DNP, RN, ANP-BC, USA
Jennifer M. Guay, DNP, CNM, USA*

Abstract

Nursing is becoming more global every day; from the patients we care for, the patients families that we provide support, to the medical providers we work with, and the types of diseases and diagnoses we are treating. As nurses we must understand the impact that these global influences have on the healthcare of individuals and populations which ultimately impact healthcare delivery.

Due to the intense, rigorous workload of nursing students, and their demanding, structured school schedule, it is often very difficult to incorporate a global health experience into the nursing curriculum. At the University at Buffalo, we were able to utilize the three week winter intercession between fall and spring semester to develop and implement a 2-credit, faculty led global study abroad course. The destination for this global study abroad course has been Belize in 2014 and 2015. This global study abroad course provides students an opportunity to integrate academic study with community engagement. The course fosters the development of cultural sensitivity, civic engagement, advocacy, collaborative practice, ethical decision making, and social responsibility. In 2016, while Belize was still the global study abroad course destination, we collaborated with the University at Buffalo School of Pharmacy, to create an interdisciplinary approach to the study abroad course. Students from both nursing and pharmacy traveled and worked together providing care to the Belizean villagers.

Initially seven students participated in the global study abroad course in 2014, with an increase in student engagement with twelve students participating in 2015. Students included pre-nursing majors, junior and senior nursing students, as well as nursing students from another university. Students were required to complete pre-departure orientation including review of common tropical diseases, their presentation and treatment. To facilitate effective communication with the villagers, students were required to learn some common Spanish words and phrases. To provide a detailed log of their trip experiences, students completed daily journals documenting their daily activities, village home visits, and medical clinics. Upon return to the United States, students completed a written reflection and evaluation, as well as a video compilation of their experience.

Students had a wide range of experiences and knowledge prior to embarking on this journey. They were able to build upon each other's strengths to increase their own knowledge and skill set. Further, they were responsible for initial triage of the patient, followed by completing a history and physical, reporting their assessments to the physician, and most importantly, providing education to the patient addressing health promotion, medication management, and safety practices in the home. At both villages, students had an opportunity to visit with the school children to provide education on topics such as skin care, oral hygiene, and personal hygiene.

Students were truly immersed in the culture of Belize. Student lodging was at a small missionary camp in one of the local villages where traditional Belizean meals were prepared. Students visited two villages for a total of four days, while completing home visits. Students were encouraged to communicate with the villagers in the villager's preferred language. They were able to witness the living conditions the villagers experienced on a daily basis.

Students participants also had an opportunity to participate in a few recreational activities where they were able to gain an appreciation for both the history of Belize and its vast tourism which provides the country with an immense amount of economic support. Students had the experience of visiting the University of Belize nursing school where they had the opportunity to speak with a director of the nursing program. Ultimately, students came to appreciate the similarities in their own home nursing program and

the University of Belize nursing program. Students were truly immersed in an experiential learning opportunity and gained a true appreciation of the people and culture of Belize.

Analysis of student journals and reflections revealed an overwhelmingly positive response to the global nursing experience. Only one student had any previous study abroad experience, so the remaining eleven students were embarking on this journey for the first time. 100% of the students felt the cross-cultural experience was the best aspect of this global nursing course. As there were very few diagnostic tests available for the residents of Belize, students had to rely solely on their ability to obtain a complete history as well as their astute assessment skills and completion of a thorough physical exam. There were no automated blood pressure cuffs, x-ray machines, or CT scanners to support the delivery of nursing care.

The majority of students had completed only one semester of nursing school, which included their health assessment course, but very limited, if any, time in the hospital clinical setting. After completing this global health course, students felt much more confident in their ability to perform a thorough and accurate history and physical assessment; report pertinent findings to the physician, and provide education to their patients. Students also reported that this course made them feel more comfortable communicating with their patients and physicians. Several students stated they felt less intimidated when having to work with a physician or asking the physician a question. They felt this confidence would carry over when they return to the clinical setting in the United States. In terms of cultural competence, one of the student's statements "says it all, *"There are many cultural differences. I will never learn them all. There are cultural differences within one culture. I don't have to understand them all, what's most important is that I respect them."*

References

- Jogerst, K. (2014). Building a successful Global Health curriculum: advice from a fellow trainee. *Journal of Global Health*, 4(2), 30-33.
- Jogerst, K., Callender, B., Adams, V., Evert, J., Fields, E., Hall, T., Olsen, J., Rowthorn, V., Rudy, S., Shen, J., Simon, L., Torres, H., Velji, A., & Wilson, L. (2015). Identifying Interprofessional Global Health Competencies for 21st-Century Health Professionals *Annals of Global Health*, 81(2) 239-247.
- Riner, M.E. (2011). Globally engaged nursing education: An academic program framework. *Nursing Outlook*, 59(6), 308-317.
- Wilson, L., Harper, D.C., Tami-Maury, I., Zarate, R., Salas, S., Farley, J., Warren, N., Mendes, I., & Ventura, C. (2012). Global health competencies for nurses in the Americas. *Journal of Professional Nursing*, 28(4), 213-222.

Contact

jsnyder2@buffalo.edu

B 01 - Strategies to Assist Patients Exposed to Violence

Knowledge Mobilization of Methods and Findings of Intimate Partner Violence Research in Canada's North

Pertice M. Moffitt, PhD, RN, Canada

Heather Fikowski, MSW, RSW, Canada

Abstract

Intimate partner violence (IPV) in Canada's Northwest Territories (NWT) is a grave social and public health issue with rates of IPV nine times the national average (Statistics Canada, 2016). The social, contextual and cultural context including colonization (Kubik, Bourassa & Hampton, 2009), the intergenerational impact of Indian residential school (Bombay, Matheson & Anison, 2014; Elias et al., Mohatt et al., 2014), alcohol and substance use, and social determinants (poverty, housing, unemployment, gender) all factor into the high rates of IPV (Moffitt et al., 2013; Weurch et al., 2016).

From 2011 to 2016, researchers conducted an investigation into "the Rural and Northern Community Response to Intimate Partner Violence", funded by a Social Sciences and Humanities Research Council of Canada (SSHRC) and Community/University Research Alliance grant. The research questions are: What are the needs of women experiencing intimate partner violence? What are the gaps in services to meet these needs? How can we create and sustain nonviolent communities? Frontline service providers (n=56) were interviewed through individual interviews (n=44) and two focus groups (n=12). A grounded theory was generated through constant comparative methods identifying the central problem as "*our hands are tied*." The social processes that create this community response are three: putting up with violence; shutting up about violence; and, getting on with life. An action plan was created to address the problem of "*our hands are tied*." One of the tenets of the action plan expressed by frontline service providers was the salience of education and awareness to overcome the culture of violence and silence that is present in the territory.

The purpose of this presentation is to highlight knowledge mobilization (a way of taking the knowledge generated by a study and putting it into action to afford change in a culturally and contextually congruent way) in relation to the research findings of this study and to specific strategies of knowledge mobilization used for our northern culture. Knowledge mobilization was conducted from the beginning of the research through to completion of the project and will extend beyond the completion date with dissemination of the findings. The process of knowledge mobilization occurred through a variety of different activities, some of which were related to the research methods and some activities were conducted in collaboration with a territorial activists' group, the Coalition Against Family Violence, of which the researchers were active members.

One of the unique methods that was used in year one of the study was geographical information system (GIS) maps to plot the incidents of IPV in the territory. At the same time as we gathered statistics from the federal policing agency, we conducted an environmental scan to illuminate the resources available for women in the territory (emergency shelters, victim services, police services, hospitals and health centers). Both data sets were accessed by geographers on our team to create a GIS map of "IPV Incidences and Resources". The map provides a visual of the high number of IPV incidents in all communities of the NWT and in the gaps in services. This map was a tool for knowledge mobilization for the research team and also for public consumption when we were asked to speak during "family violence awareness week". As well, as themes that emerged through data analyses, more ideas were generated to map (a comparison of seasonal distances to shelters; homicides in the territory and emergency protective orders). During this presentation, the GIS maps will be shared and their contribution to knowledge mobilization will be highlighted.

In addition, examples of specific strategies that were used within our context included: Community Fairs in remote communities, Community Presentations and Dialogue with Frontline Service Providers and Safety School with Undergraduate Nursing and Social Work Students. Community fairs were sponsored by the territorial government as a way of bringing government and nongovernment agencies together to

provide knowledge of resources available and health promotion of a variety of issues. During a community fair, we used a flyer written in plain language to translate our research findings to the community and response cards where community members had the opportunity to answer the question, "what can you and your community do to end violence?" The responses were both drawings by children and words by adults covering a variety of topics. Formal community presentations about the findings of the research and the action plan have been delivered to five communities targeting frontline service providers. Following the presentations, a facilitated conversation was conducted with the participants to encourage their feedback about what the findings and suggested actions. Safety school is a half-day class spent with undergraduate students to address violence in the territory and provide access to resources available for women. The safety school promotes sharing local resources and initiatives to enable knowledge translation with future frontline workers.

It is no secret that there are higher rates of intimate partner violence throughout the North and in the Northwest Territories particularly. Working with service providers to mobilize the limits and challenges they face in alleviating suffering and eliminating violence in their communities is critical to developing collaborative and effective systems and programs. Education and awareness through informative presentations and campaigns and providing opportunities to reflect and create space for dialogue will assist in the transformation towards nonviolent communities.

References

- Bombay, A., Matheson, K., & Anisman, H. (2014). The intergenerational effects of Indian Residential Schools: Implications for the concept of historical trauma. *Transcultural Psychiatry*, 51(3), 320-338. doi: 10.1177/13634615103380
- Elias, B., Mignone, J., Hall, M., Hong, S.P., Hart, L., & Sareen, J. (2012). Trauma and suicide behaviour histories among a Canadian indigenous population: an empirical exploration of the potential role of Canada's residential school system. *Social Science & Medicine*, 74, 1560-1569. doi:10.1016/j.socscimed.2012.01.026
- Kubic, W., Bourassa, C., & Hampton, M. (2009). Stolen sisters, second class citizens, poor health: the legacy of colonization in Canada. *Humanity & Society*, 33(1-2), 18-34.
- Mohatt, N.V., Thompson, A.B., Thai, N.D., & Tebes, J.K. (2014). Historical trauma as public narrative: a conceptual review of how history impacts present day health. *Social Sciences & Medicine*, 106, 128-136.
- Moffitt, P., Fikowski, H., Mauricio, M., & Mackenzie, A. (2013). Intimate partner violence in the Canadian territorial north: perspectives from a literature review and a media watch. *International Journal Of Circumpolar Health*, 72, 1-7. doi:http://dx.doi.org/10.3402/ijch.v72i0.21209
- Statistic Canada. (2016, January 21). Family violence in Canada: A statistical profile, 2014. Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2016001/article/14303-eng.htm>
- Wuerch, M. A., Zorn, K. G., Juschka, D., & Hampton, M. R. (2016). Responding to intimate partner violence: Challenges faced among service providers in northern communities. *Journal of Interpersonal Violence*, 1-21. doi:10.1177/0886260516645573

Contact

pmoffitt@auroracollege.nt.ca

B 01 - Strategies to Assist Patients Exposed to Violence

Transforming Research to a Global Application for Assessment of Women and Children Exposed to Violence

Judith M. McFarlane, DrPH, RN, FAAN, USA

Fuqin Liu, PhD, RN, USA

Nina Fredland, PhD, RN, USA

Anne Koci, PhD, RN, FNP-BC, WHNP, USA

Lene Symes, PhD, RN, USA

Abstract

Among women in the United States (U.S.) and worldwide, an estimated 30% have experienced intimate partner violence (WHO 2013). Consequences of violence include acute trauma, poor physical health, and compromised functioning (Ellsberg, Jansen, Heise, Watts Garcia-Moreno, 2008) and is most commonly associated with mental health problems of depression and posttraumatic stress disorder (PTSD) (Symes, McFarlane, Nava, Gilroy, Maddoux, 2013). Recent research indicates the pass through of poor mental health of the mother to behavioral problems of the children (McFarlane, Symes, Binder, Maddoux, Paulson, 2014). To better understand the risk predictors of sustained poor mental health, specifically PTSD, for women reporting intimate partner violence, a multi-year study is underway in Houston, Texas, USA.

Methods of the study include recruitment of 300 mothers reporting intimate partner violence to justice or shelter services for the first time. The women are followed for 7-years to determine the temporal sequencing of how violence impacts women's mental health and the impact on poor maternal mental health, specifically PTSD, on her children's functioning. To learn the determinants that mitigate or intensify the impact of violence on mental health, specifically PTSD, measures of mental health are completed every 4-months using validated tools. (One child of each mother is being followed and the child's behavioral functioning and school performance is measured every four months also).

At year 5 of the study, 94% of the mothers and children are retained. A portfolio of 40 peer-reviewed articles are published, including predictor tools to determine mothers at highest risk to sustained mental health problems, especially PTSD. To transform the research to a smart device, such as a phone and tablet, predictor models were derived and validated for sustained maternal PTSD and sustained child dysfunction and the information programmed to a predictor application. The predictor applications are available in English and Spanish, designed for use on a hand-held device, and disseminated through the World Wide Web at no charge. The predictor tools enable first responders and front line providers to quickly assess and triage women and children exposed to domestic violence to needed services.

The predictor applications, termed FAST (First Assessment Screening Tools) Apps, translate 5-years of research into strategies for practitioners worldwide to optimize health of women and children experiencing domestic violence, by taking into account determinants of health measured through nursing research. The presentation will discuss the continued validation of the First Assessment Screening Tools and uptake internationally of the application. Connection of the FAST application to addressing Sustainable Development Goals 2013 (Transforming Our World, 2016) will be discussed. Additionally, the audience will have the opportunity to download the FAST application and comment on usefulness for best practices during the presentation.

References

- Ellsberg, M., Jansen, H.A., Heise, L., Watts, C.H., Garcia-Moreno, C. (2008). Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: An observational study. *Lancet*371:1165–1172.
- McFarlane J, Symes L, Binder B, Maddoux J, Paulson R. (2014). Maternal-child dyads of functioning: The intergenerational impact of violence against women on children. *Maternal Child Health Journal*. 18:2236–2243.
- Symes, L., McFarlane, J., Nava, A., Gilroy, H., Maddoux, J. (2013). Association of pain severity and pain interference with abuse experiences and mental health symptoms among 300 mothers: Baseline data analysis for a seven-year prospective study. *Issues Mental Health Nursing* 34:2–16.

Transforming Our World: The 2030 Agenda for Sustainable Development. United Nations General Assembly; Seventieth Session. Accessed 3 December, 2016 Available from <https://sustainabledevelopment.un.org/post2015/transformingourworld>
World Health Organization (WHO). Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: WHO, 2013.

Contact

jmcfarlane@twu.edu

B 02 - Advancing Nursing Education

Advancing Nursing Education: BSN Completion Messaging Materials for Associate Degree Nursing (ADN) Faculty

Linda E. Moody, DNP, MBA, RNC-OB, USA

Abstract

Problem: The IOM's Future of Nursing report calls for increasing the proportion of baccalaureate-prepared nurses to 80% by 2020. There is supports for nurses' to pursue education beyond an associate's degree. Many initiatives have been implemented to encourage academic progression toward BSN. To increase the proportion of BSN-prepared RNs, additional options need to be considered. The support and message that ADN faculty provide to ADN students is crucial for students to recognize and understand the benefits, opportunities, and importance of continuing their nursing education.

Project Aim: To develop resources that ADN faculty can use to advise and encourage ADN students in advancing their nursing education through pursuit of a baccalaureate degree.

Project Method: Using a strategic communication framework, BSN completion messaging materials were developed for ADN faculty to use with students. Evaluation sessions of the messaging materials occurred with faculty from two Kansas ADN programs to elicit feedback and recommendations for the materials.

Findings and Conclusion: Overall, participants supported the messaging materials. The responses from both ADN faculty groups were similar. Faculty responses included the appreciation of having current resources available to share with students in group and individuals sessions, a variety of documents and messaging material mediums, and a plan to share information with other nursing programs. The ADN administrators and faculty responded that the materials were ready for use.

The comprehensive set of BSN completion messaging materials provides options for approaching and supporting students in the completion of their BSN degree. Considerations need to be given with whom and how to share the information among a wider group of nursing leaders in practice settings. Additional work needs to be done so that all RNs have the opportunity to complete their BSN degree to obtain the knowledge, skills, and attitudes required in healthcare and to achieve their professional goals.

References

- Aiken, L., & Yakusheva, O. (2014, October 10). BSN qualifications recommended for the nation's nurses: Four years of progress [Web log comment]. Retrieved from http://www.rwjf.org/en/culture-of-health/2014/10/bsn_qualificationsr.html
- Aiken, L. H., Cimiotti, J. P., & Sloane, D. M. (2011). Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Medical Care*, 49(12), 1047-1053.
- Alonzo, A., & Bonnel, W. (2007). Encouraging associate degree nursing students to pursue a bachelor of science in nursing: The faculty role. *Teaching and Learning in Nursing*, 2, 122-125. doi:10.1016/j.teln.2007.07.008
- Altmann, T. K. (2012). Nurses' attitudes toward continuing formal education: A comparison by level of education and geography. *Nursing Education Perspectives*, 33(2), 80-84. doi:10.5480/1536-5026-33.2.80
- American Association of Colleges of Nursing. (2015b). *Employment of New Nurse Graduates and Employer Preferences for Baccalaureate-Prepared Nurses*. Retrieved from http://www.aacn.nche.edu/leading_initiatives_news/news/2014/employment14
- American Association of Colleges of Nursing. (2015c). *Joint statement on academic progression for nursing students and graduates*. Retrieved from <http://www.aacn.nche.edu/aacn-publications/position/joint-statement-academic-progression>
- American Association of Colleges of Nursing. (2015d). *Leading excellence and innovation in academic nursing. Annual Report 2015*. Retrieved from <http://www.aacn.nche.edu/publications/annual-reports>
- American Association of Colleges of Nursing. (2015e). *The impact of education on nursing practice. Fact Sheet*. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/impact-of-education>
- American Association of Colleges of Nursing. (2014a). *Degree completion programs for registered nurses: RN to master's degree and RN to baccalaureate programs. Fact Sheet*. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/degree-completion-programs>

American Nurses Association. (2013). [More nurses advancing their education](http://www.theamericannurse.org/index.php/2013/03/01/more-nurses-advancing-their-education/). *The American Nurse*. Retrieved from <http://www.theamericannurse.org/index.php/2013/03/01/more-nurses-advancing-their-education/>

American Nurses Association. (2012). [Community college leaders, nursing organizations support nurses who pursue more education](http://www.theamericannurse.org/index.php/2012/10/05/community-college-leaders-nursing-organizations-support-nurses-who-pursue-more-education/). *The American Nurse*. Retrieved from <http://www.theamericannurse.org/index.php/2012/10/05/community-college-leaders-nursing-organizations-support-nurses-who-pursue-more-education/>

Association of Community College Trustees (ACCT). (2012, September). Community college leaders join with national nursing education organizations to support academic progression for nurses. Retrieved from <http://www.acct.org/news/community-college-leaders-join-national-nursing-education-organizations-support-academic>

Berger, J., & Iyengar, R. (2013). Communication channels and word of mouth: How the medium shapes the message. *Journal of Consumer Research*, 40, 567-579.

Budden, J. S., Zhong, E. H., Moulton, P., & Cimiotti, J. P. (2013). Highlights of the national workforce survey of registered nurses. *Journal of Nursing Regulation*, 4(2), 5-14

Center to Champion Nursing in America. (2013, August). Getting started with social media. Future of Nursing: Campaign for action. Robert Wood Johnson Foundation. Retrieved from <http://campaignforaction.org/resource/social-media-toolkit>

Center to Champion Nursing in America. (2012, November). *How to use campaign messages*. Future of Nursing: Campaign for action. Robert Wood Johnson Foundation. Retrieved from <http://campaignforaction.org/resource/how-use-campaign-messages>

Clow, K. E., & Baack, D. E. (2013). *Integrated advertising, promotion, and marketing communications*. (6th ed.). London: Pearson Education Limited

Cohen, S. S. (2013). The future of nursing report three years later: An interview with Susan B. Hassmiller, PhD, RN, FAAN, Senior Advisor for Nursing at the Robert Wood Johnson Foundation. *Policy, Politics, & Nursing Practice*, 14(2) 79-85

Fiester, L. (2013). The RN work project: A national study to track career changes among newly licensed registered nurses. Robert Wood Johnson Foundation. Retrieved from <http://www.rwjf.org/en/library/research/2013/11/the-rn-work-project.html>

Hassmiller, S. (2014, December). *The top five issues for nursing in 2015*. Campaign for Action. Retrieved from <http://campaignforaction.org/news/top-five-issues-nursing-2015>

Health Resources and Services Administration (HRSA). (2010). *The registered nurse population. Findings from the 2008 National Sample Survey of Registered Nurses*. The U.S. Department of Health and Human Services (HHS). Retrieved from <http://bhpr.hrsa.gov/healthworkforce1/nursing.html>

Health Resources and Services Administration (HRSA). (2013, April). *The U.S. nursing workforce: Trends in supply and education*. Bureau of Health Professions. National Center for Health Workforce Analysis

Hesselink, F., Goldstein, W., van Kempen, P. P., Garnett, T., & Dela, J. (2007). Communication, education and public awareness (CEPA): A toolkit for national focal points and NBSAP coordinators. Section 4: How to plan communication strategically? Retrieved from <https://www.cbd.int/cepa/toolkit/2008/cepa/index.htm>

Hussein, A. S., Manna, V., & Cohen, D. (2014). The impact of message framing and source credibility on breastfeeding intention: A social marketing approach. *International Journal of Business*, 16(2) 93-109

Institute of Medicine (IOM). (2011). *The future of nursing: Leading change, advancing health*. Washington, DC: The National Academies Press.

Kansas State Board of Nursing. (2014). Annual report: Fiscal year 2014. Retrieved from <http://www.ksbn.org/annualreport/index.htm>

Kumm, S., Godfrey, N., Martin, D. Tucci, M., Muenks, M., & Spaeth, T. (2014). Baccalaureate outcomes met by associate degree nursing programs. *Nurse Educator*, 39(5), 216-220

Martin, D., Godfrey, N., & Walker, M. (2015). The baccalaureate big 5: What magnet® hospitals should expect from a baccalaureate generalist nurse. *Journal of Nursing Administration*, 45(3), 121-123

National League of Nursing. (2011). Academic progression in nursing education. NLN Board of Governors. Retrieved from <http://www.nln.org/advocacy-public-policy/issues/academic-progression>

O'Neal, D., Zomorodi, M., & Wagner, J. (2015). Nursing education progression: Associate degree nursing faculty perspective. *Nurse Educator*. doi: 10.1097/NNE.0000000000000128

Rosa, J. M. (2009). Factors that influence the advisement of nursing student's regarding baccalaureate completion: Associate degree nursing faculty perceptions. *Teaching and Learning in Nursing*, 4, 128-132. doi: 10.1016/j.teln.2009.03.003

Shen, Q., Peltzer, J., Teel, C., & Pierce, J. (2015). The initiative to move toward a more highly educated nursing workforce: Findings from the Kansas registered nurse workforce survey. *Journal of Professional Nursing*, 31(6), 452-463.

Skillman, S. M., Palazzo, L., Keepnews, D., & Hart, L. G. (2014). Characteristics of registered nurses in rural vs. urban areas: Implications for strategies to alleviate nursing shortages in the United States. Working Paper #91. Washington, Wyoming, Alaska, Montana, and Idaho Center of Health Workforce Studies. Retrieved from <http://depts.washington.edu/uwrhrc/uploads/CHWSWP91.pdf>

Sportsman, S., & Allen, P. (2011). Transitioning associate degree in nursing students to the bachelor of science in nursing and beyond: A mandate for academic partnership. *Journal of Professional Nursing*, 27(6), e20-e27

Trautman, D. E. (2015). Back to school: Tips on advancing your nursing education. *American Nurse Today*, 10(1), 9-13

Tri-Council for Nursing. (2010, May). Tri-Council for nursing issues new consensus policy statement on the educational advancement of registered nurses. Retrieved from <http://tricouncilfornursing.org/Position-Statements.php>

Trossman, S. (2015). 80 percent by 2020: Supporting rural and other nurses to advance their education. *The American Nurse*. American Nurses Association. Retrieved from

<http://www.theamericannurse.org/index.php/2015/08/31/80-percent-by-2020/>

Tydings, D. M. (2014). Evaluation of a toolkit to assist with implementation of the 80-20 recommendation. *The Journal of Nursing Administration*, 44(12), 647-652

Contact

linda.moody@wichita.edu

B 02 - Advancing Nursing Education

Integrated Application Process for Nursing Student Clinical Practicum

Nancy S. Goldstein, DNP, MS, RNC-OB, ANP-BC, USA

Diana Lyn Baptiste, DNP, MSN, RN, USA

Sibyl Snow, MA, BA, USA

Abstract

The nursing students' decision where to complete their education can be difficult with multiple clinical options. A process to improve communication and quality of selection through an integrated application was the aim. A strategy was developed with functionality and technical capabilities to support wide-ranging needs of all clinical practicum options.

Supporting learning for pre-licensure nursing students in the clinical arena for their final clinical practicum continues to challenge nurse educators. Finding the right clinical setting and mentor in that setting continues to test nursing educators. The nursing students' decision for completion of their education can be difficult when there are so many practice settings and clinical options. The method to support placement of individual students on a particular clinical site for their final practicum course was our focus.

We developed a web-based application using Qualtrics® survey software. Students were provided a link to complete the application within a two-week time frame. The application process includes an algorithm to assist students with selecting locations, clinical sites, clinical areas of focus, and a narrative describing the rationale for their selection. We divided options into the categories based on various clinical areas. Students were provided a text box to type a 250-word narrative about why they are interested in the clinical areas.

The process to improve student selection quality for an integrated application was the goal. By analyzing and reorganizing the process a strategy was developed. This process focused on developing functionality and technical capabilities to support the wide ranging needs of all clinical practicum options including local area, distant, specialty and international. Each option had some degree of requirements in which there may have been need for added supplemental forms. Communicating the goals, process and outcomes was important in the development and implementation process to achieve change in the workflow for students and educators. Benefits, limitations, and barriers related to the development, maintenance, and application of the program will be addressed.

Developing a process to improve selection quality for an integrated application became a challenging goal. Limitations identified included incomplete applications, discrepancies between narrative and drop-down menu selections, and the narrative word-length was limiting. Students had difficulty selecting clinical placements as a result of novice skillsets, modest patient exposure, and limited experiences in a variety of clinical areas. Using technology to support the application has enabled educators to successfully assign students to the practicum site of their choice. All applications are retrieved from Qualtrics® and transcribed to an Excel® spreadsheets. The electronic application enables faculty to review student selections via spreadsheets that combined all data onto one file. Students were able to quickly and easily select choices and add pertinent information related to each selection, giving the educator a clear understanding of their post-graduation goals.

References

Baptiste, D., & Shaefer, J. (2015). Online module to assure success as pre-licensure nursing students transition to professional practice. *Quarterly Review of Distance Education*.16 (4). P 1-5: ISSN 1528 3518

Hsu, L.L., Hsieh, S.I., Chiu, H.W., & Chen, Y.L., (2014). Clinical teaching competence inventory for nursing preceptors: Instrument development testing. *Contemporary Nurse*. 46(2); 214-224.

Moore, P., Schmidt, D., Howington, L. (2014). Interdisciplinary preceptor teams to improve the clinical nurse leader student experience. *Journal of Professional Nursing*, 30(3), 190-195. doi: 10.1016/j.profnurs.2013.09.013.

Contact

ngoldst1@jhu.edu

B 03 - Promoting Mental Health in Vulnerable Populations

Perceptions of Stigma by Parental Caregivers With Mentally Ill Family Members

Linda Carman Copel, PhD, MSN, MSMFT, BSN, RN, PMHCNS, BC, CNE, ANEF, NCC, FAPA, USA

Abstract

Purpose: The experience of stigma is recognized as a widespread, universal phenomenon which is a major cause of personal suffering and a deterrent to obtaining health care. Vulnerable populations, such as people with mental illness or psychiatric disabilities are at risk for various forms of stigma. Caretakers can frequently identify the types of stigma experienced by their family members. Yet, often there are no services or support groups where the caregivers may verbalize their concerns and frustrations. There is a strong need for caregivers to becoming educated about strategies to advocate for their family members, and reduce or eliminate the stigma associated with mental illness. Since health care providers and social scientists believe that stigma has a negative influence on people's lives by contributing to high levels of stress and social disadvantage, it is the responsibility of providers in the mental health care communities to work with individuals and families to reduce the stigma of mental illness. The main purposes of this study are to describe the parental perceptions of stigma experienced by their adult children with mental illness, and to determine the educational and advocacy strategies that caregivers perceived as useful. An additional secondary purpose was to evaluate an outpatient, community mental health, educational and support program for parent caregivers.

Methods: This retrospective, descriptive qualitative research study examined issues raised by the parental caregivers of adult children diagnosed with mental illness and the effectiveness of two educational programs delivered in a support group format. After obtaining informed consent from all registered participants, the caregiver group meetings held at the community mental health center were video-recorded. Data from each of the ten sessions were analyzed using Elo and Kyngas' content analysis method. Descriptive statistics were used to compile the demographic and evaluation data. Eighteen participants were referred to the program through one of the county family service programs or the outpatient community mental health centers located in two counties in the mid-Atlantic region of the United States.

Results: The findings revealed the specific concerns about stigma experienced by the participants' family members. The information related to the identification of stigma, and the communication and the strategies to address stigma were valued by the participants. Participant comments focused on program content they viewed as making a difference in reducing the experience of stigma. They proposed recommendations to streamline the program and identified the difficult-to-master topics. Six themes that emerged from the data were: Caregiver feelings of frustration, anger and discrimination when their family members experience stigma; Experience of stigma by association; Stigma contributing to health problems of people with mental illness; Concerns about advocacy actions being successful; Desire to establish mental health advocacy groups for education, employment and vocational training; and Need for consumer centers.

Conclusions: Participants appreciated having the educational information and a safe place to discuss stigma experiences and their personal concerns. Customized segments of the program addressing individual concerns were valued. The new knowledge related to strategies to address how to cope, communicate and handle the discrimination associated with stigma facilitated participant learning. Concerns and hesitations were voiced by caregivers about the success of advocacy actions and the ongoing establishment of community-based services for persons with mental illness. The creating and sustaining of Consumer Centers within communities for socialization, peer support, relaxation and fun activities were viewed as important to the well-being of people with mental illness and their family members. Revision of the educational programs based on participant feedback is warranted. Further research is necessary on topics concentrating on the stigma of mental illness, caregiver perceptions of addressing stigma, advocacy strategies, the provision of appropriate community services, and the efficiency and cost-savings of consumer-run centers. Research on the steps to improve mental health

policy, funding, research and legislation can eventually contribute to overall quality of life for people with mental illness and their family caregivers.

References

Park, K., & Seo, M. (2016). Care burden of parents of adult children with mental illness: The role of associative stigma. *Comprehensive Psychiatry*, 70, 159-164.

Coker, F., Williams, A., Hayes, L., Hamann, J., & Harvey, C. (2016). Exploring the needs of diverse consumers experiencing mental illness and their families through family psychoeducation. *Journal of Mental Health*, 25(3), 197-203.

Contact

linda.copel@villanova.edu

B 03 - Promoting Mental Health in Vulnerable Populations

Whole Person Wellness: Integrating Care to Improve Physical Health of Persons With Serious Mental Illness

Kathleen McDermott, DNP, RN, APRN, PMHNP-BC, USA

Abstract

Historically, treatment for serious mental illness has been separated from the rest of medicine resulting in gaps in medical care, redundant care, and increased costs. To address the healthcare needs of those with serious mental illness, primary care services are now being embedded in and connected to community mental health centers. However, numerous barriers exist including cost, program design, sustainability, and the adaptability of electronic health records. The purpose of this project was to describe and analyze the system changes that occurred in a nationally recognized community mental health center resulting from the implementation of grant-funded initiatives to promote the importance of whole health and wellness by integrating primary and behavioral healthcare into its repertoire of services for persons with serious mental illness. Grant outcomes included increasing the number of persons with serious mental illness who were connected with a primary care provider in the local community and those who have active insurance. These outcomes were successful, as nearly three-quarters of the previously uninsured members became connected with public insurance, and greater than 70% of the members were connected with a community primary care provider. Other deliverables designed to increase the level of integration at the community mental health center encountered barriers, such as staff resistance, electronic health record challenges, philosophical differences, and the need for program re-design and highlighted the lack of coordination between agencies. Recommendations have been made for other community mental health centers who are pursuing efforts to increase the level of integrated care they provide, including relevant lessons learned, effective practical approaches, strategies to overcome common barriers, areas of expansion, and methods for sustainability. This case study suggests that efforts to provide integrated care in a community mental health center may necessitate an organizational culture shift that includes the active, cohesive, and clear support of leadership. In addition, strong theoretical underpinnings are necessary to support the change. Prochaska and DiClemente's stages of change (1982) and Roger's Diffusion of Innovations (1962) are examples of theories that can help organizations to successfully adapt to a fully integrated care system.

References

- California Institute for Mental Health & CalMHSA Integrated Behavioral Health Project (CIMH & CalMHSA). (2013). *Advancing clinical information systems to support care coordination and improved outcomes for individuals with mental health and substance use disorders*. Retrieved from <http://www.ibhp.org/uploads/file/Clinical%20info%20systems%20brief-IBHP.pdf>
- Cummings, J. R., Lucas, S. M., & Druss, B. G. (2013). Addressing public stigma and disparities among persons with mental illness: The role of federal policy. *American Journal of Public Health, 103*(5), 781–785. doi:10.2105/AJPH.2013.301224
- De Hert, M., Correll, C. U., Bobes, J., Cetkovich-Bakmas, M., Cohen, D., Asai, I., . . . Leucht, S. (2011). Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World Psychiatry 10*(1), 52–77. doi:10.1002/j.2051-5545.2011.tb00014.x
- Peek, C. J., & The National Integration Academy Council. (2013). *Lexicon for behavioral health and primary care integration: Concepts and definitions developed by expert consensus* (AHRQ Publication No. 13-IP001-EF). Rockville, MD: Agency for Healthcare Research and Quality. Retrieved from <http://integrationacademy.ahrq.gov/sites/default/files/Lexicon.pdf>.
- Tranter, S., Irvine, F., & Collins, E. (2012). Innovations aimed at improving the physical health of the seriously mentally ill: An integrative review. *Journal of Clinical Nursing, 21*(9–10), 1199–1214. doi:10.1111/j.1365-2702.2011.04020.x
- van Hasselt, F., Schorr, S., Mookhoek, E., Brouwers, J., Loonen, A., & Taxis, K. (2013). Gaps in health care for the somatic health of outpatients with severe mental illness. *International Journal of Mental Health Nursing, 22*(3), 249–255. doi:10.1111/j.1447-0349.2012.00859.x

Contact

kathleendnp@gmail.com

B 04 - Promoting Health Through Immunizations

Improve Competency With Evidence-Based Immunization Practice Education

Pamela K. Strohfus, DNP, MA, RN, CNE, USA

Abstract

Aim: To improve competency of health care personnel and increase vaccine effectiveness and medical office immunization rates, an evidence-based immunization educational program was implemented and analyzed. The goals of the program were to develop fiscal responsibility of resources, improve internal processes, enhance learning and education, and increase patient safety through effective vaccination.

Background: Vaccines may be compromised partly due to educational deficits of inter professional healthcare personnel in vaccine administration and storage (Nikula, Nohynek, Puukka, & Leino-Kilpi, 2011; Yeung, Goodman, & Fedorak, 2012). These knowledge deficits could further compromise vaccine efficacy decreasing immunization rates among populations (McCollister & Valbona, 2011). Disease outbreaks could occur when herd immunity is not achieved (Centers for Disease Control and Prevention (CDC) 2016).

Evidence based resources are available to ensure quality immunization practices through the use of standing orders, documentation into immunization registries, utilization of data and thermoregulation guidelines (Darden, et al., 2011; LeClaire-Smith, 2016). Yet several studies reveal errors in administration and storage of vaccines which affect the vaccine efficacy (Lang, et al., 2014; Merhekar, et al., 2013).

Methods: Twenty-seven medical offices participated in an educational program in a rural/urban area in the United States. Knowledge-based testing of immunization practices was conducted pre-education, post-education, and 12-months post-education of medical assistants, licensed practical nurses, registered nurses, nurse practitioners, and physicians. Immunization rates were assessed before-education and 18-months post-education.

Results: There were several significant findings when education was provided including: 1. Immunization rates increased by 10.3%, 2. Knowledge overall increased by 7.8%, 3. Under-educated personnel did not pass the test before or after education, 4. Registered nurses and pediatric medical offices passed the test before and after education, 5. Use of standing orders increased by 84%, and 6. Knowledge did not improve overall in 'storage' category.

Conclusion: Managing immunization practices is very complex. Registered nurses are well suited to manage, administer, and handle vaccines. Unlicensed personnel are less able to appropriately manage, administer, and handle vaccines without formal and continuous education and administrative support. Storage and handling education must be reviewed intermittently to assure compliance. Education saves resources, decreases errors, & increases immunization rates.

References

- Centers for Disease Control and Prevention. (2016). Vaccine coverage in the United States. Retrieved from <https://www.cdc.gov/vaccines/imz-managers/coverage/imz-coverage.html>
- Centers for Disease Control and Prevention. (2016). Vaccine and immunization education and training. Retrieved from <http://www.cdc.gov/vaccines/ed/>
- Darden, P. M., Davis, T., Humiston, S., Langkamp, D., Mauldin, M., McElligott, J., & Shaw, J. V. (2011). Teaching immunization delivery and evaluation. Retrieved from <http://tide.musc.edu>.
- Lang, S., Ford, K. J., John, T., Pollard, A. J., & McCarthy, N. D. (2014). Immunisation errors reported to a vaccine advice service: Intelligence to improve practice. *Quality in Primary Care*, 22(3), 139–146.
- LeClair-Smith, C., Branum, B., Bryant, L., Cornell, B., Martinez, H., Nash, E., & Phillips, L. (2016). Peer-to-Peer Feedback: A Novel Approach to Nursing Quality, Collaboration, and Peer Review. *The Journal of Nursing Administration*, 46(6), 321–8. <https://doi.org/10.1097/NNA.0000000000000352>
- McCollister, P., & Vallbona, C. (2011). Graphic-output temperature data loggers for monitoring vaccine refrigeration: Implications for pertussis. *American Journal of Public Health*, 101(1), 46–47. <https://doi.org/10.2105/AJPH.2009.179853>

Murhekar, M. V, Dutta, S., Kapoor, A. N., Bitragunta, S., Dodum, R., Ghosh, P., ... Takum, T. (2013). Frequent exposure to suboptimal temperatures in vaccine cold-chain system in India: results of temperature monitoring in 10 states. *Bulletin of the World Health Organization*, 91(February), 906–1013. <https://doi.org/10.2471/BLT.13.119974>

Nikula, A., Nohynek, H., Puukka, P., & Leino-Kilpi, H. (2011). Vaccination competence of public health nurses. *Public Health Nursing*, 28(6), 533–542. <https://doi.org/10.1111/j.1525-1446.2011.00943.x>

Yeung, J. H., Goodman, K. J., & Fedorak, R. N. (2012). Inadequate knowledge of immunization guidelines: A missed opportunity for preventing infection in immunocompromised IBD patients. *Inflammatory Bowel Diseases*, 18(1), 34–40. <https://doi.org/10.1002/ibd.21668>

Contact

pamstrohfus@boisestate.edu

B 17 - Advancing the Nurse Practitioner

The Nurse Practitioner Clinical Ladder Program: A Journey to Professional Nursing Excellence

Lisa M. Paplanus, DNP, ACNP-BC, ANP-BC, CCRN, RN-C, USA

Patricia Bartley-Daniele, PhD, FNP-BC, CCRN, CNRN, CPAN, CAPA, USA

Patricia D. Chibbaro, MSN, CPNP, USA

Abstract

Quality Nurse Practitioner (NP) care delivery is associated with teambuilding, leadership, communication, clinical knowledge and skills, evidence-based practice, and quality outcome achievement (Cronenwett, 2012; Elliot, 2016). Yet, organizational structures and processes fostering continuous NP practice development have been infrequent (Elliot, Begley, Sheaf, & Higgins, 2016; Porter-O'Grady, 2011). In response to an organizational NP job satisfaction survey, the Nurse Practitioner Clinical Ladder (NPCL) program was developed to enhance professional excellence at a university affiliated medical center in the United States (Misener & Cox, 2001). Senior nursing leadership and administrative support were critical to the NPCL program development. The purpose is to describe professional practice journey and governance needed for the NPCL program development, implementation, and evaluation.

Registered Professional Nurse (RN) clinical ladder program research has been associated with increased RN role development, job satisfaction, and decreased turnover (Adeniran, Bhattacharya, & Adeniran, 2012; Warman, Williams, Herrero, Fazelli, White-Williams, 2016). There was a dearth of knowledge concerning NPCL program development and outcomes. Benner's (2000) five levels of nursing practice provided a blueprint for behaviors and competencies associated with beginning, competent, proficient, and expert RNs. Benner's nursing practice levels were viewed within an advanced practice nursing lens and incorporated into the NPCL program.

Critical literature review, deliberation, and reflection by the NPCL committee members provided consensus for the NPCL program development. The organizational professional nursing practice model building blocks of caring, practice, collaboration, communication, professional development, and evidence-based practice were incorporated into the NPCL program. Three levels of NPCL practice were developed as a blueprint to foster NP role development, professional growth, evaluation, promotion, and rewards. The NPCL is reflective of the American Nurses Credentialing Center (ANCC) Magnet Model (2016), and the National Organization of Nurse Practitioner Faculties NP Core Competencies (NONPF, 2012). The NPCL practice domains and competencies included clinical practice and outcomes, academics and advanced nursing expertise, leadership and administrative support, professionalism, and community service.

Donabedian's Model of Quality Health Care (1988) guided the NPCL structure and process standards. The NPCL Structure Standard defined the program goals, NP practice levels, advancement opportunities, an incentive and reward system, and annual NP level performance appraisal components. The NPCL Process Standard described the NP promotional application requirements, professional portfolio elements, the NPCL review committee roles and responsibilities, the promotional decision-making, and the appeal process (Hespenheide, Cottingham, & Mueller, 2011). The NPCL outcome measures included the NP job satisfaction survey, job retention, and NP level promotional statistics. The need for an ongoing NP mentorship program and formalized orientation to the NP role were NPCL outgrowths. Ultimately, the NPCL can serve as a foundation for other nursing specialties to develop, implement, and evaluate their clinical practice. The NPCL program supports advanced practice nursing roles and competency development that can be translated at organizational, national, and global levels.

References

1. Adeniran, R. K., Bhattacharya, A., & Adeniran, A. A. (2012). Professional excellence and career advancement in nursing. *Nursing Administration Quarterly*, 36, 41-51. doi:10.1097/naq.0b013e31823b0fec
2. American Nurses Credentialing Center. (2016). Magnet Recognition Program. Retrieved December 1, 2016, from American Nurses Credentialing Center, <http://www.nursecredentialing.org/magnet>

3. Benner, P. E. (2000). *From novice to expert: Excellence and power in clinical nursing practice*. United States: Addison-Wesley Publishing.
4. Cronenwett, L. R. (2012). Molding the future of advanced practice nursing. *Nursing Outlook*, 60(5), 241-248. doi:10.1016/j.outlook.2012.06.010
5. Donabedian, A. (1998). The quality of care. *JAMA*, 260, 1743. doi:10.1001/jama.1988.03410120089033.
6. Elliott, N. (2016). Building leadership capacity in advanced nurse practitioners - the role of organizational management. *Journal of Nursing Management*. doi:10.1111/jonm.12444
7. Elliott, N., Begley, C., Sheaf, G., & Higgins, A. (2016). Barriers and enablers to advanced practitioners' ability to enact their leadership role: A scoping review. *International Journal of Nursing Studies*, 60, 24-45, doi:10.1016/j.ijnurstu.2016.03.001
8. Hespenheide, M., Cottingham, T., & Mueller, G. (2011). Portfolio use as a tool to demonstrate professional development in advanced nursing practice. *Clinical Nurse Specialist*, 25, 312-320. doi:10.1097/nur.0b013e318233ea90
9. Misener, T. & Cox, D.L. (2001). Development of the Misener nurse practitioner job satisfaction scale. *Journal of Nursing Measurement*, 9, 91-108.
10. National Organization of Nurse Practitioner Faculties. (2016). Nurse Practitioner core competencies. Retrieved January 12, 2016, from National Organization of Nurse Practitioner Faculties, <http://cymcdn.com/sites/www.nonpf.org/resource/resmgr/compenties/npcorecompetenciesfinal2012.pdf>
11. Porter-O'GradyTim (2011). Leadership at all levels. *Nursing Management (Springhouse)*, 42, 32-37. doi:10.1097/01.numa.0000396347.49552.86
12. Warman, G.A., Williams, F., Herrero, A., Fazeli, P., & White-Williams, C. (2016). The design and redesign of a clinical ladder program. *Journal for Nurses in Professional Development*, 32, E1-E7. doi:10.1097/nnd.0000000000000307

Contact

lisa.paplanus@nyumc.org

B 17 - Advancing the Nurse Practitioner

The Nurse Practitioner (NP) Mentorship Program: Supporting Role Transition Into Practice

Patricia Bartley-Daniele, PhD, FNP-BC, CCRN, CNRN, CPAN, CAPA, USA

Tracy Lynne McTiernan, MA, CPNP, USA

Camille LaPera, MA, ACNP-BC, USA

Abstract

Political, social, and governmental influences have increased the nurse practitioner (NP) demand in the United States (Institute of Medicine, 2010; McMullen & Philipsen, 2012). Graduate NP programs have developed practice competencies and support the Doctorate of Nursing Practice preparation to enhance NP roles (National Organization of Nurse Practitioner Faculties, 2012). Although there have been efforts to increase the NP workforce, there remains a current gap in the health care provider supply (Sargen, Hooker & Cooper, 2011). Therefore, it is critically important to support novice NP role development (Poghosyan, Liu, Shang, & D'Anno, 2015). Although novice NPs have varying amounts of registered professional nursing experience, they are becoming new health care providers with significant new advanced role responsibilities. The NP graduates must be socialized to a new professional role and navigate complex regulatory and reimbursement requirements (Barnes, 2014; Fitzpatrick & Grishover, 2016; Simone, 2014). A university affiliated medical center analyzed NP job satisfaction results and the need for a mentoring program was identified (Harrington, 2011; Simone, 2014). The purpose is to describe a NP mentorship program that is supportive of newly hired NP role transition into practice.

Mentoring has been explored as a strategy to foster NP transition into practice (Gerhardt, 2012; Pop, 2016; Rafferty, 2015). Mentoring, through a nursing lens, has been a teaching-learning process. Conceptually, mentorship is a relationship in which a more experienced professional provides support and guidance for the novice (Harrington, 2011). Mentorships encompass formal and informal relationships. Formal mentorships are structured workplace agreements that foster mentee success through mentor-mentee matching and are time limited. In contrast, informal mentorships develop as the result of mutual interests and are not confined to time, structure, or third party expectations (Grossman, 2014). Successful mentoring relationships require the participants' time, commitment, communication, availability, and compatibility (Fitzpatrick & Grishover, 2016; Grossman, 2014; Simone, 2014). High quality mentoring relationships have been characterized as being meaningful, mutually beneficial, and fostering professional and personal growth (Allen & Eby, 2003). Mentorship has been identified as a need for successful novice NP transition into practice (Gerhardt, 2012; Pop, 2016; Rafferty, 2015).

Benner's (2000) Novice to Expert Model and Donabedian's (2005) structure and process framework provided the foundation for the NP Mentorship Program development. The novice NPs were newly hired into their first NP position; the NP mentors were identified as experienced NPs who accepted a mentoring assignment (Benner, 2000). The NP Mentorship Program Structure Standard defined the NP practice levels, competencies, onboarding process, orientation, mentor and mentee responsibilities, and NP preceptor roles. The NP mentorships were formal relationships with mentor and mentee matching. During the yearlong mentoring relationship, NP mentors and mentees participated in quarterly invitational meetings. The invitational meetings included mentoring circles and opportunities for professional development, problem solving, and psychosocial support (Maynard, Scandura, & Bishop, 2013).

The NP Mentorship Process Standard described the Mentorship Committee members' role responsibilities. The NP Mentorship Program coordinator role was developed to maintain the mentor directory, communicate with the mentees, match the mentor and mentee, and assist with program implementation and evaluation. Formative evaluation components have been incorporated. Ongoing feedback during the mentoring invitational meetings was welcomed and influenced the future invitational meeting themes. Summative NP Mentorship Program measures included NP job satisfaction, job retention, mentoring relationship quality (Scandura, 2015), and career and psychosocial functions development (Allen, Eby & Lenz, 2006).

The NP Mentorship Program has challenged traditional concepts and ideas (Huizing, 2012); Maynard, Scandura, & Bishop, 2013). Implications for future nursing knowledge development include multiple mentoring strategies exploration, mentor perspectives evaluation, and the long term impact of NP mentoring relationships (Allen & Eby, 2003). Currently, international NP residency, orientation, and fellowship programs support NP competency development (American Nurses Credentialing Center, 2016; Brown, Poop, Kaminetzky, Wipf & Woods, 2015; Furfari, Rosenthal, Tady, Wolfe, & Glasheen, 2014; Sciacca & Reville, 2016). Mentoring can enhance NP competency through role development within a nurturing advanced practice nursing culture. A NP mentorship program has the potential to support transition into practice and enhance NP orientation, residency, and fellowship program development.

References

1. American Nurses Credentialing Center. (2016). Practitioner Transition Accreditation Program. Retrieved December 6, 2016, from American Credentialing Center, [http://www.nursecredentialing.org/Accreditation/Practice Transition](http://www.nursecredentialing.org/Accreditation/Practice%20Transition)
2. Allen, T. D., & Eby, L. T. (2003). Relationship effectiveness for mentors: Factors associated with learning and quality. *Journal of Management*, 29, 469-486. doi:10.1016/s0149-2063_03_00021-7
3. Allen, T. D., Eby, L. T., & Lentz, E. (2006). Mentorship behaviors and Mentorship quality associated with formal mentoring programs: Closing the gap between research and practice. *Journal of Applied Psychology*, 91, 567-578. doi:10.1037/0021-9010.91.3.567
4. Barnes, H. (2014). Nurse practitioner role transition: A concept analysis. *Nursing Forum*, 50, 137-146. doi:10.1111/nuf.12078
5. Benner, P. E. (2000). *From novice to expert: Excellence and power in clinical nursing practice*. United States: Addison-Wesley Publishing.
6. Brown, K., Poppe, A., Kaminetzky, C., Wipf, J., & Woods, N. F. (2015). Recommendations for nurse practitioner residency programs. *Nurse Educator*, 40, 148-151. doi:10.1097/nne.0000000000000117
7. Donabedian, A. (2015). Evaluating the quality of medical care. *Milbank Quarterly*, 83, 691-729. doi:10.1111/j.1468-0009.2005.00397.x
8. Fitzpatrick, S., & Gripshover, J. (2016). Expert nurse to novice nurse practitioner: The journey and how to improve the process. *The Journal for Nurse Practitioners*, 12, e419-e421.
9. Furfari, K., Rosenthal, L., Tady, D., Wolfe, B., & Glasheen, J. (2014). Nurse practitioners as inpatient providers: A hospital medicine fellowship program. *The Journal for Nurse Practitioners*, 10, 425-429. doi:10.1016/j.nurpra.2014.03.022
10. Gerhart, L. A. (2012). Mentorship: A new strategy to invest in the capital of novice nurse practitioners. *Nurse Leader*, 10, 50-53. doi:10.1016/j.mnl.2011.09.011
11. Grossman, S. C. (2014). *Mentoring in nursing: A dynamic and collaborative process, Second edition* (2nd ed.). New York: Springer Publishing Company.
12. Harrington, S. (2011). Mentoring new nurse practitioners to accelerate their development as primary care providers: A literature review. *Journal of the American Academy of Nurse Practitioners*, 23, 168-174. doi:10.1111/j.1745-7599.2011.00601.x
13. Huizing, R. L. (2012). Mentoring together: A literature review of group mentoring. *Mentoring & Tutoring: Partnership in Learning*, 20, 27-55. doi:10.1080/13611267.2012.645599
14. Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. Retrieved from http://books.nap.edu/openbook.php?record_id=12956&page=R1
15. Maynard-Patrick, S., Scandura, T. A., & Bishop, J. W. (2013). Paying it forward: Mentoring beyond the dyad. *Academy of Management Proceedings*, 2013, 15165-15165. doi:10.5465/ambpp.2013.15165abstract
16. McMullen, P., & Philipsen, N. (2012). Ruling on the affordable care act opens practice opportunities for NPs. *The Journal for Nurse Practitioners*, 8, 680. doi:10.1016/j.nurpra.2012.08.013
17. National Organization of Nurse Practitioner Faculties. (2012). Nurse Practitioner Core Competencies. Retrieved November 4, 2014, from National Organization of Nurse Practitioner Faculties, <http://www.nonpf.org/?page=14>
18. Pop, R. S. (2016). Mentoring nurse practitioners in a hospital setting. *Journal of Nursing Research*. doi:10.1097/jnr.0000000000000161
19. Rafferty, C. (2015). Mentoring: Supporting NP transition to practice. *The Journal for Nurse Practitioners*, 11, 560. doi:10.1016/j.nurpra.2015.03.023
20. Sargen, M., Hooker, R. S., & Cooper, R. A. (2011). Gaps in the supply of physicians, advance practice nurses, and physician assistants. *Journal of the American College of Surgeons*, 212, 991-999. doi:10.1016/j.jamcollsurg.2011.03.005
21. Scandura, T. (2015). Mentoring functions questionnaire. Retrieved November 11, 2016, from Mentoring Functions Questionnaire, https://works.bepress.com/terri_scandura/21/
22. Sciacca, K., & Reville, B. (2016). Evaluation of nurse practitioners enrolled in fellowship and residency programs: Methods and trends. *The Journal for Nurse Practitioners*, 12, e275-e280. doi:10.1016/j.nurpra.2016.02.011
23. Simone, S. (2014). *Transitioning into hospital-based practice: A guide for nurse practitioners and administrators*. New York: Springer Publishing Company.

Contact

Patricia.Bartley-daniele@nyumc.org

C 01 - Student Nurse Communication Skills

A Global Measure of Nursing Student Communication: The Interpersonal Communication Assessment Scale (ICAS)

Marilyn Klakovich, DNSc, RN, NEA-BC, USA

Abstract

The purpose of this presentation is to describe the Interpersonal Communication Assessment Scale, its usefulness in nursing schools in the USA, and efforts to increase the global usefulness of the scale through translation and adaptation for use in other languages and cultures.

In the late 1990's, despite the centrality of interpersonal communication in nursing, there were few psychometrically sound instruments to measure the communication competencies of undergraduate and graduate nursing students. A colleague and I set out to develop and test the Interpersonal Communication Assessment Scale (ICAS), which was designed to assess the communication competencies of students in undergraduate and graduate nursing programs.

We used responses from undergraduate and graduate clinical faculty from 246 American Association of Colleges of Nursing member schools for the psychometric testing of the ICAS. The three subscales of the ICAS represent important dimensions of interpersonal communication and include advocacy, therapeutic use of self, and validation. Advocacy is clearly conveying diagnostic and other relevant information in a way that supports patient/family wishes and decisions. Therapeutic use of self is defined as demonstrating interpersonal behaviors that assist clients in achieving healthy emotional and behavioral outcomes by being genuine, empathetic, and respectful to the client). Validation consists of listening carefully and verifying that the intent of messages is accurately interpreted (Klakovich & dela Cruz, 2006). In a systematic review of objective measures used to assess pre-registration students' clinical competence, the ICAS was one of 6 instruments out of 16 judged as having high quality with low risk of bias (Cant, McKenna, & Cooper, 2013). It is listed by the Health Foundation (2014) in their "Helping measure person-centred care" publication as a professional measure of a behavior that supports person-centered care. And Oermann (2013) lists the ICAS as a level 2 affective measure as part of the Kirkpatrick model.

The ICAS has been used to track the communication development of nursing students in both undergraduate and graduate programs in the United States. It has also been adapted for work with Alzheimer's patients and their caregivers. Since all of the initial testing was completed with United States students and faculty, careful translation, adaptation, and further testing were needed before use in other countries. To date, it has been translated into Chinese, Italian, Portuguese (Lopes, Azeredo, & Rodrigues, 2013), Tagalog, and Viet Nameese.

Educators and researchers seeking permission to translate and adapt the ICAS are guided to use the process described by dela Cruz, Padilla, and Agustin. This process includes translation and back-translation. The original authors of the ICAS served as consultants to ensure the interpretation of each item was preserved. Items were adapted as needed to be sensitive to cultural issues. Judges of the translation of the ICAS into Portuguese concluded that it is suitable for use with Portuguese nursing students (Lopes, Azeredo, & Rodrigues, 2013).

As global boundaries continue to blur, it is important that nurse educators and researchers identify instruments that can be used in a variety of countries as teaching tools and evaluation measures to ensure we are preparing a global nursing workforce for the future.

References

- Cant R, McKenna L, Cooper S. (2013). Assessing preregistration nursing students' clinical competence: A systematic review of objective measures. *International Journal of Nursing Practice* 19, 163–176.
- dela Cruz, F.A., Padilla, G.V., & Agustin, E.O. (2000). Adapting a measure of acculturation for cross-cultural research. *Journal of Transcultural Nursing*, 11(3), 191-198.

Klakovich, M.D., & dela Cruz, F.A. (2006). Validating the Interpersonal Communication Assessment Scale. *Journal of Professional Nursing*, 22(1), 60-67.

Lopes, R.C.C., Azeredo, Z.D., & Rodrigues, R.M.C. (2013). Interpersonal Communication Assessment Scale: Psychometric Study of the Portuguese Version, *Journal of Professional Nursing*, 29(1), 59-64.

Oerrmann, M. (2013). *Teaching in nursing and the role of the educator*. New York, New York: Springer Publishing Company.

The Health Foundation (2014). *Helping measure person-centred care*. www.health.org.uk

Contact

mklakovich@apu.edu

C 01 - Student Nurse Communication Skills

How Baccalaureate Student Nurses Use Art Therapy to Facilitate Therapeutic Communication

Robyn Rice, PhD, MSN, RN, CNE, USA
Joyce Mary Hunter, MSN, RN, USA

Abstract

Background: Developing communication skills and therapeutic relationships are key components in baccalaureate nursing education. These skills and techniques are emphasized within mental health courses as student nurse interactions are seen as key interventions to foster patient coping, stabilization, and recovery. However, patients with mental illness are not an easy population to communicate with as related to their stress levels and disease processes. This situation is magnified for student nurses who are still learning ways to dialogue. In fact, establishing one to one interactions with mental health patients and experiencing moments of silence with them, both embedded in therapeutic relationships, may be very challenging for student nurses. This can possibly be related to inadequate or under-developed student nurse communication skills as well as a fear of saying the wrong thing. Communication and verbalizing healthcare concerns may play a major part in assisting mental health patients to develop positive coping skills for recovery and community independence. Difficulties in communicating with mental health patients may be further compounded by the nature of involuntary settings where the mental health nurse must negotiate relationships and set boundaries regarding angry or otherwise unacceptable patient behaviors. A significant issue here is that patients with mental health disorders often experience varying degrees of inactivity, boredom, perceptual disturbances, angry and isolative behavior making communication difficult for them. When working with this group, student nurses may lack self-confidence and be fearful of saying the wrong thing to the patient. Moreover, and of importance to this study, student nurses may find it very difficult to form therapeutic relationships with mental health patients related to a lack of targeted communication skills and techniques which they do not necessarily get in school for this special patient group. Art therapy is a recognized method of promoting mental health. Moreover, art therapy can re-direct patients' mental suffering into positive forms of self-expression(s) that may improve their overall quality of life. To date, no research has been done to investigate how student nurses develop a therapeutic relationship with mental health patients using art therapy to facilitate communication. Of consequence, art therapy may be very helpful in assisting student nurses within clinical experiences in the mental health setting.

Purpose: The purpose of this study was to explore how undergraduate student nurses use art therapy to promote therapeutic communication with mental health patients. This was a qualitative study using principles of thematic analysis. The following research question was asked:

What is the effect of art therapy on the therapeutic relationship and communication between student nurses and mental health patients?

Participants: Participants in the study were undergraduate nursing students from a mid-western university. Two of the researchers not affiliated with the university went to the students' class to describe the study and ask for volunteers. Participants were offered a 25 dollar gift certificate for participating in the study. Thirty-two student nurses agreed to participate in the study. Participants in the study consisted of both male and female student nurses from diverse social and ethnic backgrounds.

Design and Methods: This was a qualitative study using principles of thematic analysis. Art therapy was rendered in each clinical setting in the form of crayons and paper or coloring books, whereby student nurses and mental health patients actively participated in coloring together on a one to one basis in an open, observed area such as in the dining room or in a group setting under the direction of a certified art therapist. A semi-structured interview was administered to undergraduate student nurses. Three primary interview questions with probes were asked of the students during all interviews in order to answer the research question:

1. What is it like to communicate with mental health patients?
2. Have you used art therapy when communicating with mental health patients? What was it like?
3. How does art therapy assist you to communicate with your patient during your mental health experience?

All student nurses took turns answering the interview questions; when responding to the questions they were assigned numbers rather than using their names. In some exchanges student comments supported those of others. In other exchanges student comments stimulated new insights among the group.

Data were collected via audiotape and then analyzed and summarized into themes for reporting according to principles of thematic analysis. The interviews were professionally transcribed verbatim and accuracy of the transcriptions verified by the primary investigator. The transcripts were read multiple times to identify commonly occurring words and ideas. These formed the basis for the analysis. Data were processed and analyzed using a software program. Discrete themes were initially identified by in vivo coding of the student nurse's open-ended interview responses. Later, these codes were refined to reflect common elements and were named to capture the essential meaning of each theme. Subthemes were identified during this process. In addition, the investigator's memos, hand written notes, and diagrams of the data were used in the data analysis. All themes were reviewed to ensure that they emerged from the data thus avoiding *a priori* assumptions. Transcripts were read multiple times by all researchers. The in vivo codes and emerging themes were reviewed by the researchers and discrepancies were resolved by examining the transcripts to ascertain the meaning of the thoughts of the student nurses. The participants' words in the transcripts provided final support of the results derived. Findings were compared with the original transcripts as well as the researchers' memos and diagrams. To promote credibility of the findings a confirmatory analysis was done by a colleague expert independent of the study having a mental health clinical background and experienced in qualitative research methods.

Results: Art therapy facilitated student nurse and mental health patient communication. Art therapy also enabled a comfortable silence between student nurses and mental health patients where both could just *bewith* each other in a safe and non-judgmental relationship. Students overcame their fears of saying or doing the wrong thing. Patients began to share feelings and tell their stories; student nurses began to understand what was going on with them and grew professionally in learning more effective ways of gathering information. Silently being with the mental health patients and communicating non-verbally built on the student nurse's professional experiences of presence, reflection, and intuition.

Conclusions: In conclusion, this study supports art therapy as a valuable tool in facilitating therapeutic communication between student nurses and mental health patients. Art therapy promotes patient self-revelation of thoughts and feelings as well as comfortable silences between student nurses and their patients where trust is established and positive relationships with the patient occurs. It allows for professional growth of student nurses in their communication skills. Most importantly, this study supports the incorporation of art therapy as a deliberate communication strategy in baccalaureate nursing education to enhance the professional growth and development of student nurses as practicing nurses today and tomorrow.

Implications: Research should be conducted with mental health patients and staff nurses regarding the efficacy of art therapy. This study also supports the intentional use of art therapy with mental health patients to enhance communication and suggests it be integrated into baccalaureate nursing education both in the classroom and clinical setting as well as in online curriculum design.

References

- Berman, A., Snyder, S., & Frandsen, G. (2016). Communicating. In A. Berman, S. Snyder, & G. Frandsen (Eds.), *Kozier and Erb's fundamentals of nursing: Concepts, process, & practice* (pp. 437-464) (10th ed.). New York, NY: Pearson.
- Happell, B., & Gaskin, C.J. (2013). The attitudes of undergraduate nursing students towards mental health nursing: A systematic review. *Journal of Clinical Nursing*, 22, 148-158.
- Wyder, M., Bland, R., Blythe, A., Matarasso, B., & Crompton, D. (2015). Therapeutic relationships and involuntary treatment orders: Service users' interactions with health-care professionals on the ward. *International Journal of Mental Health Nursing*, 24, 181-189. doi;10.1111/inm.12121

Contact

rrice@chamberlain.edu

C 02 - Domestic Violence and the Promotion of Mental Health

The Relationship Between Marginalization and Mental Health Symptoms in Abused Women

Anne Koci, PhD, RN, FNP-BC, WHNP, USA
Judith M. McFarlane, DrPH, RN, FAAN, USA
John A. Maddoux, PhD, MA, USA

Abstract

Background: Globally intimate partner violence (IPV) affects 1 in 3 women (WHO, 2013). One important factor that may be associated with the increased vulnerability to abuse is marginality which brings about social isolation as well as psychological isolation of individuals. This isolation has negative consequences for emotional health (Koci, 2012; Symes, McFarlane, Nava, Gilroy, Maddoux, 2013) Anxiety, depression and PTSD are adverse mental health symptoms that increase the risk for suicide. The World Health Organization's Sustainable Development Goal 3 is to ensure healthy lives and promote well-being for all at all ages and to reduce premature mortality from suicide.

Purpose: The purpose of this study was to examine the link between marginalization and mental health symptoms among women with known histories of intimate partner violence.

Methods: Data utilized in this study included five-year data from a prospective seven-year study examining the clinical outcomes of women seeking support through either a safe shelter or the DA's office for the first time following a violent relationship (n=279). Women were surveyed every four months for five years. Key measures utilized for this sub-analysis included the Koci Marginalization Index, Brief Symptom Inventory, and a PTSD screening measure.

Results: A series of multiple linear regressions were conducted to predict mental health outcomes (depression, somatization, anxiety, PTSD) from current levels of marginalization, controlling for entry levels of marginalization. Results indicated that marginalization was significantly associated with higher levels of Global Distress ($Beta = .319$), Depression ($Beta = .349$), Anxiety ($Beta = .294$), Somatization ($Beta = .197$), and PTSD symptoms ($Beta = .366$). Results consistently demonstrated that higher levels of marginalization were associated with higher levels of mental health symptoms.

Conclusions: Our findings revealed a positive relationship between marginality and adverse mental health outcomes of depression, anxiety, somatization, and PTSD symptoms indicating that the more marginalized woman suffers more deeply with mental health symptoms which may put her at higher risk for suicide. These findings concur with previous research (Koci, 2004) that marginality of women contributes to social isolation and deterioration of mental health. This longitudinal study in the 5th year serves as an alert to healthcare providers to the possibility of long-term abuse-related sequelae in their practice. This research contributes to the knowledge of marginality, a social determinant of health. Understanding marginality and its impact on mental health may aid in reducing mortality from suicide. Policymakers need to be cognizant of the role of marginality in females and its potential adverse impact on their mental health which may aid in the development of healthcare agendas at all levels of government.

References

Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence (WHO, 2013)
Koci A, McFarlane J, Nava A, Gilroy H, Maddoux J. (2012). Informing practice regarding marginalization: The application of the Koci Marginality Index. *Issues in Mental Health Nursing*. 33:858-63.
Transforming Our World: The 2030 Agenda for Sustainable Development. United Nations General Assembly; Seventieth Session. Accessed 3 December, 2016 Available from <https://sustainabledevelopment.un.org/post2015/transformingourworld>

Contact

akoci@twu.edu

C 02 - Domestic Violence and the Promotion of Mental Health

A Cognitive-Behavioral Therapy Program for Youth Who Engage in Domestic Violence Against Their Parents

Anthony J. Roberson, PhD, RN, PMHNP-BC, USA

Abstract

Purpose: The purpose of this oral presentation is to present the specifics and the results of an evidence-based, Cognitive-Behavioral Therapy intervention program developed for youth who engage in domestic violence against family members, and their parents.

Problem: Domestic violence by youth against family members, particularly their parents, is on the rise in the USA and in other countries (Imbusch, P., Misse, M., & Carrion, F., 2011; Martinez-Lanz, P., Gonzalez, A., & Ocampo, D.B., 2014; Zeoli, A.M., Rivera, E.A., Sullivan, C.M., Kubiak, S., 2013). Specifically, in Miami-Dade County (Miami, Florida, USA), the number of youth who engage in abusive behaviors (physical and verbal) against their family members has led to an increase of juvenile arrests and encounters with the juvenile justice system (JJS) (Jouriles, E.N., Rosenfield, D., McDonald, R., Mueller, V., 2013; Miami-Dade, 2016). Unfortunately, these arrests have led to incarceration of youth who otherwise had no previous encounters with the JJS. Further, data indicates that initial arrests among youth have resulted in a noticeable increase in subsequent arrests (for various reasons) upon release of the youth from the JJS back into the community (Miami-Dade, 2016). Because of the increase in domestic violence of youth against their parents and family members, and the unmanageable increase of youth who were being incarcerated for domestic violence, a judge within the Miami-Dade JJS sought the assistance of a research/advanced practice nurse, therapists, lawyers, probation officers, and social workers, to address this growing and seemingly uncontrollable epidemic. In collaboration with a representation of disciplines, this author (research/advanced practice nurse) led the development of a program that was implemented to divert youth who engaged in domestic violence from encountering the JJS, thereby avoiding incarceration when unnecessary and otherwise avoidable.

Intervention: The four week, four module program, solidly grounded in the tenets of Cognitive Behavioral Therapy (Clark, P., 2010; Townsend, E., Walker, D., Sargeant, S., Vostanis, P., Hawton, K., Stocker, O., & Sithole, J., 2010) was a collaboration between a School of Nursing, Coordinated Victims Assistance Center (CVAC), Miami, Florida, and the Miami-Dade County Juvenile Justice System (JJS). The target population was youth, male and female, age 13-17, who engaged in domestic violence against their parents and/or a family member, had a history of psychiatric mental health treatment, and who had limited previous encounters with the JJS. The latter criteria proved important, as research indicates that youth who are not fully involved in the JJS are more likely to change their behaviors and avoid further involvement in the system if interventions are implemented in the early stage(s) of their offenses (Jouriles, E.N., Rosenfield, D., McDonald, R., Mueller, V., 2013). In addition, because of the limited involvement of these youth in the JJS, the intervention program served as a diversion for the youth, as agreed upon by the judge; meaning that if youth successfully completed the program, s/he could avoid further incarceration, probation, and/or record of involvement in the JJS. Parents of the youth were also involved in the intervention program (Aos, S. & Drake, E., 2013).

Cognitive Behavioral Therapy (CBT) is the psychiatric mental health therapy approach that has proven exceptionally and consistently successful among various incarcerated populations, including offenders of drug paraphernalia, driving while intoxicated, and those who commit what are considered minor offenses, such as petty theft, vandalism, and battery/assault (Clark, P., 2010; Townsend, E., Walker, D., Sargeant, S., Vostanis, P., Hawton, K., Stocker, O., & Sithole, J., 2010). Further, CBT is a short-term, focused, and concise therapy approach, which is ideal for the youth population. Lastly, CBT approaches can easily be implemented in a group setting, thereby reducing costs associated with individual therapy approaches and casting a larger net in terms of treatment (WSIPP, 2015). Since domestic violence is defined for the most part as a minor offense (especially among youth), and a short-term, brief therapy approach was desired, a program with a strong CBT approach was created. The overall goal was to improve the lives of

the youth who were enrolled in the program. Therefore, Transforming Our Youth (TOY) became the name of the program.

The content of the TOY program modules included anger assessment (identified through the administration of the GAIN-I and GAIN-SS), reviewing domestic violence concepts, understanding the profile of the batterer, and describing the cycle of violence. In addition, roles (present and desired) within the family were explored, which included a discussion related to the strong cultural component of domestic violence (especially relevant considering the strong Hispanic representation of youth in the program), and the communication between youth and their parents were evaluated (Macias, R.L., Rosales, A., Morales, A., Serrate, J., Perilla, J., 2013; Perilla, J., 2013). The program also included a component of self-evaluation which involved the youth considering the consequences of their abusive behaviors. Lastly, the program incorporated activities (homework) for the youth to begin adopting and implementing more effective and healthy communication and interactions with those in their family. The parent component of the program was similar in content to that of what was presented to the youth. However, parents were also encouraged to process their concerns with specific parenting issues, along with ways to better manage their youth in terms of setting limits in productive, healthy, and effective ways. The youth and parent groups, although facilitated in separate rooms at the JJS, were held at the same times, mainly for convenience, but most importantly so the youth and parents received the same information and worked on the same assignments between sessions. Each cohort of youth and parents completed the program over a consecutive four week period, completing one module of the program each week.

Results: Considering the nature and cycle of domestic violence, we defined initial success of the program as a youth who avoided encountering the juvenile justice system at least six (6) months after the initial domestic violence offense. The program continues to date, and is now being facilitated by youth and parents who completed the program. Nevertheless, for this presentation, the data from the first four cohorts of youth (n=45) and their parents (n=53) are included. Among the four cohorts, all have reached the six (6) month post-intervention date, and no youth have re-encountered the JJS since completing the TOY program. Based on the pre-intervention data provided by the Miami-Dade JJS youth domestic violence arrest record, the fact that no youth was arrested within the six month post-intervention period was a significant and promising finding.

Summary: A Cognitive Behavioral Therapy approach to address youth domestic violence against their parents and other family members was implemented as a component of a diversion program. Success in the program was measured if the youth never engaged in domestic violence six months post intervention. The first four cohorts of youth were included in the initial evaluation of the program. The results include no re-arrest of youth, which is significant considering the number of youth who were being arrested after their initial arrest for domestic violence.

Implications for Nursing Practice and Future Projects: As a researcher and advanced practice nurse with over 20 years of experience of service in the JJS, I recognize that the TOY intervention program can be implemented in a variety of juvenile justice settings, including the USA and other countries. As part of a global initiative, my goal is to introduce this program not only in other counties across Florida and the USA, but also in countries where domestic violence among youth is increasing (i.e. Latin American countries) (Martinez-Lanz, P., Gonzalez, A., & Ocampo, D.B., 2014). Further, the evaluation of the TOY program includes only the first four cohorts that completed the six-month evaluation period, which was the intent when the program was originally implemented. However, since that time, our interests have expanded to include evaluation of the long-lasting, and perhaps lifetime, effect(s) of the program. Therefore, longitudinal data collection and analysis, including arrest activity of youth who completed the TOY program, will be conducted and eventually presented in subsequent scholarly publications.

References

Aos, S. & Drake, E.. (2013). *Prison, Police, and Programs: Evidence-Based Options that Reduce Crime and Save Money*. Olympia, Wash.: Washington State Institute for Public Policy.
Clark, P. (2010). Preventing Future Crime with Cognitive Behavioral Therapy. *National Institute of Justice Journal*, 265:22–25.

Imbusch, P., Misse, M., & Carrion, F. (2011). Violence Research in Latin America and the Caribbean: A Literature Review. *International Journal of Conflict and Violence*, 5(1):87-154.

Jouriles, E.N., Rosenfield, D., McDonald, R., Mueller, V. (2013). Child Involvement in Interparental Conflict and Child Adjustment Problems: A Longitudinal Study of Violent Families. *Journal of Child Psychology*, 42:693-704.

Marcias, R.L., Rosales, A., Morales, A., Serrata, J., Perilla, J. (2013). Perspectives of Latina Survivors of Intimate Partner Violence on Staying With or Leaving Abusive Partners. [Nationallatinanetwork.org](http://www.nationallatinanetwork.org)

Martinez-Lanz, P., Gonzalez, A., & Ocampo, D.B. (2014). Domestic Violence and Alcohol and Illegal Drugs Consumption in Mexican Youth. *Journal of Health Science*, 2, October 2014.

Miami-Dade County Juvenile Services Department (2016). Retrieved on December 3, 2016:
<http://www.miamidade.gov/juvenileservices/>

Perlla, J. (2013). Latina Youth Letters on Family, Relationships, and Violence. [Nationallatinanetwork.org](http://www.nationallatinanetwork.org)

Townsend, E., Walker, D., Sargeant, S., Vostanis, P., Hawton, K., Stocker, O., Sithole, J. (2010). Systematic Review and Meta-Analysis of Interventions Relevant for Young Offenders with Mood Disorders, Anxiety Disorders or Self-Harm. *Journal of Adolescence*, 33(1):9-20.

Washington State Institute for Public Policy (2015). Benefit-Cost Technical Documentation: *Washington State Institute for Public Policy Benefit-Cost Model*. Olympia, Washington.

Zeoli, A.M., Rivera, E.A., Sullivan, C.M., Kubiak, S. (2013). Post-Separation Abuse of Women and their Children Boundary-Setting and Family Court Utilization among Victimized Mothers. *Journal of Family Violence*, 28:547-560.

Contact

tcbickley82@gmail.com

C 03 - Nursing Student Support Strategies

Those Entitled Millennials: Comparative Analyses of Nursing Faculty and Student Narcissism and Organizational Support Measurements

Kate Rocklein Kemplin, DNP, MSN, BNSc, RN, CCEMTP, USA
Peyton Marie O'Kain, BSN, SN, USA

Abstract

Purpose: Internationally, attrition of nurses and nursing faculty is well-documented (Aiken, Sloane, Bruyneel, Van den Heede, Sermeus, & RN4CAST Consortium, 2013; Van den Heede, Florquin, Bruyneel, Aiken, Diya, Lesaffre, & Sermeus, 2013). Intergenerational antagonism between the millennial generation of nursing students who are entering practice and older generations of nurses and nursing faculty may lead to high professional attrition and therefore, poor patient outcomes due to the lack of dedicated, young nurses who feel supported by those who should be mentoring them for the future. Vast generational differences exist between the upcoming cohorts of nurses, i.e. "Millennials" entering practice and those who educate, supervise, and design these millennials' education and career pathways. Older generations of nurses and nursing faculty often view students and younger nurses as entitled and unprofessional, yet the evidence supporting these assumptions and perceptions is virtually nonexistent.

The scope and purpose is to globally disseminate the results of this innovative nursing research that generated new knowledge of entitlement and narcissism plus organizational support as perceived by intergenerational nursing faculty and student participants. Investigating generational divides between faculty and students is imperative, as such divisions exist in nursing academia, research, and practice. This study demonstrated that students, particularly undergraduate, feel less supported than what faculty believe they provide in supportiveness. Millennial nursing students likely have vastly different expectations of support than previous generations (Goldman & Martin, 2016); anecdotally, such expectations are often perceived by nursing faculty as unbridled entitlement. This generational disconnect between nursing students and faculty can cause tension, miscommunication, and possibly obstruct learning and effective teaching. Exhaustive review of extant literature revealed little-to-no investigation of the relationships between perceived support and measures of entitlement and narcissism in nursing students.

Methods: After institutional review board (IRB) approval, 329 participants were recruited via email and social media; total participants were 110: 56 undergraduate students, 29 graduate students, and 25 faculty. Using psychometrically superb instruments such as the perceived organizational support scale (POSS) (Kottke & Sharafinski, 1988) and the Narcissistic Personality Inventory (NPI) (Ackerman, Donnellan, & Robins, 2012), participants responded anonymously after granting informed consent. The POSS has high internal consistency with a Cronbach's alpha of .97; the NPI has a high Cronbach's alpha of .84.

Results: Multivariate analyses revealed significant differences and predictions of generational perceptions between nursing faculty, undergraduate, and graduate students. We also ran nonparametric analyses (Kruskal-Wallis) to confirm results among the three groups of median scores. Perceptions of support, plus measures of narcissism and entitlement, differed significantly between groups and categories ($p < .05$; .01; .005; .0005). Despite nursing practice experience and presumed maturity, perceived support, entitlement, and narcissism differed significantly between nursing student groups and nursing faculty. Generational assignment does not appear to influence entitlement as heavily as hypothesized. Faculty feel they are supportive beyond what students reported. There were also strong disparities between participant beliefs regarding what elements of student performance should be factored into grades.

Conclusions: Despite pervasive cultural stereotypes of millennials, all participants plus categorical designations scored differently than hypothesized on measures of entitlement and narcissism. These new results from this innovative research are supported by previous investigation indicating that millennial learners have different expectations of faculty than older or previous generations (Johanson, 2012).

Faculty must begin to consistently examine their own generational characteristics and understand how that influences teaching and students (Roberts, Newman, & Schwartzstein, 2012). Students feel more supported by faculty when interpersonal initiatives bridge generational gaps (Roberts et. al, 2012), such as incorporated technology (Montenery, Walker, Sorensen, Thompson, Kirklin, White, & Ross, 2013). This research should be presented internationally to educate nurse scientists and educators to improve intergenerational relationships in nursing education and throughout the workforce.

References

- Ackerman, R., Donnellan, M., & Robins, R. (2012). An item response theory analysis of the narcissistic personality inventory. *Journal of Personality Assessment, 94*(2), 141-155.
- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Sermeus, W., & RN4CAST Consortium. (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies, 50*(2), 143-153.
- Goldman, Z., & Martin, M. (2016). Millennial students in the college classroom: adjusting to academic entitlement. *Communication Education, 65*(3), 356-376.
- Johanson, L. (2012). Teaching the millennial generation considerations for nurse educators. *Nurse Educator, 37*(4), 173-176.
- Kottke, J., & Sharafinski, C. (1988). Measuring perceived supervisory and organizational support. *Educational and Psychological Measurement, 1075-1079*.
- Montenery, S., Walker, M., Sorensen, E., Thompson, R., Kirklin, D., White, R., & Ross, C. (2013). Millennial generation student nurses' perceptions of the impact of multiple technologies on learning. *Nursing Education Perspectives, 34*(6), 405-409.
- Pardue, K., & Morgan, P. (2008). Millennials considered: a new generation, new approaches, and implications for nursing education. *Nursing Education Perspectives, 29*(2), 74-79.
- Reeve, K., Shumaker, C., Yearwood, E., Crowell, N., & Riley, J. (2012, November 15). Perceived stress and social support in undergraduate nursing students' educational experiences. *Nurse Education Today, 419-424*.
- Roberts, D., Newman, L., Schwartzstein, R. (2012). Twelve tips for facilitating millennials' learning. *Medical Teacher, 34*(4), 274-278.
- Van den Heede, K., Florquin, M., Bruyneel, L., Aiken, L., Diya, L., Lesaffre, E., & Sermeus, W. (2013). Effective strategies for nurse retention in acute hospitals: a mixed method study. *International Journal of Nursing Studies, 50*(2), 185-194.

Contact

kate-kemplin@utc.edu

C 03 - Nursing Student Support Strategies

Embedding a Clinical Therapist as Staff Into a Faculty/School of Nursing

Linda J. Patrick, PhD, MSc, MA, BScN, RN, Canada

Laurie M. Carty, PhD, BA, BScN, RN, Canada

Sheema J. Inayatulla, MBA, BSc, Canada

Katelyn J. Verkoeyen, Canada

Abstract

The mental health of post-secondary students on college and university campuses has received considerable media attention especially when harm to self or others is the outcome. Nursing students are not immune to psychological distress and mental illness (Stallman & Shochet, 2009). Compared to the majority of post-secondary students, nursing students reportedly have a higher risk of mental health difficulties including excessive stress, anxiety and depression that can lead to poor health outcomes (Chernomas & Shapiro, 2013; Fitzgerald, 2015). There are many campus wide resources for students to access at their respective institutions, but they are often unwilling to voluntarily seek counselling during periods of escalating stress and anxiety. According to Galbraith et al., they prefer instead to confide in friends and family (2014). This avoidance behavior was described by Goff (2011) as possibly due to the perception that accessing services is a sign of weakness or inability to cope with the requirements of being a nurse. Our experience has included students revealing ineffective coping skills and mental health related issues to clinical and theory teachers when unsuccessful in a course. Instructors struggle with separating academic advising from emotional support during a student crisis. In severe cases, intervention includes walking a distraught student to counseling services across campus for fear that they would harm themselves. Additionally, faculty voice frustration with delays in assessment and interventions by external therapists to allow students to have a timely return to their studies. The inability to provide a smooth transition back to clinical in particular resulted in higher attrition rates and delayed completion of the nursing program. In 2012, a part-time clinical therapist was hired as a permanent staff position in our Faculty of Nursing. Students self-refer to the therapist or are referred by our academic advisor or faculty. The addition of a clinical therapist to our team has led to our students receiving timely and often pre-emptive counseling for issues related to both personal and academic stress. Outcomes include decreased attrition rates across all four years of the baccalaureate program and an enhanced student experience.

References

- Chernomas W. M. & Shapiro C. (2013). Stress, depression, and anxiety among undergraduate nursing students. *International Journal of Nursing Education Scholarship* 10, 255-266/ doi: 10.1515/ijns-2012-0032.
- FitzGerald, L. Z. (2015). Categorization and determinants of physical activity among nursing students. *Journal of Nursing Education and Practice*, 5(5), 10-20. DOI: 10.5430/jnep.v5n5p10
- Galbraith N. D., Brown K. E. & Clifton E. (2014). A survey of student nurses' attitudes toward help seeking for stress. *Nursing Forum* 49, 171-181. Doi: 10.1111/nuf.12066.
- Goff A. M. (2011). Stressors, academic performance and learned resourcefulness in baccalaureate nursing students. *International Journal of Nursing Education Scholarship* 8, 1-20.
- Stallman H, M., & Shochet, L. (2009). Prevalence of mental health problems in Australian university health services. *Australian Psychologist*, 44(2), 122-127. <http://dx.doi.org/a0.1080/0005060902733727>.

Contact

lpatric@uwindsor.ca

D 13 - Clinical Care Practices

Clinical Practice Characteristics of Nurse Practitioners Managing the Care of Older Adults

Laurie Kennedy-Malone, PhD, GNP-BC, FAANP, FGSA, USA
Marianne Shaughnessy, PhD, RN, AGPCNP-BC, USA

Abstract

Purpose: A national survey of nurse practitioners (NP) who manage the care of older adults in the United States was conducted to determine the practice characteristics in terms of engagement in professional activities and clinical skills in relationship to years of experience as a nurse practitioner, practice setting, and population foci nurse practitioner preparation (adult, gerontological, adult-gerontology, family, or other).

Methods: The Advanced Practice Nurses Managing the Care of Older Adults Practice Profile (APNMCOA), a 153 item survey designed to ascertain practice characteristics of nurse practitioners managing the care of older adults was developed to be administered in an on-line survey format. Using a variety of electronic communication to invite nurse practitioners to participate in the study, the survey was made available for two months for nurse practitioners to voluntarily complete and submit. The APNMCOA is divided into five sections. The first section pertains to demographic information, followed by a section on type of national certification, educational preparation and prescriptive privileges. The nurse practitioners are then asked to rate the frequency and importance of 61 professional activities. Given next a list of 41 clinical procedures, the nurse practitioners were asked to indicate where they learned how to perform the procedure and how often they performed the procedure. The final section of the survey pertained to prescribing patterns of specific classes of medications.

Results: Over 1200 nurse practitioners responded to the survey during the two month time period that the survey was available on-line. With an average age of 51, the majority of respondents were master's prepared Caucasian females with prescribing privileges, DEA number billing under their National Provider Identifier Standard number. The average number of years practicing as a nurse practitioner was 11. Only a small percentage of the NPs (12%) responded that they were billing "incident-to" the work of a physician in their practice. Many of the respondents indicated that they held more than one national certification as a nurse practitioner and multiple subspecialty certifications. The educational preparation of nurse practitioners responding was almost divided evenly amongst adult, gerontological, and family nurse practitioners with a small remaining percentage indicating preparation as an adult-gerontology acute or adult-gerontology primary care nurse practitioner. The majority reported having prescription privileges their own DEA number and billing using the NP special national provider number. When examining the responses to the 61 professional activities which were indicative of engaging in gerontological specific practice, the respondents more often responded that they valued the activity more than they actually engaged in the activity. Procedures that nurse practitioners responded that they regularly perform included clinical skills performed by primarily by registered nurses as well as procedures often deemed medical acts in state nurse practice regulations.

Conclusion: The results of this study indicate that nurse practitioners manage complex care of older adults across multiple practice settings. Findings of this study need to be disseminated to nurse educators, policy makers and consumers alike.

References

Gerontological Advanced Practice Nurses Association (GAPNA). (2015). GAPNA consensus statement on proficiencies for the APRN gerontological specialist. Pitman, NJ: Author

Contact

laurie_kennedy-malone@uncg.edu

D 13 - Clinical Care Practices

The Value of Fracture Liaison Services: A Focus Group Study

Sharon Kan-Ha Chow, DNP(c), RN, ANP-BC, PPCNP-BC, CCD, USA

Abstract

Purpose: Economic analysts have predicted that worldwide aged 65 years and older will increase to more than 1.3 billion by 2040. The growing aging population carries a high prevalence of osteoporosis and a high incidence of morbidity and mortality. In the United States, only 5% of patients with osteoporosis are properly diagnosed. The International Osteoporosis Foundation advocates Fracture Liaison Services (FLS) as best practice that ensures appropriate osteoporosis testing, diagnosis, treatment and ongoing support for fracture patients. Highly collaborative Kaiser Permanente Southern California Healthy Bones Program is recognized as best FLS practice to proactively identify, screen, and treat adults who may have or be at risk for osteoporosis. The purpose of this qualitative study is to explore the value of the Healthy Bones Program as perceived by Kaiser Permanente members aged 65 years and older, specifically relating to patient care experiences and health outcomes. A secondary purpose is to elicit information about members' knowledge and value for the collaborative efforts that are implemented to improve patient care experiences and health outcomes.

Methods: Two focus group interviews were conducted with 6 participants per group, for a total of 12 participants at Fontana Kaiser Permanente Medical Center. The interviews were conducted by the primary investigator and co-investigator using semi-structured, open-ended and prompting questions to gain participants' detailed insights. All recorded interviews were professionally transcribed verbatim. Qualitative content analysis and interpretive processes were utilized to facilitate better understanding of participants' experiences and perceptions. The use of Nvivo software assisted in coding, as well as generating reports of coded text for analysis. A word cloud was developed to enhance a visual representation of overlapping themes within the study.

Results: This focus group study successfully explored participants' understanding and experience of the value of Healthy Bones Program, and investigated participants' views on how they would like to be involved in care experiences and health improvement. Five cluster themes and their subthemes were identified, such as Healthy Bones Program knowledge, perceived collaborative care, osteoporosis self-care management, Healthy Bones Program care experiences, and healthy lifestyle and living longer. Participants' positive and negative comments of their care experiences were carefully summarized. Health education of bone health and osteoporosis management were highly appreciated as beneficial and informative intervention, to enrich and empower osteoporosis self-care management. Participants felt well informed and motivated, to get more involved in their osteoporosis care. Participants experienced that electronic health records facilitated collaborative care in osteoporosis screening, treatment and follow up. Preventive care was valued as the key measure for general health and bone health promotion. Participants commented that bone health promotion and osteoporosis prevention should be started at an earlier age, around 30-40 years of age. In order to live longer, participants all seek for health education, and maintain healthy eating and healthy lifestyle.

Conclusion: In today's ever-changing, complex healthcare systems, patient care experience is purposefully built on an organization's collaborative efforts to shape a positive care experience. When patients can have a voice, quality patient-centered care will be expected throughout health continuum. In order to meet the preventive care commitment, FLS strategies will interprofessionally help decrease the burden of osteoporosis. The focus group study findings can influentially impact in measuring program success, and triggering necessary program improvement. The results will be disseminated at the local, national and international levels to transform collaborative, evidence-based osteoporosis care management, to improve patient care experiences and health outcomes.

References

Bertschy, S., Geyh, S., Pannek, J., & Meyer, T. (2015). Perceived needs and experiences with healthcare services of women with spinal cord injury during pregnancy and childbirth: A qualitative content analysis of focus groups and individual interviews. *BMC Health Services Research*, 15(1), 1-12. doi:10.1186/s12913-015-0878-0

Curtis, J., & Silverman, S. (2013). Commentary: The five Ws of a fracture liaison service: Why, who, what, where, and how? In osteoporosis, we reap what we sow. *Current Osteoporosis Reports*, 11(4), 365-368. doi:10.1007/s11914-013-0177-9

Dishman, E. (2013). Health care should be a team sport. TED talk. Retrieved from http://www.ted.com/talks/eric_dishman_health_care_should_be_a_team_sport

International Osteoporosis Foundation. (2016). Fracture liaison services. Retrieved from <http://capturethefracture.org/fracture-liaison-services>

Kaiser Permanente Southern California Healthy Bones Program. (2016). Healthy bones complete care. Retrieved from <http://kpnet.kp.org/scal/completecure/conditions/osteoporosis/index.html>

Kling, J. M., Clarke, B. L., & Sandhu, N. P. (2014). Osteoporosis prevention, screening, and treatment: A review. *Journal of Women's Health*, 23(7), 563-572. doi: 10.1089/jwh.2013.4611

London Deanery Stewart House. (2012). Quantitative and qualitative measurement. Retrieved from <http://www.faculty.londondeanery.ac.uk/e-learning/introduction-to-educational-research/quantitative-and-qualitative-measurement>

National Bone Health Alliance. (2015). 2MILLION2MANY campaign kit. Retrieved from <http://www.2million2many.org/sites/default/files/content/file/65/upload/23.pdf>

Van Houdt, S., Sermeus, W., Vanhaecht, K., & De Lepeleire, J. (2014). Focus groups to explore healthcare professionals' experiences of care coordination: Towards a theoretical framework for the study of care coordination. *BMC Family Practice*, 15(1), 1-20. doi:10.1186/s12875-014-0177-6

Contact

schowtan@hotmail.com

D 13 - Clinical Care Practices

The Effect on Inter-Rater Consistency Using a Standardized Assessment Tool/Framework in Musculoskeletal Examinations

Debra Lynn Brewer, DNP, RN, FNP-BC, USA

Abstract

This quality improvement (QI) project was conducted to determine if a standardized assessment framework/tool for clinician use when conducting musculoskeletal examinations for disability claims would increase inter-rater consistency. The problem of inconsistent musculoskeletal examination outcomes was identified when clinicians performing disability examinations at a large healthcare organization reported a lack of criteria on which to base the determination of "functional loss." The finding of "functional loss" was being made independently by each clinician without any specific criteria and the examination outcomes lacked inter-rater consistency. A survey of the clinicians revealed that several examiners concluded that an examinee experienced "functional loss" in a large percentage of the examinations they completed, while other clinicians rarely indicated a "functional loss" existed, despite similar findings in examination metrics, such as range of motion and/or pain. This resulted in unfair compensation for the disability claimants. Standardized assessment tools have been used widely in a variety of settings in various disciplines and have proved to be beneficial in identifying and quantifying body function and structure limitations; this improves inter-rater consistency and clinical practice. A thorough evaluation of available tools and frameworks for use in musculoskeletal examinations was conducted and an appropriate framework was selected for use in this QI project by the clinicians performing the disability examinations. Rhetorical education, lunch-time discussions, slide presentations, and case studies were carried out to convey all educational information necessary regarding the purpose, function, and use of the selected framework. Clinicians were required to achieve an 80% pass rate on a post-education examination to assure appropriate use of the selected framework. A three-month period of post-education shoulder examination data was collected for comparison with the previously collected data. A Pearson's Chi-Square test performed to analyze the data and revealed a statistically significant association ($\alpha=0.05$ level) between post vs. pre-intervention for "functional loss" findings by clinicians, along with a seven-fold increase in overall positive findings for "functional loss" by clinicians using the standardized framework to perform the musculoskeletal examinations.

References

American Medical Association, (2014). Measure #182: Functional Outcome Assessment – National Quality Strategy Domain: Communication and Care Coordination.

Mijnarends, D. M., Meijers, J. M., Halfens, R. J., Borg, S., Luiking, Y. C., Verlaan, S., Schoberer, D., Cruz Jentoft, A. J., van Loon, L. J., & Schols, J. M. (2013). Validity and reliability of tools to measure muscle mass, strength, and physical performance in community-dwelling older people: a systematic review. *Journal of the American Medical Directors Association*, 14(3), 170-178.

Contact

dbcrrnp@gmail.com

D 16 - Developing Faculty Globally

Using the Lived Experience to Increase the Cadre of Nursing Faculty Who Teach Online

Elizabeth A. Gazza, PhD, RN, FACCE, LCCE, USA

Abstract

Purpose: The use of online delivery modalities continues to increase across higher education (Allen & Seaman, 2016) and in nursing education. The integration of technology into nursing education has improved access for students, influenced the delivery of nursing education, and expanded the need for evidence-based teaching specific to online teaching. Additionally, as more students enroll in online courses and programs, so does the need for nursing faculty who are qualified to teach online, and interested in doing so. While data about the number of nursing faculty who teach online is not readily available, only 32% of faculty from public, private, and for-profit institutions in higher education have taught online (Straumsehlm, Jaschik, & Lederman, 2015). This leaves two-thirds of full faculty who have not engaged in online teaching. Lack of familiarity with online teaching and perceived time associated with the instructional approach can deter faculty leaders from teaching and supporting online instruction (Chiabocchi, Ginsberg, & Picciano, 2016). Nursing faculty who can effectively use technology to deliver online education are essential in order to deliver online courses and programs. However, the shortage of nursing faculty in the US and the difficulties associated with attracting qualified applicants to available nursing faculty positions (AACN, 2015) can limit online offerings. Increasing the number of online faculty requires development and support systems that can assist them in this expanding role. This can be challenging because little is known about what it is like to teach online. The purpose of this presentation is to share research-based strategies that can increase the cadre of nursing faculty who integrate technology into nursing education and teach online.

Methods: A hermeneutic phenomenological study that uncovered the experience of teaching online in nursing education provides a description and interpretation of the online teaching experience serves as the basis for this presentation. Full-time nursing faculty who taught in a Bachelor of Science in Nursing (BSN), RN-BSN, Master of Science in Nursing (MSN), PhD in nursing, and/or doctor of nursing (DNP) programs in the United States and who completed at least 50% of their teaching workload assignment in the previous year in fully online courses were eligible to participate in the Institutional Review Board-approved study. Fourteen informants from ten different institutions of higher education located in nine different states in the US including four Northeastern, two Northern, and three Southern states volunteered to share their experience. Data were collected over an 8-month period through personal interviews and a demographic questionnaire. Interviews were recorded, transcribed, and analyzed using a 5-step process.

Results: Four themes emerged from the data including 1.) Looking at a lot of moving parts, 2.) Always learning new things, 3.) Going back and forth, and 4.) Time is a blessing and a curse. Findings indicate that online teaching differs from traditional classroom teaching and as a result, faculty in nursing education require development and support in order to attract them to online teaching and to retain them in the role.

Conclusion: Meeting the educational needs of the nursing workforce can be achieved in part through the use of technology to delivery online programs that can reach larger populations around the world. Comprehensive development and support programs, including mentoring specific for online teaching faculty, are needed to build the cadre of nursing faculty who teach online. This session offers strategies for creating such programs. It behooves nursing to lead the way in developing and supporting online faculty in nursing education.

References

Allen, I. E., & Seaman, J. (2016). *Online report card: Tracking online education in the United States*. Babson Park, MA: Babson Survey Research Group and Quahog Research Group. Retrieved from <http://onlinelearningsurvey.com/reports/online-reportcard.pdf>

American Association of Colleges of Nursing. (2015). *Nursing faculty shortage fact sheet*. Retrieved from <http://www.aacn.nche.edu/media-relations/FacultyShortageFS.pdf>

Ciabocchi, E., Ginsberg, A., & Piacciano, A. (2016). A study of faculty governance leaders' perceptions of online and blended learning. *Online Learning* 20(3), 52-73.

Straumsehlm, C., Jaschik, S., and Lederman, D. (2015). *The 2015 Inside Higher Ed survey of faculty attitudes on technology*. Washington, DC: Inside Higher Ed; Gallup.

Contact

gazzae@uncw.edu

D 16 - Developing Faculty Globally

Developing Nurse Educators and Leaders: A Collaborative Effort By National and International Faculty in Rwanda

Olivia Bahemuka, DNP, MSN, RN-BC, CTN-B, Rwanda

Oluyinka Adejumo, DittetPhil, RN, RPN, RNE, Rwanda

Sheila Shaibu, PhD, MNS, BEd, RN, Rwanda

Gilbert Banamwana, MSc, RN, Rwanda

Abstract

Introduction: The need for continued growth of the health sector across Africa is well known and well documented. Rwanda is one African country that is harnessing collaborative resources in building a competent and knowledgeable healthcare workforce to improve the healthcare and wellness of its population (Ansoms & Rostagno, 2012). Following the wake of post-genocide in 1994, Rwanda has tackled head on, some of the health sector challenges succeeding to making such milestones as reducing maternal mortality ratios from 750/100,000 in 2005 to 210/100, 000 live birth in 2014 (Rwanda Annual Health Statistics, 2014). As part of the effort to build the healthcare workforce, the Human Resource for Health (HRH) program for Rwanda was birthed out of the government's strategic plan intended to combat HIV back in 2002 (Binagwaho et al., 2013). The Rwanda ministry of health (MoH), working with its partner - the Clinton Access Initiative, established a unique seven year partnership with thirteen universities in the United States (US), six of which were schools of nursing (Mukamana, Uwizeye, & Sliney, 2015). The expectations for nursing were very clear and overall was aimed at restructuring nursing programs to equal accepted international level through curriculum development; and increasing the number of nursing and midwifery practitioners for both education and clinical practice areas. Further, the MoH identified a need to develop nursing leaders and educators at an advanced level that would carry on the growth and development of nursing achieved thus for purposes of sustainability chose to establish the first master's program in nursing. This paper reports on the specific aspect of the need to develop nurse leaders and nurse educators that are expected to take the development of nursing workforce to a higher level in terms of quality and quantity required for future and optimum health of the population of Rwanda.

Purpose: The purpose of this presentation is to describe the development, and the extent of collaboration involved in the preparation, of the next generation of nurse educators and nurse leaders in Rwanda, highlight the challenges faced during the process and share experiences on how some of the challenges have been managed in Rwanda.

Methods: The Rwanda Ministry of Health (MoH) working with its partner the Clinton Health Access Initiative established a unique 7 year partnership with thirteen universities in the United States (US). The US institutions (USI) included Duke, Howard, New York, Chicago, Maryland and Texas Health Science center Universities. The USI recruited a pool of needed nursing experts and nurse academics from the US and other countries who would work directly with the Rwandan nursing faculty at the University of Rwanda (UR) through a 'pairing' or "twining" mentorship model to achieve the consortium goals of development, skills transfer and sustainability.

There were 18 nurse academics recruited by the USI for the first Master's in Nursing degree program based at UR. The USI initiated a joint development of the Masters in Nursing curriculum with the UR faculty for the eight (8) new specialty tracks in the Master's program. The curriculum went through a rigorous approval process of the University and the country education system regulation. This culminated in the program starting late in October 2015, a month behind the UR normal academic calendar, with 120 students in the 8 specialty tracks.

The Education, Leadership, and Management (ELM) track is composed of 3 fulltime HRH foreign faculty (USI employed), 3 UR faculty and fourteen (14) students. The collaboration and twining relationship requires both faculty (HRH/Rwanda faculty) to work closely together so that the transfer of necessary skills takes place. Opportunities for transfer of skills prevailed at varied times including: the reviewing and development of undergraduate and graduate curriculums; development of modules and assessment of

units; team teaching, sharing of information, text books, articles and all necessary resource; research initiation and research supervision, as well as advising toward professional development. The University of Rwanda (UR) structure requires a minimum of 240 credits (2400 notional hours) for a professional master's degree such as nursing; with at least 100 credits for the dissertation. These would be distributed over four semesters or two years.

Output: It was expected that through a 'pairing' or "twining" mentorship model the program would achieve the consortium goals of development, skills transfer and sustainability (Binagwaho et al., 2013). The team teaching model approach was mandated to maximize opportunities for skill transfer from foreign faculties to the Rwandan faculties. Supervision for research is shared so that both students and the national faculty have a sort of one to one supervision mentorship, with the student benefiting richly from both local and visiting faculty. The 14 students that enrolled for the ELM track are continuing in the program with no attrition. The students in the Master's program are on campus three full days each week – Monday through Wednesday returning to serve in their pre-program jobs prior to the program from Thursday through the weekend. Students presented their theses proposals in October 2016 and have submitted these for review to the UR Institutional Review Board which meets quarterly. The University of Rwanda School of Nursing is set to be graduating its first cohort of the Masters of Nursing students in August of 2017.

Lessons learnt: A number of factors are impacting on the progress of the HRH development and particularly the ELM track. Among the challenges faced include the timing of the program, the program structure, the full time-part time nature of the program, the cultural context of Rwanda, grossly limited resources, the novelty of the program and the consolidation of the sustainability for the program. How the challenges were handled and further recommendations for the sustainability are given.

Conclusion: The Human Resource for Health work is ongoing in Rwanda and the fruits of capacity building for health professions are tangible. The opportunities for growth from this HRH endeavor should enable, and have already informed, other North and South global health collaborative initiatives for purposes of effectiveness and efficiency.

Significance to Nursing: The need for nurse leaders and nurse educators has been well documented and hailed by leading organizations such as World Health Organization (WHO) Collaborating Center for International Nursing Education as far back as 2004 (Woodring, 2004). The gap in the nursing workforce is not only highlighted by the pronounced shortage in nursing around the world, but also by the increased demand for population health nursing services that are required to meet the human right for health and wellness for all (Ugochukwu, Uys, Karani, Okoronkwo & Diop, 2013). For African countries which have the lion's share of the burden of disease, a competent, sufficient and capable nursing workforce is essential to participate in leading the achievement of the sustainable development goals. Nursing leaders and educators are necessary in Rwanda to guide healthcare provision for the Rwandan population by contributing to nursing research to guide evidence based care. In addition, nurse leaders and educators are essential for continued recruitment and retention of the much needed nursing workforce globally (Littlejohn, Campbell, Collins-McNeil & Khanyile, 2012).

References

1. Ansoms, A., & Rostagno, D. (2012). Rwanda's Vision 2020 halfway through: what the eye does not see. *Review of African Political Economy*, 39(133), 427-450.
2. Binagwaho, A., Kyamanywa, P., Farmer, P.E., Nuthulaganti, T., Umubyeyi, B., Nyemazi, J.P., Mugeni, S.D., Asiimwe, A., Ndagijimana, U., Lamphere McPherson, H. and Ngirabega, J.D.D., 2013. The human resources for health program in Rwanda—a new partnership. *New England Journal of Medicine*, 369(21), 2054-2059
3. Klopper, H., & Uys, L. R. (2012). *The state of nursing and nursing education in Africa: A country-by-country review*. Sigma Theta Tau

Contact

livyinruanda@gmail.com

D 16 - Developing Faculty Globally

Developing a Framework for Faculty Global Scholarship

Inez Tuck, PhD, MBA, MDiv, RN, USA

Abstract

Global health is a strategic initiative for the nursing program and the institute where I serve as Dean. Faculty are actively engaged in a number of global projects including participating in mission trips, providing professional services and direct patient care, leading student immersions and studies abroad, and consulting and training nurses in nursing programs or practice sites. Faculty activities occur in diverse sites including locations in the Caribbean, Africa, South and Central America, the former Soviet Union and Asian-Pacific countries.

As a nursing dean supporting faculty members with great interest in international work and a strategic goal to enhance the global awareness of our students and faculty, it was critical that we develop a framework to guide the global activities, provide coherence to the disparate work, and measure our outcomes. Many of these activities become part of the faculty's work life and are reported annually as teaching and service activities and/or scholarship. My institution uses the Boyer's model of scholarship (1990) and faculty conduct global projects in discovery, teaching and application. Our promotion criteria are built on Boyer's model and we continue to explore ways to make the model relevant for our faculty by reviewing current literature. A recent article by Moser, Ream and Braxton (2016) provides additional perspective.

The World Health Organization (WHO) has the global strategy to deliver its global mandate and implement its programs in a timely and cost effective manner with six major goals:

providing leadership on matters critical to health and engaging in partnerships where joint action is needed; shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge; setting norms and standards and promoting and monitoring their implementation; articulating ethical and evidence-based policy options; providing technical support, catalysing change, and building sustainable institutional capacity; and monitoring the health situation and assessing health trends (Retrieved from <http://www.who.int/about/what-we-do/en/>).

While our work does not equal the scope of that done by WHO, we have created our version of the six goals and they are reflected in our global work.

The strategies used to develop a framework and a process for global nursing occurred over a period of one year in an effort to unify and strengthen the School's global health initiative with minimal resources. Our process was comprehensive in scope and included many dimensions. The global health faculty met every two months to discuss projects and to share perspectives. We developed shared values and agreed upon a common ground rules to guide our work. Faculty integrated global competencies into the curricula and competed for internal grants to support interprofessional and uniprofessional student experiences. We are addressing the need for domestic and global partnerships to increase our access to resources. We have offered a global health certificate at the graduate level for several years. Finally, faculty have published articles and textbooks on global health and disseminated project findings in oral and poster presentations.

Our framework is designed to provide coherence to our work. Ways to enhance global scholarship among faculty, develop partnerships with global organizations and develop an approach to educate our students have become the foci of this important work. The presentation will highlight the opportunities and challenges of our focus on global health in a nursing program.

References

Boyer, E. (1990). *Scholarship reconsidered: Priorities for the professoriate*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching. ORIGINAL WORK

Moser, D., Ream, T., & Braxton, J. (2016). *Expanded Edition of Scholarship reconsidered: Priorities of the professoriate*. New York, NY: Carnegie Foundation for the Advancement of Teaching with Jossey-Bass.
World Health Organization (2016). What we do. Retrieved from <http://www.who.int/about/what-we-do/en/>.

Contact

ituck@mghihp.edu

E 01 - Health Promotion for Adolescents

Implementation of a Mentor-Led Physical Activity Program for Inner-City High School Students

Huey-Shys Chen, PhD, RN, MCHES, FAAN, USA
Karen M. Martin, DNP, PNP, USA

Abstract

Introduction: Physical activity is an integral part of the war on pediatric obesity. Pediatric obesity is a worldwide epidemic affecting children of all races, classes, and gender. According to the Ohio Youth Risk Behavior Survey of 2013 over one third of Ohio children in grades nine through twelve were considered overweight or obese and engage in more than three hours of screen time, television, computers or video games daily.

Purpose: The purpose of this project was to introduce an evidence-based physical activity program (*Let's Move Active Schools*) led by physical activity leaders (PALs) to improved BMI, increase GPA, and increase physical activity (PACE score) for disadvantage high school students in health class.

Strength of Evidence: An appraisal form from Larrabee was utilized to assess strength and quality of evidences. Level of evidences for selected articles ranged from 1a to 2a and quality of evidences was rated from acceptable to high. A synthesis of evidence supports the benefits of increased physical activity including better BMI and improved academic performance.

Practice Change: Let's Move Active Schools streamlines the selection of programs including PAL learning system and delivers a customized action plan. The 7 hour PAL trainings are skill building leadership workshops and support individuals who will champion an effort in their local schools/school district to ensure 60 minutes a day of physical activity for all school-aged youth through Let's Move Active Schools. The proposed change was presented to the targeted school Wellness Committee including the superintendent, the high school principal, the school nurse, and the physical activity coordinator.

Implementation: The Larrabee's Model for Evidence Based Practice Change was used to guide the implementation of this project. The intervention was delivered to an inner city high school in West Central Ohio. Two health teachers and the project coordinator were enrolled and trained in *Let's Move Active Schools* curriculum and served as PALs. The PALs designed physical activities and introduced physical actives in the classroom in the form of physical activity breaks for ten minutes.

Evaluation Methods: The outcome indicators, BMI, PACE score, and GPA were measured at before and after Let's Move Active Schools program. Data was coded and analyzed using the SPSS. Paired T tests were used to compare the outcome measures before and after the proposed practice change within the participant group.

Results: Thirty eight freshman in health class completed program. Results showed that there were significant differences in GPA and PACE; however, there was no significant difference in body weight status due to short time frame of project. Project results were disseminated to school Wellness Committee and school administration with anticipation of inclusion of physical activity breaks for every classroom for the future.

Conclusions: The Larrabee's model for change to evidenced based practice successfully provided a step-wise approach for planning, implementing, and evaluating this evidence based project. Small changes in the form of teacher and staff education, becoming PALs, can result in major impact in the war on pediatric obesity and a lifetime of wellness.

References

AlMarzooqi, M.A. & Nagy, M.C. (2011). Childhood Obesity Intervention Programs: A Systematic Review. *Life Science Journal*, 8(4). 45-60. 634.

Baker, P.R.A., Francis, D.P., Soares, J., Weightman, A.L., & Foster, C. (2011). Community wide interventions for increasing physical activity. *Cochrane Database of Systematic Reviews* (4).

Bleich, S.N., Segal, J., Wu, Y., Wilson, R., & Wang, Y. (2013). Systematic Review of Community-Based Childhood Obesity Prevention Studies. *Pediatrics*, 132(1), e201-210.

Budd, G.M. & Volpe, S. L. (2006). School-Based Obesity Prevention: Research, Challenges, and Recommendations. *Journal of School Health* 76(10), 485-495.

Lloyd-Richardson, E.E., Jelalian, E., Sato, A.F., Hart, C.N., Mehlenbeck, R., & Wing, R.R. (2012). Two-Year Follow-up of an Adolescent Behavioral Weight Control Intervention. *Pediatrics*, 130(2), e280-e288.

Vazou, S., Gavrilou, P., Mamalaki, E., Papanastasiou, A., Sioumala, N. (2012). Does Integrating physical activity in the elementary school classroom influence academic motivation? *International Journal of Sport and Exercise Psychology*, 10(4), 251-263.

Waters, E., de Silva-Sanigorski, A., Burford, B.J., Brown, T., Campbell, K.J., Gao, Y., Armstrong, R., Prosser, L., & Summerbell, C.D. (2011). Interventions for preventing obesity in children. *Cochrane Database for Systematic Reviews* (12).

Arch Pediatric and Adolescent Medicine, 155(5), 554-559. doi:10.1001/archpedi.155.5.554.

Contact

hueyshys@gmail.com

E 01 - Health Promotion for Adolescents

Adolescents Using the Internet for General and Sexual Health Information: An Evidence Review

Jean M. O'Neil, DNP, RN, FNP-BC, USA

Abstract

Problem: While adolescent pregnancy numbers may be decreasing, there are millions of new cases of sexually transmitted diseases that are diagnosed each year in the young adult population. Adolescents often express feelings of invincibility and egocentric behavior (Wickman, M. et al., 2008). This, combined with peer pressure and misinformation, can lead to high risk behaviors that can compromise their health. While most providers routinely address general health concerns, some are not as comfortable speaking with the adolescent about their issues regarding sexual health, family planning needs or sexual orientation. Also, access to healthcare can be a problem for this population because adolescents often have to rely on adults to get them to clinics and hospitals. Therefore, the adolescent worries about the lack of confidentiality regarding the information they share with the provider. Adolescents have been known to access health education via the Internet (Alison, S. et al., 2012) Recently, more teens are expressing their need to access healthcare information in this way. This may be in part due to easy access of information, as well as a more private way to explore sites regarding confusion related to their sexuality. There is an abundance of general and sexual health information online (Whiteley, L., 2012). However, there are concerns by both the medical community, as well as the adolescents themselves, as to whether these sites are presenting accurate and reliable health information (Jones, R. et al., 2011)

Objective: An integrative literature and evidence based informational review was conducted regarding the following factors: the ethnicity, age, gender, socioeconomic status and sexual orientation of these adolescents, the type of health information they are seeking, how these teens are using this information, the reliability of these health education sites and how the healthcare provider is incorporating this information into their practice.

Method: A comprehensive search strategy was used to identify English language evidence published between 2010-2016 via PubMed, CINAHL, Science Direct, PsychNet and Cochrane Library. A total of 3615 hits yielded 23 articles that met criteria in addition to 5 contextual articles; therefore 28 articles were included for the final review.

Results: Results indicate that there are a growing number of adolescents that are getting their health information from the Internet. However, many of them have expressed that they weren't sure if the information was appropriate, accurate or useful. Adolescents were confused by some of the sexual health information they found and expressed interest in speaking with family, friends, teachers or a trusted health provider but were concerned about the possible breach in confidentiality. The community of LGBTQ and transgender teens were also identified as users of the Internet for health information especially, if they were still hesitant about talking about their sexual orientation with their healthcare providers.

Implications: The medical community needs to be aware of what types of online health and sexual health education are available for adolescents. Providers can use this knowledge to their advantage by reviewing these sites and recommending those they feel are appropriate. These sites could work to serve as an adjunct to the adolescent visit and open up avenues for conversation on general, and especially on sexual health topics, between the provider and the patient.

References

Common Sense Media (2012), Social Media, Social Life: How Teens View Their Digital Lives, Retrieved from <http://www.commonsensemedia.org/sites/default/files/research/socialmediasociallife-final-061812.pdf>
Guse, K., Levine, D., Martins, S., Lira, A., Gaarde, J., Westmorland, W., & Gilliam, M. (2012). Interventions using new digital media to improve adolescent sexual health: A systematic review. *Journal of Adolescent Health, 51*(6), 535–543. doi:10.1016/j.jadohealth.2012.03.014

Jones, R. K., & Biddlecom, A. E. (2011). Is the internet filling the sexual health information gap for teens? An exploratory study. *Journal of Health Communication*, 16(2), 112–123. doi:10.1080/10810730.2010.535112

Mitchell, K. J., Ybarra, M. L., Korchmaros, J. D., & Kosciw, J. G. (2013). Accessing sexual health information online: Use, motivations and consequences for youth with different sexual orientations. *Health Education Research*, 29(1), 147-157. doi:10.1093/her/cyt071

Wickman, M. E., Anderson, N. L. R., & Greenberg, C. S. (2008). The adolescent perception of invincibility and its influence on teen acceptance of health promotion strategies. *Journal of Pediatric Nursing*, 23(6), 460–468. doi:10.1016/j.pedn.2008.02.003

Contact

joneil3@calstatela.edu

E 02 - Care Initiatives for Chronic Conditions

Improving Self-Management Practices Among Patients With Chronic Conditions: “We’ve Got an App for That!”

Shannon Cronin Patel, DNP, BSN, RN, AGPCNP-BC, PCCN, CCRN-CMC, USA
Pamela Walch, MSN, BSW, ANPD, USA

Abstract

Purpose: The Nurse Developed Manage ME model was created to address the gaps that existed within patient education delivery models for patients living with chronic conditions. This self-management education deliver model has been foundational to creation of the innovative Manage ME toolkits and Mobile ME smart device applications. These self- management focused patient education “toolkits” have enabled all patient educators, including busy clinical nurses, to provide successful, standardized, patient-centric, self management education in an effective and efficient manner that crosses all transitions in care. The use of these Manage ME toolkits and Mobile ME smart device apps. have improved self-management related behaviors of patients with chronic conditions, resulting in improved patient outcomes.

Relevance/Significance: According to data collected through the Centers for Medicare & Medicaid (CMS), one of the leading causes of “avoidable” hospital readmissions for patients with chronic conditions have had a causal relationship to ineffective self management practices commonly demonstrated by this patient population. Multiple gaps have existed within the current self management education delivery models. The "Manage ME" toolkits have enabled clinical nurses to provide focused self management education to this patient population in an efficient and effective manner leading to improved patient outcomes and decreased readmission rates.

Strategy and Implementation: The Manage ME education delivery model has been used to create a suite of 5 self- management toolkits and smart device applications for the following conditions: heart failure, diabetes, COPD, as well as tobacco cessation management and wellness support. The pioneer toolkit that was created for heart failure self-management education and this toolkit and smart device app. will serve as example for this abstract.

After a successful pilot study, the WOW ME 2000 the WOW ME 2000 (**W**eigh, **O**utput & intake monitoring, **W**alk and be active, **M**edication adherence, **E**valuation of symptoms, **2000** mg or less of sodium and fluids daily) was implemented throughout a multisite health care system. This innovative toolkit was created based in accordance with current guideline recommendations and regulatory standards of care. This toolkit enabled nurses of all experience levels to provide self management education in a standardized, systematic, progressive, manner that incorporated the 'Teach Back' method after each information segment to ensure that frequent knowledge assessments dictate the progression of education at the appropriate speed for each individual patient. The WOW ME 2000 self-management tool is patient centric and devised to span the continuum so that nurses/patient educators are not pressured to complete all education during a brief hospital stay.

Evaluation: A 6 month pilot program that utilized the WOW ME 2000 Self Management Toolkit to educate all inpatient heart failure patients prior to their discharge from the acute care setting was conducted during the creation/developmental phase of this innovative practice intervention. This pilot program resulted in decreased heart failure readmissions from 26% to 17% this use of the heart failure self-management education toolkit continued to yield similar results across the health care continuum. There are several studies in progress that officially and unofficially include this self-management toolkit. The results from these studies prompted the creation of the WOW ME 2000 smart phone app. Since 2010 several organizations have successfully implemented the WOW ME 2000 toolkit and/or app. into their standard of care with similar successes.

Based upon the success of the heart failure toolkit, a smart device app. was developed. This self-management focused, interactive smart device app. was created to compliment the toolkit to provide

ongoing guidance, support, communication and of heart failure patient. This smart phone application was accepted by Apple and released as a free app. in the Apple App. store in 2012. The app was also created for androids and was released on Google Play in 2011. Since its release, the app has been updated and the new version was released in 2015.

There has been one study of the WOW ME 2000 smart device app. and the data was published in the November 2014 issue of the Remington Report. A current study being conducted is studying heart failure patients while they utilize the WOW ME 2000 app for 30 days. This practice improvement, capstone project will refute or support the hypothesis that daily use of the WOW ME 2000 app. can increase knowledge of and adherence to successful self management practices.

The positive outcomes that our patients have experienced throughout our healthcare system has been successfully replicated at number of healthcare organizations including: acute care organizations, provider offices, rehab centers, heart failure and diabetes management clinics. Since their release, the WOW ME 2000 heart failure app. and the MEET ME @ 7 diabetes self- management app. have both been downloaded in over 16 different countries around the world.

Implications for Practice: This nurse led innovation has significantly improved upon the provision of self management education for patients with heart failure and/or Diabetes. Through the provision of focused, standardized, patient centered education, nurses have been able to facilitate improved outcomes and decreased acute care admissions for patients with these chronic conditions.

Based upon the overwhelming success of our heart failure and diabetes self management educational toolkits and smart device apps. the nursing leadership team at our organization has approved the creation and implementation of additional toolkits for COPD, smoking cessation and wellness promotion. These toolkits and smart device apps. are currently in development. The additional toolkits will be initiated throughout our healthcare organization as soon as they are completed and vetted throughout the organization's leadership team.

References

- Anz N., K., Becker, M.,H., (1984). The health belief model: A decade later. *Health Education Quarterly*, 11(1),1-47.
- Center for Advancing Health. (2010). A new definition of patient engagement: What is engagement and why is it important? Retrieved from http://www.cfah.org/pdfs/CFAH_Engagement_Behavior_Framework_current.pdf
- CMS.gov Centers for Medicare and Medicaid Services. (2016). <https://www.cms.gov/Medicare/medicare-fee-for-service-payments/acuteinpatientPPS/readmission-reduction-program.html>
- Centers for Disease Control and Prevention-Chronic Disease Prevention and Health Promotion. (February 17,2016). www.cdc.gov/chronidisease/stats
- Do, V., Young, L., Bamason, S., & Tran,H. (2015). Relationships between activation level, knowledge, self-efficacy, and self management behaviors in heart failure patients from rural hospitals. *US Library of Medicine National Institute of Health*. Retrieved from <http://dx.doi.org/10.12668/f100research6557.1>
- Eng, D.S. & Lee, J.M. The promise and peril of mobile health applications for diabetes and endocrinology. *Pediatric Diabetes*, 14. doi:10.1111/pedi.12034
- Anz N., K., Becker, M.,H., (1984). The health belief model: A decade later. *Health Education Quarterly*, 11(1),1-47.
- Martinez-Perez, B., Torre-Diez, I., & Lopez-Coronado, M. (2013, June). Mobile health applications for the most prevalent conditions in the world health organization: Review and analysis. *Journal of Medical Internet Research*, 15(6). doi:10.2196/jmir.2600
- <http://mobihealthnews.com/31580/mayo-clinic-study-finds-app-reduces-cardiac-readmissions-by-40-percent/> 014;11:130389. DOI: <http://dx.doi.org/10.5888/pcd11.130389>
- National eHealth Collaborative. (2012). The patient engagement framework. Retrieved from <http://www.nationalehealth.org/patient-engagement-framework>
- Polit, D., F., Beck, C., T., *Nursing research: Principles and methods (7th ed)*. Retrieved from Lippincott Williams and Wilkins
- Reardon,S., (2015). Avoidable readmissions cost CMS \$17 billion. *RevCycle Intelligence*. Retrieved from <http://revcycleintelligence.com/news/preventable-readmissions-cost-cms-17-billion/>
- Sama, P.R., Eapen, Z.J., Weinfurt, K.P., Shah, B.R., & Schulman, K.A. (2014, May). An evaluation of mobile health application tools. *JMIR mHealth and uHealth*, 2(2). doi:10.2196/mhealth.3088
- Su, Y., Knoth, J., Patel, S., (2014). Improve cardiac health and prevent avoidable heart failure readmissions: There's an app for that! *Remington Report*, 24-31. Retrieved from remingtonreport.com/images/rem_nd14-Readmissions.pdf
- Ward BW, Schiller JS, Goodman RA. Multiple chronic conditions among US adults: a 2012 update. *Prev Chronic Dis*.

Contact

vspatel@comcast.net

E 03 - Use of Technology in Nursing Education

Nursing Education in a Virtual World

Cynthia Foronda, PhD, CNE, ANEF, USA

Abstract

Studies have indicated that virtual simulation is an effective pedagogy associated with positive student learning outcomes. Nurse faculty members are challenged with translating this evidence into the practice of nursing education. As a global shortage exists in doctoral-prepared nurse faculty members, many faculty carry heavy workloads and lack the time and resources to successfully implement novel technology. The purpose of this presentation is to 1) provide a synthesized review of the evidence in virtual simulation, 2) display technologies including augmented reality and virtual simulation, and 3) provide strategies for successful implementation with students.

Virtual simulation has been used in nursing education to improve teamwork (Caylor et al., 2015; Kalisch et al., 2015), leadership (Foronda, Budhathoki, & Salani, 2014), communication (Foronda, Gattamorta, Snowden, & Bauman, 2014), and decision-making (Hudson, Taylor, Kozachik, Shaefer, & Wilson, 2015). Additional contexts include the art of instruction (Foronda, Lippincott, & Gattamorta, 2014) and disaster triage (Farra, Miller, Timm, & Shafer, 2013; Farra, Smith, Gillespie, Nicely, Ulrich & Hodgson, 2015; Foronda et al., 2016a; Jose & Dufrene, 2014). Students have expressed learning skills of assessment, prioritization, and emergency management through virtual simulation (Foronda, Swoboda, Sullivan, Kamau, & Hudson, unpublished manuscript). Research has supported the use of virtual simulation to impact students' cognitive and affective knowledge of evidence-based practice (Foronda, Hudson, & Budhathoki, In Press).

After amassing evidence that consistently supports use of this pedagogy, nurse faculty members are challenged to apply the evidence and implement educational technologies. To assist faculty members to develop a better understanding of the existing technologies and how they fit into a nursing curriculum, cutting edge augmented reality and virtual simulation technologies will be displayed and described. Technologies include but are not limited to BodyExplorer™, Microsoft Hololens™, CliniSpace™, Digital Clinical Experience™, and vSim for Nursing™.

The process of testing and implementing new technology demands a culmination of various factors. The faculty member must possess motivation, administrative support, time, resources, and technological assistance. Strategies for facilitating new technology include designating a champion, obtaining funding for purchase or obtaining complimentary use, pilot testing, and faculty development. Faculty should examine the curriculum for existing gaps or areas that can be enhanced or supplemented with virtual simulation. Further, learning objectives, teaching methods, and an evaluation plan warrant consideration. Proper student orientation is critical for student buy-in and implementation success.

References

- Caylor, S., Aebersold, M., Lapham, J., & Carlson, E. (2015, March). The use of virtual simulation and a modified teamSTEPPS™ training for multiprofessional education. *Clinical Simulation in Nursing*, 11(3), 163-171. <http://dx.doi.org/10.1016/j.ecns.2014.12.003>.
- Farra, S., Miller, E., Timm, N., & Schafer, J. (2013). Improved training for disasters using 3-D virtual reality simulation. *Western Journal of Nursing Research*, 35(5), 655-671. doi:10.1177/0193945912471735
- Farra, S.L., Smith S., Gillespie, G.L., Nicely, S., Ulrich, D.L., Hodgson, E. & French D. (2015.) Decontamination training: with and without virtual reality simulation. *Advanced Emergency Nursing Journal* 37(2), 125-133. doi: 10.1097/TME.000000000000059.
- Foronda, C., Swoboda, S., Sullivan, N., Kamau, E., & Hudson, K. (Unpublished manuscript). Student learning outcomes and perceptions of using vSim for Nursing™: a mixed-methods study.
- Foronda, C., Hudson, K., & Budhathoki, C. (In press). Use of virtual simulation to impact students' cognitive and affective knowledge of evidence-based practice. *Worldviews on Evidence-Based Nursing*.
- Foronda, C., Alfes, C.M., Dev, P., Kleinheksel, A.J., Nelson, D.A., O'Donnell, J.M., Samosky, J.T. (Epub ahead of print). Virtually nursing: emerging technologies in nursing education. *Nurse Educator*. doi: 10.1097/NNE.0000000000000295

Foronda, C., Shubeck, K., Swoboda, S.M., Hudson, K.W., Budhathoki, C., Sullivan, N., & Hu, X. (2016a). Impact of virtual simulation to teach concepts of disaster triage. *Clinical Simulation in Nursing*, 12, 137-144. <http://dx.doi.org/10.1016/j.ecns.2016.02.004>

Foronda, C., Swoboda, S.M., Hudson, K.W., Jones, E., Sullivan, N., Ockimey, J., & Jeffries, P.R. (2016). Evaluation of vSim for Nursing™: a trial of innovation. *Clinical Simulation in Nursing*, 12, 128-131. <http://dx.doi.org/10.1016/j.ecns.2015.12.006>

Foronda, C., Lippincott, C., & Gattamorta, K. (2014). Evaluation of virtual simulation in a master's level nurse education certificate program. *Computers, informatics, nursing*, 32(11), 516-522. doi: 10.1097/CIN.0000000000000102

Foronda, C., & Bauman, E. (2014). Strategies to incorporate virtual simulation in nurse education. *Clinical Simulation in Nursing*, 10(8), 412-418. DOI: <http://dx.doi.org/10.1016/j.ecns.2014.03.005>doi: <http://dx.doi.org/10.1016/j.ecns.2014.03.005>

Foronda, C., Budhathoki, C., & Salani, D. (2014). Use of multiuser, high-fidelity virtual simulation to teach leadership styles to nursing students. *Nurse Educator*, 39(5), 209-211. doi: 10.1097/NNE.0000000000000073.

Foronda, C., Gattamorta, K., Snowden, K., & Bauman, E. (2014). Use of virtual clinical simulation to improve communication skills of baccalaureate nursing students: A pilot study. *Nurse Education Today*, 34(6), e53-57. doi:10.1016/j.nedt.2013.10.007

Foronda, C., Godsall, L., & Trybulski, J. (2012). Virtual clinical simulation in nursing: A state of the science. *Clinical Simulation in Nursing*, 9(8), e279-e286. doi.org/10.1016/j.ecns.2012.05.005

Hudson, K., Taylor, L., A., Kozachik, S., L., Shaefer, S., J., & Wilson, M., L. (2015). Second life simulation as a strategy to enhance decision-making in diabetes care: A case study. *Journal of Clinical Nursing*, 24(5), 797-804. doi:10.1111/jocn.12709

Jose, M. M., & Dufrene, C. (2014). Educational competencies and technologies for disaster preparedness in undergraduate nursing education: An integrative review. *Nurse Education Today*, 34(4), 543-551. doi:10.1016/j.nedt.2013.07.021

Kalisch, B. J., Aebersold, M., McLaughlin, M., Tschannen, D., & Lane, S. (2015). An intervention to improve nursing teamwork using virtual simulation. *Western Journal of Nursing Research*, 37(2), 164-179. doi:10.1177/0193945914531458

Contact

c.foronda@miami.edu

E 03 - Use of Technology in Nursing Education

Replacing Hard Copies of Textbooks With e-Books in Bahrain: Effects on Nursing Student Learning

Seamus Cowman, PhD, MSc, RGN, RPN, RNT, DipN, FFNMRCIS, FAAN, Bahrain
Eman Ebrahim Fateel, MSc, BSc, RN, Bahrain

Abstract

Background: Within one month of launching iPads, Apple announced that 1.5 million eBooks were downloaded and with the accelerating educational technology, sophistication has given rise to specific tools for education and student learning⁽¹⁾.

Since the foundation of the School of Nursing & Midwifery at RCSI Bahrain in 2006, undergraduate nursing students' have been provided with hard copies of textbooks and a laptop at the commencement of the programme. Educationally, the provision of a MacBook Air and hard copies of text books, was somewhat contradictory. Given the high level of smart phone ownership, social media usage, and the provision of a MacBook Air to all students, it was believed that a move away from hard copies of text books, to eBooks, could enhance nursing student learning approaches. A strategic and policy decision was taken to provide all students entering nursing from 2014 with eBooks, as an alternative to hard copies of textbooks. The provision of eBooks was consistent with the schools educational emphasis on blended learning, the use of a VLE and the encouragement of independent and flexible learning approaches. To evaluate the impact of eBooks, a research study was developed to evaluate and understand student nurse learning approaches.

Methods: A longitudinal, descriptive, mixed methods research approach was agreed with data collection through surveys, focus-group interviews and documentary data on student use. The eBook vendor held extensive records of student eBook engagement through the technology platform, which served as an important data source. The study was approved through the research ethics committee of the university. The study participants included: yr 1 students provided with eBook only; yr 2 students provided with a combination of eBooks and hard copies of text books and yr 4 students who in former years had been provided with hard copies of text books only. Structured training on the use of eBooks was provided to students with eBooks and staff, separately, by the vendor. An established questionnaire, Approaches and Student Skills Inventory for Students (ASSIST instrument, which was previously validated for use with nursing students⁽²⁾) was selected to examine student nurses learning approaches. The instrument consists of three sections; (a) describing learning; (b) approaches to studying; (c) preference for different types of teaching.

Findings: The findings reflected no differences in examination results between study participants with eBooks and examination results for the previous corresponding year cohort, without eBooks. Overall students with eBooks, only, stated a greater preference for eBooks when compared to students with eBooks and hard copies of books. Students reported that eBooks facilitated the accessibility of wide ranging learning materials through the different platforms at any time and any place in formal and informal locations; stimulated peer-to-peer interactions and supportive learning. In particular the potential to access text books on a phone introduced flexibility to student learning. Some difficulties reported related to the artifact of the digital technology and system unfamiliarity which highlighted the need for continuous technology support and guidance for students whilst using eBooks. The majority of students reported that they had not used an eBook prior to entering nursing school. The results show that the most common method of accessing the eBook was the PC however 16% of students reported using a smart phone most often. The most common place to use the eBook was the home, followed by the classroom, and out socially. Some the more negative reporting included: a minority of respondents suggested that eBooks caused problems such as headache, eye strain and backache due to continually using a machine to read the eBooks. User interface improved the usability of eBooks especially when the layout is organized and included supportive learning features such as: creating highlights; adding notes; sharing highlights and notes; definitions, translation; ability to copy and paste information, and cite and reference material for assignments. Participants also stated that the ability to perform split view allowed them to multitask and

leads to better time utilization. Other important patterns of approaches to learning will be reported in the presentation.

Conclusion: Educational technologies have been slow to impact on medical and nursing education. Internationally there is a paucity of published work on the use of eBooks in nursing and there are no reported studies Bahrain. This study provides important educational insights into nursing students' learning behaviours and studying approaches with the use of assisted technology. Training in the use of eBooks and technology support is essential in not only providing the necessary confidence to users, but also ensures that students embrace the full potential of eBooks in their learning. The outcomes of this study indicates that the use of eBooks adds a new dimension to nursing education.

References

D'Ambra, John, Concepción S. Wilson, and Shahriar Akter. "Application of the task-technology fit model to structure and evaluate the adoption of E-books by Academics." *Journal of the American Society for Information Science and Technology* 64.1 (2013): 48-64.

Smyth, Sarah, and Andrew P. Carlin. "Use and perception of ebooks in the University of Ulster: A case study." *New Review of Academic Librarianship* 18.2 (2012): 176-205.

Contact

scowman@rcsi-mub.com

E 04 - Perspectives on Pediatric Health

Personalized Pediatric Pain Management: Myth or Reality?

Cheryl Mele, DNP, PNP, AC/PC-BC, NNP-BC, USA

Abstract

For a child undergoing a surgical procedure or issues with chronic pain, an essential goal is to obtain optimal pain management without significant adverse effects. Regretfully, safe and operative analgesia is an indefinable medical objective. Pain management within the pediatric realm reports that 50% pediatric perioperative pain experience will be efficient and acquire minimal side effects from opioids (Sadhasivam et al., 2014). It is well known that poor pain control can harvest physical difficulties, prolonged post-op recovery, and long-term behavioral complications. Still there is an extensive range of reactions to opioids secondary to variability in patient's gender, ethnicity, development, co-morbidities and genetic factors. Research demonstrates that up to two-thirds of the unpredictability in pain perception and differences in the effectiveness of analgesic drugs are partly genetically predetermined (Cregg, et al., 2013).

Since the completion of the Human Genome and Hap Map Project the era of personalized medicine is upon us. Sequencing of the entire human genome has brought about a progression of knowledge regarding drug therapies, genetic predisposition and environmental impact such as epigenetics. Every individual has a distinctive genetic code. Pharmacogenomics is the study of how disparities in the human genome ultimately affect the response to medications and offer different views into the variability observed within individuals prescribed opioids for pain management (Jannetto & Bratanow, 2011). Pharmacogenomics seeks to link differences in gene structure or genotype (polymorphisms) with pharmacologic differences in drug action (phenotype) (Galinkin, et al, 2010). Pharmacogenomics primarily is split into two parts describing genetic variants involving pharmacokinetics (absorption, distribution, metabolism and elimination of a drug) and pharmacodynamics (an activity of the drug at the target site/receptor of a drug (Janicki, 2013; Jannetto & Bratanow, 2011).

Opioids are standard treatments for chronic and post-operative pain. Reports of prescription opiate misuse in adolescence and adult population is predominant in the media. The concern in healthcare providers and families is fear of exposure to prescribed opioid prescription drugs may be a catalyst for addiction. Hence, pain pharmacogenomics has held promise to provide information on one's genome, identify patients at risk for complications or inadequate response to pain pharmacotherapy. The purpose of this presentation is to explore the genetic science involved with drug and individual variability which can aid nurses to support patient/families in developing guidelines towards a personalized pain management plan based upon one's genome.

References

- Cregg, R., Russo, G., Gubbay, A., Branford, R., & Sato, H. (2013). Pharmacogenetics of analgesic drugs. *British Journal of Pain*, 7(4), 189-208.
- Galinkin, J., Demmer, L. & Yaster, M. (2010). Genetics for a pediatric anesthesiologist: a primer on congenital malformations, pharmacogenetics, and proteomics. *Anesthesia & Analgesia*, 111(5), 1264-1274
- Janicki, J. (2013). Pharmacogenomics of Pain Management. In Deer, TD. (Ed.), *Comprehensive Treatment of Chronic Pain by Medical, Interventional, and Integrative Approaches* (pp. 23-33). Springer: New York.
- Jannetto, P. & Bratanow, N. (2011). Pain Management in the 21st century: utilization of pharmacogenomics and therapeutic drug monitoring. *Expert Opinion on Drug Metabolism & Toxicology*, <http://dx.doi.org/10.1517/17425255.2011.565051>
- Sadhasivam, S., Chidambaran, V., Olbrecht, V., Esslinger, H., Zhang, K., Zhang, X., & Martin, L. (2014). Genetics of pain perception, COMT and postoperative pain management in children. *Pharmacogenomics*, 15 (3), 277-284.

Contact

cherylamele@gmail.com

E 04 - Perspectives on Pediatric Health

Perspectives From Europe and the United States on Perinatal Palliative Care and Current Ethical Dilemmas

Charlotte Wool, PhD, RN, USA

Joana Catarina da Cruz Mendes, PhD, BSN, MS, Portugal

Jesse Wool, BSN, RN, USA

Abstract

The purpose of this presentation is to review current international scientific findings and perspectives about perinatal palliative care (PPC) from Europe and the United States. Further, two recent clinical challenges in the area of PPC, neonatal organ donation (NOD) and post-mortem cooling, will be examined through a principle-based ethical lens.

Perinatal palliative care refers to comprehensive, holistic and interdisciplinary services for parents who receive a diagnosis of a life-limiting fetal condition and choose to continue the pregnancy (Limbo & Wool, 2016). Provision of services begins at diagnosis, extends through birth and the postpartum period and includes care for the neonate who is expected to have a shortened life span (Wool, 2013). Nurses are instrumental in providing PPC for parents and often provide leadership through coordinating services, collaborating with providers and creating plans of care for the pregnancy and birth, and plans of care for the infant following the birth. Treatment plans for the infant may include curative interventions, palliative support, or a combination of both depending on the infant's condition at birth. An international body of literature has grown from the evidence in pediatric and neonatal palliative care and guidelines from the adult palliative care sector. Several standards of care have emerged in the European sector, and in the United States (US) a survey of PPC programs was recently published (Wool, Côté-Arsenault, Black, Denney-Koelsch, Kim & Kavanaugh, 2016). Recommendations have emerged as international organizations formally recognize the need for PPC services (ACOG, 2016).

The growing acceptance of PPC in the mainstream has resulted in parents requesting interventions that may be unfamiliar to, or uncomfortable for, clinicians (Mendes, Wool & Wool, 2016). Neonatal organ donation is the practice of retrieving organs and tissues from infants who die during birth or shortly thereafter. The Internet has increased parental awareness of NOD as an option despite the fact that in the United States and Europe organ procurement organizations are not currently promoting such options or logistically prepared to engage in such activities. An additional ethical challenge includes the physiologic component of the maternal-fetal dyad in which the fetus is stable, followed by a low probability of survival post birth. When a parent learns of a life-limiting fetal condition (LLFC) it is not unreasonable they look for meaning through such a tragedy. This altruistic approach may help families cope with loss and give them a sense that "good" may result from their heart-wrenching situation (Sarnaik, 2015). Benefits of NOD center on beneficence toward others [the recipient population] and the real possibility of securing an increased number of tissues or organs for pediatric patients.

Several potential and real challenges of NOD exist. As parents make decisions for their fetus or infant, it is important to recognize that this population is considered vulnerable because of their lack of autonomy. The donating infant may be exposed to life-supporting interventions for the sole purpose of extending life long enough to procure organs. These measures introduce avoidable harm to the infant, thus raising concerns about their ethical appropriateness.

An important aspect of PPC is the opportunity for parents and family members to meet, hold and create memories with their infant. Nurse experts encourage parental participation at the end of life through final acts of caregiving such as bathing, dressing or including spiritual and cultural rituals (Limbo & Lathrop, 2014). Usurping bereavement interventions for the sake of attending to time-sensitive procurement procedures is unstudied in the PPC population. Should the donation be "unsuccessful," parents' loss of time with their infant could be especially distressing. Corr and associates (2011) have highlighted similar experiences with families, describing them as secondary losses which feel like a "second death" to family members.

Nurses have played a lead role in perinatal bereavement care for decades. Nurses educated in bereavement practices have implemented best-practice standards for the perinatal population. New medical equipment is currently available and in use in some US hospitals. The equipment includes a cooling pad, insulated hose and small cooling unit which can be used after an infant dies for the entirety of the hospital stay so use of a mortuary is not needed. Use of the equipment provides extended opportunities for parents and family members to spend time with their infant in order to create memories or conduct special rituals. Parents, often suffering from profound grief or shock, or recovering from a difficult labor and birth, have increased autonomy to assimilate to their circumstances and prepare to say goodbye to their infant. Nursing staff has additional time to collect mementos for the family.

One aspect of palliative care is that it neither hastens or prolongs death and it is respectful of the time of death (WHO, 2014). Use of cooling equipment interferes with natural postmortem physical changes. Clinicians, responsible for assessment and well-being of their patients at the end of life, may be unsure about how, or if, to assess an infant who has died. Family members and clinicians may be uncomfortable with the psychological implications of using such equipment. Should such equipment become the norm in health care systems, nurses will need appropriate education to supplement their expertise in bereavement services. Research regarding parental outcomes related to equipment usage is necessary to guide practice initiatives.

An understanding of the current literature in PPC enables clinicians to provide optimal, compassionate care to families who experience a life-altering event. The Nursing Code of Ethics (2015) lays a foundation for nursing care, especially when firm evidence is unavailable or unexplored. Provision Two in the Code of Ethics explicitly states that the nurse's primary commitment is to the patient. When patients request interventions for which outcomes are unstudied, clinical experts, nurse leaders and nurse scientists have an opportunity to carefully collaborate, study and evaluate practices that have not yet entered the mainstream. This presentation evaluates the international state of the science on perinatal palliative care. The exchange of ideas that considers ethical challenges during the integration of technology into nursing practice raises awareness and spurs future research.

References

- American College of Obstetricians and Gynecologists, & Society for Maternal-Fetal Medicine. (2016). *Practice bulletin #163: Prenatal diagnostic testing for genetic disorders*. Committee on Practice Bulletins – Obstetrics, Committee on Genetics, and Society for Maternal-Fetal Medicine.
- American Nurses Association. (2015). *Code of ethics for nurses with interpretive statements*. ANA Publishing: Silver Spring, MD.
- Corr, C. A., Coolican, M. B., Moretti, L. S., & Simon, R. (2011). Donor families, distinctive secondary losses, and "second death" experiences. *Progress in Transplantation*, 21(3), 220-227. doi:10.7182/prtr.21.3.d33p21p72089213m
- Limbo, R., & Lathrop, A. (2014). Caregiving in Mothers' Narratives of Perinatal Hospice. *Illness, Crisis & Loss*, 22(1), 43-65. doi: 10.2190/IL.22.1.e
- Limbo, R., & Wool, C. (2016). Perinatal palliative care. *Journal of Obstetric, Gynecologic and Neonatal Nurses*, 45(5), 611-613. doi: 10.1016/j.jogn.2016.07.002
- Mendes, J., Wool, J., & Wool, C. (2016). Ethical considerations in perinatal palliative care. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. In review.
- Murdoch, E., Carragner, P., & McNamara, K. (2013). *Goals and Standards of care for Perinatal Palliative Care MCN Neonatology (South East Scotland and Tayside)*. NHS Scotland-Regional Managed Clinical Network for Neonatal Services. Retrieved from http://www.cen.scot.nhs.uk/files/Perinatal_Framework.pdf
- National Hospice and Palliative Care Organization (2014). *Fact and Figures: Pediatric Palliative and Hospice Care in America*. Alexandria, VA: National Hospice and Palliative Care Organization.
- Sarnaik, A. A. (2015). Neonatal and Pediatric Organ Donation: Ethical Perspectives and Implications for Policy. *Frontiers in Pediatrics*, 3(100), 1-7. doi:10.3389/fped.2015.00100
- The World Health Organization. (2014). *The Global Atlas of Palliative Care*. Retrieved from http://www.who.int/nmh/Global_Atlas_of_Palliative_Care.pdf
- Wool, C., Côté-Arsenault, D., Black, B., Denney-Koelsch, E., Kim, S., & Kavanaugh, K. (2016). Provision of services in perinatal palliative care: A multicenter survey in the United States. *Journal of Palliative Medicine*, 19(3), 279-285. doi:10.1089/jpm.2015.0266
- Wool, C. (2013). State of the science on perinatal palliative care. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 42(3), 372-382. doi:10.1111/1552-6909.12034

Contact

cwool@ycp.edu

E 05 - Promoting Health in the Older Adult

Assessment and Management of Alcohol Use Disorder in Older Adults: A Review of the Evidence

Mary DiBartolo, PhD, RN-BC, CNE, USA

Judith M. Jarosinski, PhD, RN, CNE, USA

Abstract

Purpose: The aim of this presentation is to summarize and critically evaluate the recent literature on methods to better identify AUD in older adults, including instruments specifically developed or modified for this age group, as well as, delineate targeted treatment strategies which may be more effective in achieving and maintaining sobriety in this population.

Background: Alcohol Use Disorder (AUD) has been identified as a significant, under-recognized, underreported and hidden epidemic in the U.S. (Alpert, 2014). The prevalence is expected to rise dramatically as the number of adults aged 65 and older increases to one in five by 2030. Worldwide, older adults aged 60 and older are currently at 800 million and this figure is expected to climb to over two billion in 2050 (World Health Organization [WHO], 2012). With this escalation in the number of older adults comes a concomitant increase in those struggling with AUD, where the health consequences can be significant. According to WHO (2016), 5.9% of all global deaths are attributable to alcohol consumption.

Challenges in assessment include acknowledging differences in drinking patterns, onset (early vs. late onset), symptom presentation, difficulties in differentiating symptoms of AUD from other health complaints associated with aging, as well as the denial, shame, and stigma which can present major barriers to prompt identification. In the care setting, busy practitioners with limited resources and time often confine screening to persons with a known history. However, complex comorbidities that usually present in older adults can delay assessment and subsequent treatment. A latent missed diagnosis fails to capture individuals who may have AUD and may preclude or delay appropriate interventions, and ultimately, the goal of sustained sobriety. The inconsistent use of evidence-based screening instruments to identify those at risk is an obstacle to successful diagnosis and treatment.

With regard to management, older adults do achieve equivalent or better results than younger counterparts when they enter treatment (Bakhshi & While, 2014; Yasamy, Dua, Harper, & Saxena, 2013), especially when interventions are focused on the needs of this specific age group. Furthermore, a substantial “treatment gap” exists brought about by the inability to access and/or afford care. The literature also highlights treatment modalities as part of the alcohol screening and brief interventions (ASBI) model, such as cognitive-behavioral therapy (CBT) and mutual help (aid) groups (MHGs). There is emerging evidence that interventions must be both engaging and tailored to this specific age group to enhance compliance and optimize probability of ongoing recovery.

The issues surrounding the assessment and management of older adults with AUD are complex and poorly understood. Furthermore, both the literature and research on older adults with AUD has been minimal given the growing prevalence of this population. Nurses have the potential to enhance awareness, initiate screening with appropriate instruments, participate in treatment plans that are individualized to achieve treatment success and play a key role in advocacy for this underserved and vulnerable group.

Methods: An in-depth review of the literature was conducted to ascertain the state-of-the science related to instruments used in screening older adults for AUD, as well as, age-appropriate interventions. Key words included: alcohol use disorder (AUD), alcoholism, older adults, elderly and substance abuse. Articles on substance use disorder (SUD) were excluded unless there was a significant or updated component related to AUD. In addition to integrative reviews, an emphasis was on primary sources incorporated from the last decade to identify more recent trends and obtain the most pertinent and comprehensive information.

Results: A total of 36 articles were found within the past decade, with four of those being integrative reviews. As far as AUD assessment instruments, the CAGE is considered a primary screening instrument because of its ease of use; its drawbacks include failure to identify binge drinking and separating a drinking history from current use. The MAST-G scale is specifically formulated for geriatric patients and has been gaining substantial support in the literature. Treatment approaches include inpatient detoxification followed by targeted interventions to maintain sobriety. Detoxification can be more problematic in the older adult population, with confusion rather than tremors being the predominant sign. The subsequent phase of implementing Alcohol Screening and Brief Interventions (ASBIs) is increasingly recognized in the literature as both a screening strategy and supportive treatment. ASBIs can include mutual help groups, cognitive behavioral therapy, motivational interviewing, the FRAMES model, and other related approaches (Blow & Barry, 2012). The literature specifically highlights mutual health groups, such as Alcoholics Anonymous (AA), as most beneficial when comprised primarily of older adults who have similar issues of retirement, loss, physical co-morbidities, diminished self-esteem, shame and stigma. The literature strongly supports that for the older adult, ASBIs should be both engaging and tailored to enhance compliance and optimize treatment success and sustained recovery.

References

- Alpert, P. T. (2014). Alcohol abuse in older adults: An invisible population. *Home Health Care Management & Practice, 26*(4), 269-272.
- Bakhshi, S., & While, A. E. (2014). Older people and alcohol use. *British Journal of Community Nursing, 19*(8), 370-374.
- Blow, F. C., & Barry, K. L. (2012). Alcohol and substance misuse in older adults. *Current Psychiatry Reports, 14*, 310-319.
- World Health Organization (2016). *Management of substance abuse: Alcohol*. Retrieved from www.who.int/substance_about/facts/alcohol/en/
- World Health Organization (2012). *Are you ready? What you need to know about ageing*. Retrieved from <http://www.who.int/world-health-day/2012/toolkit/background/en/>
- Yasamy, M.T., Dua, T., Harper, M., & Saxena, S. (2013). *Mental health of older adults, Addressing a growing concern*. Retrieved from http://www.who.int/mental_health/world-mental-health-day/WHO_paper_wmhd_2013.pdf?ua=1

Contact

mcdibartolo@salisbury.edu

H 01 - Service Learning in Nursing Education

Using Service Learning to Increase Depression Awareness on College Campuses

Linda Mays, DNP, ARNP, PMHNP-BC, USA

Abstract

There are an increasing number of college students experiencing depression. Approximately 41% of the students seen in college counseling centers self-report depression while almost 33% of college students reported having suicidal thoughts (Reitz et al., 2015). Though these statistics are alarming, depression awareness is not routinely addressed on college campuses. Service learning projects for nursing students may help meet this growing need.

In their professional role, nurses commonly discuss depression with patients and communities yet student nurses' teaching skills are limited. Service learning brings real world learning to students, enhances student engagement and can also add an invaluable benefit to the college community. Peer teaching has been found useful in undergraduate nursing education to develop skills and self-confidence (McKenna & French, 2011). Student nurses, who possess limited skills teaching a variety of populations, can help educate patients and college communities about depression.

Purpose: The purpose of this presentation is to discuss the benefits and challenges of using service learning as a teaching project to increase depression awareness on a college campus.

Methods: Over six weeks, traditional students enrolled in an undergraduate psychiatric nursing course participated in a service learning project as part of their course curriculum. National Depression Screening Day, a national initiative, was used to bring education and awareness to student depression. Prior to the project, students wrote a reflection describing their unique perspective of service learning, depression and civic duty to their college community. Students explored the details of implementing the project and identified target specific audiences that may experience depression: freshman, minorities, transfer and LGBTQ students. To enhance their knowledge base as "consultants" for depression, psychiatric nursing students attended lectures conducted by both the experts as well as those who live with severe depression. The day of the service learning project, students provided handouts, posters and personal dialogued to college students to engage them in doing the screening. The screening was completed online anonymously through the school's counseling center. Students were given the opportunity to have the results sent to their email or make an appointment for further treatment.

Results: The counseling center reported a substantial increase in completion of the online depression screening as a result of the service learning activity. End of course evaluations and reflection journaling indicated the service learning activity had a positive impact on the nursing students: it increased their empathy towards mental illness; helped improve their psychiatric assessment skills; and fostered a positive civic attitude.

Conclusions: Nursing students are in the unique position to make a significant impact on the mental health of their peers and increase their professional growth through service learning activities.

References

- McKenna, L., & French, J. (2011). A step ahead: Teaching undergraduate students to be peer teachers. *Nurse Education in Practice*, 11(2), 141-145. doi:10.1016/j.nepr.2010.10.003.
- Reetz, D. R., Krylowicz, B., Bershad, C., Lawrence, J. & Mistler, B. (2015). The association for university and college counseling center directors annual survey. Retrieved from <http://www.aucccd.org/assets/documents/aucccd%202015%20monograph%20-%20public%20version.pdf>.

Contact

l.mays@miami.edu

H 01 - Service Learning in Nursing Education

How to Embrace (and Love?) Community Engagement

Melissa A. Wholeben, PhD, RN, USA

Carla J. Ellis, MSN, RN, USA

Abstract

Identify the teaching challenge: As healthcare moves into the 21st century, it is vital that educators create learning environments that give students the opportunity to practice what they have learned in didactic. However, with the major influx of students in clinical sites, it has become necessary to think outside the box for potential community opportunities. In addition there is content overload to contend with and the pressure from outside stakeholders and accreditation bodies to create service learning education opportunities. Trying to incorporate these educational goals creates some challenges in creating projects that incorporate these demands. Health Fairs and other community engagement projects are time consuming and demanding but there is a great deal of literature on how to attack this endeavor with great success in all your goals.

What have you learned from conferences, online sources about your challenge?

Research has shown us that it is important to incorporate classroom learning with an opportunity to practice. In addition, it is important to present an environment that not only promotes 'learning in the form of practice' but also gives the students a feeling of pride and accomplishment in their ability to help others. Health fairs are one way in which the community is engaged and can promote excellent communication skills in nursing students. Planning health fairs seems daunting but is well used and researched on how to create a successful one. Putting the health fair into a project format is a active learning tool to promote concepts in almost any course/clinical objective.

Describe the intervention

By partnering with local TV stations, and interdisciplinary teams, our senior students have had the opportunity to provide healthcare in the form of prevention teachings and screenings to the El Paso community. The students determine the leading health concerns for the El Paso region; research best practice measures by means of Evidence Based Practice; and present the material using the domains of learning (cognitive, affective and psychomotor), using primary, secondary and tertiary prevention strategies. We hope to present the ways in which this can be produced in any course to meet your objectives as well as all stakeholders.

Qualitative and/or Quantitative feedback

The students have provided overwhelmingly positive comments of "I was able to teach the participant about diabetes and strategies to stay healthy" and "It was amazing to see how many people came to the health fair to get screened for Blood Pressure and Height/Weight/BMI". "I felt I made a difference" As a personal observation, it is rewarding to see the students become excited about community health and present their knowledge to the community in a form of wellness project. Addressing the possibility of burn out in this endeavor due to the work of developing this sort of project will also be discussed.

Future Plans

Next steps would be to create even more "real world" application by partnering with local hospitals and disciplines within the UTEP community to assist in producing a Community Needs Assessments on a local Colonia to assist in getting health care assistance there. Also a possibility is for student participation in research, partnering with graduate programs to produce real world information. The literature is rich in the possibilities of where these can go after you dip your feet in the process.

References

Bassi, S. (2011). UNDERGRADUATE NURSING STUDENTS' perceptions of service-learning through a school-based community project. *Nursing Education Perspectives (National League for Nursing)*, 32(3), 162-167. doi:10.5480/1536-5026-32.3.162

Ezeonwu, M., & Berkowitz, B. (2014). A collaborative communitywide health fair: The process and impacts on the community. *Journal of Community Health Nursing*, 31(2), 118-129. doi:10.1080/07370016.2014.901092

Krumwiede, K. A., Van Gelderen, S. A., & Krumwiede, N. K. (2015). Academic-hospital partnership: Conducting a community health needs assessment as a service learning project. *Public Health Nursing*, 32(4), 359-367. doi:10.1111/phn.12159

Lucky, D., Turner, B., Hall, M., Lefaver, S., & de Werk, A. (2011). Blood pressure screenings through community nursing health fairs: Motivating individuals to seek health care follow-up. *Journal of Community Health Nursing*, 28(3), 119-129. doi:10.1080/07370016.2011.588589

Murray, K., Liang, A., Barnack-Tavlaris, J., & Navarro, A. M. (2014). The reach and rationale for community health fairs. *Journal of Cancer Education*, 29(1), 19-24. doi:10.1007/s13187-013-0528-3

Paula Cupertino, A., Cox, L., Garrett, S., Suarez, N., Sandt, H., Mendoza, I., & Ellerbeck, E. (2011). Tobacco use and interest in smoking cessation among latinos attending community health fairs. *Journal of Immigrant & Minority Health*, 13(4), 719-724. doi:10.1007/s10903-010-9404-y

Squiers, J. J., Purmal, C., Silver, M., & Gimpel, N. (2015). Community health fair with follow-up. *Medical Education*, 49(5), 526-527. doi:10.1111/medu.12698

Contact

mwholeben@utep.edu

H 02 - Interprofessional Practice to Promote Health

A Pilot Interprofessional Education and Practice Project With Migrant Farm Workers

Lora R. Shelton, DNP, RN, FNP-BC, CNE, COI, USA
Cynthia G. Cortes, DrPH, MSN, RN, CPNP-PC, COI, USA
Andrea W. Collins, DNP, RN, NP-C, CNE, COI, USA

Abstract

Purpose: Annually, hundreds of migrant farm workers and their families migrate to the United States to harvest crops on family-owned farms. This population is plagued with recurring health conditions and chronic diseases (Nicholas, Stein, & Wold, 2014). Since few receive regular care, treatable conditions can become acute; resulting in costly emergency room visits or hospital stays. The Migrant Farm Worker Project was developed by nurse practitioners at a College of Health Sciences in the Southeastern United States. The project provided opportunities for faculty and students from nursing, communication sciences and disorders, and nutrition to provide medical screenings and education for Hispanic migrant farm workers.

ROL: The hardships of life of the migrant farm worker result in unique challenges to the physical and mental health of these individuals, and create significant barriers to quality health care (Walsh & Schub, 2013). Most do not earn enough to afford health care and are ineligible for existing community programs (Galameau, 2013). Many suffer from the same chronic health problems so prevalent in the Hispanic population such as diabetes, skin, respiratory, musculoskeletal and numerous eye and vision problems (Bauer & Kantayya, 2010).

Summary of the Innovation: After the faculty met with stakeholders to determine the needs of the community, a variety of opportunities were provided for the migrant farm worker population over an intensive three day period including: physical exams, hearing screening, body mass index, blood pressure screening, and nutrition education for K-8th grade students at a local migrant school; medical care provided at convenient locations for farm workers at the end of the work day; women's health services and HIV testing provided via a mobile clinic van; physical exams performed at the local East Coast Migrant Head Start Center for children 6 weeks to 5 years; health promotion and education provided and printed material distributed. Literacy education was provided to Head Start teachers and literacy materials were provided for parents.

Results: Through this pilot project data were gathered on number of screenings, screening results, referrals, and unmet community needs. At the migrant school, 88 children (K-8th grade) were provided hearing screenings, nutrition education, physical exams, and health screenings. Physical exams were performed on 32 children (6 weeks-5years) at the East Coast Migrant Head Start Center. Physical exams, health screenings, and women's healthcare services were provided to 43 adults via mobile medical clinics offered in convenient locations for the migrant farm worker.

Implications for Practice: Interprofessional teams are qualified to provide healthcare services to underserved and vulnerable populations such as migrant farm workers. Nurse practitioners can be leaders in innovative methods of healthcare which can lead to greater access to care and healthier populations. Implementing interprofessional education activities allows students to learn to work together across disciplines, leading to improved patient outcomes in future clinical practice (Luque & Castañeda, 2013).

References

Bauer, S., & Kantayya, V.S. (2010). Improving access to primary care and health outcomes in migrant farm worker populations: Challenges and opportunities. *Disease-a-month*, 56, 706-718.
Galameau, C. (2013). Farm labor, reproductive justice: Migrant women farmworkers in the US. *Health and Human Rights*, 15, 144-160.

Luque, J. S., & Castañeda, H. (2013). Delivery of mobile clinic services to migrant and seasonal farmworkers: A review of practice models for community-academic partnerships. *Journal of Community Health, 38*, 397-407.

Nicholas, M., Stein, A. D., & Wold, J. L. (2014). Health status of children of migrant farm workers: Farm worker family health program, Moultrie, Georgia. *American Journal of Public Health, 104*, 365-370.

Walsh, K., & Schub, T. (2013). Hispanic American patients: Migrant farm workers-Providing culturally competent care. In D. Pravikoff (Ed.). *Evidenced – based care sheet*. Cinahl Information Systems.

Contact

lrshelto@samford.edu

H 02 - Interprofessional Practice to Promote Health

An Interprofessional Collaborative Practice Model (IPCP) for Enhancing Population Health and Care Transitions

Maria R. Shirey, PhD, MBA, RN, NEA-BC, ANEF, FACHE, FAAN, USA
Connie White-Williams, PhD, RN, NE-BC, FAAN, USA

Abstract

Background: Changing requirements shifting the focus of care from an emphasis on value over volume demand delivery models that cultivate teamwork and collaboration across the healthcare continuum. Academic-practice partnerships represent a desirable vehicle to test innovative interprofessional collaborative practice (IPCP) models to enhance population health outcomes and care transitions.

Purpose: This purpose of this presentation is to discuss early findings following implementation of an IPCP model used as part of an academic-practice partnership to enhance health outcomes and care transitions in a complex and underserved heart failure patient population. Leadership and partnership strategies used to facilitate IPCP and care coordination will also be identified.

Methods: An innovative IPCP model was implemented in a nurse managed heart failure clinic impacting health outcomes for an underserved patient population in an academic health center in the southeastern United States. Professionals from various disciplines including nursing, medicine, social work, health services administration, and health informatics worked together as a unified team to enhance the patient experience, health outcomes, and cost of care. Leveraging resources of a grant-funded opportunity and longstanding academic-practice partnership, the IPCP model incorporated transitional care coordination approaches to affect population health outcomes and care transitions across the healthcare continuum.

Findings: Two years of project data reflect positive outcomes. Patients reported enhanced access to care, availability of life-sustaining medications, superior experience ratings, and improved physical and mental health outcomes. Care transitions improved with a reduction in hospital readmissions for this complex patient population. Use of an IPCP model also demonstrated enhanced teamwork and collaboration amongst healthcare team members from multiple disciplines. The IPCP model also provided clinical placement opportunities for students from the various disciplines represented to learn about teamwork and build their competencies for IPCP, population health, and care coordination across transitions.

Conclusions/Implications: An IPCP model of care is an effective approach to improve health outcomes and care transitions in underserved patients with chronic diseases such as heart failure. Members of various health professions working together in a collaborative model can enhance teamwork that ultimately benefits patient outcomes. Working together, academic-practice partners can achieve impactful outcomes that one partner alone might not be able to achieve.

References

- American Organization of Nurse Executives. (2015). *Nurse executive competencies: Population health*. Retrieved October 22, 2016 from <http://www.aone.org/resources/population-health-competencies.pdf>
- Brandt, B., Lutfiyya, M.N., King, J.A., & Chioreso, C. (2014). A scoping review of interprofessional collaborative practice and education using the lens of the Triple Aim. *Journal of Inteprofessional Care*, 28(5), 393-399.
- Cipriano, P., Bowles, K., Dailey, M. Dykes, P., Lamb, G., & Naylor, M. (2013). The importance of health information technology in care coordination and transitional care. *Nursing Outlook*, 61(6), 475-489.
- Haas, S.A., Swan, B.A., & Haynes, T.S. (Eds.), (2014). *Care coordination and transition management core curriculum*. Pitman, NJ: American Academy of Ambulatory Nursing.
- Interprofessional Education Collaborative. (2016). Core competencies for interprofessional collaborative practice: 2016 update. Retrieved October 22, 2016 from <http://www.aacn.nche.edu/education-resources/IPEC-2016-Updated-Core-Competencies-Report.pdf>
- Shirey, M.R. & White-Williams, C. (2015). Boundary spanning leadership for population health. *Journal of Nursing Administration*, 45(9), 411-415.

Contact
mrshirey@uab.edu

H 11 - Promoting Health Policy

Using Twitter to Engage Nurses in Policy Debate to Inform Health Strategy

Siobhan O'Connor, BSc, CIMA, CBA, RN, FHEA, United Kingdom

Abstract

Purpose: Health policy can often be designed with little input from frontline nursing or managerial staff, whose clinical and organisational expertise could add value to the development of national health strategies (Gebbie et al, 2000). The Chief Nursing Officer (CNO) for Scotland used social media as part of a communications plan, to help identify areas of practice that need investment and ensure all nurses can contribute to health policy discussion. This study aims to explore the views of those who participated in a Twitter chat and examine the usefulness of social media to engage nurses in policy debate and future health strategy development.

Methods: The Twitter chat was advertised using email and social media to recruit participants. It was promoted through health boards, higher education institutes, voluntary organisations and other agencies related to nursing and healthcare and run by the CNO and her team in May 2016 under the hashtag #CNOScot. A series of questions were posed throughout the online chat to generate discussion, which lasted one hour. This study adopted a mixed approach as the views of those who participated in the virtual focus group were explored using the framework approach to produce a thematic analysis of nursing priority areas identified. Descriptive statistics from an analytics platform were also examined to see how useful social media was in reaching and engaging nurses and others in a health policy discussion. No ethical approval was necessary for this study as Twitter is an open public platform. To protect participant privacy identifying information in tweets was anonymised following best practice (Chretien & Kind, 2013; Eysenbach & Till, 2001).

Results: Sixty-five people took part in the Twitter chat from a range of nursing and other nursing backgrounds. The debate centred around areas of nursing that need investment in particular technology, nursing research and education were identified as vital to developing in the future. *"Agree re IT skills - we need to be intentional around development rather than assume"; "It is in pre reg & then not used post reg. The culture is about audit & not research"*. Expanding primary care services were also seen as critical to supporting older adults with complex health and social care needs and people suggested successful pilots of innovative practice currently underway that could be scaled up. *"currently working with DN colleagues telehealth project & supporting them with their new clinical skills #CNOScot"*. Finally, advanced practice and leadership roles in specialist areas such as mental health and palliative care were discussed as being necessary to address frailty, cognitive decline and other conditions associated with ageing. *"#CNOScot I think further development in MH might be a priority and specialist dementia care too?"*.

Conclusion: Social media was used to gather a diversity of perspectives on how nursing in Scotland needs to develop and was helpful in informing future health policy developments in this area. However, only a small proportion of practising nurses participated and certain groups such as students and those working in the private sector were missing. A multifaceted communications strategy is needed to reach and engage nurses and other key stakeholder groups such as patients and carers to inform future health policy.

References

1. Gebbie, K. M., Wakefield, M., & Kerfoot, K. (2000). Nursing and health policy. *Journal of Nursing Scholarship*, 32(3), 307-315.
2. Chretien, K. C., & Kind, T. (2013). Social media and clinical care ethical, professional, and social implications. *Circulation*, 127(13), 1413-1421.
3. Eysenbach, G., & Till, J. E. (2001). Ethical issues in qualitative research on internet communities. *British Medical Journal*, 323(7321), 1103-1105.

Contact

S.OConnor@napier.ac.uk

H 11 - Promoting Health Policy

The Challenges of Online Education With Respect to Accessing Health Policy Expertise

Patricia A. Brennan, PhD, RN, DFNAP, USA

Abstract

Purpose: This project was undertaken to evaluate the utilization of available technology within the context of several on-line distance learning formats to access appropriate health policy expertise. This access was intended to provide the student an opportunity to critically appraise health policy relevant to clinical practice and learn skills to engage in policy development at the intersection of practice and research, as outlined in the Essentials of Doctoral Education for Advanced Nursing Practice

Session Objectives: At the completion of this presentation the participant will be able to

1. Articulate the challenges of health policy education with respect to asynchronous, synchronous and hybrid course delivery formats
2. Compare the effectiveness of various pedagogical approaches to delivering health policy content.
3. Illustrate strategies to access health policy expertise in an effort to provide authentic exposure to the clinical relevance of health policy.
4. Articulate the value of “social presence” in the on-line environment and how synchronous, asynchronous and hybrid course content delivery contribute to its development among geographically distant participants.
5. Explore inter-professional and international opportunities to collaborate on health policy education across local and geographically distant graduate programs.

Implementation: Through the collaborative efforts of an inter-professional team, four on-line synchronous sessions were delivered during a semester-long Advanced Health Policy Course within a nursing doctoral program. One session included engagement with an NIH researcher and clinician from the National Cancer Institute/National Institutes of Health. Similar content was delivered in an asynchronous and hybrid graduate health policy course.

Outcomes: Through the utilization of a distance-learning platform, “synchronous” exposure to an NIH researcher and health policy expert created “social presence” among a cohort of geographically distant doctoral students. This delivery methodology was compared to both a hybrid and asynchronous module with the same content. The pedagogy of synchronous on-line content delivery was compared to asynchronous and hybrid delivery of similar content. Insights for the faculty member will be shared with respect to the value and “cost” of providing “access” to “quality” experts in health policy development.

Implications for Policy Education: Moving beyond the “webinar” model of asynchronous on-line education, the ability to create social presence through the integration of real time dialogue will provide opportunities for richer understanding of health policy and a more active engagement in health policy education. In addition, this model creates inter-professional opportunities to collaborate across geographically distant doctoral programs, while sharing both resources and expertise

References

Benner, P. (2012). Educating nurses: a call for radical transformation-how far have we come?. *The Journal of nursing education*, 51(4), 183-184. Distance Technology in Nursing Education. AACN White Paper. American Association of Colleges of Nursing, Washington, DC. 1999-00-00 (Sentinel/Classic Article) Hill, P. (2014). Online educational delivery models: A descriptive view. Yuan, L., Powell, S., & CETIS, J. (2013). MOOCs and open education: Implications for higher education.

Contact

pbrennan@samuelmerritt.edu

I 01 - Promoting Health in Obese Patients

A College and a University Collaborating on “Moving On” Project: Reducing Hispanic Childhood Obesity

Patricia R. Messmer, PhD, MSN, MA, BSN, RN-BC, FAAN, USA

Nora Hernandez-Pupo, MSN, RN, USA

Yolanda Nitti, MSN, RN, USA

Giannina Santos, DNP, MSN, ARNP, USA

Guillermo Valdes, DNP, RN-BC, USA

Kathleen Muniz, MSN, RN, USA

Yamina Alvarez, DNP, RN, USA

Abstract

Introduction: Childhood obesity is known to increase risk of obesity in adulthood and can lead to type 2 Diabetes & Cardiovascular Disease (Chen et al, 2016, Evans et al, 2016; Bauer, 2015; Brown, Kuk & Lee, 2015) Treating obesity-related illness in Florida (25%) costs \$6,675,940. Latino children are at a greater risk of obesity with prevalence increasing over time. National Association of Hispanic Nurses (NAHN) Miami Chapter was a site for Muevete USA™ Project (2012-2015) reducing Hispanic childhood obesity (Milan, 2011). The 2016 project partnered with U.S. 1st Lady Michelle Obama Let’s Move (www.letsmove.gov). The collegiate ASN/RN-BSN students was at a summer camp while the University BSN students conducted their program in a elementary school.

Purpose: To determine if an education program can increase the level of knowledge preventing childhood obesity focusing on 1) awareness/understanding of food labels; 2) daily portions of fruits, vegetables, grains, dairy, protein;and 3) incorporating daily physical activity and exercises.

Methodology: A descriptive exploratory research design was conducted with children completing five pre/post tests of 15 questions - “My Plate”; “Food Label”; “Physical Activity and Exercise” “Healthy Snacks” and “Goal Setting”. Content validity was established. Community Health ASN & RN-BSN students participated in Muevete projects at South campus (1st-3rd) and Homestead (2nd - 4th years) . Students, received 10 community hours; orientation, designing posters and attending events. Children were divided into 12 groups (2 students/group) taking food cutouts, making plates with appropriate portions, nutritional requirements and reading labels. In the 4th year, President-elect NAHN, Miami Chapter had 7 University BSN students teach "Moving -On" for two 4th grade classes.

Results: In 2016, 56 children did "Moving-On" at a summer camp in Homestead; 58% males 42% females ages 9-12 Hispanic 75%, White 20%; Black 5%; with 34% change while 42 children did Moving-On during school; ages 10-11, 55% females-45% males 95% Hispanic 3% Caucasian and 1% Asian with 23% change. In 2015, 128 children participated ages ranged 4-15 mean=8.51 years; males- 59% females 41%. Hispanic 74%, Black 36%, White 22%, Asian-1% pretest-posttest scores increasing 9.77-11.81, a 21% change. at the 2nd site, 109 children participated ages ranged 5-12 mean= 8.51 years, males- 65%, females 41%; Hispanic 74%, White 20%; Black 5% Asian 1%; pretest-posttest scores increased 9.77--11.81, 42% change. In 2014, 125 children participated-ages ranged 4-15 mean=8 years, kg-8th grade males-62%, females 38%; Hispanic 55%, White 30%; Black 9% Asian 6%; pretest-posttest scores increased 9.40--10.68, 13.62% change. At the 2nd site 102 children participating ages ranged 4-15 mean= 9 years; males- 54% females 46%. Hispanic 41%, Black 38%, White 13%, Asian-8% pretest-posttest scores increasing 8.33-9.45, a 13% change. In 2013, 130 children participated; ages 5-12; males 50%, females 50%; mostly Hispanics. All mean scores increased pre-to posttest 1st test 3.13-4.67; 2nd test 2.94-3.72 3rd test 3.50-4.55 4th test 3.50- 4.13; 5th test 2.96-3.52

Discussion: Over the past four years over 692 Children drew plates with food portions (www.choosemyplate.gov), ate healthy snacks, exercised to Zumba or exercised to a youtube video, did hand washing techniques, wearing “Moving-On” t-shirts. Parents received nutrition classes. Most missed question -“How much Sodium is in entire food product?” on a food label. Sodium is 440 mg but for 4 servings = 1760mg.

Conclusion: Children learned healthy food habits to overcome childhood obesity. This program increases knowledge of obesity for Hispanic/non-Hispanic children while decreasing associated healthcare costs.

References

- Bauer, CC, et al. (2015) Child overweight and obesity are associated with reduced executive cognitive performance and brain alterations: a magnetic resonance imaging study in Mexican children *Pediatric Obesity* 10(3), 196-204.
- Brown, RE, Kuk, Lee S. (2015). Measurement site influences abdominal subcutaneous and visceral adipose tissue in obese adolescents before and after exercise *Pediatric Obesity* 10(2), 98-104.
- Chen, T-A., Barabowski, T., Moreno, J.P., O'Connor, T.M., Hughes, S.O., Barabowski, J., Wohler, D., Kimbro, R.T. & Johnston, C. (2016). Obesity status trajectory groups among elementary school children *BMC Public Health* 16:526.
- Evans, A., Ranjit, Hoelscher, D., Jovanic, C., Lopez, M., McIntosh, A., Ory, M., Whittlesey, L., McKyer, L., Kirk, A., Smith, C., Walton, C., Heredia, NI & Warren, J.. Impact of school –based vegetable garden and physical activity coordinated health interventions on weight status and weight-related behaviors of ethnically diverse, low income students: Study design and baseline data of the Texas, Grow! Eat! (TGEG) cluster-randomized controlled trial. *BMC Public Health* 16(1), 973.
- Knop, C. et al (2015). Extremely obese children respond better than extremely obese adolescents to lifestyle interventions *Pediatric Obesity* 10(1), 7-14.

Contact

messmerpatricia@yahoo.com

I 01 - Promoting Health in Obese Patients Using Motivational Interviewing to Address Obesity: A Global Perspective

Juanita L. Wilson, DNP, NP-C, COHN-S, USA

Abstract

Obesity is a growing global public health epidemic affecting all ages and socioeconomic groups. Commercial truck drivers (CTDs) have a greater obesity rate and decreased life expectancy compared to the general population. The nature of the commercial truck driving occupation places the truck driver at an increased risk for obesity. CTDs work sedentary jobs with long hours that pose barriers to eating healthy, regular exercise, and regular sleep patterns. The outcomes of a four-week evidenced-based practice (EBP) change project that utilized a motivational interviewing (MI) intervention and included diet and exercise education was found to have a positive impact on outcomes. MI has enabled individuals to evaluate personal ambivalence about healthy lifestyle choices thus, increasing self-efficacy to induce healthy diet and exercise behavior changes to promote weight loss. MI has been found to encourage behavior change by helping people understand the need to change in terms of lifestyle choices. MI has been supported in the literature as an intervention to increase one's self-efficacy promoting weight loss.

There were two outcomes this evidence-based practice (EBP) change project measured and evaluated. The first outcome was an increase in weight loss measured by a reduction in body mass index (BMI). The second intended outcome was an increase in self-efficacy for healthy behavior change and weight loss as a result of a MI intervention. Data revealed an increase in group aggregate self-efficacy for weight loss by 14.8%, exceeding the benchmark of an 11%. An analysis of aggregate group BMI revealed CTDs lost a mean of 0.65 kg/m², exceeding the benchmark of 0.5 kg/m² to two pounds per week. The outcomes of this EBP change project suggests that MI was successful as a group, in helping CTDs increase their confidence for weight loss and for decreasing BMI (group aggregate benchmarks were met for both outcomes). The results suggest a short term MI intervention can be a cost-effective and easy to implement solution to mitigate obesity when implemented as a clinical standard for CTDs, as well as other populations.

References

- Apostolopoulos, Y., Sonmez, S., Shattell, M., Gonzales, C., & Fehrenbacher, C. (2013). Health survey of U.S. long-haul truck drivers: Work environment, physical health, and healthcare access. *Work*, *46*(1), 113-123. <http://dx.doi.org/10.3233/WOR-121553>
- Harris, J., Roussel, L., Walters, S., & Dearman, C. (2011). *Project planning and management: A guide for CNLs, DNP's, and nurse executives*. Sudbury, MA: Jones & Bartlett Learning.
- Low, K., Giasson, H., Connors, S., Freeman, D., & Weiss, R. (2013). Testing the effectiveness of motivational interviewing as a weight reduction strategy for obese cardiac patients: A pilot study. *International Journal of Behavioral Medicine*, *20*(3), 77-81. <http://dx.doi.org/10.1007/s12529-011-9219-9>
- VanBuskirk, K., & Wetherell, J. (2014). Motivational interviewing with primary care populations: A systematic review and meta-analysis. *Journal of Behavioral Medicine*, *37*(8), 768-780. <http://dx.doi.org/10.1007/s10865-013-9527-4>

Contact

juanitakantner@yahoo.com

I 02 - Education Strategies in Academia

Self-Leadership in Male Learner Nurses during Their Training at a College in South Africa

Shahnaaz Mia, MCur, RN, RM, South Africa

Abstract

Male learners in the nursing profession have been found to face self-leadership challenges. Self-leadership is an enabling process whereby a people learn to know themselves better and through this improved self-awareness, are better able to steer their work life. Self-leadership includes both personal and professional growth. It requires certain attributes such as maturity and endurance. This leads to the empowerment of the individual and to the fulfillment of goals and desires. The purpose of this study was to describe guidelines for male learner nurses on self-leadership during a four-year nursing programme at a nursing college in the Western Cape.

The objectives of this study were to explore and describe the best experiences of self-leadership in male learner nurses during their four-year training programme at a nursing college in the Western Cape Province of the Republic of South Africa.

A qualitative research design incorporating the philosophy of the Appreciative Inquiry paradigm was used. The research design was exploratory, descriptive and contextual to match the research questions.

The research questions were framed from an AI perspective:

'What are the best experiences of male learner nurses on their self-leadership during their four-year programme?'

'How can male learner nurses lead themselves during their four-year programme?'

The target population consisted of all the male student nurses from 1st to 4th year (n=151) following the R425 undergraduate diploma programme at a nursing college in the Western Cape. Data was collected by means of individual, semi-structured interviews with 12 male learner nurses until saturation occurred. The interviews were audio-taped and transcribed verbatim. Data analysis consisted of thematic analysis using Tesch's eight-step method to generate themes, categories and sub-categories. The findings consisted of five themes:

Theme 1 – The peak experiences of the male student nurses relating to self-leadership occurred on multiple levels – academic, interpersonal, personally associated and practice-linked.

Theme 2 – Self-leadership was a process (at times difficult) of growth, adaptation and developing attitudes that culminated in building character.

Theme 3 – Future aspirations included professional and educational aspects and interpersonal leadership.

Theme 4 – This revealed the qualities needed for attainment of future aspirations.

Theme 5 – The value of the programme was enhanced through educational, fellow student and practice support.

The conclusion of this study was that male learner nurses have the capacity to lead themselves as they displayed those characteristics identified for their self-leadership. Characteristics such as maturity, responsibility, advocacy, strong resolve, hard work, endurance and a willingness to sacrifice were identified by the participants. They employed the use of self-talk and they were able to make firm decisions, but they required guidance and active support from significant others such as family, friends, nurse supervisors, nurse educators and faculty.

The value of their training programme was enhanced by educational support from lecturers and mentors, fellow students and practice support in the wards and simulation laboratory. Guidelines for self-leadership for male learner nurses were described from the findings of this study.

Ethical considerations included obtaining informed consent from the participants, while ensuring confidentiality and anonymity. Ethical clearance to conduct this study was obtained from the Ethics Committee at the University of the Western Cape, Western Cape College of Nursing (WCCN) and Cape Peninsula University of Technology (CPUT). Trustworthiness was ensured throughout the research process through credibility, transferability, confirmability and dependability.

References

- Comrie,R.W. (2012). An analysis of undergraduate and graduate student nurses' moral sensitivity. *Nursing Ethics*,19 (1), 116-127
- Creswell,J.W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. (3rd Ed.) Los Angeles:Sage
- West,L.J. (2013).Factors associated with attrition in the undergraduate diploma nursing programme.Thesis. University of Stellenbosch. Cape Town

Contact

shahnaazmia@vodamail.co.za

I 14 - Promoting Safety and Clinical Outcomes

Adopting a High Performance Management System Utilizing a Lean Visual Management Tool to Sustain Improvements

Louise C. Rudden, MScN, RN, BScN, NP (Paed), Canada

Melody Hicks, BScN, Canada

Stephanie Lappan-Gracon, MN, BScN, Canada

Yogini Walli, MN, BScN, RN, Canada

Irene Koo, MHA, BSc, BScPT, Canada

Rose Rivard, CPA, CA, BA (Hons), Canada

Abstract

After the implementation of a LEAN Daily Continuous Improvement Program (DCIP) in a Large Pediatric ambulatory portfolio the momentum for process improvement accelerated and great successes were achieved. However, after a period of time ideas for improvement began to decrease. Managers resorted to look for solutions to sustain and maintain the improvement. As healthcare evolves so do the increasing demands on manager responsibilities limiting their ability to not only find solutions but act on them.

In an effort to support managers and leaders in sustaining improvement, a High Performance Management System (HPMS) was adopted using a LEAN visual management tool called an Obeya, translates as “big room” in Japanese. A HPMS is an organizational framework that defines standard work for each tier of management and the integrated hierarchy that reinforces, supports, and improves work at all levels. Its theory is grounded in the Juran Trilogy (Quality Planning, Quality Control, and Quality Improvement). A HPMS enables a culture of transparency that encourages and sustains improvement.

The Obeya aids in visualizing priority projects within the portfolio and a visual map of how each project is directly aligned with the organizational strategy and goals to achieve key performance metric targets.

Using a visual management tool has allowed managers and leaders to quickly visualize their progress on many important initiatives and move projects along at a more efficient pace. Some of the early outcomes experienced by managers who have piloted this framework include increased focus, collaboration, and efficiency. The Obeya allows managers to “see together, learn together, act together”.

Defining management standard work enables managers to reduce variation and achieve outcomes more efficiently. This framework will aid in eliminating non value added/non managerial work in a manager’s schedule supporting them to find and implement solutions that sustain improvement both at a departmental and organizational level. As a framework its adaptability to all tiers of management in an organization will really drive the strategic agenda for organizations.

References

The Advisory Board Company: [Retrieved from the World Wide Web on September 13th, 2016.](https://www.advisory.com/-/media/Advisory-com/Research/NEC/Events/Webconference/2016/012716_NurseManagerWebcon.pdf)

https://www.advisory.com/-/media/Advisory-com/Research/NEC/Events/Webconference/2016/012716_NurseManagerWebcon.pdf

Scoville R, Little K, Rakover J, Luther K, Mate K. *Sustaining Improvement*. IHI White Paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2016.

Stenholm. D, Bergsjö. D, & Catic. A., “*Digitalization Challenges For Lean Visual Planning In Distributed Product Development Teams*”. International Design Conference. Dubrovnik - Croatia, May 16 - 19, 2016.

Contact

louise_rudden@hotmail.com

I 14 - Promoting Safety and Clinical Outcomes

Improving Clinical Outcomes: A Study of the Impact of Audit and Feedback on Nurse Performance

Rebecca Clark, PhD, MSN, BSN, RN, USA

Kimberly Ferren Carter, PhD, RN, USA

Abstract

Purpose: The purpose of this project was to explore the impact of timely, individualized audit and feedback on clinical outcomes and nursing behaviors. The specific focus of the study was to improve the pneumococcal immunization rate for at-risk adults in ambulatory settings. The objective of the study was to increase immunization rates to 50% for eligible patients.

Background: While vaccines are noted to be among the most successful health advances in recent history, adult immunization rates in the United States are well below the recommended levels. The economic and personal costs far outweigh the cost of effective immunizations but studies continue to indicate the need for effective strategies to immunize our at-risk groups. Centers for Disease Control and Prevention estimates that only 20% of the at-risk population ages 19 to 64 has been immunized, contrasted with 61% of those greater than age 65.

While adults are often hesitant to obtain vaccines, the literature indicates that providers may avoid administering the vaccines per immunization schedule. Studies have demonstrated that interventions targeted toward provider behavior on a variety of patient care issues can have a major impact on improving implementation of practice guidelines.

Studies have shown that individualized assessment (audit) and feedback (A & F) can be effective in improving outcomes in numerous settings. Effective A&F interventions includes key components of timeliness, individualization, and nonpunitiveness. This study explored the impact of audit and feedback on individual performance and the clinical outcome of pneumococcal immunizations.

Study: This study was deemed a quality improvement study by the Institutional Review Board, and consent was not required. The study was conducted from October 2014 to August 2015.

Setting: This study was conducted in a presurgical testing center (PST) that is a department of a large healthcare system in southwestern Virginia. This center is a referral site for the region and has over 12,000 patient visits annually. The PST is staffed by RNs who conduct risk assessment on patients prior to surgeries. The departmental goal for immunizations was set at 50% of eligible patients and each staff member had this as an individual goal.

All patients seen in the PST were screened for eligibility for the pneumococcal vaccine per Centers for Disease Control criteria: 18 years of age or older, history of chronic disease, and/or smoker. At the time of the study only the Pneumovax 23 immunization was recommended by the CDC. The staff were educated regarding the importance of the vaccine and how to use the electronic medical record (EMR) to determine patient eligibility for the vaccine.

This study consisted of 2 phases: Phase 1) feedback to staff regarding personal performance for the previous year and Phase 2) individual audit and feedback that reflected the individual performance for the previous month.

Results and Analysis: Data were collected for nine months, and analyzed for Phase 1, Phase 2 and the total study using chi square. The mean immunization rate from the preceding fiscal year (November 2013 through October 2014) served as the control and was 41.68%.

Phase 1: The nurse manager provided staff members with data about individual performance for the previous 12 months (November 1, 2013 to October 31, 2014). For the three months following this

feedback (November 2014 through January 2015) the mean departmental immunization rate was 32% (range: 27% to 32%). This was not statistically significant $X^2 (1, N=614) = 1.74, p=1.86$ when compared with the control.

Phase 2: Phase 2: From February through August 2015, the manager provided each staff member with a monthly email that detailed the personal rate of administration of vaccines to eligible patients. Data for these emails were generated through reports based on the EMR.

During this six-month period, the mean departmental immunization rate rose to 56.8% (range 45% to 67%). This individual, timely feedback was significant $X^2 (1, N=1379) = 4.50, p=0.033$.

The impact of the intervention for both phases of the study was 49%. The result was not significant $X^2 (1, N=1993) = 0.98, p=.32$.

Discussion: The purpose of this project was to improve the immunization rates for adults to 50% using audit and feedback on nurses' performance. This goal was achieved in the second phase of the study where the clinical outcomes (immunization rates) for the department were significantly higher.

These findings support the hypothesis that timely, individualized audit and feedback that is not punitive can have a positive impact on the departmental outcome of immunizations. Generalized feedback that does not provide information that is actionable did not have the same impact. Staff commented to the nurse manager that the 12-month data point was not something they could impact. However, they noted that the monthly emails provided them with data about current performance that they could change.

It was not possible to assess the impact on individual performance due to variations in staffing. For example, within the six-month time frame of the study, several nurses rotated to clinical leadership positions and did not administer vaccines, while others were on extended leave. This resulted in a small sample size of nurses who worked in a consistent role over the period of the study.

Limitations: Generalizability is limited due to the time frame for this study. More study is needed to understand the sustainability and impact of these findings. The trend in this study supports that timely, actionable feedback, provided by a manager, has a positive impact on individual behavior related to immunizations of eligible patients. Further study regarding the impact of individualized audit and feedback will yield a deeper understanding.

Conclusion: Individual variations in practice account for variations in clinical outcomes. In efforts to improve patient care and clinical outcomes, it is important to influence individual provider efforts to encourage compliance with guidelines. It is essential for providers to have actionable information about their behavior if they are to improve.

References

- Hysong, S. (2009) Meta-analysis: audit and feedback features impact effectiveness on care quality. *Medical Care*, 47 (3), 356–363.
- Hysong, S., Teal, C., Khan, M., Haidet, P. (2012). Improving quality of care through audit and feedback. *Implement Sci*. 7:45.
- Ivers, N., Jamtvedt, G., Flottorp, S., Young, J., Odgaard-Jensen, J., French, S., et al. (2012). Audit and feedback: effects on professional practice and healthcare outcomes. *Cochrane Database Syst Rev*. 6.
- Larson, E., Patel, S., Evans, D., and Saiman, L. (2013). Feedback as a strategy to change behaviour: the devil is in the details. *Journal of Evaluation in Clinical Practice* 9; 230-234.
- Lau, D., Hu, J., Majumdar, S., Storie, D., Rees, S., and Johnson, J. (2012). Interventions to Improve Influenza and Pneumococcal Vaccination Rates Among Community-Dwelling Adults: A Systematic Review and Meta-Analysis. *Ann Fam Med* 10:538-546.
- Sevin, A., Romeo, C., Gagne, B., Brown, N., and Rodis, J. (2016). Influencing adults' immunization practices: a pilot survey study of a diverse, urban community in central Ohio. *BMC Public Health* 16:424-432.

Contact

rebeccaclark04@gmail.com

J 14 - Promoting Interprofessional Teams

Interprofessional Collaboration: Nurses and Physicians Continue to View Collaboration Differently

Tanna Thomason, PhD, RN-BC, CNS, PCCN, USA
Belinda M. Toole, PhD, RN, CCRN, CCNS, USA

Abstract

Purpose: Interprofessional collaboration fosters quality and safety clinical outcomes and is a requisite element in our complex healthcare delivery environment. Yet, as noted by The Joint Commission (2009), the relationship between nurses and physicians has been a major determinate of the quality of healthcare. Hierarchical power relationships between nurses and physicians were first described by Stein in 1967. Power dynamics, whether real or perceived, impede teamwork, collegiality, and patient advocacy. Although significant progress has been since Stein's seminal article, conflict and discord persists leading to errors and increased healthcare costs (Crawford, Omery, & Seago, 2012; Nair, Fitzpatrick, McNulty, Click, & Glembocki, 2012).

Frontline nurses at a southwestern United States community acute care hospital identified collaboration as a topic of research interest. Seven frontline nurses developed a research study to explore interprofessional collaboration. The team was sponsored by medical and nursing leadership and mentored by two PhD prepared clinical nurse specialists.

The purpose of the research study was to investigate the current state of collaboration between nurses and physicians at a non-profit acute care hospital in the southwestern United States.

Methods: Following Institutional Review Board approval, the frontline nurses conducted a non-experimental, concurrent mixed methods study. Quantitative data included the use of two instruments. The Positive Professional Practice Environment Assessment Scale (PPEAS) consists of 13 items on a 1-10 point Likert Scale. Eight items are scored from disagree (1) to agree (10); three items are scored from insignificant (1) to significant (10), and two items are scored from poor (1) to excellent (10). The scale produces an overall score and four subscale scores (presence of positive physician characteristics, presence of positive nurse characteristics, presence of positive organizational characteristics, and presence of positive decision making characteristics). The PPEAS has an overall Cronbach's alpha of 0.86 with subscale alpha's from 0.73 - 0.89 (Siedlecki & Hixson, 2011). The Collaborative Behavior Scale – Shortened (CBSS) has eight items with a 1-4 point Likert scale (1 = rarely; 4 = nearly always) and produces an overall score to measure the degree of collaborative behaviors. The CBSS has reported a Cronbach's alpha of 0.96 (Stichler, 2013). Recruitment via convenience sampling included 355 nurses and 82 physicians who completed the quantitative instruments. One focused qualitative question (*If you could improve collaboration between physicians and nurses, what two strategies/priorities/areas would you suggest?*) resulted in responses from 144 nurses and 53 physicians. Data was analyzed using SPSS, Version 22 and by first cycle holistic and second cycle thematic coding.

Results: Analysis of quantitative data was completed using descriptive statistics, t-tests, one-way analysis of variance analysis and post-hoc Sheffé. Physician respondents were predominantly male (81.35%), with a mean age of 51.95 years and 19.7 mean years in practice. The majority were board certified (93.7%) and primary practice areas were surgical (45.0%), medical (27.5%), or anesthesia (21.3%). Nurse respondents were predominantly female (90.95%), with a mean age of 44.17 years, and 17.51 mean years in practice. Most nurses had bachelor's degrees in nursing (67.0%), and 51.3% had a specialty certification. Primary practice areas were inpatient units (acute care 22.6%; progressive care 22.1%, intensive care 21.0%). Comparing the two professions, physicians generally rated collaboration significantly higher than nurses as measured by the PPEAS overall score (physicians $M = 8.05$, $SD = 1.36$; nurses $M = 7.69$, $SD = 1.39$, $p = .037$) and CBSS (physicians $M = 3.40$, $SD = 0.55$; nurses $M = 2.69$, $SD = 0.76$, $p < .001$). Two PPEAS subscale scores were also significantly higher for physicians than nurses. On positive physician characteristics, physician scores ($M = 8.02$, $SD = 1.37$) were significantly higher than nurses ($M = 6.73$, $SD = 2.05$, $p < .001$) and positive decision-making characteristics were also

higher (physicians $M=7.84$, $SD = 2.06$; nurses $M = 7.02$, $SD = 2.22$, $p = .003$). Nurses ($M = 8.87$, $SD = 1.42$) scored higher than physicians ($M = 8.05$, $SD = 1.82$, $p < .001$) on the positive organizational characteristics. There were no significant differences between professions on the presence of positive nurse characteristics. Physician perceptions of collaboration did not vary by primary practice area. Nurse perceptions of collaboration varied significantly by practice area for the PPEAS overall score, the CBBS, and the two subscale of positive physician characteristics and positive decision-making characteristics ($p < .001$) Post hoc Sheffé comparison tests revealed, in general, nurses working in the emergency department and procedural areas rated collaboration significantly higher than nurses in other areas. Despite the close physical proximity of their work environment, nurses working in the operating room scored collaboration lower than nurses working in most other departments ($p < .05$).

Qualitative data analysis produced four interpersonal and interactional themes of rounding, respect, roles, and communication.

Conclusion: Physician respondents perceived a greater level of collaboration than nurse participants, which is congruent with prior quantitative research findings (Nair et al., 2012; Wauben et al., 2011). The distinct differences in nurses' collaboration scores by practice area support the concept of unit level influences on interpersonal relationships (Donaldson & Mohr, 2000). Qualitative data analysis revealed respect and rounding as methods to improve collaboration from a nursing perspective, while physicians emphasized role delineation as a potential improvement area. Improved communication was a priority emphasized by both professions.

Nurse leaders can influence the interprofessional environment by recognizing entity level measures of collaboration may not be reflective of a unit level work environment. Assessment of provider interprofessional dynamics at the unit or department level is paramount to addressing and improving relationships in the clinical setting. As the current study has shown, collaborative perspectives vary by role and settings. Successful interventions to improve interprofessional practice should recognize these differences and tailor strategies based on an understanding of the specific practice environment. In this study, the richness of exploring collaboration through both quantitative and qualitative methods resulted in a more robust assessment of the interprofessional environment. Collaborative interprofessional interactions are critical to achieve and sustain quality patient outcomes and interprofessional role satisfaction.

References

- Crawford, C., Omery, A., & Seago, J. A. (2012). The challenges of nurse-physician communication. *Journal of Nursing Administration*, 42(12), 548-550. doi:10.1097/NNA.0b013e318274b4c0
- Donaldson, M. S., & Mohr, J. J. (2000). *Exploring innovation and quality improvement in health care micro-system: A cross-case analysis: A technical report for the Institute of Medicine Committee on the Quality of Health Care in America*. Washington, D.C.: National Academies Press.
- Nair, D., Fitzpatrick, J., McNulty, R., Click, E., & Glembocki, M. (2012). Frequency of nurse-physician collaborative behaviors in an acute care hospital. *Journal of Interprofessional Care*, 26(2), 115-120. doi:10.3109/13561820.2011.637647
- Siedlecki, S. L., & Hixson, E. D. (2011). Development and psychometric exploration of the professional practice environment assessment scale. *Journal of Nursing Scholarship*, 43, 421-425. doi:10.1111/j.1547-5069.2011.01414.x
- Stichler, J.F. (2013, July). *Psychometric testing of the collaborative behavior scale – Shortened (CBSS)*. Paper presented at the meeting of Sigma Theta Tau International Research Congress. Prague, Czechoslovakia.
- Stein, L. I. (1967). The doctor-nurse game. *Archives of General Psychiatry*, 16(6), 699-703.
- The Joint Commission (2009). *Leadership in Healthcare Organizations: A Guide to Joint Commission Leadership Standards*. Retrieved from http://www.jointcommission.org/assets/1/18/WP_Leadership_Standards.pdf
- Wauben, L., Dekker-van Doorn, C., van Wijngaarden, J., Goossens, R., Huijsman, R., Klein, J., & Lange, J. (2011). Discrepant perceptions of communication, teamwork and situation awareness among surgical team. *International Journal for Quality in Health Care*, 23(2), 159-166.

Contact

tanna.thomason@sharp.com

J 14 - Promoting Interprofessional Teams

Post-Graduation Follow-Up of Graduates of an Interprofessional Simulation Curriculum: Is IPE Important in Clinical Settings?

Sharon Cannon, EdD, RN, ANEF, USA
Saju Joseph, MD, FACS, USA
Adrian R. Mulig, BSN, RN, CVRN, USA

Abstract

Interprofessional Education (IPE) has become an integral part of education in all health sciences, however little data exists to determine if this model is helpful in clinical practice. Too often, there is a gap between education and practice. We present our post-graduate results for our IPE simulation curriculum for the Nursing, Medicine, and PA programs.

Patient care is always provided by multidisciplinary teams in the hospital; however education of students continues to be isolated and conducted in silos. Recently, interprofessional education has been utilized to maximize the learning environment, create interactive learning, and teach non-cognitive aspects of health care. Numerous models have been used to quantify the benefit of these curricula, but follow up of graduates has been difficult due to many factors.

Transition to practice is often the most difficult for health care students. While clinical knowledge is easily assessed, employers spend a great deal of time developing a collaborative work environment, effective communication, and professional rapport. Our IPE curriculum was started to replicate these issues and encourage students to improve their communication and teamwork. To assess the effectiveness of our curriculum, we followed all students prospectively and assessed their development after they began their career using interviews and Likert surveys. We believe this is the only way to show validation for our curriculum. Since the goal of this program is to enhance teamwork, communication, and rapport amongst professionals, it is very difficult to quantify the effectiveness and as a result, we rely on subjective experiences of the graduates. Finally, since this program is integrated into other educational models and the student's experience is cumulative, confounding is inherent in the data but minimized.

There were 17 of 28 graduates who responded and all 17 of them believed IPE was important for their career and thought it had improved their communication skills and teamwork. All respondents would suggest the curriculum to current students and 95% thought it should be mandatory. Finally, a number of graduates were asked about this curriculum by their employer during the interview process.

Obviously, the sample size is small but it had positive results. We believe that this data shows the effectiveness of our curriculum. As part of our institution's emphasis on IPE, curriculum utilizing the simulation centers will become an integral part of the core IPE initiative. Finally, the fact that employers are asking about our curriculum at interviews may represent improved preparedness of the graduates compared to other students and may be an advantage in the job market. In addition, having professionals who interact in patient care can have a major impact on patient satisfaction and build a culture of teamwork in the practice setting.

References

Cannon, S. & Boswell, C. (2016). Evidence-Based Teaching in Nursing: A Foundation for Educators (2nd.Ed.) Burlington, MA: Jones and Bartlett Learning.

Contact

sharon.cannon@tuhsc.edu

J 14 - Promoting Interprofessional Teams

Empirical Evidence of Theorized Clinical Nurse Leader Integrated Care Delivery Model Domains

Elizabeth Spiva, PhD, MSN, BSN, RN, USA

Miriam Bender, PhD, RN, USA

Wei Su, PhD, MS, USA

Lisle Hites, PhD, MEd, USA

Abstract

Background: The National Academy of Medicine acknowledges healthcare delivery redesign and innovative models of care are essential for improving care quality and safety (Institute of Medicine, 2011). Registered nurses (RN) comprise the largest healthcare workforce in the United States and are in a vital position to shape clinical microsystems into spaces where interdisciplinary teams work together to deliver high quality patient care. The evidence for nursing presence to reduce patient mortality and morbidity is robust (Aiken et al., 2011; Needleman et al., 2011). How nursing practice should best be organized and implemented to consistently achieve quality outcomes is less clear (Needleman, 2015). Preliminary data support a new nursing model, Clinical Nurse Leader integrated care delivery, as an effective approach to redesigning microsystem nursing care delivery to achieve consistent quality outcomes. A recently validated conceptual model describes domains of organizational readiness and structuring that are necessary for CNL integrated care delivery to be successful and produce quality and safety outcomes (Bender, 2014). Confirmatory factor analysis and structural equation modeling validated the measurement (a CNL Practice Survey) and model structure (Bender et al., in press). The validated model provides a framework to assess CNL-integrated care delivery and practice across diverse care settings, and better understand how model domains have been operationalized in health systems with CNL initiatives. The model domains include Readiness (for CNL-integrated care delivery), Structuring (of CNL-integrated care delivery), CNL Practice (communication, relationship building, teamwork, supporting staff engagement), Outcomes (improved microsystem care dynamics and quality/safety outcomes), and Value (The CNL is perceived by clinicians and administrators as adding value to the ways care is delivered).

Purpose: The study purpose was to assess the presence of and specify the operationalization of model domains at one health system with active CNLs in its hospitals and ambulatory practice.

Methods: The setting was a health system comprised of four affiliated hospitals and an ambulatory practice that launched its CNL initiatives in 2011. The health system partnered with a local university to educate RN employees who expressed interest in the CNL role, and covered 100% of employee's tuition. The university provided the curriculum and classes were conducted at the healthcare system. Employees signed a 2-year commitment to CNL positions after graduation. A mixed methods design was used to (a) measure the presence of conceptual model domains after the health system's CNL rollout and (b) compare observed operationalization components to the hypothesized components derived from the CNL practice model. All employees involved in the system's CNL initiative were eligible to take the electronically administered CNL Practice Survey. A purposeful sample of this population was approached to participate in interviews and focus groups conducted on-site or via telephone. Survey data were exported from Qualtrics into SPSS 22 and analyzed using descriptive statistics. Interview/focus group data were analyzed using deductive and inductive qualitative content analyses. Qualitative data were mapped to the professional role from which the data was generated to enable descriptive analysis of coding variation. Qualitative data was first coded onto the existing CNL practice model domains and components. Data coded onto model components were then inductively analyzed to derive categories corresponding to the system's operationalization of model domains/components. Findings were mapped back onto the model to confirm or not, theorized patterns and identify any new or emerging patterns.

Findings: There were 209 valid surveys analyzed and 57 interviews conducted, including patients, nurse leaders, unit managers, clinical RNs, advanced practice RNs, physicians, CNLs, clinical nurse specialists and clinical educators. Survey data confirmed health system settings operationalized all model domains and components to a greater or lesser extent, and confirmed associations between model domains. As

for CNL practice itself, 38% of respondents reported CNLs practiced on one unit; 23% reported CNL practice on more than one unit; 16% in administration; and 22% of respondents did not know where CNLs spent most of their time. In terms of consistent practice, 44% of respondents reported CNLs activities were performed consistently, 24% reported consistency for a portion of the workweek, and 23% didn't know. The average overall health system success score for the CNL initiative was 76% (out of 100, SD 23). CNLs reported a slightly greater success rate of 80% (SD 17). In terms of the CNL practice model, all locations scored lowest in the "Readiness for CNL integrated care delivery" (70%, SD 21), and highest in the "CNL Practice" domain (79%, SD 25). Qualitative data confirmed all CNL care delivery model domains were present. Nurse leaders and unit managers provided the most coded information about Readiness for and Structuring of the CNL-integrated care delivery model. Patients and physicians provided the most information about actual CNL practices. Patients, physicians and clinical RNs provided the most information about the care delivery model's outcomes. Physicians also had the most to say about the care model's value. Clear expectations for CNL practice, system-wide yet tailored education about the care delivery redesign, and CNL readiness for practice were the top implementation strategies. Structuring of care delivery redesign included changes in evaluation, reporting and communication structures, with the main focus for CNL workflow at the microsystem level. Outcomes were operationalized as engagement with and enactment/consistency of best practices, CNL professional growth, process and not task thinking, and shared understandings of care processes. Value was operationalized as trust in CNLs and an assumption that their practice is a necessary function of microsystem care delivery. Value did not emerge if there was ambiguity about expectations for practice or when CNLs were not visible in the microsystem, supporting the theorized model pathway.

Discussion: Findings indicate the empirical operational category that most concretely linked the concepts Readiness through Structuring to Practice and Value was 'clarity on expected practice.' Clarity of CNL functions within a care delivery microsystem was consequential to CNL readiness for practice, system-wide education to orient clinicians and leaders to the new care delivery model, administrative reporting, communication and evaluation practices, CNL workflow and activities, and perceived outcomes and value of the care delivery model. Furthermore, there was a learning curve to perceiving the care model as beneficial and valuable. For example, it was only as small wins were achieved improving and stabilizing care processes over time that "stability allowed different [positive] aspects [of the care delivery model] to be seen." The findings suggest a transformation in understanding of nursing practice, from a traditional focus on patients or particular processes (discharges, education) towards an active clinical practice holistically focused on microsystem care processes. This 'microsystem nursing practice' entails patients, staff, other professionals, resources, policies, existing routines and cultures, and aims to catalyze improvement through relationships, communication, team building and supporting engagement. It does this via a CNL workflow that for many at first appears simply "wrong," for example not having a patient assignment, but over time is considered part of "the woven thread" of microsystem care, the outcome of which one director powerfully articulated as the entire microsystem team knowing "what works in the clinical flow so quality is happening at the same time as practice."

Conclusion: The findings provide preliminary empirical confirmation of the CNL practice model and greater clarity and specification of how health system settings have operationalized model domains within their local contexts. The next step is to compare identified operationalization characteristics against other health system's CNL initiatives to determine: (a) the extent to which operationalization varies (or not) across contexts; (b) how context influences variation; and (c) the effects on outcomes. Results will drive progress in measuring and comparing CNL practice in a standardized way across diverse care settings. This systematic, theory-informed program of research has great potential to produce the evidence needed to ensure transferability to health systems considering care delivery redesign, including implementation strategies that facilitate adoption and success.

References

- Aiken, L. H., Cimiotti, J. P., Sloane, D. M., Smith, H. L., Flynn, L., & Neff, D. F. (2011). Effects of Nurse Staffing and Nurse Education on Patient Deaths in Hospitals With Different Nurse Work Environments. *Medical Care*, 49(12), 1047–1053. <http://doi.org/10.1097/MLR.0b013e3182330b6e>
- Bender, M. (2014). The current evidence base for the clinical nurse leader: a narrative review of the literature. *Journal of Professional Nursing*, 30(2), 110–123. <http://doi.org/10.1016/j.profnurs.2013.08.006>

Bender, M., Williams, M., Su, W., & Hites, L. (In press). Refining and validating a conceptual model of Clinical Nurse Leader integrated care delivery. *Journal of Advanced Nursing*. doi: 10.1111/jan.13113
Institute of Medicine (2011). *The Future of Nursing: Leading Change, Advancing Health*.
<http://doi.org/10.17226/12956>
Needleman, J. (2015). Nurse Staffing: The Knowns and Unknowns. *Nursing Economic\$, 33*(1), 5–7.
Needleman, J., Buerhaus, P., Pankratz, V. S., Leibson, C. L., Stevens, S. R., & Harris, M. (2011). Nurse staffing and inpatient hospital mortality. *N Engl J Med, 364*(11), 1037–1045. <http://doi.org/10.1056/NEJMsa1001025>

Contact

leeanna.spiva@wellstar.org

L 01 - Evidence-Based Practice in Nursing Education

Are Students Prepared to Engage in Evidence-Based Practice (EBP)? Developing Essential EBP Skills

Sharon Stahl Wexler, PhD, MA, BSN, RN, GCNS-BC, FNGNA, USA

Esma Paljevic, EdD, MSN, BSN, RN, CPNP, USA

Marie-Claire Roberts, PhD, RN, USA

Lin J. Drury, PhD, RN, FNGNA, USA

Noreen Bridget Brennan, PhD, RN-BC, USA

Abstract

Background: Over the past six years we reimagined EBP throughout our undergraduate program using the AACN Baccalaureate Essentials as our guide. Student and faculty feedback was positive, work products were excellent. We measured EBP competencies for each cohort and were able to demonstrate success, however we did not have a cumulative measure of all of the students over time.

Purpose: To measure EBP competencies and knowledge of students in the undergraduate program.

Methods: IRB approval was obtained from the university. The ACE Evidence Based Readiness Inventory (ACE-ERI) is an online instrument that measures self-reported competencies in EBP. The instrument is based on nationally established EBP competencies and has strong validity and reliability. It has been utilized in both clinician and student populations. The tool incorporates the EBP competencies, a knowledge test focusing on knowledge transformation and demographic information. The ACE ERI is distributed to students via an email invitation at the beginning and end of their EBP course as well as at the end of their program. Data is anonymous and reported in aggregate. In order to encourage students to complete the survey, a certificate of completion is generated for students.

Results: The ACE ERI has been administered to 18 cohorts over the past five years. There is greater than a 90% return rate for both pre and post surveys. Student knowledge increased as did level of confidence in EBP competencies. Pretest and posttest mean scores for ACE-ERI competencies were compared. Statistical significance was achieved for all twenty competencies ($p < 0.001$). Analyses were run to investigate the correlations between the questions and the demographic variables. There were no statistically significant relationships indicating that the variation in the results was not related to the demographics of the students.

Conclusion: Student knowledge and competency in EBP increased significantly. We use the ACE-ERI to measure EBP knowledge and competency on an ongoing basis. Further analyses are being conducted to ascertain which specific features of our EBP model are most successful.

References

Bloom, K., Olinzock, B.J., Radjenovic, D., & Trice, L.B. (2013). Leveling EBP for undergraduate nursing students. *Journal of Professional Nursing*, 29(4), 217-224. doi: 10.1016/j.profnurs.2012.05.015.

Stevens, K.R. (2013). The impact of evidence-based practice in nursing and the next big ideas. *The Online Journal of Issues in Nursing*, 18(2), 1. doi:10.3912/OJIN.VOL18No02Man04

Stevens, K.R., Puga, F., & Low, V. (2012). *The ACE-ERI: An instrument to measure EBP readiness in student and clinical populations*. Retrieved from:

www.acestar.utscsa.edu/institute/su12/documents/ace/8%20The%20ACE-ERI%20Instrument%20to%20Benchmark.pdf

Contact

swexler@pace.edu

L 01 - Evidence-Based Practice in Nursing Education

Empowering Nursing Through Evidence: Putting Evidence-Based Practice Back in the Classroom

Melanie C. Neumeier, MN, RN, Canada

Leah Phillips, PhD, MA, BA (Hons), Canada

Abstract

Using evidence to inform practice is essential to ensure safe, quality care in all areas of nursing. In Canada, Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) are required to engage in evidence informed practice as an entry to practice competency (CCNRN, 2012, CCPNR, 2013). However, despite this expectation, and research findings that nurses generally have a positive attitude toward evidence-based practice (Yoder, et al, 2014) globally there is poor uptake in the application of this process.

Thiel and Ghosh (2008) conducted a cross-sectional survey of 121 practicing nurses in the Midwestern United States to determine how they accessed information and their readiness to engage in evidence-based practice. Results of this survey concluded that while 75% of nurses indicated they were familiar with evidence-based practice processes, only 24% stated they used a health database like CINAHL when they needed information. The majority of respondents (72.5%) indicated instead that they used nursing colleagues and peers as their primary source of practice information. A similar study conducted in Ireland by O'leary and Mhaolrunaigh (2011) to examine the information seeking behaviours of practicing nurses found again that most nurses accessed other people, especially their colleagues when seeking information and making decisions on care. Yoder et al (2014) conducted a survey of 1112 practicing nurses in the United States to determine what types of knowledge RNs working in the hospital system use in their practice and to what extent they utilize research findings. Their results showed little difference from previous studies. Only 11% of respondents stated that they did not know very much about EBP. However, when asked about how they access information in practice 75% of nurses surveyed stated they relied on personal experience as their primary source of knowledge and only 23% noted using nursing research journals. When asked about how they accessed nursing information on-line, 71% stated they used Google while less than half (45%) reported using databases like CINAHL or MEDLINE. This evidence clearly outlines a 'gap' between the expectation of EBP and the actual implementation of EBP.

To determine if this trend held true for our local context we surveyed 750 Alberta LPNs about their sources of practice knowledge. The top 3 identified sources of knowledge were: individual clients, personal experience, and nursing school. The use of personal experience as a source of knowledge was positively correlated with age and years of practice, and using nursing school as a knowledge source was negatively correlated with years of practice. Using individual clients as a source of knowledge was not correlated with age, employment, or years of practice.

Recognizing that our nursing population was also experiencing a gap between the expectation and implementation of EBP, we looked to the literature to examine the barriers that prevent nurses from engaging in EBP. The most common barriers identified by nurses were a lack of time and a lack of skill (Chang & Crowe, 2011; Hewitt-Taylor, Heaslip, & Rowe, 2012, Majid, et al, 2011, Wallin, Bostrom, & Gustavsson, 2012). In their study of 1,486 practicing nurses in Singapore, Madji et al (2011) found that nurses had limited skills in searching the literature and understanding the evidence. The majority of nurses were unable to adequately perform search strategies for given nursing topics and less than 25% were familiar with Boolean operators. In addition to the lack of literature searching skills, the nurses in this study also indicated that inadequate understanding of statistical terms and research jargon limited their ability to engage in EBP. These nurses indicated that additional training in EBP skills would help them to implement EBP. Hewitt-Taylor et al. (2012) in their study of Finnish nurses noted that nurses lacked confidence in their ability to use research in practice. They suggested that interventions to support EBP implementation should focus on helping practicing nurses develop the skills required to understand what makes research usable by focusing on the process of deciding what information is needed, searching for this information, and then evaluating the utility of that information. Chang and Crow (2011) noted that

nurses had limited confidence in their ability to find, appraise, and then implement evidence into their clinical practice, but that exposure to education on EBP enhanced nurses' self-efficacy in engaging with EBP. This finding is supported by a study of 1,256 Swedish nurses that noted that the nurses with the highest levels of EBP capability beliefs used research findings in practice more than twice as often and engaged in the implementation of evidence seven times as often as those with lower capability beliefs (Wallin et al, 2012).

In order to improve EBP implementation in Alberta, we created an accessible education program that targets essential EBP skills. This program emphasizes the development of practitioner self-efficacy, and the utility of research to practice. The program consists of a series of three interactive webinars designed to increase nurses' skills in EBP and their self-efficacy for carrying out those skills in practice through a strong clinical focus. This focus on clinical versus academic application of EBP skills helps demonstrate the relevance and utility of research for practice and enhances the real-world application of EBP for practicing nurses (Christie, Hamill, & Power, 2012). The webinars were evaluated using a pre-test/post-test design and statistically significant improvements were reported for each webinar in the targeted learning areas. This webinar series remains available to practicing nurses and is currently housed on the CLPNA website and on the Global Health Network.

Despite the success of the webinar series it is important to acknowledge that individual skill building supports only one part of the equation, and to create a culture of evidence-based practice, overall educational and system changes must also occur. Following the PRECEDE/PROCEED framework, we collaborated with Alberta institutions that offer the LPN program to determine what their needs are for embedding EBP skills into the LPN curriculum. A focus group was held with key participants from the educational system and then a survey was sent out to educators across the province. Data on the predisposing, enabling, and reinforcing factors affecting EBP interventions in curriculum were gathered. This data was used in collaboration with a partner school to develop, pilot test, and implement an EBP intervention that embeds EBP skills within the nursing curriculum.

References

1. Canadian Council for Practical Nurse Regulators. (2013). Entry-to-practice competencies for licensed practical nurses. Retrieved from www.ccpnr.ca
2. Canadian Council for Registered Nurse Regulators. (2012). Competencies in the context of entry-level registered nurse practice. Retrieved from www.ccrnr.ca
3. Chang, A. M., Crowe, L., (2010). Validation of scales measuring self- efficacy and outcomes expectancy in evidence-based practice. *Worldviews on Evidence-Based Nursing*, 106-115. doi: 10.1111/j.1741-6787.2011.00215.x
4. Christie, J., Hamill, C., & Power, J. (2012). How can we maximize nursing students' learning about research evidence and utilization in undergraduate, preregistration programmes? A discussion paper. *Journal of Advanced Nursing*, 68(12), 2789-2801. doi:10.1111/j.1365-2648.2012.05994.x
5. Hewitt-Taylor, J., Heaslip, V., Rowe, N.E., (2012). Applying research to practice: Exploring the barriers. *British Journal of Nursing*, 21(6), 356-358.
6. Majid, S., Foo, S., Luyt, B., Zhang, X., Theng, Y., Chang, Y., & Mokhtar, I. A. (2011). Adopting evidence based practice in clinical decision making: nurses' perceptions, knowledge, and barriers. *Journal of the Medical Library Association*, 99(3), 229-236. doi: 10.3163/1536-5050.99.3.010
7. O'leary, F.,D., & Mhaolrunaigh, S., N. (2011). Information-seeking behaviour of nurses: Where is information sought and what processes are followed? *Journal of Advanced Nursing*, 68(2), 379-390. doi: 10.1111/j.1365-2648.2011.05750.x
8. Yoder, Linda H. PhD, MBA, RN, AOCN, FAAN; Kirkley, Debra PhD, RN; McFall, D. Curk MSN, RN; Kirksey, Kenn M. PhD, RN, ACNS-BC, FAAN; Stalbaum, Angela L. MSN, RN; Sellers, Diana MSN, RN
9. Wallin, L., Bostrom, A.,M. & Gustavsson, J., P. (2012). Capability beliefs regarding evidenced-based practice are associated with application of EBP and research use: Validation of a new measure. *Worldviews on Evidence Based Nursing*, 139-148. doi: 10.1111/j.1741-6787.2012.00248.x

Contact

neumeierm@macewan.ca

L 01 - Evidence-Based Practice in Nursing Education

Impact of Community- and Hospital-Based Nurses' Beliefs Regarding Evidence-Based Practice on Mentoring Student Nurses

Joanne Brooke, MSc, BSc, RN, CPsychol, United Kingdom

Catherine Lynch, MSc, RN, MA, PGCert, BSc (Hons), DPSN, United Kingdom

Abstract

Background: Evidence-based practice (EBP) promotes clinical judgements that are based on the best available evidence, with less emphasis on authoritative opinions and traditions. The integration of best available evidence is associated with improved patient outcomes, reduced treatment costs and need for clinical interventions (Melnyk et al. 2012; Levin et al. 2011). Student nurses in the UK and Slovenia understood the importance of EBP and research in their future careers, but struggled to conceptualise how they could maintain these skills on leaving the academic setting as perceived a lack of involvement in EBP and research by clinical nurses (Brooke et al. 2015).

In the UK, student nurses are supported by nurse mentors in clinical settings. The Nursing Midwifery Council's guidelines (NMC 2010) for nurse mentorship include the acquisition of skills to search, find and review research to change or support their practice, and enable student nurses to understand and implement evidence-based care across both community and hospital settings.

A review of contemporary literature explored EBP beliefs, knowledge and skills of nurses working in acute and community settings, the findings supported the traditional barriers of a lack of time, knowledge, and skills, however nurses' held more positive beliefs towards EBP, but this was not associated with an increase in their intentions to implement EBP (Mallion and Brooke 2016).

The understanding of nurses' beliefs regarding EBP is essential, as they are pivotal in supporting student nurses in clinical placements to begin the process of implementing EBP. The aim of this study was to explore the impact of community- and hospital-based nurses' beliefs of evidence-based practice and how this influences their strategies to support student nurses to understand and implement evidence-based practice.

Methods: Data were collected via 7 focus groups in 2015 with 33 community-based nurse mentors from one community NHS Foundation Trust, and via 4 focus groups in 2016 with 28 hospital-based nurses from one acute NHS Foundation Trust. Participants included: nurses from band 5-8, from different specialities across the two settings. The interview view schedule was developed from previous literature and relevant for both community and hospital mentors. All community-based focus groups were facilitated by the first author, hospital-based focus groups were facilitated by both authors. Data was analysed using thematic analysis, from a social constructionism approach (Burr 2016). All transcripts were read several times in order to become familiar with the text, relevant extracts were highlighted and coded. These codes were developed into a number of themes. The initial analysis was completed by the first author and reviewed by the second author, before being refined and organised into overarching themes (Braun and Clarke 2006).

Results: Themes from both community- and hospital-based nurse mentors included: 1) our practice is evidence-based; community-based nurses cited local and national guidelines to justify their practice, while hospital-based nurses were adamant their practice was evidence-based, but they just didn't use that language. 2) time as a barrier to mentor student nurses; time was reported as a limitation by all nurses, with the exception of community-based district nurses who used the time spent traveling between patients homes to support students. A unique theme to community-based nurses was the importance of; being current as a nurse practitioner, a mentor and a role model. Community-based nurses discussed the importance of inspiring student nurses to become actively involved in developing their own practice, and this required mentors to be current. A unique theme to hospital-based nurses was; evidence-based practice is essential for harm free care. Hospital-based nurses discussed the importance of

understanding harm and the implementation of evidence-based practice was assurance that they were doing their patients no harm.

Discussion: All nurse mentors reported providing evidence-based care, community mentors explicitly described guidelines and policies that supported their practice. Whereas, hospital nurses openly admitted they did not use the term 'evidence-based practice' with student nurses, but neither did student nurses ask them for the evidence behind the care they were providing. The use of the same terminology used in Higher Education Institutes and in student nurses practice placements may support a connection between theory and practice. Time has been recognised as a barrier when mentoring student nurses, but hospital nurses felt time was a barrier to implement evidence-based practice. Hospital nurses spoke about the importance of evidence-based practice to support harm free care, when community nurses focused on their need to remain current to support students understanding of evidence-based practice. An understanding of the issues across community- and hospital-based settings is important and will support the development of tailored mentorship/training programmes, which will aid the continued development of nurses' evidence-based practice and techniques to enable them to implement practical examples when mentoring student nurses.

References

- Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology* 3(2): 77-101.
- Brooke, J.M., Hvalič-Touzery, S. and Skela-Savič, B. (2015). Student nurse perceptions on evidence-based practice and research: An exploratory research study involving students from the University of Greenwich, England and the Faculty of Health Care Jesenice, Slovenia. *Nurse Education Today* 35(7):e6-e11.
- Burr, V. (2015). *Social Constructionism. 3rd Edn.* London: Routledge.
- Levin, R.F., Fineout-Overholt, E., Melnyk, B.M., Barnes, M., Vetter, M.J. (2011). Fostering evidence-based practice to improve nurse and cost outcomes in community health setting: a pilot test of the advancing research and clinical practical through close collaboration model. *Nursing Administration Quarterly* 35(1): 21-33.
- Mallion, J., Brooke, J. (2016). Community- and hospital-based nurses' implementation of evidence-based practice: are there any differences? *British Journal of Community Nursing* 21(3): 339-47.
- Melnyk, B.M., Fineout-Overholt, E., Gallagher-Ford, L., Kaplan, L. (2012). The state of evidence-based practice in US nurses: critical implications for nurse leaders and educators. *Journal of Nursing Administration* 42(9): 410-7.
- Nursing Midwifery Council (2010). *Standards to support learning and assessment in practice. Preparations for mentors, practice teachers and teachers.* London, UK: Nursing Midwifery Council.

Contact

jbrooke@brookes.ac.uk

L 10 - Global Perspectives on Multi-Drug-Resistant Infections

Antimicrobial Stewardship: A Comprehensive Literature Review of the Nursing Role in Preventing Multi-Drug-Resistant Infections

Casey N. May, USA

Kaitlyn E. Thormahlen, USA

Renee M. Vittone, USA

Celina C. Calo, USA

Abstract

Purpose: Antimicrobial Stewardship Programs (ASPs) have been developed through collaboration across multiple disciplines and integrated into facilities to combat multi-drug resistant organisms. The purpose of these programs is primarily to educate clinicians on appropriate antibiotic use, and to implement evidence-based standards of practice in order to improve patient safety and quality of patient care. There is much controversy regarding interdisciplinary roles in antibiotic stewardship. This literature review aims to bring to the forefront the already present, yet largely understated role of the nurse. It is likely that physicians, pharmacists, and nurses do not recognize what they can do to prevent the over prescription and improper use of antibiotics. According to Olans (2015), many nurses do not directly see their impact in antimicrobial stewardship programs. Nurses are the heart of the healthcare team; they are the sole members who see patients on an around-the-clock basis. One of the most important factors when discussing what nurses can do to address the issue is to get nurses themselves to recognize that they do in fact have a role in an antibiotic stewardship. The purpose of this integrated literature review is to determine the nurse's role in antimicrobial stewardship in preventing multi-drug resistant infections in the hospitalized patient.

Methods: The inclusion criteria for selected studies included primary research articles published within the last five years, which incorporated various search terms stated below. Both quantitative and qualitative studies were included. The quantitative studies were of experimental, quasi-experimental, cross-sectional, and longitudinal cohort design. The qualitative studies were of phenomenological design. There were 19 primary research articles and one Cochrane review used. Including a Cochrane review was significant to our literature review because it provided us with a strong, evidence-based, systematic review of published healthcare research. Databases used were CINAHL and Ovid. Search terms used were "nursing", "nursing role", "nursing care", "nursing interventions", "microbial", "antibiotic stewardship", "multi-drug resistance", "infection control", and "patient education".

Results: Though increasing research has been conducted regarding ASPs in recent years, these programs are still relatively new, dating back only about 15 years. Research has shifted from studying "miracle drugs" to studying the increase in antibiotic resistance, related infections, and the roles healthcare providers play in maintaining the health of the public. As previously noted, the gold standard for ASPs is the CDC's "Core Elements of Hospital Antibiotic Stewardship Programs" which only mentions "nurse" four times (CDC, 2014). The focus while examining the articles obtained for the literature review was identifying similar themes that group members felt targeted ASPs, while simultaneously determining how often "nurse" was mentioned. It was quickly discovered that only 50% of articles included in the table displayed the word "nurse". The thematic analysis revealed the following themes: overprescription, hand hygiene, education, acquisition of knowledge and compilation of available data, and protocol. The results are broken down by theme, and then further ordered by inclusion or exclusion of the nurse. Articles with multiple themes were included in one or more sections.

Conclusion: ASPs are a vital factor in reducing the spread of multi-drug resistant organisms. Multi-drug resistance has become an international phenomenon and a strong threat to the human population. Therefore, it is imperative that ASPs continue to be developed and implemented. According to the IOM, nurses play a vital role on the interdisciplinary team, yet the nurse's role in ASPs has not been explicitly stated. The themes throughout the literature review include the impact that proper assessment or screening has on the overprescription of antibiotics, the importance of the basic yet fundamental tool of

hand hygiene in preventing the spread of multi-drug resistant organisms, how education can disseminate previous and upcoming knowledge, and how improved infection protocols can establish new expectations for the entire interdisciplinary team. Each of these initiatives should be clearly stated as a responsibility to be carried out by the nurse. Further research is necessary to provide structured guidelines that explicitly include the role of the nurse in antimicrobial stewardship in preventing multi-drug resistant infections in the hospitalized patient.

References

- Abbo, L., Hooton, T., Pereyra, M., Smith, L., & Wyckoff, M. (2012). Nurse practitioners' attitudes, perceptions, and knowledge about antimicrobial stewardship. *The Journal for Nurse Practitioners*, 8(5), 370-376.
- Hertogh, Hulscher, M., Mouton, J., Prins, Overdiek, H., J. M., Schuts, E., Stuart, J., Verduin, C. (2016). Current evidence on hospital antimicrobial stewardship objectives: A systematic review and meta-analysis. *The Lancet Infectious Diseases*, 16(7), 847-856.
- Llor, C. & Bjerrum, L. (2014). Antimicrobial resistance: Risk associated with antibiotic overuse and initiatives to reduce the problem. *Therapeutic Advances in Drug Safety*, 5(6), 229-241.

Contact

cmay1@stu.mcphs.edu

L 10 - Global Perspectives on Multi-Drug-Resistant Infections

A Multicultural Approach to Decreasing Unnecessary Antibiotic Prescribing for Pharyngitis

Mercedes Camacho-Walsh, RN, FNP-BC, USA
Corinne Schultz Ellis, DNP, RN, BC, USA

Abstract

Antimicrobial resistance is a global crisis. In the United States alone, two million people are infected every year with untreatable microbes, resulting in 23,000 deaths (CDC, 2014). Over-prescribing of antibiotics has been cited as major contributor to the crisis. (WHO, 2015). According to the CDC Morbidity and Mortality Weekly Report (2011), 50% of antibiotic prescriptions in the United States are unnecessary. Non-prescription antibiotics account for 19-100% of antibiotic use outside northern Europe and North America, with increased antimicrobial resistance in countries with greater use (Morgan, Okeke, Laxminarayan, Perencevich & Weisenberg, 2011).

International guidelines for pharyngitis approach diagnostic scoring and the use of rapid antigen testing differently, but they largely concur on the need to decrease unnecessary antibiotic prescribing (Shullman, 2014; Ebell, 2014; Cohen, et al, 2015; and Hoare & Ward & Arroll, 2016). Differences in the perceived benefit of rapid antigen tests to aid in the detection and treatment of streptococcal pharyngitis have also been addressed (Lean, Arnup, Danchin & Steer, 2014; Steward, et al, 2014; and Cohen, et al, 2016). A 2103 Cochrane review (Spinks) examined the actual rate of rheumatic fever in various populations, identified complications due to untreated Streptococcal pharyngitis, and the described the natural course of the disease.

Using the 2012 Infectious Disease Society of America Guidelines, Ellis & Camacho (2015) devised a management algorithm for prescribing antibiotics based on clinical presentation, rapid antigen test results, and likelihood of complications according to age and comorbidities. The algorithm provides clinicians with a succinct evidence-based pathway for clinical management of pharyngitis and opens dialogue with multicultural patients concerning their ideas, concerns and expectations.

Despite the vast amount of clinical evidence, many clinicians continue to overprescribe antibiotics. Barriers to clinician antibiotic stewardship are lack of knowledge of clinical practice guidelines and their application, and lack of understanding of patient expectations in different cultural settings. Perceived pressure to prescribe antibiotics, and failure to ascertain the actual expectations of patients can lead to unnecessary antibiotic prescribing (Mathys, 2009, and Mustafa, Wood & Elwyn, 2014). Cultural differences may account for increased use and expectations of antibiotic prescribing, but it is significantly less than that perceived by clinicians (Watkins, Lousisek, Sanchez, Albert, Roberts & Kicks, 2015).

Combating the spread of global antimicrobial resistance requires cooperation of clinicians around the world. The purpose of this presentation is to reduce unnecessary antibiotic prescribing across different cultures. This presentation demonstrates application of key clinical guideline recommendations, and addresses patient cultural considerations and expectations. A seven-minute trilingual video (English, Spanish and Arabic with English subtitles) uses a multicultural setting to depict sample clinical scenarios. The video demonstrates brief and friendly discussions with patients on the risk of infection and potential complications, versus the risk of developing resistance to antibiotics. Alternative treatment modalities for pharyngitis are also presented.

References

Barlam, T. F., et al (2016). Implementing an antibiotic stewardship program; guidelines by the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America. *Clinical Infectious Diseases*, 62(10), 51-77. Doi:10.1093/cid/ciw118
Centers for Disease Control and Prevention (2016, October 25). Antibiotic/Antimicrobial Resistance. Retrieved from <http://www.cdc.gov/drugresistance/index.html>.

Cohen, J.F., et al. (2015). Selective testing strategies for diagnosing group A streptococcal infection in children with pharyngitis: a systematic review and prospective multicenter external validation study. *Canadian Medical Association Journal*, 186 (1), 23-32. Doi: 10.1503/cmaj.140772.

Cohen, J.F., Bertille, N., Cohen, R. & Chalumeau, M. (2016), Rapid Antigen Detection test for Group A Streptococcus in children with pharyngitis. *Cochrane Database of Systemic Reviews*. Doi:10.100/14651858.cd010502.pub2.

Ebell, M.H. (2014). Diagnosis of streptococcal pharyngitis. *American Family Physician*, 89(12), 976-977.

Ellis, C.S. & Camacho-Walsh, M. (2015). AGREE appraisal of clinical practice guideline for the diagnosis and management of Group A Streptococcal pharyngitis 2012 Update by the Infectious Diseases Society of America. *Advanced Emergency Nursing Journal*. 37(1), 34-41.

Hoare, K.J., Ward, E. & Arroll, B. (2016), International sore throat guidelines and international medical graduates: a mixed methods systematic review. *Journal of Primary Health Care*, 8(1), 20-29.

Lean, W.L., Arnup, S., Danchin, M & Steer, A.C. (2014). Rapid diagnostic test for group A streptococcal pharyngitis: a meta-analysis. *Pediatrics*, 134(4), 771-781. Doi:10.1542/peds.2014-1094.

Mangione-Smith, R. E. (2004). Racial/ethnic variation in parent expectations for antibiotics: implications for public health campaigns. *Pediatrics*, 113 (5), e385-394.

Mathys, J. (2009). Patient ideas, concerns and expectations (ICE) in general practice: impact on prescribing. *British Journal of General Practice*, 59(558), 29-36. Doi: 10.3399/bjgp09x394833.

Mustafa, M, Wood, F., Butler, C.C, & Elwyn, G. (2014). Managing expectations of antibiotics for upper respiratory tract infections: a qualitative study. *Annals of Family Medicine*, 12(1), 29-36.

Shulman, et al. (2014). Clinical practice guideline for the diagnosis and management of group A streptococcal pharyngitis:2012 Update by the Infectious Diseases Society of America, *Clinical Infectious Diseases*, 58(10),1496. Doi:10.1093/cid/ciu173.

Spinks, A, Galosciou, P.P. & Delmarc, B. (2013). Antibiotics for sore throat. *Cochrane Data Base of Systemic Reviews*, 11,1-72. Doi:10.1002/14651858.cd000023.pub4.

Morgan, D. O. (2011). Non-prescription antimicrobial use worldwide: a systematic review. *The Lancet Infectious Diseases*, 11 (9), 692-701.

Watkins, F. L. (2015). Knowledge and attitudes regarding antibiotic use among adult consumers, adult Hispanic consumers, and health care providers-US, 2012-2013. *MMWR: Morbidity & Mortality Weekly Report*, 64 (28), 767-770.

World Health Organization. (2015, May 26). Global action plan on antimicrobial resistance. Sixty-eighth world health assembly. WHA 68.7, Geneva, Switzerland. Retrieved on 12/6/2016 from: apps.who.int/gb/ebwha/pdf_files/WHA68/A68_R7-en.pdf?vva=1.

Contact

andeanmotion@yahoo.com

L 10 - Global Perspectives on Multi-Drug-Resistant Infections

What Works to Improve Staff Compliance With Multi-Drug-Resistant Organism (MDRO) Screening

Monina Gesmundo, MN (Hons), PGDip HSc, PGCertTertiaryTch, BSN, RN, RM, CNS, New Zealand

Abstract

Purpose of the presentation: To present the evaluation of multi-modal interventions on the staff MDRO admission screening compliance rate in various departments of a secondary public hospital in New Zealand

Target Audience: The target audience of this presentation are staff nurses, nurse educators, nurse managers, quality improvement advisers and infection control practitioners who are keen to identify interventions that work in improving staff compliance to MDRO admission screening

Objective: To evaluate the effect of multi-modal interventions on the staff MDRO admission screening compliance rate in various departments of a secondary public hospital

Research question: What is the effect of multi-modal infection prevention and control interventions on the staff MDRO admission screening compliance rate in various departments of a secondary public hospital?

Design: A retrospective review of monthly MDRO admission screening audits was done to compare the compliance rate before and after multi-modal interventions were implemented. The audit was conducted in the care of older people and elective surgical department of a public secondary hospital in Auckland, New Zealand from December 2010 to November 2014.

Setting: Two departments of a public secondary hospital in Auckland, New Zealand

Methods: Monthly MDRO admission screen audits were done in a representative ward of each department for the purpose of quality improvement. Audits were conducted by generating a monthly list of patients who were eligible to be screened for MDRO on admission to the ward. Twenty patients were randomly selected from the monthly list for a specified period of time to evaluate whether nurses screened them for MDRO within 24 hours of admission. Eligibility to be screened is based on the criteria published in the organisational policy for MDRO management. Nursing staff compliance rate with the MDRO admission screen policy was computed using frequency and percentage.

Multi-modal interventions focusing on the nursing staff were implemented by the infection control practitioner. Interventions include: monthly MDRO admission screen compliance audits, regular reporting of audit result, feedback with regard to missed screens, regular education sessions with the nursing staff and staff encouragement from both the infection control practitioner and nurse manager.

Compliance rates were reported to the charge nurse managers on a monthly basis through an e-mail. Compliance rates of greater than 90% were celebrated and reinforced, whereas a drop in the compliance rate or a compliance rate of < 90% was followed up with the nurse manager. Regular 10-15 minute-education sessions during staff handovers were done by the infection control practitioner to present the audit results, to provide input, to answer queries and to encourage the staff to do better. Nurse managers also encourage staff to improve screening compliance rate.

Data analysis utilized Microsoft Excel Software in quantitative data collation and encoding. MDRO admission screen audits were presented using descriptive statistics such as frequency, percentage, mean, median and mode. Standard deviation was used to show data variability. T-test was utilized to test for a significant difference in the overall compliance rate before and after the multi-modal interventions were introduced. T-test is a parametric procedure of testing the difference in group means. The level of significance was set at $P < 0.05$ to identify a significant difference in the compliance rate.

Results: Results show that the MDRO admission screen compliance rate in the two departments were variable. The average compliance rate from October, 2012 to November, 2014 in the elective surgical department is 85.75% compared to 75.91% from December, 2010 to September, 2012 (Table 1).

Table 1. MDRO admission screen compliance at the elective surgical department

		Surgical Department	
	Before*	Mean	After**
Mean		75.90909091	85.75
Number of patient records audited		1670	2058
Number of monthly audits completed		22	24

*Period coverage is from December, 2010 to September, 2012

**Period coverage is from October, 2012 to November, 2014

In the care of older people department, results show that the MDRO admission screen compliance was also variable. The average MDRO admission screen compliance rate from August, 2013 to October, 2014 is 96.80% compared to 83.84% from December, 2010 to July 2013 (Table 2).

Variability in the compliance may be due to patient acuity, staff mix, thorough history-taking of the patient, review of previous admissions, completeness of handover, staff knowledge of the organisational policy, staff motivation to adhere to organisational policy and availability of staff support.

Table 2. MDRO admission screen compliance at the health of older people department

		Health of Older People	
	Before***	Mean	After****
Mean		83.83870968	96.8
Number of patient records audited		2599	1452
Number of monthly audits completed		31	15

*** Period coverage is from December, 2010 to July 2013

****Period coverage is from August, 2013 to October, 2014

Statistical analysis of the overall MDRO admission screening compliance rate before and after the interventions showed a significant difference ($P < 0.05$) in the compliance rate in both departments. A two-sample T-test with unequal variance was utilized in the statistical analysis given the variability in the screening rate and count. Table 3 provides a summary of the statistical testing done. The last column shows that there is a significant difference in the compliance rate in the surgical department ($P < 0.009$) and the care of older people department ($P < 0.00003$)

Table 3. Descriptive summary of statistical testing of the MDRO admission screen compliance rate before and after the interventions

Departments	Before		After		T-Test ($P < 0.05$)
	Number of Audits	Mean Compliance Rate	Number of Audits	Mean Compliance Rate	
Surgical Department	22	75.91	24	85.75	0.009324379
Care of Older People	31	83.84	15	96.80	0.000036141

Conclusion: The multi-modal interventions addressed to nurses had a significant impact on the MDRO admission screening compliance rate in various departments of a tertiary public hospital. While various factors may affect the staff MDRO admission screening compliance rate, the rate could be kept at a high level through regular audits, regular reporting of audit result, regular education sessions and consistent staff encouragement.

References

Healthcare Infection Control Practices Advisory Committee (2006). Management of multidrug-resistant organisms in healthcare settings, 2006. Centers for Disease Control and Prevention.

Ministry of Health (2007). Guidelines for the Control of Multidrug-resistant Organisms in New Zealand. Wellington: Ministry of Health.

Pogorzelska, Stone, & Larson (2012). Wide variation in adoption of screening and infection control interventions for multidrug-resistant organisms: A national study. *American Journal of Infection Control*, 40(8), 696-700.

Contact

moninagesmundo@yahoo.co.nz

M 01 - Simulation and Transition to Practice

Evaluation of Three-Dimensional Computerized Simulation: Innovative Pedagogy to Prepare Graduate Nursing Students for Clinical Practice

Carole E. Jenson, DNP, APRN, CNS, ACNS-BC, CME, CCRN-K, USA

Abstract

Introduction: Preparing graduate nursing students to respond to the complexities of a rapidly changing health care environment is a major challenge for nurse educators and nurse mentors. Clinical skill and patient assessment determine trajectory of patient's health care, directly impacting patient outcomes. Assessment skills, clinical reasoning and decision making, and the ability to work with others are imperative for competent clinical practice. Literature reveals that many graduate nursing students are entering into clinical areas unprepared in the areas of patient assessment, diagnostic reasoning, clinical decision making, and team participation (Grossman & Conelius, 2015). Traditionally, these skills were practiced with direct patient care during clinical or job experiences. Decreased availability of clinical sites coupled with fewer clinical mentors further encourages the need for innovative pedagogy. To provide high quality and safe patient care in a cost effective manner, graduate students need to be prepared with assessment skills and ability to work with diverse populations and situations before entering the healthcare environment. Studies report that computerized simulation is interactive, enjoyable, stimulating for the learner, and one pedagogy that needs to be explored. Additionally, literature supports the benefits of patient simulation to improve clinical performance, problem-solving skills, and self-confidence.

Simulation also allows for the student to experience consequences of their actions and improve self-awareness (Nuraini, Afifah, Agustini, and Pujasari, 2015). Three-dimensional computerized simulation (TDCS) is an on-line interactive program that simulates real-life nursing experiences using virtual patients, also referred to as Avatars. This program is computer accessed allowing unlimited practice at any time in a risk-free environment without compromising patient care. TDCS program requires students to interact with on-line virtual patients through therapeutic conversation. The virtual patients are culturally diverse and of various ages requiring students to incorporate knowledge of cultural and age appropriate care.

Purpose: The purpose of this mixed method prospective study was to evaluate the use of a computerized simulation program as one pedagogy to prepare graduate nursing students for clinical practice. Impact of this study will provide a body of evidence regarding active learning in nursing.

Literature Review: CINAL and PubMed databases were searched using the key words nursing education, computerized technology, and interactive learning. The search resulted in 467 returns and was further narrowed by restricting to peer reviewed, published in the last four years, and written in English. Twenty eight articles meet the restricted search criteria. Following review of articles, 20 were selected from the 28 to inform this project. Literature varies widely in level of evidence, with few high quality or high level of evidence studies available. Waltz, Jenkins, and Han (2014) conducted a literature review on learning methods in health and nursing education and the impact of active learning methods. Twenty two studies were reviewed and only one provided a randomized control trial. The authors concluded that there is insufficient empirical evidence regarding active learning methods in nursing. **Design:** Subjects consisted of graduate nursing students taking Advanced Health Assessment class at a Midwestern University over three semesters in 2014-2016 and clinical mentors from Midwestern Healthcare Facilities. Seventy graduate nursing students voluntarily participated in evaluating the use of TDCS. Seven of the surveys were eliminated for not answering all questions or not completing either the before use survey or the after use survey. Sixty three ($N=63$) students completed surveys in entirety. **Methods:** Integrative review of the literature was conducted on the use of computerized simulation as a teaching strategy for graduate nursing students. Selection of TDCS program used for this evaluation followed extensive research of companies that offered computerized simulation for healthcare. Selection criteria included: designed for advanced practice, user friendly, cost effective, and ability to provide feedback to the user. The program selected met criteria and program design correlated with the universities nursing curriculum. Evaluation of the program consisted of a 10 question survey using a five-point Likert scale ranging from strongly disagree to strongly agree. On the first class day of the semester, before students were introduced to TDCS, students were provided the opportunity to complete the survey. At the end of the semester, after using TDCS for fourteen weeks, the same survey was administered. Formative evaluation was conducted with students and student's clinical mentors each semester. TDCS was used adjacent

with face-to-face class time; the class met for 5.5 hours weekly. Surveys were evaluated using Bowkers Test for Symmetry of Disagreement and formative information was categorized into themes. **Ethics:** Study was approved by the University's Institutional Review Board. **Conclusions:** Integrative literature review supports the need for testing innovative pedagogy to prepare students for clinical practice. Studies have demonstrated that computerized simulation may be beneficial in student's perceived self-efficacy in a variety of skills, knowledge of leadership styles, and assessment and management of patients. Using p values from Bowkers Test for Symmetry of Disagreement, the findings from the surveys demonstrated that nine of the questions were statistically significant with values between $p < .0001$ and $p < .0062$ for the use of TDCS to prepare graduate nursing students for clinical practice. One question was not statistically significant ($p < .2367$). Results from statistical analysis of the surveys and themes generated from formative evaluations will be presented. Recommendations and implications for clinical practice will be discussed.

References

- Aebersold, M., Tschannen, D., & Bathish, M. (2012). Innovative simulation strategies in education. *Nursing Research and Practice*, 2012, 1-7. doi:10.1155/2012/765212
- Cant, R. P. & Cooper, S.J. (2014). Simulation in the internet age: the place of web-based simulation in nursing education. An integrative review. *Nurse Education Today*, 34, 1435-1442. doi: 10.1016/j.nedt.2014.08.0010.1016/j
- Chia, P. (2013). Using a virtual game to enhance simulation based learning in nursing education. *Singapore Nursing Journal*, 40(3), 21-26.
- Durmaz, A., Dicle, A., Cakan, E., & Cakir, S. (2012). Effect of screen-based computer stimulation on knowledge and skill in nursing students' learning of preoperative and postoperative care management a randomized control study. *CIN: Computers, Informatics, Nursing*, 30(4), 196-203. doi: 10.1097/NCN.0b013e3182419134
- Foronda, C., Budhathoki, C., & Salani, D. (2014). Use of multiuser, high fidelity virtual simulation to teach leadership styles to nursing students. *Nurse Educator*, 39(5), 209-211.
- Foronda, C., Lippincott, C., & Gattamorta, K. (2014). Evaluation of virtual simulation in a master's-level nurse education certificate program. *CIN: Computers, Informatics, Nursing*, 32(11), 516-522. doi: 10.1097/CIN.0000000000000102
- Franklin, A. E. & Lee, C.S. (2014). Effectiveness of simulation for improvement in self-efficacy among novice nurses: a meta-analysis. *Journal of Nursing Education*, 53(11), 609-614. doi: 10.3928/01484834-20141023-03
- Grossman, S. & Conelius, J. (2015). Simulation pedagogy with nurse practitioner students: impact of receiving immediate individualized faculty feedback. *Creative Nursing*, 21(2), 100-109. doi: 10.1891/1078-4535.21.2.100
- Jenson, C. E. & Forsyth, D. M. (2012). Virtual reality simulation using three-dimensional technology to teach nursing students. *CIN: Computers, Informatics, Nursing*, 30(6), 312-318. doi: 10.1097/NXN0b013e31824af6ae
- Nuraini, T., Afifha, E., Agustini, N., & Pujasari, H. (2015). Human patient simulation to improve attitude in nursing. *Journal of Nursing Education*, 9(4), 52-56.
- Parker, B.C. & Myrick, F. (2012). The pedagogical ebb and flow of human patient simulation: empowering through a process of fading support. *Journal of Nursing Education*, 51(7), 365-372. doi: 10.3928/01484834-20120509-01
- Roh, Y. S. & Kim, S. S. (2014). The effect of computer-based resuscitation simulation on nursing students' performance, self-efficacy, post-code stress, and satisfaction. *Research and Theory for Nursing Practice: An International Journal*, 28(2), 127-139. doi:10.1891/1541-6577.28.2.127
- Waltz, C., Jenkins, L., & Han, N. (2014). The use and effectiveness of active learning methods in nursing and health professions education: a literature review. *Nursing Education Perspectives*, 35(6), 392-400. doi: 10.5480/13-1168

Contact

cjenson@winona.edu

M 01 - Simulation and Transition to Practice

Simulation and Transitioning to Professional Practice

Carrie A. Bailey, PhD, MSN, BS, APRN-BC, RN, CHSE, USA

Abstract

The purpose of this study was to understand how new graduate nurses perceive the value of simulation in making the transition into professional practice. This study will use a descriptive qualitative approach with a sample of first year nurses. Kolb's Experiential Learning Model serves as this study's conceptual framework. For the current study, the sample consisted of 10 newly graduated, female nurses with less than one year of experience working in the hospital setting were interviewed. Data analysis included interviews and transcription by the researcher. Finally, participants were asked about themes to increase rigor. Four themes emerged from this research: 1) how simulation is being used, 2) the perceived value of simulation, 3) simulation versus "real life," and 4) simulation and preparation for practice.

This study showed that simulation is being used in nursing programs, but in different ways. For the most part, the newly licensed graduate nurses were satisfied with their simulation experiences. They were often able to reflect on their experiences, which helped them transition to professional practice. Even though high-fidelity simulations differ from working with real patients, participants appreciated the familiarity such simulations gave them for possible patient care scenarios. Simulation also was shown to increase skill exposure and confidence.

With recent and continuing changes in healthcare and nursing education, it is fair to assume that simulation is not only here to stay but will its use will continue to increase. Nursing programs and educators need to know how best to use this teaching method to provide a safe, skilled nursing workforce by producing well-prepared graduates. The themes and recommendations that emerged from this study can act as a starting point in further researcher to exploit simulation to the fullest extent possible in preparing newly graduated nurses to transition to practice and make an impact on the health and wellbeing of their patients.

References

- Shelton, C. L., Smith, A. F., & Mort, M. (2014). Opening up the black box: An introduction to qualitative research methods in anaesthesia. *Anaesthesia*, 69(3), 270–280. doi:10.1111/anae.12517
- Zigmont, J. J., Kappus, L. J., & Sudikoff, S. N. (2011, April). Theoretical foundations of learning through simulation. In *Seminars in perinatology* (Vol. 35, No. 2, pp. 47-51). WB Saunders.
- Swafford, L. G. (2014). Elements and evaluation of qualitative research. *Radiation Therapist*, 23(1), 90–91.

Contact

bailey@utk.edu

M 02 - Support Initiatives to Promote Health

Home-Care Management Concerns and Perspectives By Patients With Head-and-Neck Cancer and Their Family Caregivers

Verna Hendricks-Ferguson, PhD, RN, CHPPN, FPCN, FAAN, USA

Margaret Bultas, PhD, RN, CPNP-PC, USA

Rebecca Ott, BSN, RN, USA

Crystal Weaver, MA, PLPC, CRC, MT-BC, USA

Abstract

Purpose: To describe the concerns and perspectives related to symptoms and home-care, tube-feeding management needs by both patients with head and neck cancer (HNC) and their primary family caregivers.

Adult patients diagnosed with head and neck cancer (HNC) experience significant emotional distress due to difficult and embarrassing side effects associated with radiation-oncology treatments and the high risk of having a poor prognosis. An estimated 600,000 new cases of HNC are diagnosed each year globally. Also, adults diagnosed with HNC constitute 3% to 5% of all diagnosed malignancies in the United States, with 59,340 patients (43,390 men and 15,950 women) being diagnosed annually (Cancer Net, 2015). Adult patients with HNC often experience significant weight loss (e.g., 30 to 50 pounds) during radiation oncology treatments and could benefit from tube feedings to support their nutritional status and to manage difficult oral symptoms (e.g., loss of taste, oral pain, swallowing difficulties). Family caregivers (FCs) play an essential role in the home care of patients with HNC, often requiring them to engage in daily caregiving responsibilities related to tube-feeding management. Although FCs are committed to helping their loved ones, the experience of family caregiving can be very stressful due to demanding caregiving responsibilities. FCs are required to manage challenging illness-related symptoms (e.g., oral symptoms, inability to speak, significant weight loss), make daily home-care decisions, identify potential emergency-care needs in the home setting, and provide emotional care and support to the HNC patient. Also, FCs face the additional challenge and stress of needing to learn and master skills necessary to prepare and manage tube feedings for the HNC patient. For health-care providers to better support family members in their home-caregiving role, research is needed that examines HNC patients and FCs' perspectives and concerns about care needs during and following radiation treatments. To date, limited published evidence exists related to understanding the perspectives and concerns of both patients and their FCs about symptoms and home-care, tube-feeding management stressors.

Methods: A descriptive, exploratory, retrospective qualitative design was used for this study. A convenience sample of 20 participants (i.e., 10 HNC patients and 10 FCs) were recruited and enrolled in this study from the radiation oncology clinic at a major Midwest medical center in the US. HNC patients were eligible to take part in the study if they were: (a) aged 18 years or older; (b) able to read and speak English; (c) diagnosed with any type of HNC and had completed radiation oncology treatments within the previous 4 weeks; and (d) willing to provide written, informed consent and to participate in an interview. FCs were eligible to take part in the study if they were: (a) aged 18 years or older, (b) able to read and speak English, (c) identified by the patient as the primary individual providing their home care; and (d) willing to provide written, informed consent and participate in an interview. FCs were broadly defined for this study to include those individuals who provide HNC patients with unpaid help relative to their home care during and following radiation-oncology treatments.

The primary nurse at the radiation-oncology clinic who routinely provided oncology nursing care to HNC patients assisted with screening patients for eligibility and consenting eligible patients and their FCs. Interview data were collected via audio-taped interviews that were conducted either during face-to-face appointments in the radiation-oncology clinic or by telephone. The interview location was determined according to the participants' preferences. Interviews were conducted by the principal investigator (PI). A structured interview guide developed by the PI was used to guide the participants' scheduled interviews. Audio-taped interviews and demographic data were the primary data sources collected from HNC patients and their FCs. The Demographic Form included questions to collect the participants' age,

gender, race, education, marital status, and diagnosis and facilitated consent procedures and interview procedures. The Interview Guide included questions based on input from experienced radiation-oncology nurses that care for HNC patients and published HNC literature.

Collected interview data were conducted using open-ended questions to elicit the concerns and perspectives of HNC patients and FCs about symptoms and symptom-management strategies during and following radiation oncology treatments. Data were analyzed using Krippendorff's method of semantic content-analysis. Semantic content-analysis included the following steps: first, each phrase of every response to interview questions were analyzed for meaning (i.e. symptoms and symptom-management strategies) and categorized according to those meanings; second, each categorized meaning was counted for frequency; third, labels were applied to categorized phrases; and fourth, a dictionary was developed, defining each factor. Two members of the study team jointly reviewed the de-identified transcript data and assigned categories to key phrases. A strength of this qualitative method is that the researchers categorized the data and counted the frequency of analyzed responses. Also, the members of the study team verified the accuracy of the analyzed data from the transcripts. The reliability estimates for each analyzed-data response ranged from 95% to 100% across all the interviews.

Results: A total of 20 adults participated in this study (i.e., 10 patients with HNC and 10 FCs). Demographic information for the enrolled HNC-patient participants included: (a) 60% (n=6) were male and 40% (n=4) were female; (b) 80% (n=8) were married; (c) 100% were Caucasian; (d) mean age was 61 years; and (e) 100% had completed 6 weeks of radiation- oncology treatments. Demographic information for the enrolled FCs included: (a) 77% (n=7) were female; (b) 80% (n=8) were married to the HNC patient; (c) 98% were Caucasian; and (d) mean age was 61 years. Following are the three most common coded meaning phrases and the total summary of the counted meaning phrases according to frequency. The three most common symptoms of concern reported by HNC patients included: (a) pain symptoms (i.e., throat/jaw, pain, mouth sores, ear pain, headache) which included 91 meaning phrases; (b) dry mouth and swallowing difficulties which included 71 meaning phrases; and (c) significant weight loss (e.g., 35-50 pound weight loss) which included 57 meaning phrases. The three most common home-care concerns reported by HCs included: (a) negative coping responses by the HNC patient (i.e., irritated, scared, demanding, moody, depressed, angry & short tempered, easily annoyed) which included 134 meaning phrases; (b) alterations in oral taste (e.g., no taste, little taste, food tasted like tin or metal at times) which included 41 meaning phrases; and (c) significant weight loss (i.e., 35-50 pounds during 6 weeks of radiation-oncology treatments) which included 37 meaning phrases. Also, 100% of the patients and FCs indicated the interview questions were appropriate and that the questions caused them no emotional distress.

Conclusion: HNC patients and their FCs experience significant challenges during and following the patients' radiation-oncology treatments. Also, oncology nurses are uniquely positioned to provide education and psychosocial support to patients with HNC and their FCs, assisting each to develop positive coping strategies during cancer treatments. Formulating an individualized plan of educational and psychosocial support for HNC patients and their FCs is also an example of the palliative care philosophy for oncology nurses to consider and integrate into the care of all oncology patients. Still, more evidence-based research is needed to equip oncology nurses to plan effective educational strategies to help FCs in their assistance with delivery of symptom-control measures and psychosocial support to patients with HNC related to difficult oral symptoms and fears regarding communication, especially with children in their family. The findings of this study provide evidence for the need to develop an educational and psychosocially focused intervention on tube-feeding management in the home by FCs of patients with HNC.

References

1. Ridge, J. A., Mehra, R., Lango, M., N., & Galloway, T. (2016). Head and neck tumors. *Cancer Network: Home of the Journal Oncology*, 1-7.
2. Cancer net (2016). Head and neck cancer: Statistics. Retrieved from: <http://www.cancer.net/cancer-types/head-and-neck-cancer/statistics>
3. Al-Mamgani, A., van Rooij, P., Tans, L., Verduijn, G. M., Sewnaik, A., & Baatenburg, R. J. (2013). A prospective evaluation of patient-reported quality-of-life after (chemo) radiation for oropharyngeal cancer: Which patients are at risk of significant quality-of-life deterioration? *Radiotherapy and Oncology*, 106, 359–363.

Contact

hendrivl@slu.edu

M 02 - Support Initiatives to Promote Health

Effects of Support Groups on the Primary Family Caregivers

Chi-Hsuan Asphodel Yang, PhD, RN, Taiwan
Shu-Chin Lin, MSN, BSN, RN, Taiwan

Abstract

Objective: The purpose of this study was to investigate the effect of a support group for primary family caregivers of elderly with dementia on both the caregiver's burden and the quality of life.

Methods: A 2-group quasi-experimental study, using a pre-and post-test repeated measure method, was conducted to investigate the study outcomes. Recruited through from a medical center in central Taiwan, 72 primary family caregivers were assigned to the control (n = 38) and the experimental groups (n = 34), based on participants' choices. The experimental group participated at the support group that comprised of five sessions; each session lasted for three hours, two hours of education on the disease process and care strategies and one hour of discussion, question and answer. The support group met every two weeks. The control group received a health teaching pamphlet on dementia at their medical visit. Data from both group were collected, at the same time, three times: first at baseline, the second time at upon immediate completion of the support group and the third time at one month after the second data collection. A demographic questionnaire developed by the researcher, the Chinese version of Caregiver Burden Inventory by developed Novak & Guest (1989) and translated by Cho (2002) and Taiwan version of WHOQOL-BREF, translated by Yao (2001) were used to collect data. Descriptive statistics, chi-square, *t*-test, paired *t*-test, ANOVA, Pearson correlation, and repeated measurements ANOVA were used to answer the research questions and to test study hypotheses. The significant level was set at 0.05. Data were analyzed using SPSS 12.0 software.

Results: The results of this study were as follow: (a) the participating caregivers showed a moderate degree of caregiver's burden (total score = 1234) with mean scores of 48.71 (SD = 13.74) and 45.68 (SD = 11.70) for the experimental and the control groups, respectively; (b) moderate levels of quality of life (total score = 1234) were found with either the experimental group (M = 51.81; SD = 8.67) or the control group (M = 49.68; SD = 9.43); (c) every one point increased in caregiver's burden, there would be a decrease of 0.65 in caregiver's burden ($p = .036$); the caregiver's burden would explain 31.5% variance of caregiver's quality of life ($p = .000$); (d) length of time as a caregiver was related to the level of caregiver's burden; every one month increase in length of time, there would be an increase of 0.045 in caregiver's burden ($p = .036$); (e) the support group intervention had a positive impact on the caregiver's burden and the quality of life; (f) participants at the experimental group had better caregivers' burdens and better qualities of lives than those in control group did at immediate completion of the support group and at 1-month follow up.

Conclusions and Implication: Results of this study may serve as a reference for healthcare professionals when planning care for elderly with dementia and their families. A support group should be considered as a routine care regimen to provide holistic care and to improve the overall well-beings of family caregivers.

References

- D'Souza, M. F., Davagnino, J., Hastings, S. N., Sloane, R., Kamholz, B., & Twersky, J. (2015). Preliminary Data from the Caring for Older Adults and Caregivers at Home (COACH) Program: A Care Coordination Program for Home-Based Dementia Care and Caregiver Support in a Veterans Affairs Medical Center. *Journal of the American Geriatrics Society*, 63(6), 1203–1208. JOUR. <http://doi.org/10.1111/jgs.13448>
- Gallagher-Thompson, D., Tzuang, Y. M., Au, A., Brodaty, H., Charlesworth, G., Gupta, R., ... Shyu, Y.-I. (2012). International Perspectives on Nonpharmacological Best Practices for Dementia Family Caregivers: A Review. *Clinical Gerontologist*, 35(4), 316–355. JOUR. <http://doi.org/10.1080/07317115.2012.678190>
- Lane, G. W., Podgorski, C. A., Noronha, D. O., & King, D. (2012). "The Hidden Caregiver": Kinship Caregivers and Lessons Learned from Dementia Family Caregiving. *Clinical Gerontologist*, 35(2), 195–203. JOUR. <http://doi.org/10.1080/07317115.2011.641708>

Contact

chyang@nutc.edu.tw

M 03 - Ethical Matters in Nursing Education

Beyond Silos: An Interprofessional, Campus-Wide Ethics Education Program

Cathy L. Rozmus, PhD, RN, USA
Nathan Steven Carlin, PhD, MDiv, Rev., USA
Angela M. Polczynski, MBA, BBA, USA
Lorraine Frazier, PhD, RN, FAAN, USA

Abstract

Purpose: Ethics education is essential to the education of all health care professionals (Kurtz & Starbird, 2016). Improvements in technology have led to new issues and dilemmas that previously existed only in science fiction films including end-of-life decision-making and genomic health care. Nurses are daily facing issues regarding conflict over end-of-life care, allocation of scarce resources, patient privacy versus the benefits to another, and the use of genetics in prevention and treatment of diseases. While health care professions have attempted to educate students in their profession about ethics and ethical decision-making, few institutions have attempted an interprofessional approach to teaching ethics across the campus. The majority of those that have done so have only evaluated knowledge gains instead of application of ethical decision-making skills (Beigy et al., 2016; Caldicott & Braun, 2011; Kurtz & Starbird, 2016; de la Garza, Phuoc, Throneberry, Blumenthal-Barby, McCullough, & Coverdale, 2016; Rozmus & Carlin, 2013; Watts, Medeiros, Mulhearn, Steele, Connelly & Mumford, 2016). The purpose of this study was to evaluate an interprofessional approach to ethics education to all students across an academic health science center. The specific aims were to (1) compare student perception of ethics education before and after the implementation of the campus wide ethics program; and (2) determine changes in student ethical decision-making skills following implementation of a campus wide ethics program.

Methods: This study was a quasi-experimental design with seniors graduating prior to the intervention serving as the control group. The setting was a comprehensive health science center in the southwestern United States with a student population of 4,800 students in six schools including a medical school, school of dentistry, school of public health, school of nursing, school of biomedical informatics, and graduate school of biomedical sciences. The university is located in a large urban medical center. Institutional Review Board approval was obtained prior to any data collection.

All students enrolled in the university participated in the intervention. However, samples of graduating students were used for evaluation of the intervention. A total of 437 students from the six schools participated in the evaluation survey prior to the intervention, 288 participated in the survey in the third year of the intervention and 251 participated in the survey in the fifth year of the intervention for a total sample size of 976 students for the evaluation. The total number of student participants is estimated at 18,000.

The intervention consisted of a campus wide series of activities including faculty development across all six schools and the creation of faculty resources. All incoming students in the university completed an introductory ethics module that has been previously reported (Rozmus, Carlin, Polczynski, Spike, & Buday, 2015) Additional interventions included “just-in-time” research ethics modules, online courses, ethics simulations, interprofessional ethics case studies, interprofessional grand rounds and an interprofessional ethics and history course. Activities included both face-to-face activities and online activities.

Evaluation consisted of an online survey with two parts. The first section asked students for their self-assessment of their ethics education including the amount of time on ethics during course instruction and practical training. They were asked to evaluate their comfort level in identifying and solving ethical issues. The second section asked them to identify an ethical issue or dilemma, outline options of addressing the issue, describe their personal action to resolve the issue, and state professional values relevant to the situation. Answers to the second section were evaluated using the Health Professional Ethics Rubric (Carlin et al., 2011). Answers to the open ended questions were rated as 1=insufficient response, 2=

acceptable response and a score of 3= proficient response. Interrater reliability was calculated for all raters in all three time periods and was above .90.

Results: A total of 976 students from the six schools completed the questionnaire. There were 96 respondents from the Graduate School of Biomedical Sciences, 148 from the Medical School, 42 from the School of Biomedical Informatics, 139 from the School of Dentistry, 175 from the School of Nursing, and 278 from the School of Public Health. Ninety-eight of the students did not identify their school. Despite efforts to increase ethics in the curricula, students' perception of the time spent on the content in course instruction decreased from baseline to the 5th year survey ($p < .05$). There was no difference reported in students' overall comfort level with their abilities to deal with ethical issues. Student ethical decision making skills were higher at the three year evaluation (range 1.23-1.97) for all indicators ($p < .05$) except for identifying options to address the issue. For the 5th year surveys, responses were higher for all four indicators (identifying an ethical issue, identifying options of addressing the issue, identifying their personal action to resolve the issue and identifying professional values relevant to the situation) between the pre-intervention assessment (range 1.13-1.39) and the 5th year evaluation (range 1.35-2.01) ($p < .01$) and between the 5th year evaluation and the 3rd year evaluation ($p < .05$).

Conclusion: After participation in an interprofessional campus-wide effort on health professions ethics, students demonstrated higher ethical decision-making scores according to the Health Professional Ethics Rubric. However, their scores still did not reach the proficiency level identified in the rubric. Examination of the effectiveness of each part of the intervention is needed to determine what is most helpful in enhancing students' ethical decision-making skills. For example, 100% of students in the interprofessional ethics and history course were able to score proficient using the rubric on a course assignment similar to the questionnaire used in the program evaluation.

Students had the most difficulty relating the options for addressing the issue to professional values or an ethical framework. This item most likely indicates the highest level of critical thinking. The other three items only require self-awareness of issues and option to address the issue while thinking through the options from an ethical framework requires a more objective and critical review of the situation and options.

Barriers to interprofessional education were similar to previous reports-- students were on different schedules and in different locations. Online courses appeared to be the most effective in reducing these barriers. One advantage to the online format is that students don't necessarily know the profession of the students they are interacting with in the discussion, thus eliminating some of the biases of professional stereotyping.

References

- Beigy, M., Pishgahi, G., Moghaddas, F., Maghbouli, N., Shirabache, K., Asghari, F., & Zadeh, N.A. (2016). Students' medical ethics rounds: A combinatorial program for medical ethics education. Journal of Medical Ethics and History of Medicine, 9(3).
- Caldicott, C.V. & Braun, E. A. (2011). Should professional ethics education incorporate single-professional or interprofessional learning? Advances in Health Science Education, 16, 143-146. DOI: 10.1007/s10459-008-9150-2
- Carlin, N., Rozmus, C., Spike, J., Willcockson, I., Seifert, W., Chappell, C., Hsieh, P., Cole, T., Flaitz, C., Engebretson, J., Lunstroth, R., Amos, C., & Boutwell, B. (2011). The health professional ethics rubric: Practical assessment in ethics education for health professional schools. Journal of Academic Ethics, 9, 277-290.
- De la Garza, S., Phuoc, V., Throneberry, S., Blumenthal-Barby, J., McCullough, L., & Coverdale, J. (2016). Teaching medical ethics in graduate and undergraduate medical education: A systematic review of effectiveness. Academic Psychiatry. DOI: 10.1007/s40596-016-0608.
- Kurtz, M.J. & Starbird, L. E. (2016). Interprofessional clinical ethics education: The promise of cross-disciplinary problem-based learning. AMA Journal of Ethics, 18(9), 917-924. DOI: 10.1001/journalofethics.2016.18.09.nlit1-1609.
- Rozmus, C. & Carlin, N. (2013). Ethics and professionalism education in a health science center: Assessment findings from a mixed methods student survey. Medical Science Educator, 23 (3S), 502-512.
- Rozmus, C.L., Carlin, N., Polczynski, A., Spike, J & Buday, R. (2015). The Brewsters' A new resource for interprofessional ethics education. Journal of Nursing Ethics, 22(7), 815-826. DOI: 10.1177/0969733014547974

Watts, L.L., Medeiros, K.E., Mulhearn, T.J., Steele, L.M., Connelly, S., & Mumford, M.D. (2016). Are ethics training programs improving? A meta-analytic review of past and present ethics instruction in the sciences. Ethics & Behavior. DOI: 10.1080/10508422.2016.1182025

Contact

Cathy.L.Rozmus@uth.tmc.edu

M 17 - Creating Patient-Centered Care

A 10-Year Journey Toward an Accountable and Sustainable Patient-Centered Care Model

Jose M. Aguilera, MNA, MCom, RN, FCNA, AFACHSM, Australia
Kim N. Walker, PhD, RN, Australia

Abstract

Purpose: The provision of an accountable and sustainable healthcare system is a major challenge worldwide. The delivery of a patient-centred care model that is accessible, safe, reliable and affordable remains elusive for many organisations. Over the past decade, St Vincent's Private Hospital Sydney has implemented three frameworks – the Balanced Scorecard, the Magnet Recognition Program® and a revenue cycle management program – to address this challenge and strive towards the delivery of an accountable and sustainable patient-centred care model. The aim of this research was to analyse the financial, clinical and cultural impact of the three frameworks implemented at St Vincent's Private Hospital to improve its overall performance and sustainability.

Methods: The research design adopted was a modified sequential, explanatory mixed-method organisational single-case study design. The quantitative component of the study consisted of a cost-benefit analysis of the past 10 years of the implementation of the Balanced Scorecard, the Magnet Recognition Program® and a prospective analysis of the implementation of a revenue cycle management program. The qualitative component of the research study comprised semi-structured interviews and focus groups to analyse the impact of these frameworks on the participants' roles and functions and linking their feedback with the findings of the quantitative component of the study.

Results: The overall findings suggest that the combined impact of these three frameworks may have assisted St Vincent's Private Hospital in its journey towards an accountable and sustainable patient-centred care model. The quantitative component of the study established that improved quality and safety outcomes, patient and staff experience, and greater efficiencies and savings may have been realised through the individual as well as the combined implementation of these frameworks. The qualitative component of the study explained the varying degrees of understanding of these frameworks by the nursing staff, and how the frameworks may have assisted them in achieving improved performance. In terms of the level of support for the three programs from the nursing staff, the study indicated that the Magnet Recognition Program® received the highest level, which was quite significant. The Balanced Scorecard was second in the level of support received and the revenue cycle management program was third.

Conclusion: Analysis of the individual and cumulative impact of the Balanced Scorecard, the Magnet Recognition Program® and the revenue cycle management program, indicates that using these frameworks in combination may have assisted St Vincent's Private Hospital in improving its overall performance. In addition, the findings of this research advocate and support the incorporation of these three frameworks into a single, integrated patient-centred care model. However, further research is required to test this proposition empirically.

References

- Behrouzi, F., Shaharoun, A. M., & Ma'aram, A. (2014). Applications of the Balanced Scorecard for strategic management and performance measurement in the health sector. *Australian Health Review: A Publication of the Australian Hospital Association*, 38(2), 208–217. doi: 10.1071/AH13170
- Burkman, R. (2012). Patient-centered care: A new and challenging paradigm in health care. *The Family Patient*, 37, 14–15.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. London, England: Sage Publications Ltd.
- Dopson, S., Fitzgerald, L., Bennett, C., Ferlie, E., Ledger, J., & McGivern, G. (2015). Knowledge leadership: Mobilising management research by becoming the knowledge object. *Human Relations*. doi: 10.1177/0018726715619686

- Drummond, M. F., Sculpher, M. J., Claxton, K., Stoddart, G. L., & Torrance, G. W. (2015). *Methods for the economic evaluation of healthcare programs*. London, England: Oxford University Press.
- Epstein, A. M., Jha, A. K., Orav, E. J., Liebman, D. L., Audet, A.-M. J., Zezza, M. A., & Guterman, S. (2014). Analysis of early accountable care organisations defines patient, structural, cost, and quality-of-care characteristics. *Health Affairs*, 33(1), 95–102.
- Glaser, J. (2014). Analyzing financial performance in the new world. *Healthcare Financial Management: Journal Of The Healthcare Financial Management Association*, 68(5), 108–110.
- Gonzalez Sanchez, M. B., Lopez-Valeira Sampedro, E., Pires, A. M., & Brocardo, L. (2011). The balanced scorecard in healthcare: Italy, Spain and Portugal. *EAA – European Accounting Association*. Retrieved from <http://hdl.handle.net/10198/6612>
- Grigoroudis, E., Orfanoudaki, E., & Zopounidis, C. (2012). Strategic performance measurement in a healthcare organisation: A multiple criteria approach based on Balanced Scorecard. *Omega*, 40(1), 104–119. doi: 10.1016/j.omega.2011.04.001
- Heitmann, A., Svetic, R., & Meyenburg-Altward, I. (2013). From Magnet-hospital to the hospital of the future. *Nursing and Health*, 1(4), 78–87.
- HFMA. (2014). 25 tips for revenue cycle success: Ideas and inspiration from HFMA's MAP Award winners. *Healthcare Financial Management*, 110–117.
- Higdon, K., Clickner, D., Gray, F., Woody, G., & Shirey, M. (2013). Business case for Magnet® in a small hospital. *The Journal of Nursing Administration*, 43(2), 113–118. doi: 10.1097/NNA.0b013e31827f2208
- Hoque, Z. (2014). 20 years of studies on the balanced scorecard: Trends, accomplishments, gaps and opportunities for future research. *The British Accounting Review*, 46, 33–59. doi: 10.1016/j.bar.2013.10.003
- Jayawardhana, J., Welton, J. M., & Lindrooth, R. C. (2014). Is there a business case for magnet hospitals? Estimates of the cost and revenue implications of becoming a magnet. *Medical Care*, 52(5), 400–406. doi: 10.1097/MLR.0000000000000092
- Jenkins, M., & Jarrett-Pulliam, C. (2012). A comparative of Magnet® organizations and accountable care organizations. *JONA's Healthcare Law, Ethics And Regulation*, 14(2), 55–63.
- Kelly, L. A., McHugh, M. D., & Aiken, L. H. (2012). Nurse outcomes in Magnet® and non-Magnet hospitals. *Journal of Nursing Administration*, 42(S10), 44–49. doi: 10.1097/01.NNA.0000420394.18284.4f
- Kitson, A., Marshall, A., Bassett, K., & Zeitz, K. (2013). What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing. *Journal of Advanced Nursing*, 69(1), 4–15. doi: 10.1111/j.1365-2648.2012.06064.x
- Kraaijenbrink, J. (2012). Five reasons to abandon the balanced scorecard. Retrieved, 10(11), 2012.
- Lundmark, V. (2014). Magnet® perspectives: Magnet® environments and the affordable care act. *Journal of Nursing Administration*, 44(4), 187–189. doi: 10.1097/NNA.0000000000000049
- Mathur, S., & Lorusso, K. (2012). RCM, a critical component of accountability models: Revenue cycle management holds the key to successful financial contracting in the world of accountability reform. *Health Management Technology*, 33(2), 26–27.
- McHugh, M. D., Kelly, L. A., Smith, H. L., Wu, E. S., Vanak, J. M., & Aiken, L. H. (2013). Lower mortality in Magnet hospitals. *Journal of Nursing Administration*, 13(10), S4–S10.
- Möller, A., & Schaltegger, S. (2013). The sustainability balanced scorecard as a framework for eco-efficiency analysis. *Journal of Industrial Ecology*, 9(4). doi: 10.1162/108819805775247927
- Mumford, V., Greenfield, D., Hinchcliff, R., Moldovan, M., Forde, K., Westbrook, J. I., & Braithwaite, J. (2013). Economic evaluation of Australian acute care accreditation (ACCREDIT-CBA [Acute]): Study protocol for a mixed-method research project. *BMJ open*, 3(2).
- Perez-Merino, R. (2014). Strategies for enhancing the delivery of person-centred care. *Nursing Standard*, 28(39), 37–41.
- Rauscher Singh, S., & Wheeler, J. (2012). Hospital financial management: What is the link between revenue cycle management, profitability, and not-for-profit hospitals' ability to grow equity? *Journal of Healthcare Management*, 57(5), 325–339.
- Shoemaker, L. K., & Fischer, B. (2011). Creating a nursing strategic planning framework based on evidence. *The Nursing Clinics Of North America*, 46(1), 11–25. doi: 10.1016/j.cnur.2010.10.007
- Thórarinsdóttir, K., & Kristjánsson, K. (2014). Patients' perspectives on person-centred participation in healthcare: A framework analysis. *Nursing Ethics*, 21(2), 129–147. doi: 10.1177/0969733013490593
- Trotta, A., Cardamone, E., Cavallaro, G., & Mauro, M. (2013). Applying the balanced scorecard approach in teaching hospitals: A literature review and conceptual framework. *The International Journal Of Health Planning And Management*, 28(2), 181–201. doi: 10.1002/hpm.2132
- Zolnierek, C. D. (2014). An Integrative Review of Knowing the Patient. *Journal of Nursing Scholarship*, 46(1), 3–10. doi: 10.1111/jnu.12049

Contact

jose.aquilara@svha.org.au

M 17 - Creating Patient-Centered Care Defensive Practices of Nurses

Nuray Turan, PhD, RN, Turkey
Nurten Kaya, PhD, RN, Turkey

Abstract

Purpose: Nowadays, defensive practices are usually seen as a situation which is performed by physicians, members of health care team, in order not to take a risk. Defensive practice occurs whenever a practitioner gives a higher priority to selfprotection from blame than to the best interests of the patient. Defensive practice is commonly attributed to concern at malpractice litigation, in particular financial liability. There is no data on whether nurses perform defensive practices. This study was carried out in descriptive type to determine the defensive practice status of nurses.

Methods: While the nurses working in a university hospital constituted the population of the study, the sample of the study consisted of 30 nurses who were selected by random sampling method.

Results: It was determined that 55.7% (n=167) of the nurses, who were included within the scope of the research, sometimes refrained from making mistake in nursing care, 60.3% (n=181) of them never administered any drug she thought it was unnecessary, 55% of them never kept away from the patients who are more likely to file a lawsuit to protect themselves, 50% (n=150) of them sometimes explained nursing practices in more detail to protect themselves from the allegations of malpractice, 46.7% of them (n=140) never avoided practices with high complications, 66% (n=198) of them always kept the records in a more detailed way to protect themselves from allegations of malpractice, and 52.7% (n=158) of them defined the risk of encountering with a malpractice case at any time according to the conditions of the environment.

Conclusion: These data obtained have indicated that nurses sometimes perform defensive practices. Thus, it is necessary to develop and implement strategies to prevent nurses from performing defensive practices in order not to make concessions on quality in the care of a healthy/sick individual and to ensure a fair distribution of the health system resources.

References

- Mullen, R., Admiraal, A., Trevena, J.(2008). Defensive practice in mental health. *Journal of the New Zealand Medical Association*, 121: 85-91.
- Paker, J.M.(2002). Evidence-based nursing: a defence. *Nursing Inquiry*, 9(3): 139-140.
- Bilgin, H., Keser, ON, Tulek, Z, Kaya, F., Boyacıoğlu N.E., Erol, O., Arguvanlı,CS., Pazvatoglu, O., Gumus, K.(2016). Student nurses' perceptions of aggression: An exploratory study of defensive styles, aggression experiences, and demographic factors. *Nurs Health Sci*,18(2):216-222.
- Chiarella, M.(1992). Is there such a thing as defensive nursing practice? *Aust Health Rev*.15(4):382-91.
- Cramer P.(2000). Defense mechanisms in psychology today further processes for adaptation. *Am. Psychol*. 55(6): 637-646.
- Malone JC, Cohen S, Liu SR, Vaillant GE, Waldinger RJ. (2013). Adaptive midlife defense mechanisms and late-life health. *Pers. Individ. Dif.*, 55(2): 85-89.
- Pazvantoglu O, Gumus K, Boke O, Yildiz I, Sahin AR.(2011). Perception of patient aggression among nurses working in a university hospital in Turkey. *Int. J. Nurs. Pract*, 17:495-501.
- Azmi, F.Husain, M., Vashist,S.,Usmani, JA.(2014). In defense of defensive nursing practice. *International Journal of Nursing Care*, 2(2): 11-13.

Contact

nkaraman@istanbul.edu.tr

N 01 - Promoting Evidence-Based Practice Globally

An International Collaboration to Promote Evidence-Based Practice (EBP) in Japan

Chiyo Matsuoka, PhD, RN, CSW, Japan
Ikuko Sakai, PhD, MHS, BSc, RN, PHN, Japan
Hiroki Fukahori, PhD, RN, PHN, Japan
Kana Kurokochi, PhD, RN, PHN, Japan
Ai Tomotaki, MHS, RN, PHN, Japan
Laura Cullen, DNP, RN, FAAN, USA

Abstract

Purpose: To promote adoption and evaluation of evidence-based practice (EBP) through an international collaboration of experts in Japan and the United States.

Background: The importance of EBP in nursing has gained recognition in Japan. However, knowledge and strategy to promote and implement EBP have not been widely applied. An initiative developed with the goal of applying EBP models and resources to fit health care and nursing care in Japan. The Iowa Model was selected as the framework for the EBP process. The EBP Implementation Guide and book with resources and tools provided direction for application. An approach that can be beneficial is developing strategic partnerships among practice and academics. The partnership built upon existing expertise to expand application of EBP in academic and practice settings across Japan.

Process: A team of experts at Chiba University, Tokyo Medical and Dental University and Bukkyo University in Japan reviewed EBP process models and recognized the need for emphasis on implementation to achieve improved practice and outcomes. The team selected the Iowa Model and EBP Implementation Model as frameworks for the collaboration. To initiate the partnership an international EBP expert was invited as a visiting professor. Key leaders participated in advanced training in the U.S. and reflected upon application in Japan. Translation of tools and resources into Japanese is underway. Development of a memorandum of understanding facilitates communication and clear commitments for the partnership.

Results: Deliverables are carefully considered to reflect identified needs for the Japanese nursing community. Criteria for selection of EBP models were developed. Educational programs focused on application in both academia and practice settings. Program reach built upon recognized experts among the Japanese nursing community. Discussions built a collaboration that could function through open sharing of resources. A key deliverable is development of a Japanese translation of resources for application of EBP.

Additional findings include that some planning and project management was required in order to promote application of EBP models and implementation of EBP in Japan. The EBP implementation process was adapted for use within academicians' clinical nursing research as a part of clinical nursing education which often carried out medical institutions in Japan. Clinical nurses were the target audience for adoption to improve practice and outcomes.

Next Steps: The collaboration is on-going and next steps include the implementation and evaluation of the intervention study which adopted the EBP process in clinical nursing research for the chief nurses and staff nurses working at the convalescence rehabilitation hospitals in Japan. This study is on-going and is due to be ended by March, 2017. After evaluation, a modified EBP model according to actual condition of Japan is being developed based on the Iowa Model and the EBP Implementation Guide and book.

Conclusion: Provision of evidence-based health care is a global priority. Organizations and experts can create collaborations that become effective partnerships. Learning was a positive experience for nurses in Japan and the U.S. Building upon existing expertise creates a win-win for nurses and patients in both countries.

References

- Barnsteiner, J., Reeder, V., Palma, W., Preston, A., & Walton, M. (2010). Promoting evidence-based practice and translational research. *Nursing Administration Quarterly*, 34(3), 217-225. doi:10.1097/NAQ.0b013e3181e702f4
- Cannon S, & Boswell C. (2014). Evidence Into Practice: Collaboration across the academic and clinical setting. *Journal of PeriAnesthesia Nursing*, 29(5):430-433. doi: 10.1016/j.jopan.2014.07.005.
- Cullen, L., & Adams, S. L. (2012). Planning for Implementation of Evidence-Based Practice. *Journal of Nursing Administration*, 42(4), 222-230. doi:10.1097/NNA.0b013e31824ccd0a
- Cullen, L., Hanrahan, K., Tucker, S., Rempel, G., & Jordan, K. (2012). Evidence-Based Practice Building Blocks: Comprehensive Strategies, Tools and Tips. Iowa City, IA: Nursing Research and Evidence-Based Practice Office, Department of Nursing Services and Patient Care, University of Iowa Hospitals and Clinics. Available from: <http://www.uihealthcare.org/otherservices.aspx?id=15221>
- Cullen, L., Titler, M. G., & Rempel, G. (2011). An Advanced Educational Program Promoting Evidence-Based Practice. *Western Journal of Nursing Research*, 33(3), 345-364. doi:10.1177/0193945910379218
- Everett, L. Q., & Sitterding, M. C. (2011). Transformational Leadership Required to Design and Sustain Evidence-Based Practice: A System Exemplar. *Western Journal of Nursing Research*, 33(3), 398-426. doi:10.1177/0193945910383056
- Iowa Model Collaborative (in press). Iowa Model-Revised: Development and Validation. *Worldviews on Evidence Based Nursing*,
- Titler, M.G., Kleiber, C., Rakel, B., Budreau, G., Everett, L.Q., Steelman, V., Buckwalter, K.C., Tripp Reimer, T., & Goode C. (2001). The Iowa model of evidence-based practice to promote quality care. *Critical Care Nursing Clinics of North America*, 13(4):497-509.

Contact

c-matsuoka@bukkyo-u.ac.jp

N 01 - Promoting Evidence-Based Practice Globally

Evidence-Based Leadership Institute: A Model to Develop Nurse Leaders

M. Christine Alichnie, PhD, RN, USA
Betsy M. Snook, MEd, BSN, RN, USA

Abstract

Many nurse leaders begin their leadership career having excelled in the clinical arena. However, being a competent bedside nurse does not guarantee an easy transition into a manager/leadership role. Frequently, they assume expanded roles and responsibilities without adequate education, resources, or support. In the landmark Institute of Medicine's Report (*IOM Report*), recommendation number seven states "...nursing associations should prepare the nursing workforce to assume leadership positions across all levels". Likewise, a subsequent *IOM Progress Report* continues to address the challenges of nurses leading the charge for health reforms based on outcomes from evidence-based research. This translational research provides a solid foundation for health care policy reforms and system changes.

Pennsylvania State Nurses Association (PSNA) represents over 218,000 registered nurses whose vision is "nurses shaping the future of healthcare". Likewise, the association's mission statement identifies four major foci; leading, advocating, educating, and connecting with registered nurses across the Commonwealth. Therefore, identifying the skill sets that will be needed by nurse leaders in the future and creating evidence-based educational models to assure these skills are present is essential to the nursing profession and healthcare systems. With health care and health care delivery systems being characterized by rapid change and new challenges, it is imperative that future nurse leaders have the competencies to create a safe, quality, and effective health care environment for patients, families, and health care workers. This Leadership Institute also supports continuous lifelong learning; another recommendation from the IOM initial report and its subsequent progress report.

Thus, the purpose of this Leadership Institute is to bridge the competency gap between the transition from staff nurse to nurse manager/leader. This transition is achieved by providing evidence-based knowledge and competencies in a supportive and trusting learning environment. Application of these competencies is evidenced through a real world problem-based project. Key features of the presentation must include identification of a real world problem in one's institution, a hypothesis, measureable evidence-based research, analysis of data, and conclusions with recommendations. Participants are guided over a six month period by seasoned nurse leaders who serve as mentors. The Leadership Institute culminates with individual project presentations to their organizational leadership and colleagues.

Key elements of the Leadership Institute model include an application process for both the participant and the mentor, electronic mentor/mentee screening/ matching process, an orientation program for both the mentor and mentee that launches the relationship, didactic instruction using a variety of teaching methodologies, use of diverse technologies including social media to allow for flexibility in communication between the mentor and participant, on-going communication and collaboration with the program coordinator, guidelines and exit interviews to facilitate a smooth ending, presentation of a real-world, real-time professional project using problem-based learning methodology, and data collection- analyzing formative and summative data on both subjective (satisfaction) and objective success metrics to shape further programmatic decisions and to identify long-term patterns and opportunities for improvement. Evaluations were conducted using a combination of web-based and hard copy questionnaires, surveys, and interviews with registered nurses and mentors who completed the program. The end result is an evidence-based model to develop nurse leaders.

References

- Hodgson, A.K., & Scanlan, J.M. (2013). A concept analysis of mentoring in nursing leadership. *Open Journal of Nursing*, 3, 389-394. <http://dx.doi.org/10.4236/ojn.2013.35052>
- Madison, J. (2013). The value of mentoring in nursing leadership: A descriptive study. *Nursing Administration Quarterly*, 37(1), 77-82.
- Shin, I.S., & Kim, J. H. (2013). The effect of problem-based learning in nursing education: A meta-analysis. *Advances in Health Sciences Education*, 18(5), 1103-1120.

Contact

calichnie@aol.com

N 02 - Cultural Awareness in Nursing Education

Developing Cultural Competence in Practicing Nurses: A Qualitative Inquiry

Michelle L. Edmonds, PhD, MSN, BSN, FNP-BC, CNE, USA

Jeane Richards, EdD, RN, USA

Abstract

Background/Introduction: Multicultural societies are becoming more prevalent across the globe. Nurses, providing holistic care to patients from many cultures, must demonstrate cultural competency in their daily practice so as to provide patient-centered care (Maher-Lorentz, 2008). The American Nurses Association has, since 1991, advocated for culturally appropriate nursing care to be delivered to patients in all settings (ANA, 1991). The Joint Commission has indicated the importance of culturally appropriate communication for patient-centered care and included this in the 2012 accreditation standards (The Joint Commission, 2010). Research regarding culturally-competent care among nursing students has been recently conducted in nursing education. However, few studies, both empirical and qualitative, are available to understand the perceived experience of nurses caring for clients of diverse cultural backgrounds. Starr and Wallace (2009) explored the self-reported cultural competence of 31 Public Health Nurses practicing in a Public Health Department in the Southeastern United States. They concluded that “the nurses had cultural competence knowledge and attitudes but were unable to fully and consistently enact these in practice.” (Starr & Wallace, 2009, p. 48). Cioffi (2006) interviewed eight acute care nurses practicing in Australia and concluded that relationships between these nurses and culturally diverse patients were strained and detached. Additional information is needed to demonstrate the perceived relationships between nurses and culturally diverse patients in order to develop strategies to promote safe, effective culturally sensitive care. Such information can be used to create programs to educate practicing nurses on culturally competent care and improve patient outcomes in the clinical setting.

Method: The research question for this qualitative inquiry was: How do practicing staff nurses perceive and report their development of cultural competence? A subsequent research question for this qualitative inquiry is: How do practicing staff nurses perceive their experiences caring for and working with people from a culture different from their own culture? Ten participants comprised the purposive sample of staff RNs practicing at a Level 1 Trauma Center who responded to advertisement to participate. This facility was selected for its diverse patient population and staff composition. Participants were from any educational preparation (ADN, BSN, and MSN) and any length of nursing experience who deliver direct patient care. In-depth, semi-structured individual interviews were conducted and all findings in written or oral dissemination used a pseudonym to blind the employer and others to protect the participant identities. A \$50 honorarium was provided upon completion of the interview.

Data collection from this study addresses the following objectives:

- Explore the participants’ definition of cultural competence;
- Identify any formal training in culturally-competent care and any theory-practice gaps;
- Elicit perceived experiences of participants who provide care for clients with different cultural backgrounds than their own;
- Highlight any positive or negative experiences reported by staff RNs who care for clients with diverse cultural backgrounds; and
- Illuminate the perceived value of developing concepts of cultural competence (skills, awareness, knowledge).

Data analysis was conducted simultaneously with data collection. Each researcher analyzed the verbatim individually before coming together to find consensus in the final interpretation of themes.

Findings: The sample was comprised of 10 practicing RNs at one hospital in the Northeast Region of Florida. Nine participants were White and one was African-American with 80% female and 20% male. Most (80%) participants had a BSN degree while 2 had an ADN degree with one of these currently enrolled in a BSN program. Half (50%) of the participants had less than 5 years of experience as an RN

while 25% had 6-10 years of experience, and 25% with greater than 20 years of experience. The majority of participants reported that they received cultural competence training previously as part of a college course, online education, or employer-sponsored programs. All reported previous experience with patients of cultural backgrounds that were different from their own including patients from the Middle East, Asia, Latin America, and the Pacific Islands among others. Approximately 65% of participants ranked their cultural competence level as 4-7 on a scale of 0 (no cultural competence) to 10 (highly culturally competent).

Three themes were constructed from analyzing the data:

- Recognizing Culture and Cultural Competence: Acknowledging Differences and Respecting Viewpoints
- Negotiating Cultural Competence: Overcoming Barriers to Achieve Benefits
- Moving Toward Cultural Competence: Developing, Practicing, and Engaging

Recognizing Culture and Cultural Competence was described as understanding culture to be a “way of living”. Cultural competence was the awareness of differences and accepting them by “being OK with it.” Competence does not imply expertise but having the knowledge that differences exist and the RN “cannot know it all.” Participants’ reflections noted that central to this theme is a cultural understanding and respect.

Negotiating Cultural Competence was the balancing act between recognizing the benefits and needing to overcome the barriers in successful delivery of culturally competent care. Barriers that were gleaned from the transcripts were language barriers, lack of knowledge of cultures, family involvement, specific requests for like-gendered care, and lack of time. The participants recognized the many benefits of providing culturally competent care as better patient outcomes, patient satisfaction, nursing care was facilitated and “easier”, increased patient understanding of their medical condition, and financial benefit for the hospital.

Moving Toward Cultural Competence was expressed as the ability to establish trust/rapport with the client through providing culturally competent care. All participants had a good understanding of the definition of culture. The participants remarked that a movement toward cultural competence was vital for “good nursing care” and that it took time and effort on the part of the nurse to be accommodate a client’s culture. If culturally competent care was not provided, participants noted that they experienced internal conflict.

Conclusion/Recommendations: Findings from this study were congruent with Campinha-Bacote’s Process of Cultural Competence in the Delivery of Healthcare Services (2002, 2010). Her model highlights the centrality of cultural encounters in becoming culturally competent and further developed through ongoing cultural encounters. Having multiple encounters with patients from other cultures aids the practitioner in developing the other constructs of cultural awareness, skill, knowledge, and desire. Limitations to the findings of this study included a small, homogenous sample of self-reporting participants from one hospital who were offered an honorarium for their time. Despite these limitations, the researchers are confident that saturation was achieved in the data collection phase. One unanticipated finding that was realized and may have influenced the findings was the fact that many participants in this study have lived abroad in military or mission work.

Findings from this study have implications for nursing practice and education. Participants expressed the need for mandatory formal education and continuing educational opportunities for nurses on the topics of cultural competence as well as multiple ongoing encounters with diverse patient populations to promote confidence and competence in providing cultural care. Nurse educators need to facilitate opportunities for students to examine their own cultural beliefs and values. In addition, they should arrange repeated encounters with diverse patient populations through clinical learning experiences and integrate formal education within the curricula to apply theory to practice.

References

Arias-Murcia, S. & Lopez-Diaz, L. (2013). Cultural brokerage as a form of caring. *Investigacion y Educacion en Enfermeria*, 31(3), 414-420.

Starr, S. & Wallace, D. (2009). Self-reported cultural competence of public health nurses in the southeastern US Public Health Department, 26(1), 48-57.

Waite, R., Nardi, D., & Killian, P. (2014). Examination of cultural knowledge and provider sensitivity in nurse managed health centers. Journal of Cultural Diversity, 21(2), 74-79.

Contact

medmond@ju.edu

N 02 - Cultural Awareness in Nursing Education

Mentoring the Culturally Diverse Nursing Student

Barbara B. Blozen, EdD, MA, RN, CNL, USA

Abstract

A structured mentoring program for diverse nursing students was developed and implemented for the culturally diverse Associate Degree Graduate Nurse (ADGN) to address the mentees' concerns and issues and assist them through their journey of completion of their bachelor's degree in nursing.

Purpose: This research study looked to determine how mentoring support for the culturally diverse Associate Degree Graduate Nurse impacted their journey through completion of their bachelor's degree in nursing.

To meet strategic national goals of increasing access to quality health care, reducing health disparities and improving health equity in all U.S. populations, schools of nursing are seeking to diversify the nursing workforce to optimize provider alignment with challenged communities by enrolling students from these settings (U.S. Department of Health and Human Services, 2014). Retaining and graduating the culturally diverse Associate Degree Nurse will benefit many; such as the diverse population with whom they are more likely to work, as people frequently seek health care from providers of their own race or ethnicity (Dapremont, 2011). The American Association of Colleges of Nursing (2014) has appealed for an increasingly diverse nursing workforce and for learning environments that engage and support students. As schools of nursing increase enrollment of the culturally-diverse nursing student, they must also increase the support for this student. Mentoring has been identified as an essential component in the education of the culturally diverse nursing student. Bleich et al., 2015; Bond et al., 2012; Brooks Carthon et al., 2014; Carter et al., 2015 found to retain the culturally-diverse nursing student initiatives must include financial support, mentorship, social and academic support, and professional counseling.

Many, if not all disciplines have a variety of definitions for mentoring, however none are concise nor uniform. Most disciplines include role modeling, support, guidance, education and psychosocial support in their definition of mentoring and nursing is no exception. As nursing becomes more complex, patients more critical, and students more challenging to teach, mentoring becomes more essential for clinicians and educators. Whether it is a new staff nurse working at the bedside or an experienced nurse contemplating a change into a leadership or academic role, having a mentor can support and facilitate the nurse in this new role.

Methods: The participants in this research study were a cohort group of students who were awarded a Health Resources and Service Administration (HRSA) Grant. The grant supports projects that increase nursing education opportunities for individuals who are from disadvantaged backgrounds, including racial and ethnic minorities that are underrepresented among registered nurses. This cohort group was provided with mentoring, personal and social counseling, academic support services, scholarships and stipends, to ensure the successful completion of their bachelor's degree by each of the participants who are from disadvantaged backgrounds, including racial and ethnic minorities. The students attended monthly mentoring meetings. The 14 participants were diverse; seven were Hispanic/Latino, one of whom was male and seven were African American. After informed consent, mentees were given a 26 question Likert survey to determine how supported and skilled they felt after having the benefit of a mentor for the previous year.

Results: The five constructs rated the highest were communication, trust, role modeling, networking and enhancing professional development, all of which had a mean of 5.43 or higher. Baseline data were collected on ethnic identity, social support, and GPA's. Journaling revealed valuable information about challenges faced by mentees.

Conclusion: The mentoring program supported students and culminated in all 14 Associate Degree Graduate Nurses graduating with their baccalaureate degree and securing employment. All graduates

have gone back to their communities to present to their neighborhood schools about the program and mentorship received. The findings contribute to sparse research examining the support and further development and evaluation of mentoring programs for nursing students.

References

- AACN. 2014. Employment of new nurse graduates and employer preferences for baccalaureate prepared nurses. http://www.aacn.nche.edu/leading_initiatives_news/news/2014/employment14
- Bleich, M. R., B. R. MacWilliams, and B. J. Schmidt. 2015. Advancing diversity through inclusive excellence in nursing education. *Journal of Professional Nursing* 31(2):89-94.
- Bond, M. L., M. E. Jones, W. J. Barr, G. F. Carr, S. J. Williams, and S. Baxley. 2012. Hardiness, perceived social support, perceived institutional support, and progression of minority students in a masters of nursing program. *Hispanic Health Care International* 10(3):109-117.
- Brooks Carthon, J. M., T. Nguyen, J. Chittams, E. Park, and J. Guevara. 2014. Measuring success: Results from a national survey of recruitment and retention initiatives in the nursing workforce. *Nursing Outlook* 62(4):259-267.
- Carter, B. M., D. L. Powell, A. L. Derouin, and J. Cusatis. 2015. Beginning with the end in mind: Cultivating minority nurse leaders. *Journal of Professional Nursing* 31(2):95-103.
- Dapremont, J. A. (2011). Success in nursing school: Black nursing students' perception of peers, family, and faculty. *Journal of Nursing Education*, 50(5), 254-260. doi:10.3928/01484834-20110317-03
- HRSA. 2015 Sex, race, and ethnic diversity of U.S. health occupations (2010-2012). Rockville, MD: U.S. Department of Health and Human Services, HRSA, National Center for Health Workforce Analysis.

Contact

bblozen@njcu.edu

N 03 - Evidence-Based Educational Strategies

The Case for Including Sleep Content in Nursing Curricula

Lucille C. Gambardella, PhD, MSN, APN-BC, CNE, ANEF, USA
Lyron Deputy, MSN, MBA, APN-BC, USA

Abstract

Introduction: The importance of sleep for overall health is at the forefront of the media and the literature. Emphasis on the effects of sleep deprivation are highlighted in vehicular accidents such as the Amtrak train crash in Hoboken, NJ (NY Times, 2016) and in overall workplace performance for a variety of employee positions. Including sleep in all assessment processes by health care providers is becoming a topic of critical discussion as a need in the educational domain of provider preparation. Nursing curricula are not an exception and as nurses students must learn the dynamics of normal sleep and sleep physiology in order to provide sleep care for health promotion and illness prevention. (Redeker & McEnany, 2011) Conducting a survey to determine the current extent of the inclusion of sleep content was implemented at the Sigma Theta Tau International Honor Society of Nursing Research Congress in Cape Town, South Africa in July, 2016. The survey was available in the exhibit hall during the Congress exhibit hours and participants had the option to complete the survey voluntarily and anonymously.

Evidence Based Methodology: Participants representing 12 countries voluntarily completed the survey and provided information about their home school's educational program in nursing relative to the presence or absence of sleep content. If the program included sleep content, participants were asked to indicate which course(s) included the sleep content and to list some of the content covered in the classroom/clinical setting. If the program did not provide sleep content, participants were asked if sleep content should be included and in which courses it should be taught. Finally participants were asked if sleep assessment should be considered as the next vital sign. All data was analyzed and quantified using the SPSS statistical software that provides quantitative, descriptive results for the outcomes discussion.

Outcome Findings: Participants who completed surveys represented 12 countries and all levels of nursing programs including diploma, associate degree, bachelor of science in nursing and master of science in nursing. Fifty-seven percent of the faculty reports that sleep content was not included in their home school nursing curriculum. Forty-three percent of the faculty report that the curriculum did include sleep content, primarily in the Fundamentals of Nursing course (as related to rest and comfort) or in Nursing Care of Children (as related to normal growth and development). Overall 98% of faculty believed sleep content should be included in a nursing curriculum whether their program included the content or not. The courses most frequently listed as appropriate for sleep content were Fundamentals of Nursing, Psychiatric/Mental Health Nursing, and Community health Nursing. Sixty percent of the faculty responding agreed that sleep could be considered as the next vital sign. However, two considerations evolved as concerns if this were to become a reality. First, how would it be measured and standardized as a quantitative measure for consistent application and second, how would it be universally taught, with evidence based criteria, in all health care provider programs, not just nursing.

Conclusions:

1. An overwhelming percentage of nursing faculty believe that sleep content should be included in the nursing curriculum of all level of programs.
2. Sixty percent of faculty believe sleep assessment as a vital sign is a plausible next step if the ability to standardize and quantify a measurement could be achieved.
3. Further exploration of this initiative from an evidence-based perspective is needed to successfully accomplish inclusion of sleep content in curricular programs of nursing and other health care providers.

References

Caruso, Claire. (2012) *Better sleep*. American Nurse Today, 7 (5).
Garipey, Genevieve, et al. (2016) *School start time and sleep in Canadian adolescents*. Journal of Sleep Research, 7(11).

Redeker, N & McEnany, G. (2011) Sleep disorders and sleep promotion in nursing practice. New York: Springer Publishing Company.

Contact

gambarlu@comcast.net

N 03 - Evidence-Based Educational Strategies

Debriefing for Meaningful Learning (DML): Connecting the Dots

Ann Scott, MSN, RN, CCRN, CNE, USA
Courtney Catledge, DNP, APRN, FNP-BC, USA

Abstract

Debriefing for meaningful learning (DML) is a facilitated approach to learning. It combines experiential learning with reflective discussion. It is commonly utilized in nursing education in combination with high fidelity simulation (HFS) (Dreifuerst, 2015). Through the use of debriefing by meaningful learning technique and concept mapping, students are challenged to think critically. DML enhances students' clinical reasoning and judgment skills through reflective learning. The method of reflection supports students' ability to translate their thinking, in the context of clinical experience or experiential learning, into actionable knowledge and decision making, thereby enhancing learning and fostering new reasoning and understanding that can be used in subsequent clinical encounters (Zigmont, Kappus, Sudikoff, 2011).

DML offers a three phase approach to learning which include the 3 D's, diffusing, deepening, and discovering (Zigmont, Kappus, Sudikoff, 2011). Each phase will be explored and expanded upon giving insight into the reflective learning process which allows students to connect the dots between theory and practice. DML technique is a student led learning experience with the faculty serving in a facilitator role. Debriefing allows dissemination of active learning to every member of the group as participants are more able to fully think through and discuss what has transpired, gain a more in-depth understanding and appreciation of knowledge, and retain knowledge and skills for future application.

A variety of DML techniques will be explored with the aim of showcasing how DML can be employed in various student and faculty interactions including to explore experiences post completion of group work, formative and summative evaluation of student research groups, and student led organization as well as throughout advisement interactions. This project will explore how DML helps students connect the dots from theory to practice using the 3 D's and find creative ways to incorporate DML into academic encounters resulting in improved outcomes and enhanced student success.

References

- Dreifuerst, K. (May, 2015). Getting started with debriefing for meaningful learning. *Clinical Simulation in Nursing*. 11(5), 268-275. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1876139915000067>
- Dreifuerst, K. (2012). Using debriefing for meaningful learning to foster development of clinical reasoning in simulation. *Journal of Nursing Education*. 51(6), 326-333.
- Dusaj, T.K. (2014). Five fast fixes: Debriefing. *Clinical Simulation in Nursing*. 10 (9). 485-486. doi.10.1016/j.ecns.2014.06.002.
- Zigmont, J. J., Kappus, L. J., & Sudikoff, S. N. (2011). The 3D model of debriefing: Defusing, discovering, and deepening. *Seminars in Perinatology*. 35, 52-58. doi.10.1053/j.semperi.2011.01.003

Contact

annscott@mailbox.sc.edu

O 01 - Cultural Awareness in Public Health

Experience of Immigrant Care and the Need for Cultural-Competence Training Among Public Healthcare Providers

Duckhee Chae, PhD, RN, Korea, Republic of (South)
Jin-A Lee, MSN, RN, Korea, Republic of (South)
Hyun-Lye Kim, PhD, RN, Korea, Republic of (South)
Asami Keiko, BSN, RN, Korea, Republic of (South)

Abstract

Purpose: As the number of foreigners residing in Korea increased by five times during last two decades, Korean public health care providers are facing the diversity of race, ethnicity, and culture of clients. This study was to explore the experiences of public health care providers in providing health care service for immigrants living in Korea and to clarify educational needs for culturally competent care.

Methods: A qualitative description research design was used with five focus groups of 25 public health care providers from five community health centers in G city, South Korea. Focus group interviews were conducted at a time and place convenient to the participants using semi-structured interview guidelines. Audio-recorded interviews ranged 70 to 90 minutes and were immediately transcribed by the researcher. The data were analyzed using conventional qualitative analysis techniques.

Results: All participants were female and ranging in age from 22 years to 54 years. Most participants were public health nurses (76.9%), followed by dietitian (11.5%) and social workers (11.5%). The majority of immigrant clients were young married immigrant women who were situated in multi-layered vulnerability, and unequal power relationship between the couple. They also lacked of awareness of health behaviors. Public health care providers experienced difficulty in identification, enrollment, and retention of immigrants in health care programs, approach towards the most vulnerable group of immigrants, communication, building therapeutic relationships, inconsistency of the service program, and lack of systematic support. Most public health care providers had no prior cultural competence training. They needed to have cultural competence training as an essential continuing education course. They preferred eLearning course which consists of 6-8 sessions which lasts 20-30 minute each.

Conclusion: Public health care providers primarily provided maternal and child healthcare service to vulnerable young married immigrant women. They were situated in multiple challenges because of the vulnerability of the clients and the lack of preparedness for culturally competent care. It is suggested to develop cultural competence training through eLearning that reflects the situation experienced by public health care providers along with systematic support.

References

- Gravdal Kvarme, L., Albertini-Fruh, E., Brekke, I., Gardsjord, R., Halvorsrud, L., & Liden, H. (2016). On duty all the time: health and quality of life among immigrant parents caring for a child with complex health needs. *J Clin Nurs*, 25(3-4), 362-371. doi:10.1111/jocn.13056
- Hendson, L., Reis, M. D., & Nicholas, D. B. (2015). Health care providers' perspectives of providing culturally competent care in the NICU. *J Obstet Gynecol Neonatal Nurs*, 44(1), 17-27. doi:10.1111/1552-6909.12524
- Hennegan, J., Redshaw, M., & Kruske, S. (2015). Another country, another language and a new baby: A quantitative study of the postnatal experiences of migrant women in Australia. *Women Birth*, 28(4), e124-133. doi:10.1016/j.wombi.2015.07.001
- Jacoby, S. D., Lucarelli, M., Musse, F., Krishnamurthy, A., & Salyers, V. (2015). A Mixed-Methods Study of Immigrant Somali Women's Health Literacy and Perinatal Experiences in Maine. *J Midwifery Womens Health*, 60(5), 593-603. doi:10.1111/jmwh.12332
- Krupic, F., Hellstrom, M., Biscevic, M., Sadic, S., & Fatahi, N. (2016). Difficulties in using interpreters in clinical encounters as experienced by immigrants living in Sweden. *J Clin Nurs*, 25(11-12), 1721-1728. doi:10.1111/jocn.13226
- Shafiei, T., Small, R., & McLachlan, H. (2015). Immigrant Afghan women's emotional well-being after birth and use of health services in Melbourne, Australia. *Midwifery*, 31(7), 671-677. doi:10.1016/j.midw.2015.03.011

Contact

dheechae@gmail.com

O 01 - Cultural Awareness in Public Health

Achieving Clinical Learning Outcomes in a Community/Public Health Nursing Course Through an International Immersion Experience

Brandy E. Strahan, PhD, RN, USA
Faith Garrett, EdD, MSN, RN, CNE, USA

Abstract

International clinical immersion experiences are valuable in that students are exposed to diverse cultures and ways of living, but these experiences can also provide an unconventional setting for clinical learning and the opportunity for culturally congruent care. Research has shown international immersion experiences to be beneficial in providing students comparison of U.S. health care systems to international systems, collaborate and form symbiotic partnerships with other institutions and providers, and share knowledge related to specific healthcare disparities. These experiences also enhance professional and personal development, enrich the understanding of healthcare concepts, and validate global citizenship. Clearly, international immersion experiences offer valid high impact learning opportunities for students and may prove to be a solution to limited clinical sites with increased competition for available placement. Thus, an international immersion experience in baccalaureate nursing may indeed provide a resolution for such courses as Community and Public Health Nursing. The purpose of this project was to determine if clinical course learning outcomes could be achieved in an international immersion experience.

Partnering with the Social Work Department, the School of Nursing planned a six-day clinical immersion experience for undergraduate nursing students in Guatemala. Twenty-eight pre-licensure nursing students enrolled in Community and Public Health Nursing completed a 13-week theoretical course prior to the international immersion experience. The students received an orientation to the country including its historical and political perspectives, social classes, geography, cultural practices, and healthcare education and delivery systems. The University Study Abroad Office also provided a general informational session regarding international travel as an undergraduate student. Upon completion of the theoretical course, students participated in the clinical immersion experience and provided care in remote and rural villages of Guatemala in the Department of Zacapa.

Clinical learning outcomes achieved in the international immersion experience were: (1) understanding and application of an ecological perspective to practice, (2) incorporation of evidence-based practice to aid in health promotion, (3) use of social and environmental factors of health to enable student to work effectively with diverse populations, (4) integration of vital statistics and population data in planning health services in the community setting, and (5) identification of team strategies, both interdisciplinary and transdisciplinary, that would improve community health.

The international immersion experience provided students a unique clinical learning environment that promoted successful achievement of student learning outcomes. Student journaling revealed increased cultural awareness, resourcefulness, positivity with the experience, and gratitude. Challenges encountered during the immersion experience included communication barriers, lack of resources and equitable distribution, and various ethical dilemmas. Future recommendations for the international immersion experience include collaboration with advanced practice graduate students, formal division of clinical groups, and improved translation services. This project demonstrates that clinical learning outcomes can be achieved in alternative learning environments such as international immersion experiences.

References

Asenso, B. A., Reimer-Kirkham, S., & Astle, B. (2013). In real time: exploring nursing students' learning during an international experience. *International Journal of Nursing Education*

Curtin, A. J., Martins, D. C., & Schwartz-Barcott, D. (2015). A Mixed Methods Evaluation of an International Service Learning Program in the Dominican Republic. *Public Health Nursing*, 32(1), 58-67. doi:10.1111/phn.12117.

Curtin, A. J., Martins, D. C., Schwartz-Barcott, D., DiMaria, L., & Ogando, B. S. (2013). Development and Evaluation of an International Service Learning Program for Nursing Students. *Public Health Nursing, 30*(6), 548-556. doi:10.1111/phn.12040. *Scholarship, 10*(1), 227-236. doi:10.1515/ijnes-2012-0045.

Diesel, H. J., Ercole, P. M., & Taliaferro, D. L. (2013). Changing knowledge, attitudes, and beliefs via an immersion experience. *International Journal For Human Caring, 17*(1), 71-78. Retrieved from <http://www.humancaring.org/>

Green, S. S., Comer, L., Elliott, L., & Neubrandner, J. (2011). Exploring the value of an international service-learning experience in Honduras. *Nursing Education Perspectives, 32*(5), 302-307. doi:10.5480/1536-5026-32.5.302

Harrowing, J., Gregory, D., O'Sullivan, P., Lee, B., & Doolittle, L. (2012). A critical analysis of undergraduate students' cultural immersion experiences. *International Nursing Review, 59*(4), 494-501. doi:10.1111/j.1466-7657.2012.01012.x.

Long, T. (2014). Influence of International Service-Learning on Nursing Student Self-Efficacy Toward Cultural Competence. *Journal Of Nursing Education, 53*(8), 474-478. doi:10.3928/01484834-20140725-02

Maltby, H., & Abrams, S. (2009). Seeing with new eyes: the meaning of an immersion experience in Bangladesh for undergraduate senior nursing students. *International Journal Of Nursing Education Scholarship, 6*(1), 1-15. doi:10.2202/1548-923X.1858

Schmidt, N. A., & Brown, J. M. (2016, March/April). Service learning in undergraduate nursing education: strategies to facilitate meaningful reflection. *Journal of Professional Nursing, 32*(2), 100-106. <http://dx.doi.org/doi:10.1016/j.profnurs.2015.06.006>

Tuckett, A., & Crompton, P. (2014). Qualitative understanding of an international learning experience: what Australian undergraduate nurses and midwives said about a Cambodia placement. *International Journal of Nursing Practice, 20*, 135-141. <http://dx.doi.org/10.1111/ijn.12142>

Contact

bstrahan@uwf.edu

O 02 - Evidence-Based Initiatives on Sleep

Brief Behavioral Therapy for Insomnia in Lung Cancer Survivors: A RCT

Grace E. Dean, PhD, RN, USA

Suzanne S. Dickerson, DNS, RN, USA

Abstract

Purpose: Insomnia occurs in approximately 50 to 80% of lung cancer survivors and is associated with fatigue and daytime sleepiness, anxiety and depression, physical and cognitive functional impairment, all of which diminish quality of life and may even influence survival. Recent research has demonstrated that early integration of symptom management into treatment plans leads to meaningful improvements in quality of life, mood and survival in patients newly diagnosed with lung cancer. However, few studies have focused on insomnia.

Although cognitive behavioral therapy for insomnia (CBT-I) is a well-established and effective treatment, there remains a pressing need to study CBT-I in lung cancer survivors because they are different from other cancer patients. Smoking history, pre-existing chronic obstructive pulmonary disease, and the effects of lung cancer treatment, in particular, partial lung resection and postoperative radiotherapy can result in impaired pulmonary function resulting in hyperarousal from pain, cough and dyspnea leading to a worsening of insomnia. In addition, the appropriate dose and frequency of CBT-I in comorbid insomnia has not been determined. CBT-I consists of sleep restriction, stimulus control, relaxation, sleep hygiene education and cognitive therapy that focuses on dysfunctional sleep-related thoughts and unhelpful sleep behaviors that may exacerbate insomnia. CBT-I is the standard treatment for insomnia; however the length of treatment and the insufficient number of psychologists trained to deliver CBT-I make this unrealistic. Nurses are uniquely positioned to deliver a modified version of CBT-I, i.e., Brief Behavioral Therapy-Insomnia (BBT-I) involving sleep restriction, stimulus control, sleep hygiene education and brief telephone therapy. This study determined the efficacy of BBT-I compared to an attention control condition (healthy eating education) on the symptom of insomnia in lung cancer survivors.

Methods: Lung cancer survivors were randomized to either the experimental (BBT-I) or an attention control (healthy eating) condition. The study inclusion criteria were Insomnia Severity Index >7, pathologically confirmed stage I/II non-small cell lung cancer > 6 weeks from surgical tumor removal, able to complete data collection instruments and >21 years of age. Exclusion criteria included other untreated pre-existing sleep disorders or unstable medical or psychiatric illnesses. Participants completed a demographic and lung cancer treatment survey. Objective measures included screening for sleep apnea using the overnight ApneaLink device that utilizes oximetry, nasal airflow and an abdominal respiratory belt. Continuous non-dominant wrist movement was also recorded with actigraphy for 14-days before and after the interventions. Subjective measures before and after the interventions included Insomnia Severity Index (ISI), Pittsburgh Sleep Quality Index, Dysfunctional Beliefs & Attitudes About Sleep, Epworth Sleepiness Scale, Profile of Moods Fatigue Scale, Hospital Anxiety and Depression Scale, Functional Assessment of Cancer Therapy-Lung and 14-day sleep diaries. The primary outcome sleep measure was ISI.

Results: Among 44 participants who consented to participate in this study, 4 were referred for sleep apnea treatment, 40 completed baseline assessments, 2 withdrew, and 28 participants completed follow-up assessments. Demographic features at baseline included 66 years of age (+ 7.6; range 53-82), 40% (n=16) male, 87.5% (n=35) Caucasian, 50% (n=20) married, BMI 27.7 (+ 5.8), and 10% (n=4) never smokers. Disease and treatment characteristics included 80% (n=32) adenocarcinoma, 60% (n=24) stage 1A, and 90% (n=36) lobectomy. Forty participants were randomized to either the experimental intervention or the attention control, 28 completed follow up assessments. The primary outcome variable was ISI. At baseline there was no significant difference between the groups (p=.12). At follow up assessment, the mean ISI for the experimental intervention was 6.40 + 4.98, while the attention control mean was 14.10 + 4.48 (p=.001) with an effect size of 1.61. Additional new findings revealed that more than a third of the sample required referral to a pulmonologist for further evaluation: 4/44 (9%) screened

positive for sleep apnea requiring referral for definitive diagnosis of sleep apnea and 12/44 (27%) had low nighttime oxygenation that required referral for supplemental oxygen.

Conclusion: This study demonstrated efficacy of an effective, well-known intervention in the lung cancer survivorship population for the first time and will inform a larger study to evaluate implementation strategies that will promote the dissemination and sustainability of this intervention. The ultimate goal is to offer practical, evidence-based implementable interventions that improve the quality of life for cancer survivors with insomnia.

References

Buysse, D.J., Germain, A., Moul, D. E., Franzen, P. L., Brar, L.K., Fletcher, M.E., ...Monk, T.H. (2011). Efficacy of brief behavioral treatment

for chronic insomnia in older adults. *Archives of Internal Medicine*, 171(10):887-895.

Okajima, I., Nakajima, S., Ochi, M., & Inoue, Y. (2016). Association among changes in sleep-related beliefs, sleep reactivity, and improvement of insomnia following cognitive behavioral therapy. *Sleep Medicine*, Nov. 3. Epub ahead of print)

Contact

gdean@buffalo.edu

O 02 - Evidence-Based Initiatives on Sleep

Emerging Nursing Roles in Collaborative Management of Sleep-Disordered Breathing and Obstructive Sleep Apnea (OSA)

Kimberly Harper, MS, RN, USA

Edel Owens, MMedSc, BNS, RN, Ireland

Abstract

Background: Current concepts in the rapidly expanding field of sleep medicine, specifically Obstructive Sleep Apnoea (OSA) management, provide a significant challenge to already overburdened healthcare demands internationally. Sleep related medical disorders are highly prevalent reportedly affecting at least 4% of the adult population alone. An overview of the physiology and significance of sleep disordered breathing speaks to the current modern understanding of this chronic disease process. The data regarding the incidence and prevalence of OSA highlights the growing significance of the condition and the potential for downstream organ damage effects if left undiagnosed or untreated. Sleep apnoea is known to be associated with significant morbidity and mortality and has a demonstrated association with heightened risk of cardiovascular and cerebrovascular events. From a public policy perspective the documented increased risks of sufferers being involved in road traffic accidents and workplace accidents when the condition is not recognised, or left untreated, is a growing concern.

Known risk factors have contributed to the development of several screening protocols that can help identify potential patient populations in a relatively cost efficient manner. Once preliminary screening is complete, polysomnography (PSG) sleep laboratory based studies, can be carried out where merited. This is especially true for suspected severe presentations of this condition. PSG remains the gold standard for definitive diagnosis and categorisation of sleep disordered breathing conditions. More recently due to the significant logistical and economic constraints of sleep laboratory facility availability, physician overseen and reported home sleep testing (HST) has been introduced. These more limited studies provide less comprehensive data but through the development of newer technologies are now becoming more commonplace.

Methodology: Once physician lead medical diagnosis of OSA, and its relative severity, has been made, various therapeutic approaches can be prescribed. These can include lifestyle and behavioural changes, frequently with associated weight management, alongside standard mainstream therapeutic interventions. Currently continuous positive airway pressure (CPAP) and variations such as nasal CPAP, are the gold standard for management of diagnosed OSA especially in more severe spectrum presentations. Due however to documented difficulty with CPAP compliance on an ongoing basis for some patients, alternative oral appliance therapy (OAT) can also be requested by a treating physician and onward referral to a dental specialist made. OAT consists of specific custom fabricated dental appliances designed to dilate the upper airway while sleeping that can provide a viable, validated, therapeutic approach. While mean disease alleviation (MDA) levels for OAT compared to CPAP are reported as approximately 56-64%. In many instances these devices are less obtrusive and better tolerated by patients and subsequently used more consistently nightly by patients on an ongoing long-term basis.

Evolving nursing practice in this area currently focuses on the collaborative management of various manifestations of sleep disordered breathing in partnership with physicians, surgeons, specialist dentists and other allied healthcare professionals. Definitions of professional (nursing) roles and competencies in this field are however required. Quality care requires safe, timely, effective and efficient delivery of diagnostic and interventional treatment modalities. Organisational considerations include establishment of inclusive healthcare professional network with appropriate facilities models. This allows the establishment and subsequent codifying of the most up to date sleep medicine protocols. These protocols can then be deployed for the benefit of the greatest number of patients through the designing of an effective service delivery platform.

Results: The expanding role of the specialist/advanced nurse practitioner is a key central feature of this evolving service delivery architecture and can help maintain the focus on a more patient-centred

approach. This is achieved by providing continuity and oversight of screening modalities, diagnostic and monitoring prescribed treatment intervention outcomes. Various existing and emerging diagnostic and treatment interventions, and, new digital technologies will of course influence and hopefully streamline key service delivery options providing appropriate metrics for continuous outcome data evaluation.

In the field of sleep medicine therapeutic interventions and outcomes require demonstrated adherence to prescribed therapies. Due to the progressive nature of OSA, protocols detailing ongoing monitoring of adherence and efficacy are essential aspects of the longer-term successful management of this condition. Data compilation here must also be carried out in a cost-effective, efficient, equitable and timely manner. OSA is a chronic illness and therapies must also adapt to changing personal circumstances, in for example the natural ageing process, in delivering predictable outcomes for our patients on an ongoing basis.

Conclusion: Specialist nurse practitioners with specific knowledge based skill sets and experience, when provided with the necessary technological and organisational resources are ideally positioned to collaborate and will have a central role in the delivery of the highest levels of quality care to this target patient OSA cohort, on an ongoing basis.

References

1. Cumann Codhladh na h Eireann: Guidelines for the Assessment and Management of Patients with Sleep Disorders. Version 2 2015. www.irishsleepsociety.org/Irish Sleep Society.
2. McNicholas W: Sleep apnea a disease calling for attention *J Thorac Dis*. 2014 Feb; 6(2): 170–173.
3. Aurora RN, Collop NA, Jacobowitz O, Thomas SM, Quan SF, Aronsky AJ. Quality measures for the care of adult patients with obstructive sleep apnea. *J Clin Sleep Med* 2015;11(3):357–383.
4. Vanderveken OM, Dieltjens M, Wouters K, De Backer WA, Van de Heyning PH, Braem MJ. Objective measurement of compliance during oral appliance therapy for sleep-disordered breathing. *Thorax* 2013; 68:91-6.

Contact

kharper@ic4n.org

O 03 - Improving Patient Outcomes Through Partnerships

Enhancing a Community's Health Through an Innovative Partnership With a Public Utility Company

Georgia Karine Crow, PhD, RN, FAAN, USA
Adelita Cantu, PhD, RN, USA

Abstract

Baccalaureate and RN to MSN Population/Public Health Nursing students partnered with a public utility company to engage in a creative method to enhance the community's health. CPS Energy is a non-profit electricity provider, the nation's largest, that is owned and operated by the municipality it serves. In the summer of 2015, UT Health San Antonio School of Nursing and CPS Energy engaged in a partnership to promote more environmentally healthy homes. CPS' Casa Verde Weatherization Program is an energy efficient program designed to help families in need to reduce their monthly utility bills, to provide protection for the residents from San Antonio's weather variances, and to act as a deterrent related to the air pollution caused by pollen allergens.

San Antonio is ranked 24th as one of the most challenging cities to live in for people with allergies. San Antonio's summer temperatures average 95 ° F (35 ° C) with the warmest months being July and August. However, it is not unusual during these months for the days to range between 100 ° F (37.778 ° C) to 105 ° F (40.55 ° C) with the highest recorded to be 111 ° F (43.89 ° C). Winter months' temperatures range between 17°- 36 ° F (5 ° – 24 ° C) with the coldest days being in January and February (National Climatic Data Center, 2013, San Antonio Temperatures, 2013). With the combined issues of high temperatures and air pollution, San Antonio's residents are subjected to environmental health risk. In 2014, The United Nations Environmental Programme identified the worst environmental health risk as air pollution. These combined health risk if not mitigated result in death, stroke, chronic conditions and allergic responses.

Since public health core functions Essential VI: Assurance ensures support for health and safety and Essential VII: Health Promotion and Risk reduction actions are to modify conditions that increases wellbeing and decrease risk of adverse health outcomes, the Population/Public Health course implemented this partnership through the clinical course. The setting for implementation was determined by identifying homes in vulnerable census tracts within San Antonio. As part of their assignment, students assessed their identified census tract using community assessment guidelines. During their community windshield survey particular attention was placed on the observed type of housing. Homes built in 1970 and earlier that contained window air condition units or no identifiable means of cooling or heating the home were identified, visually assessed, and address determined.

Once potential homes that may meet criteria for the CPS Energy's program, Casa Verde, were identified, efforts to inform the residents about the program began. These efforts included providing the identified addresses to CPS. CPS would send a post card to the resident providing information about available programs for their homes; students would walk door – to – door to the identified homes and place plastic bag door hangers, which had more detailed information and how to access available programs, on each home (over 1400 homes to date have been identified); and students would identify through the community assessment (if they were not assigned to a community agency) an agency that would be willing to become an ongoing partner with CPS energy. This agency would host community meetings for the residents to meet the CPS representatives who would provide more information about the Casa Verde program, demonstrate how energy cost would be lowered and health and safety would be increased by participating in the program, and assist the homeowners in signing up for a one of the available programs. These community meetings would include as an incentive a free health fair or a presentation by someone who has had their house weatherized and would describe the benefits. Students in collaboration with the agencies developed process/formative program evaluation outcomes to determine success in their efforts.

This project provided CPS Energy a way to identify residential homes and contact home owners that could benefit from the Casa Verde Weatherization Program as well as provided a community venue for

presenting available programs to them. Participating in this partnership allowed students to demonstrate through formative and summative evaluation their developing community assessment skills and work with agencies to promote sustainable primary prevention activities that would mitigate both weather and air polluting sequelae. The project has been instrumental in student understanding about the social determinants for health and the connection between housing and health. This understanding is critical to our future healthcare workforce to have a deeper and richer understanding of the context of where patients and community residents reside and how that impacts health outcomes and the community's health.

References

- Anderson, E. T. & McFarlane, J. (2015). Evaluating a community health program. In E. T. Anderson, & J. McFarlane (Eds). *Community as partner: Theory and practice in nursing* (6th ed.). (pp. 261-277). Philadelphia, PA: Lippincott Williams & Wilkins.
- Butterfield, P. G., Hill, W., Postma, J., Butterfield, P. W., & Odom-Maryon, T. (2011, Supplement 1). Effectiveness of a household environmental health intervention delivered by rural public health nurses. *American Journal of Public Health, 101*(Suppl 1) S262-S270. doi: 10.2105/AJPH.2011.300164
- Callen, B., Smith, C. M., Joyce, B. J., Lutz, J., Brown-Schott, N., & Block, D. (2013) Teaching/Learning strategies for the essentials of baccalaureate nursing education for entry-level community/public health nursing. *Public Health Nursing, 30*(6) 537–547. doi: 10.1111/phn.12033
- EDITORIAL. (2015) The preparation of community/public health nurses: Amplifying the impact. *Public Health Nursing, 32*(6), pp. 595–597. doi: 10.1111/phn.12236
- JACKSON ALLEN, P. (Jan. 2015). Primary care approaches. Climate change: It's our problem. *Pediatric Nursing, 41*(1), 42-46. ISSN: 0097-9805.
- National Center for Healthy Housing. (2016). *Healthy Housing Standards*. Retrieved October 16, 2016, from http://www.nchh.org/Portals/0/Contents/NHHS_Full_Doc.pdf
- National Climatic Data Center. (2013). NOAA's 1981-2010 climate normals. *NOAA Satellite and Information Service*. U.S. Department of Commerce <https://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html>
- National Institute on Aging. (2016). Hyperthermia: Too Hot for your Health. Retrieved October 16, 2016, from <https://www.nia.nih.gov/health/publication/hyperthermia>
- San Antonio Business Journal Industry News Health Care (2013. April 3, 4:33pm CDT) San Antonio listed among the worst U.S. cities for allergy sufferers. Retrieved December, 2016, from <http://www.bizjournals.com/sanantonio/blog/2013/04/san-antonio-listed-among-the-worst.html>
- San Antonio Temperatures: Averages by month.(2013). Current results weather and science facts. Retrieved December, 2016, from <https://www.currentresults.com/Weather/Texas/Places/san-antonio-temperatures-by-month-average.php>
- United Nations Environmental Programme. (2014). Air pollution: World's worst environmental health risks. *UNEP Year Book 2014, Emerging Issues in Our Global Environment*. Nairobi, Kenya: UNEP Publishing. Retrieved from <http://www.unep.org/year-book/2014/PDF/chapt7.pdf>

Contact

crowk3@uthscsa.edu

O 03 - Improving Patient Outcomes Through Partnerships

The Role of an Academic Practice Partnership in Enriching Student Learning and Improving Patient Outcomes

Anastasia Y. Rose, MEd, MSN/MHA, RN, CCRN-K, USA

Sherrill L. Hooke, MEd, RN, CGRN, CCCTM, USA

Ashley D. Roach, MS, RN, CNL, USA

Abstract

Purpose: The United States Department of Veterans Affairs (DVA) has long been a champion in developing academic practice partnerships and there is growing evidence that supports the benefits of these collaborations (Beal, 2012; Bvumbwe, 2016). The Veterans Health Administration (VA) Nursing Academic Partnerships (VANAP) are education and practice collaborations between VA facilities and schools of nursing designed to ensure quality veteran care now and in the future. The purpose of this presentation is to describe the evolution, development and benefits of a local VANAP partnership in facilitating clinical practice improvement initiatives and integrating veteran-centric content into a baccalaureate nursing curriculum.

Background: There are approximately 21.4 million living United States veterans, representing seven percent of the total population (U.S. Census Bureau, 2016). The VA serves a unique population of patients linked by service to the country in times of peace, war, and social unrest. In addition to the common medical concerns found in the general population, veterans experience unique conditions that are associated with service in the military, or experience health concerns in greater percentages than seen in the private sector. Some of these conditions include military sexual trauma (MST), traumatic brain injury (TBI), post-traumatic stress disorder (PTSD), and complications from exposure to nuclear, biological, and chemical warfare (Johnson, Boudiab, Freundl, Anthony, Gmerek, & Carter, 2013).

Oregon VANAP is an innovative education and practice collaboration between VA facilities and the Oregon Health & Science University (OHSU) School of Nursing (SON) (Department of Veterans Affairs, Veterans Health Administration, 2013). Through the partnership between academic and clinical areas, VANAP seeks to address the complex and unique care needs of the veteran population by promoting safe and effective care within and across health care settings (Department of Veterans Affairs, Veterans Health Administration, 2013). Faculty members in this partnership are drawn from both school of nursing and VA staff who join together as a team to educate nurses and improve clinical outcomes for veterans.

Process: In order to integrate veteran content into the existing nursing curriculum, VANAP faculty members identified and collaborated with key stakeholders in the undergraduate nursing program. Faculty conducted a literature review to identify key veteran care concepts based on prevalence and importance. They then examined the curriculum for areas where veteran content was already being taught and identified gaps where additional material could be added. To engage students using multiple learning modalities they utilized veteran-centric case studies, simulations and concept-based learning activities in addition to traditional methods of assigned readings and lecture. This strategy of content integration exposed students to veteran-specific information while also teaching concepts that could be broadly applied to a variety of populations.

In addition to enhancing nursing school curriculum, VANAP faculty worked with VA staff on three clinical practice improvement projects: fall reduction in the inpatient setting, women veterans' health, and amputation prevention. Faculty collaborated with direct care nursing staff, nurse leaders, and other interdisciplinary team members to develop and implement plans to address these issues. The faculty utilized a variety of evidence-based interventions to effect change including conducting gap analyses and needs assessments, developing patient and staff education, and conducting focus groups.

Outcomes: VANAP faculty members were successfully able to integrate veteran-centric content into all courses of the undergraduate curriculum. A content integration map was developed outlining specific

content and where it was being taught. To share resources with other faculty teaching similar courses, this map was disseminated to other nursing schools in the region via a nursing school consortium.

Some outcomes of the quality improvement initiatives were a decrease in the number of falls and 30-day readmissions related to amputation risk. A preliminary comparison of average fall rates were lowered by 57% per 1,000 patient days on the medical-surgical floors and the percentage of falls with injuries decreased by 62%. Twenty-two fewer readmissions related to vascular complications were realized on an inpatient unit during a six-month review after VANAP faculty interventions as compared to the preceding six months before VANAP involvement. This represented a 47% decrease in vascular related readmissions.

Conclusions: Veterans are a population with unique health care needs. Integrating veteran-centric content into the nursing curriculum and educating students on evidence-based practice promotes the best possible care for veterans and their families. The benefit of such work will result in more culturally competent nurses working in and outside of VA facilities. Faculty were able to play key roles in designing and implementing quality, evidence-based improvement initiatives at the practice institution while maintaining teaching positions at the academic institution. Involving stakeholders early in the process, maintaining frequent communication, integrating collective feedback and establishing meaningful evaluation processes allowed creation of a program that met student, faculty and veteran needs. Future evaluation will include assessing the sustainability of this project as well as its impact on student knowledge and application of veteran content. This exemplar has the potential to serve as a model for others seeking to develop relationships between academic and practice institutions.

References

- Beal, J.A. (2012). Academic-service partnerships in nursing: An integrative review. *Nursing Research and Practice*, 2012, 1-9. doi:10.1155/2012/501564
- Bvumbwe, T. (2016). Enhancing nursing education via academic-clinical partnership: An integrative review. *International Journal of Nursing Science*, 3(3), 314-322.
- Johnson, B.S., Boudiab, L.D., Freundl, M., Anthony, M., Gmerek, G.B, & Carter, J. (2013). Enhancing veteran-centered care: A guide for nurses in non-VA Settings. *American Journal of Nursing*, 113(7), 23-39.
- U.S. Census Bureau. (2016). *Veterans Statistics - Veterans Day 2015*. Retrieved from <https://www.census.gov/library/visualizations/2015/comm/veterans-statistics.html>
- Department of Veterans Affairs, Veterans Health Administration. (2013). *VA Nursing Academic Partnerships Request for Proposals*. Retrieved from http://www.va.gov/oaa/docs/VANAP_RFP_2013_2014.pdf

Contact

rosean@ohsu.edu

O 04 - Mentoring in Academia

Nursing Faculty Members; Perceptions of Characteristics of Mentors for Research in Nursing

Susan M. Baxley, PhD, RN, USA

Kristina S. Ibitayo, PhD, RN, USA

Mary Lou Bond, PhD, RN, CNE, ANEF, FAAN, USA

Abstract

Purpose: Based on the assumption that researchers who conduct nursing studies either have been mentored by other scholars or perceive the need for guidance as they begin their research, this study described the actual or perceived characteristics of mentors who guided them. The conceptual framework for this study is based on the *Global Mentoring Process Model* (Baxley & Ibitayo, 2012). The purpose of this study is to explore the perceptions of nursing faculty members regarding the characteristics of their mentors, if existent, as they were/are conducting research in nursing and the desired characteristics of a mentor important to building their program of nursing research. The characteristics of an organization and the supportive organizational characteristics in which to conduct the research were also explored.

Methods: Data using the 16-item *Education Research Mentor* instrument were collected from faculty members who have: published nursing education research in five peer-reviewed journals between years of 2005-2015, belong to a nursing research society, or a nursing education organization. The instrument, *Education Research Mentor* (Baxley, 2015), was developed from the literature and conceptual framework (Grossman, 2007; Baxley & Ibitayo, et al., 2014, Olson, 2014; Zachary & Fischler, 2015; Zachary, 2005, 2007). In this survey, each item is measured using a 5-point Likert type scale (unimportant, somewhat unimportant, somewhat important, important, extremely important). For instrument validity, the question on the Characteristics of the Environment showed a Cronbach's Alpha of 0.862, and the Cronbach's Alpha for the question on the Characteristics of Mentor was 0.988. The level of significance was set at 0.05 for this study.

Results: Descriptive and parametric statistics and a summary of open-ended responses were collected. The study participants were 29 to 75 years old, and the mean age was 35 years. The majority were who completed the survey were female (145) and 7 were male ($N=152$). The ethnicity of most participants was White, non-Hispanic (89%). Seventy four participants were tenured faculty. In addition, out of all the participants 82 percent had a mentor and 66 percent had a research mentor.

For those who had a mentor, the most desired mentor characteristics were: knowledge (88%), available (79%), competent (78%), supportive (75%). The least desired mentor characteristics were socializing (23%) and inspirational (39%). The same mentor characteristics were also desired by faculty members who did not have a mentor.

If participants answered "no" to having a mentor, a Spearman Rho was run for age to identify an association between variables, showing a positive correlation at ($p < 0.05$) for Competent (0.28) Sharing (.046), and Trustworthy (.027).

If they answered "no" on having a mentor, a Spearman Rho was also run for gender, showing a showing a positive correlation at ($p < 0.05$) for Available (.01), Competent (.01), Knowledgeable (.01), Resourceful (.027), Committed (.03), Collaborative (.023), Trustworthy (.02).

A one way Analysis of Variance (ANOVA) was computed to examine differences between the mentor characteristics and Ethnicity and Tenure status. Results showed a statistical significance at ($p < 0.05$) for Trustworthy, Knowledge, Competence, and Available.

On a 5-point Likert type scale on the characteristics of an environment promoting nursing research, respondents rated these characteristics as "Very Important" or "Extremely Important": Supportive of Mentoring (98%), Integrate Mentoring into the Organization (95%), Fosters Professional Development

(97%), Empowered (98%), and Administration Provides Resources (94%). The majority of responses were in the "Very Important" or "Extremely Important" categories. There were only a few responses in the "Unimportant" or "Somewhat Unimportant" categories: Fosters Personal Development (8%), Non-Competitive (7%), and Health Balance in Work and Personal Life (7%).

Exemplars of Open-Ended Questions: Participants responded to the open-ended questions providing additional insight to the question related to other characteristics of a research mentor. The respondents indicated personal ideas of what they consider important in a mentor.

"Willing to be kind, fully critical, develop my thinking and analysis"

"A research mentor needs to be a visionary as well as knowledge and experience."

"Doesn't answer my questions but tries to direct me to sources so I can answer my own question."

"The most important characteristic is that the mentor genuinely cares about the mentee and invests time and energy into the professional success of the mentee."

"The mentor offers the opportunity to work on their own research and to publish"

"Positive, knowledgeable, encouraging, helpful, expert in research."

"Patience and the ability to listen to my concerns about the process."

"She created an environment in which success breed(s) success."

While most were positive, one offered that mentor relationships are not always helpful.

"Mentor very busy, not enough time, fragmented approach."

When asked what they considered an ideal environment for mentoring, they described it as being supportive and collaborative while looking at the workload of those mentoring is considered important.

"Mentoring occurs best in an environment of collaboration and shared vision where supporting each other's success is more important than any one individual accomplishment."

"Supportive, non-confrontational"

"An environment that supports the activity is one that is transparent, inclusive, and is focused on the success of its members."

"Valued by all stakeholders, this may include that is part of workload"

"One in which there is enough time"

"Protected time for mentoring built into the culture and teaching schedule instead of time squeezed in between all other responsibilities."

They also suggested that mentors and mentees should be provided preparation prior to entering into a mentoring relationship; "Preparation of both mentors and mentees regarding what the relationship can and should be."

When the participants were asked to share other suggestions about how mentoring is related to strengthening nursing science they expressed that nursing needs to provide more assistance for mentoring to strengthen the relationships.

“Mentoring is so important; I wish nursing did a better job promoting the mentor- mentee relationship”
“Need more of it”

“Mentoring is the crux of developing strong partnership, network between faculty, and preventing burnout/turnover. It is a fundamental support system.”

“I do not think that many institutions have an ideal environment.”

“Having a mentor will mean the difference between advancing nursing science or watching it stagnate.”

“The commitment to mentor is often less of an issue than the time allotted to the process.”

“Mentoring means more than just a label. It should be a mutually agreed upon relationship with goals, objectives, and some accountability measures.”

“There are numerous levels and areas where mentoring leverages our assets. As a senior faculty, I always tell new faculty that they should have many mentors in teaching, research and service, and ideally both internal and external to their school of nursing. I see mentoring as the protective factor for incivility and if we want to attract and retain quality nurse faculty, we need to increase our mentoring efforts.”

One responded that mentoring is not the only thing that is important to advance nursing science; “Mentoring is a reciprocal relationship...protégés also require tutoring...avoid considering it the panacea for all that may challenge developing nurse scientists.” Participants had definite ideas on what characteristics a mentor should possess. Of the mentor characteristics that were looked at in this study, the majority of participants thought that most characteristics were “important” or “somewhat important”.

Conclusion: While the mean age of participants was 35 in our study, the nurse faculty range in the NLN study was from 46 to 60. According to NLN, out of 13,307 respondents. 22 percent of full-time nurse faculty are tenured, and an additional 16 percent are on the tenure-track (NLN Faculty Census Survey, 2015). The rank of full-time nurse educators in 2015 was 10,730 White, non-Hispanics (81%).

These findings lay the foundation for developing tools to systematically identify and recruit those individuals who possess the skills desired to conduct research so that such skills can be recognized, honed and used to further advance global health and nursing. Future studies need to include participants of diverse ethnicities. These findings will provide information to develop an evaluation of the institution's culture for mentoring and ways nursing leadership can provide an environment with a culture for mentoring of their faculty members and support nursing research.

References

- Baxley, S. (2015). *Education Research Mentor* (unpublished instrument)
- Baxley, S. & Ibitayo, K. (2012). *Global Mentoring Process Model*. In S. Baxley, Ibitayo, K., & Bond, M.L. (Eds.), *Mentoring today's nurses: A global perspective for success*. Indianapolis: Sigma Theta Tau, p. 3.
- Baxley, S., Ibitayo, S., & Bond, M.L. (2014). *Mentoring today's nurses: A global perspective for success*. Indianapolis: Sigma Theta Tau.
- Grossman, S.C. (2007). *Mentoring in nursing: A dynamic and collaborative process*. New York, NY: Springer.
- NLN Faculty Census Survey. (2015). Retrieved from: <http://www.nln.org/centers-for-nursing-education/nln-center-for-assessment-and-evaluation/nln-nursing-education-surveys>
- Olson, R. K. (2014). Academic mentoring of faculty. In S. Baxley, Ibitayo, K., & Bond, M.L. (Eds.), *Mentoring today's nurses: A global perspective for success*. Indianapolis: Sigma Theta Tau.
- Zachary, L. J. (2005). *Creating a mentoring culture: The organization's guide*. San Francisco, CA: Jossey-Bass.
- Zachary, L. (2007). *Creating a mentoring culture: The organization's guide*. The Mentor Connector: International Leadership Association. Retrieved from: http://www.centerformentoringexcellence.com/upload/Creating_a_Mentoring_Culture_Featured_Review.pdf.
- Zachary, L. J. & Fischler, L. A. (2014). *Starting strong: A mentoring Fable*. San Francisco, CA: Jossey-Bass

Contact

sbaxley@uta.edu

O 04 - Mentoring in Academia

Advancing the Science of Nursing Education Through Peer Mentoring

Jeanette McNeill, DrPH, CNE, ANEF, USA

Alison Merrill, PhD, RN, CNE, USA

Katrina Einhellig, PhD, MSN, BSN, RN, CNE, USA

Kristin Schams, DNP, CNE, CHSE, USA

Abstract

Background and Significance: The shortage of qualified faculty to teach nursing at the associate, baccalaureate or higher degree level is a challenge to nursing education and practice and has contributed to the nursing shortage in the United States. Increasingly, PhD programs in nursing and most Doctorate of Nursing Practice programs do not explicitly prepare graduates as educators. Students in some programs have electives in nursing education available to them, but often a new doctoral prepared nurse begins a faculty position with little or no teaching experience or educational course work. Similarly, faculty with master's preparation, often teaching in Associate Degree programs, may not have had specific educational preparation for their role. At all educational levels, those new to the faculty role are often expert clinicians, but not experienced educators. Faculty development becomes the task of the school of nursing, and may or may not provide enough preparation or mentoring for the novice to feel confident in the new role. Certification as a nurse educator (CNE) with specific preparation on several areas of competency identified by the National League for Nursing (NLN) can help bridge this gap in preparation to be a nurse educator. Further, the certification as a CNE aligns with the NLN and Johnson and Johnson Faculty Leadership and Mentoring program which seeks to identify goals for nurse mentorships and ways to enhance mentorship programs throughout nursing. The NLN has designated six essential leadership characteristics that guide nursing educators toward paths that increase professionalism and ensure competence: knowledge, risk taking, change agents, visionary, passion, and relationship builder (Young, 2011). The CNE review course encourages nurse educators to increase their knowledge base and further their understanding of teaching pedagogies and best practices in education. Peer mentors also foster other educators to take risks as they prepare and sit for the challenging CNE exam. Within this process, it enhances the passion that educators feel for the profession of teaching, and they finish the course with a renewed sense of purpose and a vision for the future. The CNE course offered in this setting provides a mentorship model that enhances the abilities of the educators involved in this course, as well as fostering relationships within the academic setting that are focused on continued improvement of all educators and a collegiality that maximizes the learning environment.

Purpose: At a Rocky Mountain area university school of nursing, an initiative was undertaken to increase the number of Certified Nurse Educators (CNE). The School of Nursing (SON) recognized the value of the NLN Certified Nurse Educator designation in promoting excellence and recognizing the advanced specialty of the academic nurse educator. Faculty holding the CNE credential serve as role models and mentors to the healthcare and academic communities, as well as to students. This model of excellence is especially relevant to PhD in Nursing Education programs.

Methods: The CNE's in the setting developed the course which included both face to face CNE workshops sessions and a online platform providing supplemental learning materials. The test blueprint for the exam was used to plan course objectives, topics and strategies; the sessions were conceived, developed, and implemented by experienced full-time faculty who already hold CNE certification. Topics included the eight identified educator competencies. Content emphasis was determined by the percentage weighting for each area on the exam: Facilitate learning, facilitate learner development and socialization, use assessment and evaluation strategies, participate in curriculum design and program evaluation, engaging in continuous quality improvement, functioning as a change agent and leader, participating in the academic environment and the nurse educator as a scholar. Strategies were selected to foster discussion and interaction among participants, and provide opportunities for mentoring by the CNE faculty, consistent with evidence based approaches outlined by Billings and Halstead (2015). The CNE preparatory textbook (Caputi, 2015) and other resources were provided by the SON for use of faculty preparing for the exam; examples of case studies and CNE example questions were used to

facilitate application to classroom and clinical learning. Nine full time and two adjunct faculty participated in the first offering of this course as they prepared to take the CNE exam.

Outcomes: Successful completion of the exam was, and continues to be, the intended outcome of this faculty development activity, adding to the ranks of CNEs at the SON. Thus far, there has been a 100% pass rate for those taking the exam. Additionally, the peer review process has been revitalized with several requests for peer review of teaching as a result of attention to evidence based strategies and engagement in continuous quality improvement. Continuation of the initiative and sustainability of the review course have been addressed through updating materials and continued access to the course website for all interested faculty.

References

Billings, D.M. & Halstead, J.A. (2015). *Teaching in nursing: A guide for faculty* (5th ed.). Elsevier.

Caputi, L. (2015). *Certified nurse educator review book: The official NLN guide to the CNE exam*. Baltimore, MD: Wolters-Kluwer Health.

Young, P.K. (2011). Developing a portrait of a nursing education leader. *Nursing Education Perspectives*, 32(2), 136-137.

Contact

jeanette.mcneill@unco.edu

O 06 - Preventing Falls Using Evidence-Based Practice

Evaluation of the Efficacy of Repeat Falls Risk Assessments Using the Morse Falls Scale

Mary Beth Harrington, PhD, RN, ACNS-BC, ANP-BC, CCRN-K, USA

Abstract

Purpose: Patient falls have been identified as a potentially preventable, nurse sensitive outcome. Routine assessment of fall risk is required by the Joint Commission (2015). The rate of falls in the United States is approximately 3.5 falls per 1,000 patient days, with 1 injurious fall per 1,000 patient days. They are the most commonly reported adverse events in hospitals, constituting approximately 40% reports. Patient falls delay recovery, cause psychological harm and can decrease independence and mobility due to either physical harm or fear of falling again. As of October, 2008, Medicare no longer provides reimbursement for care required due to inpatient falls. The first step in fall prevention is identification of individuals at risk. The MSF has been studied extensively and has demonstrated good sensitivity and negative predictive value. The majority of the studies of, or utilizing, the MFS have used a measurement at a single point in time. However, repeated observations are required in most institutions. Most facilities, including the VA Boston HealthCare System require repeated measurements during the patient's hospitalization, ranging between every 48 hours to as often as every shift. However, there is little evidence to support the frequency at which the assessment should be done. The research question for this study is; What is the efficacy of repeated MFS measurements in hospitalized patients?

Methods: Patients who sustained a fall between October 1, 2014 and September 31, 2015 were identified from the institutional incident report database. The electronic health records of 50 of those patients were randomly selected to be reviewed retrospectively. Data collected included patient age, gender, the date and time of all Morse Fall scores, including the total score and the score for each individual item, time and date of any falls, and dates of any transfers between units. Any score which was a change, either increasing or decreasing, was compared to documentation in the progress notes. In the event of a discrepancy, the progress note data was identified as valid and a corrected score was calculated. For example, if the MFS indicated no IV, but the progress note documented an IV dressing or change, the appropriate points were added to the score and error was flagged. All raw data, including both documented and corrected scores, when applicable, were entered into an Excel spreadsheet. All data was rechecked for accuracy, then de-identified. The spread sheet was password protected and stored behind the VA firewall. Scores were dichotomized into those below 45 and those above 45, the high risk cutoff at our institution. Each patient's scores were reviewed for any significant change, defined as a raw score change sufficient to move that patient into the other group.

Results: After correcting for calculation errors, 70% of patients had no change in their MFS, having scored in the high risk group on admission and remaining there throughout their hospital stay. Four scores (8%) changed to high risk due to a fall. Two scores (4%) increased due to a change in mental status. Six patients (12%) had changes in their scores due to changes in the nursing assessment of gait, or the presence of an IV. Generally, these changes resulted in a temporary decrease, briefly bringing them out of the high risk group. For 50 patients, there were 890 MSF assessment, estimated to represent 75 hours of nursing time. There was a discrepancy in 361 (41%) of the assessments. 5.4% of the discrepancies were due to errors in addition. Other errors included omitting history of falls, comorbidities, presence of an IV, ambulatory aids, and mental status issues, such as confusion. Gait assessment fluctuations were commonly due to assigning 0 points for bedrest during the night shift.

Conclusion: There is little change in the corrected MFS score of adult patients during their hospitalization. Frequent repetition of the MSF assessment consumes nursing time, a valuable and limited resource. Performance of the MSF assessment during the night shift is particularly problematic. Our data suggests that assessment on admission, transfer, after a fall or any change in mental status would be a more efficient approach to identifying patients at risk and that, once a patient is identified as at high risk, they should remain there and not require any further MFS assessments.

References

- Baek, S., Piao, J., Jin, Y., & Lee, S. (2014). Validity of the Morse Fall Scale implemented in an electronic medical record system. *Journal of Clinical Nursing, 23*(17/18), 2434-2441.
- Bouldin, E. D., Andresen, E. M., Dunton, N. E., Simon, M., Waters, T. M., Liu, M., ... Shorr, R. I. (2013). Falls among Adult Patients Hospitalized in the United States: Prevalence and Trends. *Journal of Patient Safety, 9*(1), 13–17.
- Chapman, J., Bachand, D., Hyrkas, K. (2011) Testing the sensitivity, specificity and feasibility of four falls risk assessment tools in the clinical setting. *Journal of Nursing Management, 19*: 133-142.
- Garcez Sardo, P. M., Oliveira Simões, C. S., Marques Alvarelhão, J. J., Fernandes Lindo Simões, J. F., & de Oliveira Pinheiro de Melo, E. M. (2016). Fall risk assessment: retrospective analysis of Morse Fall Scale scores in Portuguese hospitalized adult patients. *Applied Nursing Research, 31*34-40. doi:10.1016/j.apnr.2015.11.013
- Guillaume, D., Crawford, S., & Quigley, P. (2016). Characteristics of the middle-age adult inpatient fall. *Applied Nursing Research, 31*65-71. doi:10.1016/j.apnr.2016.01.003
- Healey, F., & Haines, T. P. (2013). A pragmatic study of the predictive values of the Morse falls score. *Age & Ageing, 42*(4), 462-468.
- Nassar, N., Helou, N., & Madi, C. (2014). Predicting falls using two instruments (the Hendrich Fall Risk Model and the Morse Fall Scale) in an acute care setting in Lebanon. *Journal of Clinical Nursing, 23*(11/12), 1620-1629.
- Sardo, P.M., Simoes, C.S., Simoes, J.F., Melo, E.M. (2016) Fall risk assessment: retrospective analysis of Morse Fall Scale scores in Portuguese hospitalized adult patients. *Applied Nursing Research 31*:34-40.
- Sung, Y. H., Cho, M. S., Kwon, I. G., Jung, Y. Y., Song, M. R., Kim, K., & Won, S. (2014). Evaluation of falls by inpatients in an acute care hospital in Korea using the Morse Fall Scale. *International Journal of Nursing Practice, 20*(5), 510-517. doi:10.1111/ijn.12192
- The Joint Commission (2015, September 28) Sentinel event alert #55. Preventing falls and fall-related injuries in health care facilities.

Contact

marybeth.harrington@va.gov

O 06 - Preventing Falls Using Evidence-Based Practice

Prevalence and Trends of Falls on a Surgical Unit

Tru Brynes, MSN, RN, CNL, CMSRN, USA

Abstract

Background: Falls are the most common adverse events in hospitalized patients contributing to pain, suffering, morbidity, and mortality (Aydin, Donaldson, Aronow, Fridman, Brown, 2015). Falls increases healthcare costs, with each fall ranging from \$14,000 to \$ 35,000. The rate of falls in United States (US) hospitals is approximately 3.1 to 11. 5 per 1,000 patient days, varying by unit type. Neurosurgery, neurology, and medical units have the highest fall rates (Bouldin et al., 2014). Many falls risk factors identified include intrinsic, extrinsic, and environmental factors (Urquhart Wilber, 2013). Henceforth, fall prevention strategies should include a multimodal action plan to promote patient safety (Williams, Szekendi, Thomas, 2014). 5 Tower's fall performance ranges from 1.28 to 3.54 per 1,000 patient days from 2014 to 2016. In 2016, the patient fall rate has consistently underperformed compared to the national benchmark.

Purpose: The purpose of this quality improvement project was to examine the trend of patient falls on a post-surgical unit at an 11,000-bed hospital in the US to develop interventions based on the findings to prevent falls. The purpose of this project is follows:

- Assess and analyze the staffing pattern when patients fell
- Determine the times and days patient falls are more likely to occur
- Examine common risk factors related to patient falls

Description of method: Seventy post-fall records were reviewed from 2014-2016 utilizing the electronic medical record (EMR). The post-fall records indicated time, date, unit census, medications, injury, and number of registered nurses (RNs) and certified nursing assistants (CNAs)/ health care tech (HCTs).

Results: The data showed that females were at a slightly higher risk than males for falling (51% compared to 49%). Most falls occurred during dayshift. The times patient falls occurred were 1 AM, 5 AM, 6 AM, 10 AM, 1 PM, 3 PM, 4 PM, and 7 PM. It appeared that the unit would have a fall about every 2-3 hours. The peak times were at 1AM and 1 PM with the highest number of patient falls. Interestingly, most falls occurred when the unit was staffed adequately (1:5 nurse to patient ratio and 1:12 HCT/CNA to patient ratio). The common risk factors for patient falls were age, confusion, impulsiveness, and toileting assistance. The highest risk age group were geriatric patients age 65 years and older with 44%. The remaining risks per age group were 27% for age group range from 50-64 years old, 29% for age group range from 30-49 years old, 4% for age group range from 18-29 years old. The most common reason for patient falls was bathroom help. The data showed 39% of the time patients fell in the bathroom or went to the bathroom alone without assistance. Patients who were confused and impulsive were also most likely to fall. Only nine percent of patients who fell were 24-hours post-anesthesia during this period.

Conclusion / Implications: This project addressed the clinical questions and helped the unit develop strategies for fall preventions. Developing a bed alarm criteria that would fit the unit population could potentially improve the fall rate. Additionally, we have identified and correlated the time of patient falls with nursing tasks. Patient falls occurred early in the morning when staff were passing medication or morning labs were being drawn and patients got up to use the bathroom without calling for assistance. Bathroom usage after meals and during staff lunches have been identified as the reasons why patients fell. Therefore, it is important to communicate with staff about these findings and provide education to help improve patient safety. Hardwiring the purposeful rounding or toileting program to decrease fall rates could improve patient safety. With the addition of cardiac monitors to the unit in 2015, there was an increase in the geriatric population and medical population with multiple comorbidities admitted to the unit. This could have contributed to the increased number of falls. Currently, there are nurses who underwent geriatric advanced training to become geriatric resource nurses (GRNs) to help improve patient outcomes in geriatric population.

References

- Aydin, C., Donaldson, N., Fridman, M., Brown, SD. (2015). Improving Hospital Patient Falls Leveraging staffing characteristics and processes of care. *The Journal of Nursing Administration*. 45 (5): 254-262.
- Bouldin, D.E., Andresen, M. E., Dunton. E. N., Simon, M., Waters, M. T., Liu, M., Daniels, J. M., Mion, C. L., Shorr, R., (2013). Falls among adult patients hospitalized in the United States: Prevalence and Trends
- Williams T., Szekendi, M., Thomas, S. (2014). An analysis of patient falls and fall prevention programs across academic medical centers. *J Nurs Care Qual*.29(1):19-29.
- Urquhart Wilbert, W. (2013). The effectiveness of a fall prevention/management program in reducing patient falls: A retrospective study. *The Journal of Chi Eta Phi Sorority*. 57 (1), 24-27

Contact

tru.byrnes@carolinashealthcare.org

O 07 - Promoting Clinical Outcomes in Veterans Caring for Military Combat Veterans With Post-Traumatic Stress Disorder (PTSD)

Tanya Marie Benjamin-Wilson, DHSc, MPH, MSN, CHES, RN, APHN-BC, USA

Abstract

Post-Traumatic Stress Disorder (PTSD) is a growing problem of concern within the military. Veterans serving in combat are more likely to develop PTSD symptoms resulting from participation in wartime conflicts and exposure to traumatic events. Younger veterans with multiple predisposing factors are at an increased risk. The signs and symptoms of PTSD closely mirror the signs and symptoms of other mental health conditions. This can lead to problems with appropriate diagnosis and treatment. Military combat veterans with untreated or misdiagnosed PTSD symptoms are at risk for interference with social, physical, and professional functioning. Problems related to non-existent or inadequate PTSD treatment include alcohol abuse, domestic violence, and the breakdown of close personal and professional relationships. In worst case scenarios, individuals exhibiting signs of PTSD may become homeless, susceptible to criminal activity, and suicidal. Health providers need to be aware of the most up-to-date information regarding the recognition, treatment, and management of PTSD. Evidence from the literature suggests that technology-based interventions may be a more favorable therapeutic treatment option as opposed to numerous talk sessions with a trained therapist. The information provided will assist health care professionals such as (a) physicians, (b) psychologists, (c) physician assistants, (d) registered nurses, (e) nurse practitioners, and (f) social workers in providing better quality of care for military combat veterans in need of mental health services. This educational presentation can be used as a guide for both military and non-military affiliated multidisciplinary professionals in need of basic knowledge and information regarding PTSD. This research will (a) address the most important concepts related to understanding PTSD, (b) PTSD treatment interventions, (c) factors that may interfere with treating PTSD, and (d) access to care issues for military combat veterans in need of services. Mental health issues have historically been stigmatized within all branches of the military. Increased knowledge relating to PTSD may help to change the military cultural norm that favors the non-reporting of signs and symptoms indicative of a mental health disorder. The long held constraints of a professional military environment and culture should not be preserved in the face of serious risks and consequences to the (a) physical, (b) emotional, and (c) psychosocial well-being of dedicated service members. Combat veterans with signs and symptoms of PTSD or any other mental health disorder should be encouraged to seek treatment as soon as possible to prevent negative progression of the disorder and its associated unfavorable outcomes. It is recommended that military administrative officials, with input from health care providers, seriously (a) review, (b) revise, (c) update, or (d) implement policies and procedures that will introduce positive changes in relation to matters concerning military mental health. These changes should foster an environment and culture conducive to military service members feeling free to seek mental health services without fear of (a) bias, (b) stigma, (c) retaliation, or (d) any other negative repercussions, including immediate dismissal from military service.

References

- Alexander, W. (2012). Pharmacotherapy for post-traumatic stress disorder in combat veterans: focus on antidepressants and atypical atipsychotic agents. *P&T: Journal for Formulary Management*, 37(1), 32-38.
- Garske, G. (2011). Military-related PTSD: a focus on the symptomatology and treatment approaches. *Journal of Rehabilitation*, 77(4), 31-36.
- Meltzer, E., Averbuch, T., Samet, J., Saitz, R., Jabbar, K., Lloyd-Travaglini, C., & Liebschutz, J. (2012). Discrepancy in diagnosis and treatment of post-traumatic stress disorder (PTSD): Treatment for the wrong reason. *Journal of Behavioral Health Services & Research*, 39(2), 190-201. doi:10.1007/s11414-011-9263-x

Contact

tmarie75@hotmail.com

O 07 - Promoting Clinical Outcomes in Veterans

Supporting Veterans With Chronic Pain: Using 5As Framework to Improve Self-Care

Joseph F. Burkard, DNSc, MSNA, BSN, RN, CRNA, USA

Abstract

Introduction: Active-duty military personnel and veterans are disproportionately affected by chronic pain. More than 50% of veterans' report pain in primary care. Human Rights Watch, 2014 states that conventional pain management includes prescription opioids and lack emphasis on self-care management. A multimodal approach is needed to support self-management, improve quality of life, and decrease pain. Glasgow, Emont, & Miller, 2006's the 5A's is an evidence-based approach shown to improve self-care management, consisting of "Ask, Assess, Advise, Assist, Arrange". Development of a patient-centered care plan and goal for follow-up allows for continued monitoring of treatment effectiveness and compliance.

Objectives: To implement a Nurse Practitioner (NP) telephone follow-up guided by the 5A's framework among veterans with chronic pain in a primary care setting. This pilot evidence-based project aimed to improve follow-up of self-care management in order to decrease pain, increase quality of life, and decrease pain medication use.

Methodology: The Iowa Model of evidence-based practice guided this project. Baseline data was retrieved from 26 medical records of veterans with chronic musculoskeletal pain from September 2015 to June 2016. The pilot project was implemented from June 2016 to November 2016 among a total of 14 veterans. A monthly telephone follow-up using the 5A's framework was made by NP, which reinforced self-care, developed patient-centered goals, and established a follow-up plan. Outcome data was collected monthly including pain scores (Numeric Pain Rating Scale), quality of life scores (American Chronic Pain Association Scale), and number of pain medications. After 3 months, average pre/post intervention data was analyzed to evaluate project effectiveness.

Results/Outcomes: Evaluation of pre/post project implementation data among 14 veterans revealed a decrease in average pain scores from baseline, an increase in average quality of life scores, and no significant change in average pain medication use. Average pain scores decreased 1.44 from baseline (95% confidence interval, .605, 2.27) and was statistically significant at $p < .003$. Average quality of life scores increased 2.08 (95% confidence interval, 1.0, 3.15) and was statistically significant at $p < .001$. 13 out of 14 veterans (93%) completed all 3 telephone follow-ups.

Conclusions: This pilot evidence-based project revealed a monthly NP telephone intervention may improve overall quality of care among chronic pain veterans. Results illustrated a decrease in average pain scores, increase in average quality of life scores, and no significant change in average pain medication use compared to baseline. The intervention also improved follow-up compliance. Limitations include length of study and timing of project implementation due to variable schedules of veterans and provider. Future research is warranted and may consider using scheduled telephone follow-up appointments that are incorporated into the schedule in order to improve project plan process.

Implications for Clinical Practice: 5A's is an evidence-based framework that may be adapted to promote self-care of chronic pain and establish goals for follow-up in a primary care setting. The use of telephone intervention may potentially serve as a substitute for routine chronic pain follow-up visits or as a supplement to improve quality of care for veterans. The results aim to provide further insight and new knowledge on ways to continuously improve pain management among the veteran population, allowing them to return to their baseline quality of life as closely as possible.

References

Hooten, W.M, Timming, R., Belgrade, M., Gaul, J., Goertz, M., Haake, B., . . . & Walker, N. (2013). Assessment and management of chronic pain. *Institute for Clinical Systems Improvement*, 6; 1-105.

Human Rights Watch (2014). *No time to waste: Evidence-based treatment for drug dependence at the United States Veterans Administration Department of Veteran Affairs*. Retrieved from <https://www.hrw.org/report/2014/06/30/no-time-waste/evidence-based-treatment-drug-dependence-united-states-veterans>

U.S. Department of Veteran Affairs & U.S. Department of Defense (2010). *VA/DoD clinical practice guideline for management of opioid therapy for chronic pain*. Retrieved from <http://www.healthquality.va.gov/guidelines/Pain/cot/>

Buckenmaier, C., & Schoomaker, E. (2014). Patients' use of active self-care complementary and integrative medicine in their management of chronic pain symptoms. *Pain Medicine*, 15, S7-S8. doi: 10.1111/pme.12384.

Accessed October 15, 2013.

Cosio, D., & Lin, E. (2013). Effects of a pain education program for veterans with chronic, noncancer pain: A pilot study. *Journal of Pain & Palliative Care Pharmacotherapy*, 2013; 27, 340-349. doi:10.3109/15360288.2013.846953.

Sekhon, R., Aminjavahery, N., Davis, C., Roswarski, M., & Robinette, C. (2013). Compliance with opioid treatment guidelines for chronic non-cancer pain (CNCP) in primary care at a veteran's affairs medical center (VAMC). *Pain Medicine*, 2013; 14, 1548-1556. doi: 10.1111/pme.12164.

Matthias, M., Miech, E., Myers, L., Sargent, C. Bair, & Matthew J. (2012). An expanded view of self-management: Patients' perceptions of education and support in an intervention for chronic musculoskeletal pain. *Pain Medicine*, 13, 1018-1028. doi: 10.1111/j.1526-4637.2012.01433.x

Delgado, R., York, A., Lee, C., Crawford, C., Buckenmaier, C., & Shoomaker, E. (2014). Assessing the quality, efficacy, and effectiveness of the current evidence base of active self-care complementary and integrative medicine therapies for the management of chronic pain: A rapid evidence assessment of the literature. *Pain Medicine*, 15, S9-S20. doi: 10.1111/pme.12412

Contact

jbukard@sandiego.edu

O 08 - Simulation in Nursing Education

Evaluating the Outcomes of a Registered Nurse Empathy Education Program in an Academic Medical Center

Dawn M. Gubanc-Anderson, DNP, RN, NEA-BC, CHEP, FACHE, USA

Abstract

Oncology patients face many challenges in our current health care system. Some of the most notable include an increasing number of medical errors, escalating cost, and a lack of healthcare-provider compassion (Schwartz & Bohay, 2012). Such challenges have the potential to create a patient care experience that is both dehumanizing and dissatisfying (Rogers, Karlsen & Addington-Hall, 2000). When patients do not experience empathy in the healthcare setting, they miss opportunities to build a therapeutic relationship with their provider, may encounter additional pain and anxiety, and are more likely to be non-compliant with medication regimes (Kelley, Kraft-Todd, Schapia, Kossowsky, & Reiss, 2014). Patients and their families may feel alienated, unheard, or disenchanting when not treated with dignity and respect, hallmarks of empathic communication (Wald & Reis, 2010). Dwamena, et al., (2013) states that a lack of empathy can even increase the risk that patients will initiate litigation against providers. Additionally, it has been established that healthcare providers who give patients the impression they do not believe or understand them can worsen patients' symptoms by creating anger and distress (Greville-Harris & Dieppe, 2015).

In addition to having a negative effect on patients, a lack of empathy can also have a financial impact on a healthcare organization. The Centers for Medicare & Medicaid (CMS) in the United States created a Hospital Value-Based Purchasing (VBP) Program which rewards acute-care hospitals with incentive payments for the quality of care they provide to people with Medicare (Giordano et al., 2009). The VBP program uses, in part, data from the Hospital Consumer Assessment of Healthcare Providers (HCAHPS) survey, which includes many questions focused on nurse communication (Giordano et al., 2009). When nurses lack empathy, it places patient satisfaction and patient outcomes at risk (Paley, 2014) and can decrease a hospital's incentive payments from CMS.

To address the potential lack of healthcare provider empathy in the oncology population, a cost-effective, readily accessible web-based training program was created. This web-based empathy training module for the oncology registered nurse was created using the Communicate with C.A.R.E. Model[®]. The Communicate with Care Model[®] program was designed by applying the following principles from the educational literature: (1) lecture-style methods alone are ineffective; (2) adult learning principles must be used; (3) teaching needs to include skills practice; (4) teaching must attend to learner attitudes and emotions; (5) the learning environment must integrate knowledge, skills, and attitudes; and (6) reinforcement is critical for the learning process.

Despite the fact that relationship-based care is a cornerstone of good nursing practice, and empathic communication is part of such care (Koloroutis, 2004), nurses rarely receive empathy training (Herbek & Yammarino, 1990). Even though health care providers differ in their innate capacities, as with any other skill in healthcare, clinical empathy can be taught and acquired (Buckman et al., 2011). When nurses receive empathy education, many positive outcomes impact both the patient and the provider. For example, possessing an empathy skill set allows a registered nurse to feel empowered and prepared for his/her shift (LaSala & Bjarnason, 2010). It may even improve employee engagement as the nurse may feel more confident in his/her abilities (Tulsky, et al., 2011). Engaging in an empathic way can also lead to greater nursing satisfaction related to the quality of their work (Tulsky, et al., 2011). Empathy has also been shown to decrease caregiver fatigue in those who practice it (Tulsky, et al., 2011). And patient outcomes seem to improve after provider empathy training as well. An Italian study analyzed the clinical outcomes of more than 20,000 patients with diabetes. These patients were assigned to three different groups of physicians who were pre-evaluated for their levels of empathy. Physicians with the highest empathy scores achieved the best clinical outcomes for their patients; their patients had statistically significant lower levels of diabetic complications than the groups in which physicians had scored lower in empathy. Dwamena, et al., (2013) concludes that effective provider-patient communication improves

patients' symptoms, emotional health, physiologic responses, and pain levels, creating a very strong argument that teaching empathy skills can have many favorable outcomes (Kelley, Kraft-Todd, Schapia, Kossowsky, & Reiss, 2014).

Although little research on empathy training in nursing has been done, there are types of training that have been shown to be effective (Lane & Rollnick, 2007). Human simulation has been used as a successful learning strategy for empathy instruction for health care providers and can provide the opportunity for provider's self-awareness and values assessment (Cook et al., 2011; Gonzalez et al., 2010; Mullen & Kothe, 2010). Simulation has been widely used as an educational tool in both "live" and "recorded" educational offerings (Vaniaere, Timmerman, Stevens, & Gastmans, 2012). The evidence suggests that human simulation methodology is effective for both new knowledge acquisition and knowledge retention (Gair, 2012). Tulsy et al., (2011) have demonstrated that web-based physician empathy education significantly increases the patient's trust in the provider's care and builds self-confidence in the provider using the skills. Web-based training offers a cost-effective solution and can be accessible to a large number of participants. The use of a web-based educational tutorial including patient simulations may prove to be a valid and reliable solution to educate nurses on empathy skills (Cook et al., 2011).

Methods: In this pre-post quality improvement project, 24 oncology nurses were instructed on the cognitive and affective skills required for empathic communication. The primary goal was to increase registered nurses' comfort level with using empathic communication skills.

Empathy confidence levels of the participating nurses were assessed before the nurses watched the training video, and measured again immediately after completing the web-based training program. The results of this quality improvement project support previous findings that empathy skills can be taught to healthcare providers. It also reinforces the research that human simulation is an effective teaching strategy in healthcare. This quality improvement project demonstrated an overall improvement in Jefferson Empathy Scale (JES) scores, $t(24) = .78, p = .000$. Additionally, individual item comparisons revealed a statistically significant increase in the JES questions related to "perspective taking" $p = .000$, and the "compassionate care" subscale $p = .000$. While the third subscale "walking in patients shoes" did show an increase in the pre and post score, it was not statistically significant; $p = .108$.

These findings demonstrate that web-based learning using human simulation can provide a teaching methodology that satisfies practicing oncology nurses. Additionally, this empathy training program can increase a Registered Nurse's comfort and confidence in using empathic skills. These findings warrant additional research in this area in a larger sample, varying settings and nursing specialties, as well as in student nurse education.

References

- AHQQR website. (n.d.). http://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/advances-in-patient-safety-2/vol3/Advances-Mistry_114.pdf
- Ançel, G. (2006). Developing empathy in nurses: an in-service training program. *Archives of Psychiatric Nursing*, 20, 249-257.
- Back, A. L., Arnold, R. M., Tulsy, J. A., Baile, W. F., & Fryer-Edwards, K. A. (2003). Teaching communication skills to medical oncology fellows. *Journal of clinical oncology*, 21(12), 2433-2436.
- Bajak, A. (2014). Lectures aren't just boring, they're ineffective, too, study finds. *Science Insider*.
- Blair Storr, G. (2010). Learning how to effectively connect with patients through low-teach simulation scenarios. *International Journal for Human Caring*, 14, 36-40.
- Brunero, S., Lamont, S., & Coates, M. (2009, September 6). A review of empathy education in nursing. *Nursing Inquiry*, 17(17), 65-74.
- Buckman, R., Tulsy, J., & Rodin, G. (2011, March 22). Empathetic responses in clinical practice: Intuition or tuition? *CMAJ-JAMC*, 183.
- Cook, D., Hatala, R., Brydges, R., Zendejas, B., Szostek, J., Wang, A., ... Hamstra, S. (2011). Technology-enhance simulation for health professions education. *JAMA*, 306, 978-988.
- Cucino, L., Sartori, R., Marognolli, O., & Menghini, A. (2012). Developing empathy in nursing students: a cohort longitudinal study. *Journal of Clinical Nursing*, 2016-2025. <http://dx.doi.org/10.1111/j.1365-2702.2012.04105.x>

Del Canale, S., Louis, D. Z., Maio, V., Wang, X., Rossi, G., Hojat, M., & Gonnella, J. S. (2012). The relationship between physician empathy and disease complications: an empirical study of primary care physicians and their diabetic patients in Parma, Italy. *Academic Medicine*, 87(9), 1243-1249.

Dwamena, F., Holmes-Rovner, M., Gaulden, C., Jorgenson, S., Sadigh, G., Sikorskii, A., ... Beasley, M. (2013, December 12). Interventions for providers to promote a patient-centered approach in clinical consultations. *Cochrane Database of Systematic Reviews*, 12.

Gair, S. (2012, January 22). Feeling their stories: contemplating empathy, insider/outsider positions and enriching qualitative research. *Qualitative Health Research*, 1, 134-143.

Giordano, L. A., Elliott, M. N., Goldstein, E., Lehrman, W. G., & Spencer, P. A. (2009). Development, implementation, and public reporting of the HCAHPS survey. *Medical Care Research and Review*.

Gonzalez, R., Pietsch, T., Kozub, K., Cole, P., Nifras, R., Russel-Headley, K., ... Wondolowski, G. (2010). Caring: looking beyond simulations. *International Journal for Human Caring*, 14 (2), 16-22.

Greville-Harris, M., & Dieppe, P. (2015). Bad is more powerful than good: the placebo response in medical consultations. *The American journal of medicine*, 128(2), 126-129.

Halpern, J. (2003). What is clinical empathy?. *Journal of general internal medicine*, 18(8), 670-674.

Harrison, E. (2006). Teaching compassion: multiple sclerosis and the poetry of Molly Holden. *Nurse Educator*, 31 (3), 103-106.

Hemmerdinger, J., Stoddart, S., & Lilford, R. (2007, July 25). A systematic review of tests of empathy in medicine. *BMC Medical Education*, 7(24), 1-8.

Herbek, T., & Yammarino, F. (1990). Empathy training for hospital staff nurses. *Group and Organizational Studies*, 15(3).

Hojat, M., Gonnella, J. S., Nasca, T. J., Mangione, S., Vergare, M., & Magee, M. (2014). Physician empathy: definition, components, measurement, and relationship to gender and specialty. *American Journal of Psychiatry*.

Hojat, M., & LaNoue, M. (2014). Exploration and confirmation of the latent variable structure of the Jefferson scale of empathy. *Int J Med Educ*, 5, 73-81.

<http://www.hcahpsonline.org> Centers for Medicare & Medicaid Services, Baltimore, MD. *February, 12, 2015*.

<http://bluecure.org> Duke Cancer Institute, Durham, NC. *February, 15, 2015*.

Jangland, E., Gunningberg, L., & Carlsson, M. (2009). Patients' and relatives' complaints about encounters and communication in health care: evidence for quality improvement. *Patient education and counseling*, 75(2), 199-204.

Jeffries, P. R. (2005). A frame work for designing, implementing, and evaluating simulations used as teaching strategies in nursing. *Nursing education perspectives*, 26(2), 96-103.

Jung, Y., & Kirk, M. (2009, May 8). Evaluation of empathy measurement tools in nursing: systematic review. *Journal of Advanced Nursing*, 1790-1806.

Kelley, J., Kraft-Todd, G., Schapia, L., Kossowsky, J., & Reiss, H. (2014). The influence of the patient-clinician relationship on health care outcomes: a systematic review and meta-

Contact

dgubancanderson@gmail.com

O 08 - Simulation in Nursing Education

Pediatric Emergency Department (PED) Simulation: Undergraduate Nursing Students' Experience

Mary Rochelle Schultz, MSN, RN, CPNP-PC, USA

Rita Ann Dello Stritto, PhD, RN, CNS, ENP, ACNP-BC, FAANP, USA

Abstract

Background: Finding clinical placements for undergraduate nursing students is an increasing challenge. The National Council of State Boards of Nursing Simulation Study (2014) found that high quality simulation produces educational outcomes comparable to traditional clinical hours. Students report that high fidelity simulation has a positive impact on their problem solving, is more realistic, and makes learning more active than low fidelity simulation (Butler, Veltre, Brady, 2009). The undergraduate students in the simulation experience have participated in multiple simulations applying the space industries integrated model to a simulated hospital environment (Ayers, et al., 2015). Students play the role of patients. Using live models or standardized patients in simulation increases students' critical thinking and communication skills (Maharaj, 2015). This same model of utilizing students as patient actors in a simulated hospital was implemented in the pediatric course. Twenty students spent 50% of their clinical hours in the simulation lab and 50% in the children's hospital. However, we discovered that students had difficulty accepting their peers, playing the pediatric patient role, as realistic. Students playing the patient role limited the age range of the scenarios that could be implemented to older school age or adolescent patients.

Intervention: A high fidelity pediatric emergency department simulation (PEDS), with children of all ages playing the patient role, was developed as an innovative solution to these problems. Volunteer children and parents played the patient and parent roles. Patients presented with a variety of scripted illnesses and injuries and were moulaged accordingly. Twenty undergraduate students rotated through the roles of triage and bedside nurses. Faculty wrote the scripts, coordinated the activities, and moulaged patients. Nurse practitioner faculty played the providers.

Evaluation: Students response to the experience was positive. The majority of the students expressed that the PEDS was an excellent learning experience. They were able to interact with children of a variety of ages. Students in the PEDS were able to function independently in a safe environment.

References

- Ayers, C. J., Binder, B. K., Lyon, K.C., Montgomery, D., Koci, A. & Foster, W. A. (2015). The simulated hospital environment: A qualitative study applying space industry techniques. *Journal of Professional Nursing* 31, pp. 18-25. <http://dx.doi.org/10.106/j.profnurs.2014.06.002>
- Butler, K. W., Veltre, D. E., & Brady, D. S. (2009). Implementation of active learning pedagogy comparing low-fidelity simulation versus high-fidelity simulation in pediatric nursing education. *Clinical Simulation in Nursing*, 5, 129-136. doi:10.1016/j.ecns.2009.03.118
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). The NCSBN national simulation study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. [Supplement] *The Journal of Nursing Regulation*, 5(2). Retrieved from https://www.ncsbn.org/JNR_Simulation_Supplement.pdf
- Kubin, L., Fogg, N., Wilson, C. E., & Wilson, J. (2013). Comparison of student learning among three teaching methodologies in the pediatric clinical setting. *Journal of Nursing Education*, 52(9), 501-508. doi:<http://dx.doi.org/10.3928/01484834-20130819-07>
- Maharaj, T. (2015). Live Model Simulation: Improving Nursing Students' Attitudes and Knowledge of Alzheimer's Disease. *Nursing Theses and Dissertations*. Paper 50. <http://hdl.handle.net/10950/293>
- Mahoney, A. E. D., Hancock, L. E., Iorianni-Cimbak, A., & Curley, M. A. Q. (2013). Using high-fidelity simulation to bridge clinical and classroom learning in undergraduate pediatric nursing. *Nurse Education Today*, 33, 648-654. doi: 10.1016/j.nedt.2012.01.005
- Pauly-O'Neill, S., Prion, S., & Lambton, J. (2013). How often do BSN students participate in pediatric critical events during simulation and hospital rotations? *Clinical Simulation in Nursing*, 9(4), 113-120. doi:10.1016/j.ecns.2011.11.006

Contact

rschultz@twu.edu

O 09 - Technology in Practice

The Integration of Virtual Monitoring Technology to Empower Advanced Practice Nurses to Optimize Health Outcomes

Eugene Lewis, MSN, RN, ACNP-BC, USA

Carole Kulik, DNP, RN, ACNP, HCIC, USA

Abstract

BACKGROUND: The use of virtual monitoring in Homebased Primary Care through technology enhanced patient reporting provides automated environmental monitoring to monitor symptoms and medication compliance is an effective way for Advanced Practice Nurses to provide timely care, practice to full scope of practice and serve populations with limited access.

OBJECTIVE: This program aimed to implement the feasibility and acceptability of virtual symptom and compliance management systems with patients in rural communities receiving Home Based Primary Care, Assessment in the changes of patient outcomes from baseline and implementation of the virtual monitoring will be evaluated for effectiveness, cost reduction and hospitalizations.

METHODS: Repeated patient measures, chart abstractions, interviews and completion of reported outcomes measures at baseline and annually are assessed and provider survey and interviews.

RESULTS: Dramatic improvements were seen in the continuity of care, compliance with medications, and significant reduction in hospital admissions. Clinical improvements in patient blood pressure, glucose, Drug levels, anxiety, and self-care self-efficacy were also observed. Clinicians perceived the use of "real-time" monitoring data and risk algorithms positively contributing to improved clinical care and improved time efficiency and satisfaction. Reducing the complexity of the system was seen as important to promote the utility of technology by both patients, families and providers.

CONCLUSIONS: The connection between the Advanced Practice Nurse, clinical staff and the patient is critical to the success of the virtual monitoring program in Home Based Primary Care. Integrating monthly visits to the home into the clinical program reinforces the importance of using the virtual monitoring equipment to the patient. The results annually suggest that monitoring patient symptoms using technology, computer or mobile based is feasible in rural communities and acceptable in practice.

IMPLICATIONS FOR PRACTICE: Future research would be most beneficial if the use of this technology expanded the number of applications and expanded the scope of the system to encompass a wider range of supportive care needs. Opportunities for a limitless number of technology enhanced applications.

References

American Nurses Association. (1999). Core principles on telehealth. Washington, DC:ANA.

Brantley, D., Laney-Cummings, K., & Spivack, R. (2004). Innovation, demand, and investment in telehealth.

Retrieved Nov 10, 2016, from the U.S. Dept of Commerce, Technology Administration, Office of Technology Policy at www.technology.gov/reports/TechPolicy/Telehealth/2004Report

Contact

EugeneLewis2@yahoo.com

O 09 - Technology in Practice

Bridging the Gap to Equal Access to Professional Development Meetings With Remote Virtual Technology

Francisca J. Farrar, EdD, MSN, USA

Deborah Ellison, PhD, MSN, RN, USA

Abstract

Nurses face many challenges to balance work, lifelong learning, and personal life. Nursing is a caring profession that is physically and mentally draining. With the growing demands upon the nursing profession to provide evidence-based practice that promotes safe, accountable, and quality care, nurses must learn to balance their schedule to attend professional development activities and stay abreast of current issues. Nurses are encouraged to be active in their professional organization and attend continuing education events. The purpose of this paper is to explore the relationship between technology and remote virtual attendances at professional nursing meetings that have professional development activities.

The Tennessee Nurses Association Music City District 3 has 500 active members that pay dues regularly, geographically covers 18 counties in middle Tennessee from the border of Kentucky to the border of Alabama, and has an average of 20 members attending district meetings. A new president of the district was concerned about the inactivity of the majority of the members. This attendance and engagement problem led to a search for a solution from evidence-based literature to answer three research questions: 1) What are the barriers to attending meetings? 2) How can remote technology increase engagement in meetings? and 3) How can remote technology bridge the gap to equal access to meetings and professional development activities?

A search of the literature found that technology using remote web conferencing was a valid tool to provide remote access to meetings and professional development. It was found that remote web conferencing was cost effective and increased engagement of users. Two specific studies applied to this research study. The Association for Professional Development surveyed membership to determine technology usage and educational needs. Harper, Durkin, Orthoefer, Powers, and Tassinari (2014) found that technology was an emerging trend to facilitate learning and further research was needed to guide the impact of this expanding technology. A survey was conducted via an online survey to 3,400 members with a response rate of 39% (Harper et al., 2014). Telecommunication was found to be used by 32% of members for staff education using web conferencing (Harper, et al., 2014). Knapp, Fletcher, Taylor, Can, and Goetz (2011) discussed the development of a distance-learning model using web conferencing using a pilot test that provided an in-service on HIV testing at four full-service facilities and their associated satellite clinics that expanded over six states. The teleconferencing system was found to be cost-effective, reach remote clinics, and provided valuable education (Knapp et al., 2015).

This research study combined the following two models to serve as a framework to create a culture of change. Clark, Glazer, Edwards, and Pryse (2016) transformed their nursing program from the use of PowerPoint to an interactive engagement using an iPad with access to an iBook. The substitution, Augmentation, Modification, and Redefinition (SAMR) framework was used to transform the technology adoption. An iBook was substituted for the traditional lecture. In augmentation the iPad was used to record a skill to review later. Modification allowed the teacher to provide feedback and empowered skill acquisition. Redefinition allowed technology to develop new methods of teaching (Clark, et al., 2016). They concluded that faculty can create a culture of change to support technology using the SAMR Model. Winter (2016) used a different model to transform professional development with technology. The High-Performing (HPP) model was used that consists of four developmental levels. The restrictive level operates in the past, is ridged, and change is limited. The responsive level operates in the present but learners are passive while the leader owns the issues. The proactive level is future oriented with the educator role being a coach and facilitator. The progressive level is a global holistic approach with standards of excellence. This is a high performing stage and adoption of change. In the high-performing level all parties are engaged with ownership and accountability. Learning is transformed to a practice of

excellence (Winter, 2016). Technology transformation occurs at the high-performing level with embracement of technology, research, and professional development (Winter, 2016).

The literature search included a global application for remote teleconferencing and found barriers do exist in using technology globally and need to be considered. Irinoye, Ayandiran, Fakunle, and Mtshali (2016) conducted a survey about nurses' perceptions and barriers to the use of information communication technology in a teaching hospital in Nigeria. Data from the study found that 37.8% of nurse respondents had not had any formal training in informatics technology while 55.6% of the nurses reported lack of access to informatics technology. Barriers were identified as inadequate number of computers, unreliable network connections, poor system design, discouragement by colleagues, high work demand, inadequate informatics knowledge, lack of training and skills, and lack of encouragement (Irinoye, et al., 2016). The authors call for more education in nursing education programs and in-services on informatics technology because this skill is needed for evidence-based practice. The 2016 World Congress on Continuing Professional Development: Advancing Learning and Care in the Health Professions used webcast live for more than 12 hours of Congress sessions to create live and on demand presentations. The webcasts were archived until the next Congress in 2020 (Turco and Baron, 2016).

Available web conferencing software was researched to match the needs of the district. A user friendly cloud-based video communication software was selected that provided remote video conferencing in which a link could be sent to members to access the district meeting and educational program. The software provided members the ability to remotely enter the web conference by online access by a computer, iPad, or smart phone. It also provided the option of calling into the meeting. The software allowed a host to control the recording and save the meeting using a code number to upload the meeting and educational program to the district website for access to the meeting post web conferencing. Remote members had the ability to ask a question via telephone or in a chat room. This communication feature empowered engagement of members and virtual participation in the meeting. Saving of the meeting empowered entering the meeting at their leisure and the code number allowed validation of attending the educational activity and receiving a continuing education certificate.

District members received an email about pilot testing of a district meeting using remote access. An announcement was also posted in the Tennessee Nurses Association newsletter. The pilot test revealed the need for a microphone for audience questions and the need for an attachable video camera to show the speaker and scan the audience to create a virtual meeting. The pilot testing of the remote access increased attendance from 20 to 40 members doubling the regular attendance number. After the pilot test, an email was sent to members about the remote access availability with a link to the web conference for the next scheduled meeting. The attendance in person was 60 and remotely was 20. The attendance number increased from the average 20 members to 80 members. Remote members were allowed to ask questions and interact with the members in person and the speaker.

A survey monkey was sent to 400 members that provided email addresses post intervention that consisted of ten questions ranging from 1 to 5 with five rating strongly agreeing. One hundred surveys were returned with a 25% return rate. Research question 1: Barriers to attending meetings were a) conflict with work schedule and fatigue with a score of 4.40, Research question 2: Technology intervention to increase access scores were a) ability to receive remote continuing education units score was 4.52, b) ability to access the uploaded meeting to the website at leisure score was 4.38, c) Remote access empowers engagement score was 4.38, d) remote access to live attendance score was 4.37, and e) the use of live video conference of meeting score was 4.37. Research question 3: The belief that remote access can transform activity and engagement in meetings score was 4.56. Data analysis reveals that technological remote access can increase attendance at meetings, alleviate barriers to attending meetings, and can transform engagement at virtual meetings via remote web conferencing.

Remote access availability can transform nursing by providing equal access to professional meetings. Virtual meetings can increase attendance and engagement amongst members. Meetings uploaded to a website can provide access to meetings and continuing education activities. This study validates that remote availability bridges the gap to access to sharing meetings from a district to global level.

References

- Clark, A., Galzer, G., Edwards, C., & Pryse, Y. (2016). Transforming nursing education with apple technology. *Nurse Educator, 60*, 1-4.
- Knapp, H., Fletcher, M., Taylor, A., Chan, K., & Goetz, M. (2011). No clinic left behind: Providing cost-effective in-service via distance education. *Journal for Healthcare Quality, 33*(5), 17-24.
- Harper, M. G., Durkin, G., Orthoefer, D. K., Powers, R., & Tassinair, R.M. (2014). ANPD technology survey the state of NPD practice. *Journal of Nurses in Professional Development, 30*(5), 242-247.
- Irinoye, O. O., Ayandiran, E. O., Fakunle, I., & Mtshali, N. (2013). Nurses' perception and barriers to use of information communication technology in a teaching hospital in Nigeria. *CIN: Computers, Informatics, and Nursing, 31*(8), 394-400.
- Turco, M.G., & Baron, R.B. (2016). Observations on the 2016 World Congress on continuing professional development: Advancing and care in the health profession. *Journal of Continuing Education in Health Profession, 36*(3), S4-S7.
- Winter, P. (2016). Using a high-performance planning model to increase levels of functioning effectiveness within professional development. *Journal for Nurses in Professional Development, 32*(1), 33-40.

Contact

farrarf@apsu.edu

P 01 - Global Mental Health Promotion

Evidence-Based Value and Availability of Self-Help Groups for Mood Disorders in U.S. and Ireland

Valerie N. Markley, DNP, MSN, BSN, RN, USA

Abstract

Research validates a three-pronged approach as best practice for the treatment of mood disorders: medication (when warranted), therapy, and self-help. Peer support groups are a major option for self-help. Millions of individuals in the U.S. and around the world, including Ireland, are currently using and benefitting from self-help groups. Numerous studies have demonstrated the effectiveness of such groups both short-term and long-term. Self-help groups are made up of individuals sharing similar problems and life situations. They provide emotional support to each other, share means of coping, learn new strategies for improvement, and suggest new resources and information on available providers. They share insights gained from first-hand experiences and promote hope and empowerment. Such groups are self-governed, cost-free, and readily available for every major disorder listed by the World Health Organization including both physical and emotional problems, habits and addictions, bereavement, and parenting. There are also groups for the significant others and supporters of those with the disorders. These groups are increasingly recognized as viable and efficient means of supplementing and extending typical care components. In addition, as it says in the AA Big Book (AA, 2002), in order to help yourself, you have to help others.

The World Health Organization (WHO) ranks depression (unipolar) as the fourth leading cause of disease burden, accounting for 4.4% of total DALY's--disability-adjusted life-years (WHO, 2012). Authors conclude from this data that the burden of depression worldwide represents a major public health problem affecting clients and society at large. They note that although variations occur, trends and patterns of illness tend to be very similar throughout the world. Recent statistics from the National Comorbidity Survey Replication (NCS-R) Study report a 12-month prevalence for all mood disorders in U.S. adults between the ages of 18-65 as 9.5% and having a lifetime prevalence of 20.8% (NIMH, 2011). The total economic impact of mood disorders is extreme and places an enormous burden on the health care industry. Millions of depressed individuals never receive treatment. Health care providers could refer their clients to self-help support groups as an additional resource for care.

This presentation will present evidence to support an understanding of and value for self-help support groups for mood disorders and compare and contrast self-help group resources for mood disorders available in the U.S. and Ireland, both Northern and Southern Ireland.

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Washington, DC
- Crowe, M., Wilson, L., Inder, M. (2011). Patients' reports of the factors influencing medication adherence in bipolar disorder-An integrative review of the literature. *International Journal of Nursing*, 48, 894-903.
- Kennedy, P. (2015) Back chat. *BP Magazine*
- National Institute of Mental Health (NIMH). (2011). *Mental Health Statistics*. www.nimh.nih.gov/statistics/index.shtml
- www.dbsalliance.org/pdfs/training/SalzerORIGpresentationJan2011IAB.pdf
- AA. (2002). *Alcoholics Anonymous Big Book Trade Edition* (4th ed.) Alcoholics Anonymous World Services.
- Depression and Bipolar Support Alliance (DBSA) <http://www.dbsalliance.org>
- Mental Health America <http://www.mentalhealthamerica.net/>
- National Alliance on Mental Illness <http://www.nami.org>
- Bipolar disorder: organizations & websites www.bipolarcaregivers.org/
- Mental Health Ireland Home www.mentalhealthireland.ie
- Recovery International www.recoveryinternational.org
- Recovery Self Help Method Ireland www.recoveryireland.ie
- International Bipolar Foundation (IBPF) www.ibpf.org

Contact

markley@indiana.edu

P 01 - Global Mental Health Promotion

A Multiple Case Study: Mental Health Nurses' Experiences Using Psychosocial Interventions in Ireland

Siobhan Smyth, MSc, RPN, DipCPN, RNT, PGDipCHSE, BNS (Hons), Ireland

Abstract

Background: In this research, PSI-trained mental health nurses (MHNs) were asked to share their interpretations of using psychosocial interventions (PSI) in practice. Given their unique relationship with clients and family members, MHNs are urged internationally to promote PSI. Yet, there was no qualitative study located that explicitly explored how PSI-nurses are practising specialised skills in the Irish context. Moreover, given the changes introduced by recent policy reforms, it was timely to explore how these nurses were adapting and reconfiguring their nursing practice.

Purpose: This study explored psychosocial intervention-trained MHNs' experiences of using PSI in their care of persons with a mental health problem.

Methods: Consistent with the goal of understanding experience, a qualitative approach was adopted using a multiple case study design that comprised of four cases. These four cases were the public sector Health Service Executive (HSE) sites where the nurses work. A total of 40 PSI-trained MHNs were observed and interviewed in acute inpatient and community care settings. An observational guide, adopted from the literature (Spradley 1980) and Richie & Spencer's (1994) framework were used to guide the analysis. Data were analysed within and cross the cases supported by NVivo (10) software.

Results: Through the analysis, three major themes emerged:

1. PSI-trained MHNs understanding and use of PSI;
2. Facilitators supporting the use of PSI by PSI-trained MHNs;
3. Obstacles limiting the use of PSI by PSI-trained MHNs.

Overall, the findings showed that participants' views towards PSI were positive. Yet, participants perceived that their daily work was largely curtailed by many obstacles in practice that challenged them in implementing PSI. These obstacles, noted in the findings, included: not having enough time, shortage of nursing staff, lack of education and training, and the inherent ineffective multidisciplinary image of PSI-nurses. However, participants reported that a supportive and collaborative organisational culture and on-going education and training, where clinical leadership and clinical supervision were available, facilitated the implementation of PSI. Findings also revealed that PSI-trained nurses were more inclined to offer lower level skills with clients whose mental-health problems were more severe, such as schizophrenia and psychosis. Conversely, the higher-level PSI were used with the clients who had less severe mental health problems. The findings also indicated that there needs to be a greater consensus among all mental health care professionals about the skills that PSI-nurses explicitly engage with in practice.

Conclusion: This multiple case study offers answers to the overall aim and addressed the objectives for this research. Many of findings are relevant within the context of current debates about PSI, and can be used to improve mental health nursing practice and contribute to the continued development of mental health nursing in various settings. This study informs practice, policy, education and research. Mental organisations must play a key role in supporting PSI-nurses if recovery orientated practices are the way forward in the mental health services. Finally, it is the MHNs' professional duty to welcome the challenges of PSI implementation in their nursing practice.

References

- Butler M.P., Begley M., Parahoo K. & Finn S. (2013) Getting psychosocial interventions into mental health nursing practice: a survey of skill use and perceived benefits to service users. *Journal of Advanced Nursing* **70**(40) 866-877.
- Houghton C., Casey D., Shaw D. & Murphy K (2013) Rigour in qualitative case study research. *Nurse Researcher* **20**, 12-17.

Mental Health Reform (2015) *A Vision for Change nine year on: DOH A coalition analysis of progress*. The Stationary Office, Dublin.

Contact

siobhan.smyth@nuigalway.ie

P 02 - Evidence-Based Patient Safety

Patient Safety Culture in Neonatal Intensive Care Units (NICUs): What Is the Evidence?

Angelita M. Hensman, MS, RNC-NIC, USA

Abstract

The patient safety culture of a unit and/or organization plays an important role in patient safety. Patient safety issues were brought to the forefront of health care by the Institute of Medicine report, and it has been defined as “freedom from accidental injury” (Kohn, Corrigan, & Donaldson, 2000, p. 4). Preventable harm and error continues to have an impact on patients in intensive care units, and particularly on vulnerable infants in Neonatal Intensive Care Units (NICUs). It can also impact families and caregivers. Understanding the current evidence on safety culture within NICUs can inform nurses, and facilitate research and training to improve evidence-based patient safety practices in this vulnerable population.

Purpose: Perform a literature review to explore the current evidence on patient safety culture in NICUs and implications for future research and practice.

Method: The following databases were searched: PubMed, CINAHL, Cochrane Database of Systematic Reviews, Web of Science Core Collection, Google Scholar, Scopus and Dissertation Abstracts International. The search was limited to peer-reviewed research in English from 2011 to 2016 to obtain current evidence. The following search terms used were used: “patient safety culture” OR “safety culture” AND “NICU” OR the MESH term “Intensive Care Unit, Neonatal “

Findings: Although a great deal of research on safety culture can be found in intensive care units there is minimal research being done in NICUs. Research in NICUs in the past five years involves survey, cross-sectional and descriptive studies which is categorized as level II for evidence (Polit & Beck, 2014). An awareness of safety culture is necessary to improve the quality of healthcare in an organization. Safety culture awareness helps us receive as well as interpret the stimuli from the environment and select and organize it (Hemmat, Atashzadeh-Shoorideh, Mehrabi, & Zayeri, 2015). A positive patient safety culture encompasses good communication, attitudes, perceptions, values and mutual trust shared by individuals and groups within an organization or unit. Management of resources and awareness of inappropriate or unacceptable dimensions of safety culture are important. Expectations and actions of management/supervisors in promoting safety were the most important dimension in safety culture surveys making management involvement absolutely necessary. Frequency of error reporting had the lowest positive responses indicating that nurses tend to not report errors for fear of reprisal (Hemmat, Atashzadeh-Shoorideh, Mehrabi, & Zayeri, 2015). A reporting culture that is non-punitive is needed to improve the frequency of error reporting (Reason, 1998). Profit, et al., (2014) found that caregiver burnout is prevalent in NICU’s and is associated with lower perceptions of patient safety. It was also found to be less prevalent among physicians compared to non-physicians, and more burnout contributed to a lower teamwork climate in the NICU. Reducing burnout therefore improves teamwork and leads to reductions in medical error (Sexton, et al., 2014). It is important to determine if caregiver burnout affects patient outcomes (Profit, et al., 2014). Structured teamwork and training initiatives can positively impact staff safety attitudes and these improvements in safety attitudes could be sustained over a one-year period (Murphy, Laptook, & Bender, 2015). Tools such as the Safety Attitudes Questionnaire have been used to measure safety culture among hospitals and units but more evidence on its use in the NICU setting is needed (Profit, et al., 2012).

Conclusion: Safety culture questionnaires need more validation in the NICU setting. Current evidence shows that patient safety culture varies a great deal among NICU’s with physicians rating it more positively than nurses. Management involvement and support, allocation of resources, structured teamwork training and communication, a non-punitive approach or “just” culture, and positive overall perceptions of patient safety are characteristics that impact patient safety culture in NICU’s. More research is needed on caregiver (especially nursing) burnout and patient safety culture in NICUs. Future studies should also examine how the safety culture within NICUs impacts patient and nursing

outcomes. These findings on the current evidence (2011-2016) on patient safety culture in NICU's could be used to promote evidence-based teaching and learning for NICU nurses, staff and management. It can also be used to develop nursing research to promote the transformation of nursing knowledge and practice, and for the implementation of training programs to improve the safety culture within NICUs thereby reducing preventable harm in this vulnerable population and promoting health.

References

- Health and Safety Commission. (1993). *Organizing for safety: Third report of the human factors study group of ACSNI*. Sudbury: HSE Books.
- Hemmat, F., Atashzadeh-Shoorideh, F., Mehrabi, T., & Zayeri, F. (2015). A survey of nurses' awareness of safety culture in neonatal intensive care units. *Iranian Journal of Nursing and Midwifery Research*, 490-495.
- Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (2000). *To err is human: Building a safer health system*. Washington, D.C: National Academy Press.
- Murphy, T., Laptook, A., & Bender, J. (2015). Sustained improvement in neonatal intensive care unit safety attitudes after teamwork training. *Journal of Patient Safety*, 1-7.
- Polit, D. F., & Beck, C. T. (2014). *Essentials of nursing research: Appraising the evidence for nursing practice* (8th ed.). Philadelphia, PA: Wolters Kluwer Health| Lippincott Williams and Wilkins.
- Profit, J., Etchegaray, J., Peterson, L. A., Sexton, B., Hysong, S. J., Mei, M., & Thomas, E. J. (2012). The safety attitudes questionnaire as a tool for benchmarking safety culture in the NICU. *Archives of Disease in Childhood: Fetal and Neonatal Edition*, 97(2), F127-F132.
- Profit, J., Sharek, P. J., Amspoker, A. B., Kowalkowski, M. A., Nisbet, C. C., Thomas, E. J., . . . Sexton, J. B. (2014). Burnout in the NICU setting and its relation to safety culture. *British Medical Journal of Quality and Safety*, 23(10), 806-813.
- Reason, J. (1998). Achieving a safe culture: Theory and practice. *Work and stress*, 12(3), 293-306.
- Sexton, J. B., Sharek, P. J., Thomas, E. J., Gould, J. B., Courtney, C. N., Amspoker, A. B., . . . Profit, J. (2014). Exposure to leadership walkrounds in neonatal intensive care units is associated with a better patient safety culture and less caregiver burnout. *British Medical Journal of Quality and Safety*, 23, 814-822.

Contact

Ahensman@URI.edu

P 02 - Evidence-Based Patient Safety

Innovative, International, and Interprofessional: Nursing and Engineering Technology Students Creating New Patient Safety Technology

Pamela Karagory, DNP, MBA, MSB, BSN, RN, CNE, USA

Diane Hountz, DNP, ANP, RN, USA

Jane M. Kirkpatrick, PhD, MSN, BSN, RN, ANEF, USA

Sara A. McComb, PhD, MSES, BSIE, PE, USA

Abstract

Background: The role of the professional nurse is undergoing a rapid paradigm shift, with leadership and problem solving becoming cornerstones of nursing practice and key to their role as a member of the interprofessional team. This remodeling of the professional nurses' roles and responsibilities requires a refocus in socializing students to the profession, interprofessional collaboration, and requires transforming the academic curriculum to include knowledge, skills and attitudes that reflect the role requirements of the professional nurse in today's healthcare environment. To prepare students to become change agents in improving the care of patients, communities, and populations, active learning and participation in contextual problems and solutions must be experienced. The healthcare safety crisis in the United States requires new approaches, continuous improvement, and interprofessional education that transcends the traditional healthcare disciplines. Nursing has the unique opportunity to champion grassroots efforts to enact change through their immersion and direct influence on patient care, safety, and technology development that support patient centered care and positive healthcare outcomes. As educators, our job is to prepare the newest members of the profession with the tools, skills, motivation, and interprofessional education opportunities to carry out these efforts. Indeed, fundamental nursing skills are expanding to include quality improvement, interprofessional teamwork, and systems thinking (Ironsides & McNelis, 2011). The acquisition of these essential skills requires developing experiential learning opportunities that bridge the classroom and practice contexts. National and international service learning, built upon strong academic partnerships, provides the mechanism for successful implementation (Voss et al., 2015).

Purpose: One point of care that creates the greatest risk for nursing back injuries is assisting and transferring patients from the bed to the chair (OSHA, 2013). This high risk and ongoing problem is placing financial burdens on healthcare organizations and career ending injuries for nursing staff (OSHA, 2013). This presentation will describe a pilot Quality Improvement project that partnered senior nursing and engineering technology students in addressing patient transfer/mobility problems through the planning, design, development, building, and testing of a bed to chair transfer device. This active learning and interprofessional team approach allowed the students to collaborate, share their unique knowledge, skills and gain valuable insight into the complexity of creating an efficient, cost effective, and sustainable medical device.

Method: The interprofessional and international project occurred over two academic semesters and required a student team charter, weekly live and Skype work sessions, delineated project roles and responsibilities, and specific product guidelines defined by the project sponsor. The interprofessional work was guided by nursing best practices with four nursing students from a large Midwestern University leading several stages of the project work while gaining a deeper understanding of engineering design guidelines, materials, and hydraulics requirements. Engineering technology team members included a four team cohort from a large Midwestern University and a team from a College of Engineering in the Netherlands. The student designed device was presented by the interprofessional student team at an international conference in the Netherlands in May 2016. This opportunity provided the student team to showcase their work during a travel abroad experience enhancing cultural understanding and global educational engagement.

Participants/Sample: A qualitative approach was used to evaluate the student's perspective of the quality improvement project outcome. Qualitative surveys were developed and distributed and a focus group with students was conducted. Initial results and themes suggest that the nursing students found this interprofessional learning opportunity challenging, empowering, and critical in recognizing the

significance and value of the collaboration and synergy between nursing and engineering technology. Findings and identified themes will guide future development, modification, standardization, and expansion of nursing and engineering IPE educational opportunities.

This initial work demonstrates the efficacy of nursing and engineering technology IPE, particularly with respect to empowering the next generation of nursing leaders to enact change through a fundamental understanding of conceptual design, product analytical models, and technology testing. Engineering technology students gained valuable insight into project management, added value of end user participation, and a greater understanding of the challenges and needs of healthcare technology development. Further project evaluation is needed to quantify (1) the effects of the IPE project in the acquisition of team and quality improvement skills, (2) the benefits to students and project sponsors through this collaborative experience, and (3) the impact on long-term interprofessional engagement and professional identity.

References

Ironside, P. & McNelis, A. (2011). Transforming clinical education. *Journal of Nursing Education*, 50(3), 123-124. Occupational Safety and Health Administration, US Department of Labor. Safe patient handling.

<https://www.osha.gov/SLTC/healthcarefacilities/safepatienthandling.html>

Voss, H., Mathews, L.R., Fossen, T., Scott, G., & Schaeffer, M. (2015). Community-academic partnerships: developing a service-learning framework. *Journal of Professional Nursing*, 31(5): 395-401.

Contact

pkaragor@purdue.edu

P 03 - Global Disease Prevention in Influenza

Influenza Virus: The Evolution of a Deadly Virus in Our World

Cathy M. St. Pierre, PhD, APRN, FNP, FAANP, USA

Abstract

Despite significant advances in health care today and the fact that influenza illness is a preventable disease, Influenza virus continues to be a significant cause of morbidity and mortality in the world. Influenza continues to rank in the top 10 causes of death in the world and infects up to 5 million people annually (WHO, 2014). The Influenza virus is composed of three types: A, B and C. Initially, Influenza virus A was thought to be only present in birds and poultry. However, in recent years, it has come to light that strains of the Influenza virus A, known as the Hemagglutinin proteins (HA) and Neuraminidase (NA) protein has infected humans (CDC, 2015). Since that time, the HA, NA (known as H#, N#) strains have continued to mutate and it is now known that up to there are 18 subtypes of H proteins and 11 known subtypes of the N proteins (CDC, 2015). Because of the mutation of these influenza virus proteins over the past several years (2003-2015), mortality rates from influenza, in several countries has risen to greater than 50% (WHO, 2015). In 2012, the Global Influenza Initiative (GII) was created to establish the scientific evidence for the worldwide burden of disease attributable to Influenza virus (Paget, 2015).

Generally, the “flu” infects up to 20% of the general population and will result in over 500,000 deaths each year. Unfortunately, some of our most vulnerable populations: infants, pregnant females and the elderly, are at greatest risk for contracting this disease (Cheng et al, 2015). For example, In 2010, 90% of the influenza deaths that occurred in the USA, were in the elderly population (Heron, 2013). This is despite the fact that the elderly population as a whole, represent the highest compliance rates for immunization (65%).

This presentation will focus on the evolution of influenza viruses throughout the world and the current strategies in place to monitor disease incidence, prevalence and current recommendations for prevention and treatment of both the general and at risk populations. The new quadrivalent and high-dose vaccines will also be discussed as well as policies related to the risk, benefits and effectiveness of these vaccines. (Demicheli et al, 2014).

References

Paget, J (2015). Preventing seasonal influenza worldwide through vaccination, education and international cooperation: research findings and recommendation from the Global Influenza Initiative. *Influenza and Other Respiratory viruses*. 9(Suppl.1)1-2. Cheng et al (2015). Burden of influenza-associated deaths in the Americas, 2002-2008. *Influenza and Other Respiratory Viruses*, 9(Suppl S1), 13-21. Demicheli, V., Jefferson, T., Al-Ansary, L., Ferroni, E., Rivetti, A., DiPietrantonj, C. (2014). Vaccines for preventing Influenza in healthy adults. *Cochrane Database of Systemic Reviews*. #3, John Wiley & Sons, Ltd.

Contact

saintlydoc@aol.com

P 03 - Global Disease Prevention in Influenza

An Evidence-Based Educational Strategy to Improve Influenza Vaccination Rates Among Hospital Nurses

Terri L. Spoltore, DNP, MSN, RN, CCRN, USA

Patrick Albert Palmieri, DHSc, EdS, PGDip(Oxon), MBA, MSN, RN, CPHQ, CPHRM, FISQua, FACHE, FAAN, USA

Oscar Lee, PhD, RN, CNE, USA

Abstract

Background: Seasonal influenza, or the flu, impacts over 3 million people each year. Within the health sector, nosocomial infection and absenteeism are frequently associated with the flu. The Centers for Disease Control and Prevention (CDC) recommend flu vaccination for all eligible individuals, especially health care workers (HCWs). Interventions associated with increased HCW vaccination include educational programs and occupational health campaigns to address misconceptions regarding vaccine safety and efficacy. This project evaluated the impact of a voluntary, web-based education module to encourage registered nurse (RN) vaccination. The logic and health belief models served as the theoretical frameworks.

Methods: The project used a quantitative research method with a quasi-experimental nonequivalent control group to test the effectiveness of a web-based influenza virus and vaccination professional educational module in HealthStream®. Because both the comparison group and the intervention group were convenience (non-randomized) samples, a quasi-experimental design was necessary. The participants self-selected. The groups were pre-existing and nonequivalent. The selection of this design was most appropriate for this study because it offered a larger cross section of nurses. This design also limited the potential for interaction between the two groups of participants and limited any potential bias. A brief anonymous paper survey method limited the participant's time commitment required for completion but allowed for collection of sufficient data to gain insight into similarities, differences, and trends to make predictions about the sample population. The anonymous survey also allowed for data collection from a large population without cumbersome effort on my part. Lastly, the selection of this method will allow continued data collection with the same methodology with other groups of participants in future studies.

The web-based educational module was developed to address knowledge gaps identified from the literature. The program was made available to all RNs through an existing internal web-based computerized program, HealthStream®. This approach was a familiar learning method for the participants and a standard education delivery method in the project setting. The educational program was made available during the employee influenza vaccination campaign. Nurses in the intervention group (IHNV) had access to the educational program and were notified about the program through a flyer (Appendix C), which was distributed in both printed and digital format. Nurses at IHNV were also invited to participate in the program through an email announcement (Appendix D). Finally, the nursing leaders at the IHNV site were encouraged to include the availability of the educational program in their routine staff meeting agendas. Nurses in the comparison group (IHNE), who did not receive the educational program, were made aware of the study when they presented for vaccination or declination.

A four-question survey was used to collect data from two nonequivalent groups: (a) RNs at IHNV who received the intervention (web-based education) and (b) RNs working at IHNE, who did not. The use of a comparison group located in another hospital limited the risk of bias related to information sharing between nurses who participated in the education and their colleagues who may not have participated. As each RN presented to the IHNV or IHNE influenza vaccine clinic or occupational health office, he or she was provided the standard vaccine consent or declination form.

After vaccine administration or completion of the declination form, participants were asked to complete the study tool. The tool allowed participants to self-select whether or not they participated in the intervention and to indicate whether they opted to receive or decline the seasonal influenza vaccine. Other pertinent influenza and demographic information was also collected; however, anonymity was

maintained. Surveys for data collection were returned immediately following completion to the secured lock box located at the site of vaccine administration.

Results: A total of 192 surveys were returned during the data collection period of approximately 3 weeks. During this time, both sites conducted “amnesty” days on which noncompliant employees were allowed to attend the flu vaccine clinic and either receive the vaccination or complete a declination form. A total of 116 surveys (60.4%) were returned at the IHNV campus, and 76 were returned at the Elmer campus (39.6%). The education program, implemented at IHNV only, received a total of 145 views. Of those returning surveys at the IHNV campus, 79 (41.1%) reported having viewed the education. Clinical (bedside) RNs constituted the largest group of respondents ($n=132$, 68.8%). The majority of respondents worked in a medical–surgical specialty (35.5%) and prepared at the BSN level (67.2%). Most RNs who accepted the vaccine, regardless of their primary work site, had been vaccinated the previous year as well (79.7%). Interestingly, only 5.7% of respondents reported having previously contracted the flu within the last 2 years.

Vaccine acceptance rates, overall, were similar between the two campuses. In fact, acceptance rates at IHNV (where the education was made available) were slightly lower (81.1%) than acceptance rates at IHN (84.2%; $\chi^2=0.318$, $p=0.573$). However, vaccine acceptance rates among participants who reported completing the educational program were significantly higher (91.1%) than among those who reported not having viewed the education program (76.1%; $\chi^2=7.210$, $p=0.007$). A significant difference in the vaccine acceptance rate was not seen in relation to any of the other demographic variables (nursing specialty, nursing role, academic degree). When comparing the prior year’s decision to vaccinate or not, a significant difference was seen in the percentage of RNs who chose vaccination this year. Specifically, 87% of RNs who received the vaccine the previous year were revaccinated this year, while only 12.4% of those who were previously vaccinated refused vaccination this year ($\chi^2=14.465$, $p<0.01$). Only 11 RNs reported having had influenza in the previous 2 years; of those, 10 were vaccinated this year, and one was not.

Discussion: The current literature suggests that the most common reason for influenza vaccine refusal involves misconceptions regarding the safety and efficacy of the influenza vaccine. As such, the program was designed to address these misconceptions by providing factual information about influenza severity, vaccination safety, and historical efficacy. This information appears to have addressed the reasons previously unvaccinated RNs chose vaccination. In total, 39 RNs reported not having received the vaccine last year; of those, 11 completed the education and all but one chose to receive the vaccination this year. In addition, all of the individuals who previously had the flu and who participated in education accepted the vaccination this year.

The findings demonstrate that the educational program effectively addressed the most common barriers to vaccination in that individuals who participated in the educational program were vaccinated at a significantly higher rate than those who did not. Interestingly, the vaccination rates at the IHNE campus (comparison site) were slightly higher than the IHNV campus (intervention site). The findings suggest that the educational program influenced the individual’s vaccination choice; however, the impact on vaccine decision did not spread from these educated individuals to the overall hospital population. One possible explanation is that individuals thoughtfully considered the program’s effectiveness and benefit to patients yet did not share or discuss their choice with others.

Conclusion: This project demonstrated a simple but tailored web-based educational program is effective in converting RNs to vaccination acceptance. Increased vaccination produces societal change by reducing nosocomial and community influenza transmission. Reduced influenza infection improves community health as well as patient safety. Future work should address community-wide HCW education initiatives and evaluate their impact on quality and financial indicators at the hospital and community levels.

References

Akker, I. L., Hulsher, M. E., Verheij, T. M., Dalhuisen, J. R., Delden, J. M., & Hak, E. (2011). How to develop a program to increase influenza vaccine uptake among workers in health care settings. *Implementation Science*, 6(47), 32-45. [http://doi: 10.1186/1748-5908-6-47](http://doi:10.1186/1748-5908-6-47)

Coe, A. B., Gatewood, S. B., Moczygemba, L. R., Goode, J. V., & Beckner, J. Q. (2012). The use of the health belief model to assess predictors of intent to receive the novel (2009) H1N1 influenza vaccine. *Innovations in Pharmacy*, 3(2), 1-11.

Llupià, A., Mena, G., Olivé, V., Quesada, S., Aldea, M., Sequera, V. G., . . . Trilla, A. (2013). Evaluating influenza vaccination campaigns beyond coverage: A before – after study among health care workers. *American Journal of Infection Control*, 41(8), 674-678, <http://doi:10.1016/j.ajic.2013.04.006>

Quach, S., Pereira, J. A., Heidebrecht, C. L., Kwong, J. C., Guay, M., Crowe, L., . . . Bettinger, J. A. (2013). Health care worker influenza immunization rates: The missing pieces of the puzzle. *American Journal of Infection Control*, 41(8), 685-690. <http://dx.doi.org/10.1016/j.ajic.2012.09.022>

Zhang, J., While, A. E., & Norman, I. J. (2012). Seasonal influenza vaccination knowledge, risk perception, health beliefs and vaccination behaviors of nurses. *Epidemiology Infection*, 140, 1569-1577. [http://doi: 10.1017/S0950268811002214](http://doi:10.1017/S0950268811002214)

Contact

patrick.palmieri@globalnursing.org

P 04 - Global Strategies in Maternal Care

Social Networking for Improved Maternal Child Health in Rural Settings

Autumn Argent, MSN, BSN, RNC-OB, CCE, USA
Erika Ruth Gavenus, MS, BS, USA

Abstract

Purpose: The purpose of this presentation will be to identify key areas of replication of a social networking nutrition program that took place in a remote area of Kenya, Africa, and the development of similar program possibilities in remote areas of northern Arizona amongst the Navajo, Hopi, and Hispanic populations. The social networking nutrition program is an intensive, community led, 12-week nutrition curriculum that supported nutrition interventions for young mothers, pregnant women, infants, children, and their families. The goals of the program were to improve maternal and child health, empower women to practicing exclusive breastfeeding irrespective of their HIV status, improve early childhood nutrition with appropriate child feeding, create awareness in the prevention of malnutrition in Mfangano Island, improve household food security, clear up myths and misconception surrounding family nutrition, and increase male involvement in family health. The specific population of interest within Arizona includes teenage and young mothers who are at higher risk for malnutrition or under-nutrition during pregnancy and breastfeeding due to population disparities. The population served in the Kenyan study included young, single mothers, combined families, widowed mothers, and mothers who were HIV positive. The program goals are applicable to the population being considered for program replication.

Methods: A total of seven focus groups were conducted with three participant groups over five weeks during the summer of 2016. Focus groups were conducted in the native Dhuluo language. All focus groups were recorded, transcribed in Dhuluo, translated to English, and then back translated to Dhuluo for verification. Atlas.ti was used for qualitative data analysis. Two independent researchers review the transcripts for themes.

Results: Three themes were identified based on the transcribed information from the focus groups. Nutritional balance: new knowledge of "balanced diet," diversity of foods, and kitchen gardens. Multi-dimensional support: community, social network, family, support; reduced incidence of disease; knowledge sharing; increased involvement of partner in choosing food and childcare. Community collaboration: increased business opportunities for women, increased food trading, and improved childcare.

Conclusion: The nutrition curriculum program showed great success while in practice, but success was not sustained long after the curriculum sessions ended. Recommendations, based on the identified themes, were provided to the community based organization for program revisions and expansion. Further research needs to be done to identify key geographic areas for program modification and expansion in Arizona.

References

- Corbin, J. & Strauss, A. (2015). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (4th ed). Los Angeles, CA: Sage.
- Gordon, A. & Oddo, V. (2012). *Addressing child hunger and obesity in Indian Country: Report to Congress*. Retrieved from <http://www.fns.usda.gov/sites/default/files/IndianCountry.pdf>
- McKinney, E., James, S., Murray, S., Nelson, K., & Ashwill, J. (2013). *Maternal-Child Nursing, 4th ed*. St. Louis, MO: Saunders/Elsevier
- National Campaign to Prevent Teen and Unplanned Pregnancy. (2015). Arizona Data. <http://thenationalcampaign.org/data/state/arizona>
- Nteff, G.M. (2013). The impact of education on recommended weight gain and selected prenatal outcomes in low income pregnant women. *Research in Obstetrics and Gynecology*, 2(3), p. 13-27. Doi: 10.5923/j.rog.20130203.01
- Salihu, H. M., Duan, J., Nabukera, S. K., Mbah, A. K., & Alio, A. P. (2011). Younger maternal age (at initiation of childbearing) and recurrent perinatal mortality. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, 154(1), 31-36. doi:<http://dx.doi.org.ezproxy1.lib.asu.edu/10.1016/j.ejogrb.2010.08.006>
- US Census Bureau (2015) *State and County QuickFacts*. <http://quickfacts.census.gov/qfd/states/04/0423620.html>

Whisner, C. M., Young, B. E., Pressman, E. K., Queenan, R. A., Cooper, E. M., & O'Brien, K. O. (2014). Maternal diet but not gestational weight gain predicts central adiposity accretion in utero among pregnant adolescents. *International Journal of Obesity*, p. 1-6. doi:10.1038/ijo.2014.202 [doi]

Contact

autumn.argent@nahealth.com

P 04 - Global Strategies in Maternal Care

The Use of Donabedian Quality Model to Implement Quantification of Blood Loss: Preventing Maternal Hemorrhage

Deborah Reneé Jones, DNP, RNC-OB, WHNP-BC, USA

Abstract

Background: Worldwide, obstetric hemorrhage is the most common complication of childbirth and is the most preventable cause of maternal mortality. A leading cause of preventable maternal mortality is obstetric hemorrhage impacting 1% to 4% of all births worldwide. From the World Health Organization (WHO), an estimated 140,000 women die every year from postpartum hemorrhage. The Healthy People Report 2020 target is to reduce this incident to 28%.

Proven preventable healthcare interventions can help manage or prevent maternal hemorrhage. These interventions include adoption of patient safety bundles: evidence based recommendations for practice and care to improve outcomes. One of the bundles includes quantification of blood loss. To date, numerous studies have identified a relationship between obstetrical hemorrhage and inadequate blood loss assessment. Visual estimation of blood loss during delivery has been a consistent theme and is inaccurate.

The proposed recommendation is to accurately quantify blood loss, the gravimetric method, by weighing all soiled linens and subtracting the dry weight. In the United States, the Association of Women's Health, Obstetrics, and Neonatal Nurses, the American College of Obstetrics and Gynecology and the California Maternal Quality Care Collaborative have presented a position statement indicating quantification of blood loss at every birth, however, this has not been the case until recently. When any pregnant woman delivers in a hospital, there is an existing assumption that quality, emergency care for obstetric hemorrhage will be received. Until recently, this assumption of quality care and preventability of obstetric hemorrhage has been questioned. Multiple studies have shown 93% of obstetric hemorrhage is preventable and clinician error as evidence by a delay in recognition and management of blood loss was the major factor contributing to the morbidity and mortality

Framework for presentation: This presentation will discuss the significance of the obstetric hemorrhage throughout the United States and world. More importantly, a review of literature and management strategies discussing recognition and response to an obstetric hemorrhage through Donabedian's Quality Model will be presented.

Donabedian's Quality Model provides a structured, organized way to improve the process of management of blood loss for the obstetric patient. According to Donabedian, the model is a simple, linear, diagram illustrating structure (having the right things), process (doing things right), and outcome (having the right things happen). Each component has an effect or direct influence on the next.

For the process portion of Donabedian's model, a prospective cohort design was used for evidence-based implementation examining the impact of quantification of blood loss measurement for identification of hemorrhage during birth. The primary purpose was to evaluate visual versus quantitative assessment methods in order to implement an accurate measurement of blood loss during delivery. A secondary purpose was to utilize simulation by creating in-situ simulations of deliveries to test the processes, identify barriers and opportunities while in a safe, well-controlled environment. Through Donabedian's model, the outcome was implementation of quantified blood loss at all deliveries and policy was changed. A total of 52 births were initially evaluated for visual estimation and quantitative blood loss. During this study, the average blood loss for Cesarean birth was 1200 mL and for vaginal birth 400 mL. Secondly, physicians and nurses consistently underestimated ($p < 0.0001$) blood loss by 21% to 28% at delivery. Registered nurses were inconsistent in underestimating blood loss. Through this evidence based process, maternal hemorrhage was recognized sooner and the healthcare team responded to save the life a mother. To conclude, using a derivation of Donabedian's classic structure, process, and outcomes framework would allow administrators, physicians and nursing staff the opportunity to examine the influence and

implementation of quantification of blood loss during every birth thereby decreasing maternal hemorrhage and decreasing hospital stay.

Implications for practice: The nurse is a key provider in the recognition of blood loss and mobilizing the healthcare team for positive outcomes. By understanding the current review of evidence, it is critical that nurses review the current process in their facility and implement standards for hemorrhage assessment and management. It is recognized that hospitals carry a significant burden in the prevention of adverse outcomes. Maternal hemorrhage is a direct result of interactions between healthcare team members. Evidence indicates the gravimetric method by quantifying blood loss is essential to prevent maternal mortality associated with obstetric hemorrhage. As a result, the opportunity to improve characteristics (structure and processes) affecting safe patient outcomes during birth is of utmost importance.

References

- Bingham, D. (2012). Eliminating preventable, hemorrhage-related maternal mortality and morbidity. *Journal of Obstetrics, Gynecology, & Neonatal Nursing*, 41(4), 529-530. doi:10.1111/j.1552-6909.2012.01371.x
- Bingham, D. & Jones, R. (2012). Maternal death from obstetric hemorrhage. *Journal of Obstetrics, Gynecology, & Neonatal Nursing*, 41(4), 531-539. doi: 10.1111/j.1552-6909.2012.01372.x
- Della Torre, M., Kilpatrick, S.J., Hibbard, J.U., Simonson, L., Scott, S., Koch, A. et al (2011). Assessing preventability for obstetric hemorrhage. *American Journal of Perinatology*. Doi:10.1055/s-0031-1280856
- Gabel, K.T. & Weeber, T.A. (2012). Measuring and communicating blood loss during obstetric hemorrhage. *Journal of Obstetrics, Gynecology, & Neonatal Nursing*, 41(4), 551-558. doi:10.1111/j.1552-6909.2012.01375.x.
- Main, E.K., Goffman, D., Scavone, B.M., Low, L.K., Bingham, D., Fontaine, P.L. et al (2015). National partnership for maternal safety: Consensus bundle on obstetric hemorrhage. *Journal of Obstetrics, Gynecology, & Neonatal Nursing*, 44(4), 462-539.

Contact

Renee.Jones1@baylor.edu

P 06 - Influences on Test Taking in Nursing Education

Test Anxiety Levels in Undergraduate Nursing Students

Jamie Beth Rivera, MSN, RN, CPN, USA

Abstract

BACKGROUND/PURPOSE: For many undergraduate nursing students, performing well in required coursework is important. However, nursing students often face pressure-filled academic situation and worrying about them may inhibit their ability to demonstrate actual knowledge of course material. This can, in turn, interfere with students completing their undergraduate programs or with choosing to pursue advanced nursing degrees following graduation. The purpose of this study was to assess and compare test anxiety levels of sophomore and senior undergraduate nursing students.

METHODS: A convenience sample was utilized for this descriptive survey. A total of 219 nursing students completed a scale that consisted of 26 statements focusing on the cognitive domain of test anxiety. Scores could range from 26 to 104 with higher values indicating greater anxiety. Three cut-points were applied to define low (26-59), moderate (60-69), and high (70-104) anxiety groups.

RESULTS: Internal validity of the instrument was supported by a Cronbach's alpha of 0.94. The total mean score was $M = 67.5$ ($SD = \pm 15.03$) and corresponded to a moderate level of anxiety. Mean score comparisons were conducted and showed a sophomore ($N = 111$) mean anxiety level of 71.2 ($SD = \pm 14.39$) and senior ($N = 108$) anxiety level of 63.6 ($SD = \pm 14.77$). The sophomore and senior anxiety levels were significantly different ($p < .001$). Mean score comparisons between male ($M = 66.04$ $SD \pm 14.24$ $N=23$) and female ($M = 67.64$ $SD \pm 15.16$ $N= 193$) students revealed no significant difference ($p = 0.61$). Students who had a GPA below a 3.0 had significantly higher anxiety levels ($M = 83.3$) than students who reported a GPA above a 3.0 ($M = 66.4$, $p < .001$).

CONCLUSION: Overall, nursing students have moderate-to-high test anxiety levels. Sophomore nursing students have higher mean levels than senior students and students who have a GPA below 3.0 have higher levels than those with GPA above 3.0. There was no difference in anxiety between male and female students. Strategies that improve managing test anxiety, such as early assessment, increased awareness, and providing anxiety-reducing interventions for students, may be appropriate additions to undergraduate nursing curricula.

References

- Duty, S.M., Christian, L., Loftus, J., & Zappi, V. (2016). Is cognitive test-taking anxiety associated with academic performance among nursing students. *Nurse Educator*, 41(2), 70-74.
- Ramirez, G., & Beilick, S.L. (2011). Writing about testing worries boosts exam performance in the classroom. *Science*, 331, 211-213.
- Chernomas, W.M., Shapiro C.(2013). Stress, depression, and anxiety among undergraduate nursing students. *International Journal of Nursing Education Scholarship*, (10), 255-266.

Contact

jamie.rivera@uconn.edu

P 06 - Influences on Test Taking in Nursing Education

Academic and Social Factors That Affect BSN Students Who Fail the NCLEX-RN® Exam After Graduation

Kelly J. Betts, EdD, RN, CNE, USA

Abstract

Problem/Purpose: Each year a small cohort of graduates from the UAMS CON BSN Program graduate and do not pass the NCLEX-RN® Exam on the first and subsequent attempts. The purpose of this study was to evaluate graduates from the last four years who have not been successful on the first or subsequent attempts at the NCLEX-RN® Exam to assess if there are certain trends or patterns that occur while they were in the BSN program that may have contributed to their NCLEX-RN® Failure. Identification of trends can help BSN faculty better provide academic support to students once it is understood what factors may be causing the negative outcomes.

Significance: Being able to identify trends in social and academic behaviors that lead to not being successful on the NCLEX-RN® Exam after graduation will allow faculty and academic coaches in the UAMS CON to implement early identification and remediation strategies that will better prepare students for the NCLEX-RN® Licensure exam. Findings will disseminated to other academic educators via abstract submission and publication of a manuscript.

Research Aims:

1. Determine if students who have failed the NCLEX-RN® Exam after graduation exhibit trends or patterns in academic performance using variables such as the TEAS V Entrance Exam Scores, Critical Thinking Exam Scores, and the RN Predictor Standardized Exam Scores.
2. Evaluate graduate students' experiences on what challenges they felt led to not being successful on the NCLEX-RN® Exam using qualitative interviewing.
3. Based on the results of the study, identify academic coaching measures that will enhance future success with at risk students prior to graduation.

Research Questions:

1. What are the academic characteristics of these students while they are in the BSN program related to academic success?
2. What are the contributing factors that cause students to be unsuccessful on the NCLEX-RN® Exam?
3. What are students' perceptions of the causes of their failure on the NCLEX-RN® Exam?

Background/Literature Review

Assumptions-Anecdotal evaluation of students who have historically not been successful on the NCLEX-RN® exam have exhibited academic risk factors throughout the nursing program. However, a statistical data analysis has not been performed to find out if there is indeed a significant relationship between NCLEX-RN® failures, and those who have performed poorly on the TEAS V Admission Exam, the RN Predictor Exam, and the Critical Thinking Exam. Our experience as faculty have taught us that some students who come into the program and struggle with the standardized exams and not meet the benchmarks have required several academic coaching sessions and remediation in nursing content to help them improve repeated standardized testing. Anecdotal feedback from the academic coach has also proposed that social and personal factors can also play a key role in students who are at academic risk while in the nursing program. For years, nursing faculty and administrators have tried to find the best models for predicting NCLEX-RN® success, but there continues to be a knowledge gap as to what that module truly looks like. Many studies have been published that have given information related to success predictors such as pre-admission testing, admission GPA, and benchmarking exams during the program, but have lacked the ability to determine an exact science. Of late, one particular study by McCarthy et al (2014) studied what were the predictors of NCLEX-RN® success by evaluating pre-nursing versus nursing aptitude scores from the ATI TEAS V, and various standardized exams students complete throughout their nursing program. The results revealed significance for almost all academic variables with

the NCLEX-RN®. There was a strong correlation between academic and nursing aptitudes. Students who scored high on predictor variables identified (pre-nursing GPA, TEAS Reading, TEAS Math, TEAS Science, and TEAS English) also scored high on ATI Fundamentals, ATI Medical Surgical, ATI Nursing Care or Children, ATI Mental Health, and ATI Maternal Newborn exams. It also concluded that TEAS and GPA sub-scores were also good predictors of success. Another study by Abele, Penprase and Ternes (2013) evaluated undergraduate prerequisite and nursing courses that may serve as predictors of success for students completing a BSN program and sitting for the NCLEX-RN® Exam. The students evaluated in this study were on academic probation and at risk students and failed at least one pre-nursing or nursing course. The most common courses failed pre-nursing were the biological sciences and the medical surgical and psychiatric mental health courses in the nursing program. The results revealed that those students failing two or more courses (pre-nursing and nursing) were less likely to complete the program.

Methodology-This study combined quantitative descriptive analysis and face to face interviews with thematic analysis as a mix-methods approach. **Subjects/Setting-**Graduates who failed the NCLEX-RN® Licensing exam from May 2012-May 2015 were identified using the UAMS College of Nursing's (UAMS CON) academic database. The sample of graduates were evaluated from the May or December graduating classes in the years of 2012-2015. The study interviews took place at the University of Arkansas for Medical Sciences College of Nursing. The students are graduates of the BSN program and have taken at least 1 attempt of the licensure exam. **Instrument-**The quantitative portion of the study was a retrospective review of academic test scores and demographic using the ATI database and student records. The qualitative methods used a semi-structured interview guide during interviews to capture graduate feedback. **Procedure-**The study was approved by the University of Arkansas for Medical Sciences Investigational Review Board. Graduates who did not pass the NCLEX-RN Licensing exam over the last 5 years (May 2012-May 2016) were identified. Once identified, retrospective review of their academic performance while in the BSN program was reviewed: TEAS V Scores, ATI Critical Thinking Exam Scores, ATI RN Predictor Scores, Demographic data, admission GPA, Graduation GPA and Number of academic coaching sessions attended while in the program. Graduates who did not pass the NCLEX RN Exam were contacted by the investigator and asked to participate in a face to face interview that asked questions regarding the topic of why they felt they were unsuccessful on the NCLEX-RN Exam. An interview guide was used to collect qualitative data. Each interview was recorded and transcribed word for word into an interview script after obtaining the participant's permission. Thematic analysis was used to determine major themes in the data. **Data Analysis-**Quantitative data analysis consisted of descriptive statistics (frequencies, means, and standard deviations as appropriate) identifying student demographic data related to sex and race and academic demographic data consisting of admission cumulative GPA, Graduation Cumulative GPA, and admission TEAS V Exam Score(s). Data using face to face interviews and thematic analysis of interview narratives for each participant was used to identify themes throughout each interview that may help the researcher understand situational, social, and environmental factors that may have contributed to the negative outcomes of NCLEX-RN failure for each student.

Results- Graduation GPA was much lower than entrance GPA, Average TEAS V Scores were 66.8 (lower end of average) and mean Comprehensive Predictor Scores were 69.7 (N=43). Thematic Analysis indicated that major risk factors included length of time from graduation to testing date, lack of preparation for the licensure exam, and differences in the testing environment in the program versus NCLEX-RN testing environment.

References

- Abele, C., Penprase, B., & Ternes, R. (2013). A closer look at academic probation and attrition: What courses are predictive of nursing student success? *Nurse Education Today*, 33, 258-261.
- McCarthy, M., Harris, D., & Tracz, S. (2014). Academic and nursing aptitude and the NCLEX-RN in baccalaureate programs. *Journal of Nursing Education*, 53(3), 151-159.

Contact

kbetts2@uams.edu

P 07 - International Collaborations to Promote Health

Global Health for the Young Professional: How to Align Your Work With Global Initiatives

Lindsey N. Horrell, BSN, RN, USA
Christine M. Darling, MPA, BS, USA
Cynthia Vlasich, MBA, BSN, RN, USA

Abstract

This presentation outlines a variety of initiatives that provide young professionals of all disciplines the opportunity to become involved in nursing and midwifery's global health agenda. Presenters will provide a thorough review of the United Nations' (UN) Sustainable Development Goals (SDGs), with special emphasis on ways these goals can be implemented in one's own practice and research at the local, regional and international levels. A variety of opportunities focused on global health through Sigma Theta Tau International (STTI) will be discussed. Presenters will provide an overview of the purpose and mission of the Global Advisory Panel on the Future of Nursing & Midwifery (GAPFON), which seeks to advance nursing and midwifery's ability to lead interdisciplinary responses to the most pressing healthcare issues facing our global society (Klopper & Hill, 2015). Findings from GAPFON's recent listening tour held with key stakeholders across the globe will be reviewed. In addition, action plans that young professionals may participate in to advance culturally relevant efforts to achieve the SDGs by 2030 will be discussed. Information will also be shared about STTI's special consultative status with the United Nations Economic and Social Council (ECOSOC) (STTI, 2016). Information about upcoming application dates to serve as STTI UN Youth Representatives will be available. Finally, the presenters will discuss a number of institutes and grant programs available through STTI to provide both emerging and experienced healthcare leaders the resources necessary to influence policy and to improve the health outcomes of people and populations worldwide. Information will focus on the Emerging Global Leaders Institute and the STTI Global Nursing Research Grant, which was established to fund nursing research focused on addressing global health disparities. In outlining each of these programs and initiatives, presenters will provide young professionals the tools necessary to become further involved with international health initiatives and to align one's own work with nursing and midwifery's global health agenda.

References

Klopper, H. C., & Hill, M. (2015). Global advisory panel on the future of nursing (GAPFON) and global health. *Journal of nursing scholarship*, 47(1), 3-4. doi: 10.1111/jnu.12118
Sigma Theta Tau International (2016). *United Nations*. Retrieved from: <http://www.nursingsociety.org/connect-engage/our-global-impact/stti-and-the-united-nations>

Contact

horrell@email.unc.edu

P 07 - International Collaborations to Promote Health Partnerships Among Nonprofit Organizations: Assessing the Impact on Global Health

Jacqueline Cassagnol, MSN, RN, PMC, USA

Abstract

Partnership among nonprofit organizations are intended to achieve greater impact than any organization could generate on its own. The purpose of this project is to assess the impact of partnership among an international organization and nonprofit organizations on global health. The partnership is between Worldwide Community First Responder, Inc. (WCFR) and nonprofit organizations in the USA and Haiti. The nonprofit organizations include: Haitian American Nurses Association, Sigma Theta Tau International, and Volunteer New York. In order to facilitate an in-depth examination of the project impact, a case study methodology was employed. Communities worldwide have benefited from the services that WCFR has provided through partnership. A reflection of WCFR partnership shows that the partnership impacts education by providing education to community members worldwide about fatal health conditions and preventative measures. The partnership also impacts training by providing worldwide community-based first response and first aid training. The services that WCFR provides can serve as a source of research for faculty and students. The projects engage faculty and students at Faculte des Sciences Infirmieres de Leogane (FSIL), a nursing school in Haiti. Faculty and students respond directly to community needs by conducting community health assessments through surveys; analyzing data collected and recommending interventions to improve community health. Additionally, faculty guide students in assessing communities risk and vulnerability for disasters; and developing disaster preparedness plans including first response and first aid training. These opportunities help students practice critical thinking, and problem-solving skills necessary for professional life. Moreover, the projects engage participants in promoting healthy lifestyles in their community, and making their community safer, better prepared, and more resilient to disasters. Through the projects, WCFR seeks to empower individuals in their communities and save lives. The partnership between WCFR and nonprofit organizations has proven to be beneficial for all stakeholders. WCFR research findings and initiatives are impacting nursing practice, education, training, research and health globally. Although these projects were initiated in the United States and Haiti, they can be utilized for successful partnerships on projects that save lives in other parts of the world.

References

- Anheier, H. K. (2014). *Nonprofit organizations: Theory, management, policy*. Routledge.
- De Ville de Goyet, C., Sarmiento, J. P., & Grünewald, F. (2010). Health response to the earthquake in Haiti: Lessons to be learned for the next massive sudden-onset disaster. Retrieved from Pan American Health organization: <http://new.paho.org/disasters/dmdocuments/HealthResponseHaitiEarthq.pdf>
- Jerome, J. G., & Ivers, L. C. (2010, January 24). Community health workers in health systems strengthening: A qualitative evaluation from rural Haiti [Supplement]. *AIDS*, (Supp 1), S67-S72. <http://dx.doi.org/10.1097/01.aids.0000366084.75945.c9>
- Kapucu, N., Yuldashev, F., & Feldheim, M. A. (2016). Nonprofit organizations in disaster response and management: A network analysis. *European Journal of Economic and Political Studies*, 4(1), 83-112.
- Worldwide Community First Responder. (2015). History & Mission. Retrieved from: <http://wcfworldwide.org/about/history-andmission/>

Contact

jackiecassagnol@gmail.com

P 08 - Promoting Clinical Outcomes in the Cardiac Patient Implementation of an Evidence-Based Practice Checklist to Reduce 30-Day Readmission for Patients With Heart Failure

Susan Giscombe, MS, APRN, FNP-c, USA

Diana Lyn Baptiste, DNP, MSN, RN, USA

Melissa Jones Holley, DNP, MSN, BSN, APRN, FNP-c, USA

Abstract

Purpose: One of the leading causes of hospital admissions is cardiovascular disease. Innovations in technology and the advancement in science the aged population has increased and now has lent to more people being diagnosed with heart failure. As of 2013, it is reported that 5.1 million Americans are living with HF and this is one of the leading cause of hospitalizations across the country. Decompensation of HF will cause patients to seek treatment and often they are admitted into the hospital. And of those patients admitted approximately 25% of them will return within 30-days of discharge for worsening symptoms or an entirely different illness. It is reported HF readmissions may be preventable in up to 50% of the cases. Factors contributing to preventable readmissions include inconsistent in-patient care, physician errors, incorrect medication and/or dose titration and inadequate discharge planning. The cost for caring for HF patients is \$34 billion annually and it is estimated that by 2030 to go as high as \$70 billion dollars. Policy makers and payers have focused on this trend and are holding hospitals accountable for these readmissions. The American Heart Association/ American College of Cardiology guidelines provide specific recommendations for pharmacological and non-pharmacological therapies in the treatment of patients with heart failure. The purpose of this project was to implement an evidence-based clinical intervention to support clinicians in providing quality care in a safe and consistent manner, with a goal of decreasing the likelihood of patients with heart failure returning to the hospital within 30-days after discharge.

Methods: Our study was conducted at a 255-bed tertiary hospital in a rural region of the northeastern United States. We piloted a discharge checklist for two months, to be used by providers when discharging patients hospitalized for heart failure. This discharge checklist was developed based on recommendations from the American Heart Association/ American College of Cardiology that included prescribing medications from up to seven drug classifications such as diuretics, beta blockers, aldosterone antagonists, and nitrates. Recommended non-pharmacological therapies included patient education related to dietary and lifestyle modifications, as well as post-discharge follow-up. The checklist was added to electronic medical record. Physicians were educated regarding use the checklist when discharging all patients who were initially admitted for heart failure. We evaluated readmission rates for two groups of (N=96) patients who were discharged from the hospital in the pre and post intervention periods.

Results: Prior to the intervention, readmission rates for the hospital were at 27% from the period of September 2015 to November, 2015. In the post intervention period, readmissions decreased to 17% from September 2016 to November, 2016.

Conclusion: A well-designed discharge plan remains a critical component of the patient discharge process, necessary to improve outcomes and reduce readmission. Consistent with previous studies, the implementation of evidence-based discharge checklists based on the American Heart Association/ American College of Cardiology recommendations can reduce the percentage of patients who are readmitted within 30 days of initial hospitalization. Nurses are uniquely qualified to promote use of checklists among providers in efforts to improve health outcomes. Further study is necessary to examine barriers to using discharge checklists by providers.

References

Al-Khazaali, A., Arora, R., Helu, H. K. (2014). Effective strategies in reducing rehospitalizations in patients with heart failure 2014. *American Journal of Therapeutics*

Basoor, A., Doshi, N.C., Cotant, J. F., Saleh, T., Todorov, M., Choksi, N., & Halabi, A. R. 2013. Decreased readmissions and improved quality of care with the use of an inexpensive checklist in heart failure. *Congestive Heart Failure*, 19(4), 200-206.

Casteel, B. 2012. Simple heart failure checklist reduces readmission rates, improves care, could save billions. *American College of Cardiology's CardioSource*. 19-20

Howie-Esquivel J., Carroll M., Brinker E., Kao H., Pantilat S., Rago K., & De, M. T. (2015). A strategy to reduce heart failure readmissions and inpatient costs. *Cardiology Research*, 6(1), 201-208.

Contact

sgiscom1@jhu.edu

P 08 - Promoting Clinical Outcomes in the Cardiac Patient

Advanced Nurse-Led Referral Versus ED Physician Referral to a Nurse-Led Chest Pain Clinic: Patient Outcomes

Shirley J. Ingram, MsC, RGN, RANP, RNP, NFESC, Ireland
Gabrielle McKee, PhD, BA (Mod), Ireland
Mary B. Quirke, PhD, MA, Ireland
Niamh Kelly, MsC, RGN, RANP, Ireland

Abstract

Background: The role of registered advanced nurse practitioner (RANP) in Ireland is in its infancy compared to the US. The SCAPE study¹ recommended that future research focus on capturing specific clinical outcomes related to advanced nursing practice, however identifying the outcomes of advanced nursing practice is complex. Existing evidence shows similar outcomes for nurse practitioners and physician care in the US² and better RANP radiological diagnostic skills in Ireland³ yet there is a dearth of literature showing better outcomes of RANP led services to usual physician led care.

Internationally chest pain is a common presentation to Emergency Departments (ED), accounting for 5-10% of ED visits annually and a quarter of hospital admissions⁴. Over 90% of chest pain presentations are unrelated to acute coronary syndromes (ACS)⁵ with less standardised protocols and treatment for this group. An alternative nurse led chest pain service was set up to assess non-ACS chest pain patients presenting to the ED for possible stable coronary artery disease (SCAD). The service consists of two components i) advanced nurse-led consultation in the ED and ii) advanced nurse-led chest pain clinic review < 72 hours after discharge. The aim of the study was to compare patient outcomes post chest pain clinic review by referral type; Advanced nurse-led v ED Physician.

Methods: The study took place in a large tertiary level acute urban teaching hospital in Dublin, Ireland as a one site cross sectional study of patients attending the chest pain clinic over two years. Utilising an accelerated diagnostic protocol (ADP), referrals to the clinic were by the advanced cardiology nurse-led service during consult hours and out-of-hours by the ED physicians. Data was extracted from case notes and analysed using SPSS version 20. Ethical approval was given by the local research ethics committee.

Results: 1041 patients were referred to the nurse-led chest pain clinic, 45% by the nurse-led service. The nurse referred statistically significantly more patients who had; pre-existing vascular disease (24% vs 13%), positive exercise stress test (21% vs 12%), a final diagnosis of stable coronary artery disease (19% vs 11%), were older (56.5 yrs. vs 52.3 yrs.); and less patients with final diagnoses of musculoskeletal (5% vs 13%) and other non-cardiac pain (36% vs 45%) when compared to the ED physician referrals. This reflects appropriate patient selection following nursing-led assessment in the ED with a statistically significant diagnosis of coronary heart disease by the nurse-led service.

Conclusions: This study provides evidence of a successful alternate nurse led model utilising a cardiology advanced nurse practitioner-led service for patients who present to the emergency department with chest pain. It fills a gap in the literature regarding patient outcomes, directly comparing advanced nursing practice with the medical model, evidencing the effectiveness and clinical leadership of RANP led care.

References

- National Council for the Professional Development of Nursing and Midwifery (2010) *Evaluation of Clinical Nurse and Midwife Specialist and Advanced Nurse and Midwife Practitioner Roles in Ireland (SCAPE)*. Dublin. National Council for the Professional Development of Nursing and Midwifery: Seminal reference
- Stanik-Hutt J, Newhouse R, Whilte K, et al (2013) The quality and effectiveness of care provided by nurse practitioners. *The Journal for Nurse Practitioners*. Vol 9, Issue 8 p492-500
- Thompson W, Meskell P. (2012) Evaluation of an advanced nurse practitioner (emergency care)-An Irish perspective. *The Journal for Nurse Practitioners*. Vol 8, Issue 3 p200-205

- Bidmead T, Goodacre S, Maheswaran R, O'Cathain A. (2015) Factors influencing unspecified chest pain admission rates in England. *Emerg Med J*, 32: 439-43.
- Montalescot G, Sechtem U, Achenbach S, et al (2013). ESC guidelines on the management of stable coronary artery disease: the Task Force on the management of stable coronary artery disease of the European Society of Cardiology. *Eur Heart Journal*, 34: 2949-3003.

Contact

sjingham12@gmail.com

Q 01 - Patient-Centered Outcomes

Enhancing Nursing Care in Rural Public Hospital Network Through Utilizing Transforming Care at Bedside Framework

Salah-Addin H. Aqtash, PhD, RN, CPHQ, USA

Abstract

Purpose: To discuss the experience of a Rural Public Hospitals Network (RPHN) in the United Arab Emirates (UAE) in successfully implementing the Transforming Care at the Bedside (TCAB) framework and the impact of this implementation on improving patient outcomes.

Introduction: Transforming Care at the Bedside was established as an innovative approach by the Robert Wood Johnson Foundation (RWJF) in collaboration with the Institute for Healthcare Improvement (IHI) to improve the delivery of care as well as work environment in hospitals through empowering front-line nursing staff. The program utilized bottom up approach by allowing front line nurses to develop and implement ideas of change compared to the traditional top down approaches. The TCAB framework has four essential domains including safe and reliable care, vitality and teamwork, patient centered care and value added care process.

Discussion: One of the most important challenges that faced the senior leadership of the RPHN in the UAE was dealing with the growing and continuing expectations of patients and their families. Consequently, a core responsibility for the nursing leadership in this network was to constantly explore innovative ways and means to ensure the delivery of nursing care that meet or exceed the expectations of patients. Given the popularity the TCAB gained in improving nursing care in many hospitals, the nursing leadership in this RPHN made an executive decision to utilize this framework to guide a quality improvement project focusing on improving the provided care. The leadership has established a TCAB taskforce team chaired by a nurse manager with significant quality experience to work on the implementation and provided the team with all needed resources to help them succeed. After surveying frontline staff and conducting the introductory sessions in the targeted units, the team identified issues related to two domains in the TCAB framework including patient centered care and vitality and team work. The team then initiated the necessary corrective measures through utilizing the PDCA cycle.

Conclusion: The implementation of this innovative framework helped the nursing leadership in identifying some of the gaps in the provided care and consequently developing the necessary action plans to amend them. As a result of the action plans, significant changes have been noted in patients' feedback. We conclude that the RPHN nursing executive team was successful in utilizing this framework in empowering front line nurses to improve the quality and safety of care as well as improve patients' positive outcomes.

References

- Rutherford P, P. J., Coughlan P, Lee B, Moen R, Peck C, Taylor J. (2008). Transforming Care at the Bedside How-to Guide: Engaging Front-Line Staff in Innovation and Quality Improvement. Retrieved from www.IHI.org on October 22, 2016 (Classical Reference for TCAB)
- The Robert Wood Johnson Foundation. (2011). Transforming Care at the Bedside: The program results report. Retrieved October 22, 2016, from the Robert Wood Johnson Foundation http://www.rwjf.org/content/dam/farm/reports/program_results_reports/2011/rwjf70624
- Unruh, L., Agrawal, M., & Hassmiller, S. (2011). The Business Case for Transforming Care at the Bedside Among the "TCAB 10" and Lessons Learned. *Nursing Administration Quarterly*, 35(2), 97-109. doi:10.1097/NAQ.0b013e31820f696f

Contact

saqtash@yahoo.com

Q 01 - Patient-Centered Outcomes

"Patient-Reported Outcome Measures" Enhance the Nursing Process and Patient-Centered Care in Heart Failure

Marguerite M. Russo, PhD, MS, CRNP-F, ACHPN, USA

Abstract

Purpose: Despite costly advances in heart failure management, heart failure is characterized by pervasive adverse and complex symptoms, functional decline, and poor quality of life. The purpose of this study is to incorporate Patient Reported Outcome Measure (PROM) data into the nursing process, augmenting usual nursing assessments with robust patient specific reports. This study aims to detect unmet care needs identified by integrating patient reported data in the nursing assessment, via PROMs measuring multidimensional symptoms, and health related quality of life, and testing their associations with other nursing assessment factors.

Methods: This cross sectional, correlational study used data collected from 88 individuals undergoing inpatient heart failure treatment in a large urban academic medical center (50% male, average age 67±6.9, median duration of heart failure >4 years, mean vEF =32%). Following consent, patients completed a 30 minute interview consisting of valid, reliable 'patient reported outcome measures' of symptom burden, and health related quality of life. PROM data augmented nursing assessments and disease, treatment, and social characteristics abstracted from medical records. Data analyses of assessment and PROM findings were conducted using correlation, non parametric statistics and regression models.

Results: 'Patient reported outcome measures' had good internal reliability (Cronbach's alpha >.8). The most prevalent symptoms reported (75-97%), were xerostomia, dyspnea, fatigue, pain, worry and sleep disruption. Statistically significant differences were detected in symptom burden associated with gender; symptom frequency, severity and or associated distress was increased in women participants compared with men ($r=-.21$, $p=.048$). Increased symptom burden associations with decreased functional status were statistically significant, beginning at the 40% threshold on the Karnofsky Performance Scale ($r=.40$, $p=.001$) assessed in the participants.

Conclusion: 'Patient reported outcome measures' contribute unique findings to inform the nursing process and patient centered heart failure treatment. Care quality opportunities identified in this sample include multidimensional symptom management, functional support, disease and treatment education, and advance care planning; all components of primary palliative care.

References

- Kelkar, A.A., Spertus, J., Pang, P., Pierson, R.F., et al. (2016). Utility of Patient-Reported Outcome Instruments in Heart Failure. *Journal of the American College of Cardiology*, 4(3), 165-175.
- Quill, T.E., Abernethy, A.P. (2013). Generalist plus specialist palliative care Creating a more sustainable model. *New England Journal of Medicine*, 368(13), 1173-1175.
- Weissman, D.E., Meier, D.E. (2011). Identifying patients in need of a palliative care assessment in the hospital setting A Consensus Report from the Center to Advance Palliative Care. *Journal of Palliative Medicine*, 14(1), DOI: 10.1089/jpm.2010.0347.
- Whellan, D.J., Goodlin, S.J., Dickinson, M.G., Heidenreich, P.A., et al. (2014). Consensus Statement End-of-Life Care in Patients With Heart Failure. *The Journal of Cardiac Failure*, 20(2), 1-14.

Contact

msmrusso@gmail.com

Q 02 - Professional Nursing Initiatives

New Jersey-Bermuda Perianesthesia Nursing Collaborative

Linda Wilson, PhD, RN, CPAN, CAPA, BC, CNE, CHSE-A, ANEF, FAAN, USA
Helen S. Kane, MSN, MBA, RN, CCRN, USA

Abstract

This session will present the New Jersey Bermuda Perianesthesia Nursing Collaborative which is a professional specialty nursing collaboration between perianesthesia nurses in the state of New Jersey and the county of Bermuda.

Collaboration initiated with the desire for the Bermuda perianesthesia nurses to be formally active in the specialty of perianesthesia nursing which required membership in a formal state or country based perianesthesia nursing specialty organization. International nursing partnerships require extensive foresight and planning to create partnerships that are beneficial for all parties involved (George & Meadows-Oliver, 2013). Several collaborative meeting took place between the New Jersey perianesthesia nursing leadership and the perianesthesia nurses of the country of Bermuda to develop the plan for this formal collaboration. The decision was made to develop a collaborative formal professional nursing specialty organization for perianesthesia nurses in Bermuda as well as New Jersey and surrounding states in the United States.

The priorities for this New Jersey Bermuda perianesthesia nursing organization included all aspects of perianesthesia nursing including clinical practice, research, standards, education, networking, certification information, professional resources and much more. Once formalized, the Bermuda perianesthesia nurses joined the New Jersey perianesthesia nurses as active members of this collaborative. Bermuda perianesthesia nurses are eligible to run for office and serve in any capacity on the organizations' board of directors.

The New Jersey Bermuda Perianesthesia Nurses Association (NJBPANA) offers an educational continuing nursing education conference every fall and spring in the United States and an international conference at least every other year in Hamilton, Bermuda (NJBPANA, 2016). The international conference in Bermuda is planned collaboratively with the Bermuda perianesthesia nurses and includes presentations from experts both in the United States and Bermuda. The perianesthesia nurses from the United States and Bermuda also have the opportunity to meet and network annually at the American Society of Perianesthesia Nurses national conference which is held at a different location throughout the United States every year.

The biggest challenge for this international perianesthesia collaborative is the distance between the state of New Jersey in the United States and the county of Bermuda. This organization was able to overcome this challenge with the use of technology, ongoing networking and collaboration as well as continuing education conferences being offered in both the United States and the country of Bermuda. This international perianesthesia nursing collaborative has been very successful and has already had one President from the Bermuda perianesthesia nurses. The board of directors for this collaborative continue to look for ways to increase participation, enhance resources and monitor outcomes.

References

George, E. K., Meadows-Oliver, M. (2013). Searching for collaboration in international nursing partnerships: A literature review. *International Nursing Review*. 60, p. 31-36
New Jersey Bermuda Perianesthesia Nurses (2016). www.njbpna.org

Contact

Lbw25@drexel.edu

Q 02 - Professional Nursing Initiatives

Exploration of the Impact Undergraduate Health Policy Education Had on Nurses' Political Astuteness and Involvement

Carol Ann Amann, PhD, RN-BC, CDP, FNGNA, USA

Abstract

A common barrier to political or health policy involvement is related to the lack knowledge and preparation of nurses to become involved in health policy and politics. Political competence and mentoring is considered a necessary component of nursing education if nurses are expected to be active within the political arena (Ferguson & Drenkard, 2003). To effectively promote health policy, professional nurses need introductory knowledge of the political environment. When offered in undergraduate nursing programs, the education is constrained in scope and practice to a small number of baccalaureate nursing students during their formal education. Practicing nurses who desire to further their knowledge and expertise through mentoring programs in health policy are hampered by insufficient numbers of nursing professionals and mentors within this specialty (Spenceley, Reutter, & Allen, 2006).

Current research has been limited to non existent on this subject matter. To further explore these findings a phenomenological research study was completed to determine the impact an undergraduate baccalaureate level nursing course in health policy and political involvement had on registered nurses political astuteness and involvement. The study was conducted using a purposive sample of registered nurses who were prior nursing students enrolled in a health policy course. Of the 24 students enrolled, 21 students participated in the research. An open-ended question format using nine semi- structured questions was formulated to guide the interview session for the purpose of this research. Five overarching themes emerged: (1) Education as a Foundation to Political Advocacy, (2) Health Policy Involvement, (3) Characteristics of a Politically Involved Nurse, (4) Perceived Barriers to Political Involvement, and (5) Academia Leading the Way. Results indicated that health policy education was a valued component of the registered nurses undergraduate education. Participants utilized their health policy/political foundation to pursue health policy roles within their health care organizations and on a local, state or federal level to positively impact health policy. Obstacles to health policy/political involvement were identified as organizational barriers, fear of retribution, shortage of mentors, and lack of time were the primary deterrents to nurses involvement in health policy/political activity.

References

- Americas Civic Health Index. (2013). Volunteering and civic life in America by the numbers. Retrieved from <http://ncoc.net/VCLAPoliticalIndicators>
- Bakker, T. P., & deVreese, C. H. (2011). Good news for the future? Young people, internet use and political participation. *Communication Research*. 38(4), 451-470.
- Berinsky, A. J., & Lenz, G. S. (2011). Education and political participation: exploring the causal link. *Political Behavior*. 33, 357-373.
- Brady, H., Scholzman, K., & Verba, S. (2015). Political mobility and political reproduction from generation to generation. *The Annals of the American Academy*. 657, 149-173.
- Byrd, M. E., Costello, J., Gremel, K., Schwager, J., Blanchette, L., & Malloy, T. E. (2012). Political astuteness of baccalaureate nursing students following an active learning experience in health policy. *Public Health Nursing*. 29(5), 433-443.
- Donovan, D., Diers, D., Goodrich, A., & Carryer, J. (2012). Perceptions of policy and political leadership in New Zealand. *Nursing Praxis in New Zealand*. 28(2), 15-25.
- Eckstein, K., Noack, P., & Gniewosz, B. (2013). Predictors of intentions to participate in politics and actual political behaviors in young adulthood. *International Journal of Behavioral Development*. 37(5), 428-435.
- Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., Raso, C., & Ha, S. E. (2011). Personality traits and participation in political processes. *The Journal of Politics*. 73(3), 692-706.
- Khoury, C., & Blizzard, R. (2011). Nursing leadership from bedside to boardroom: a Gallup national survey of opinion leaders. *The Journal of Nursing Administration*. 41(7/8), 299-305.
- Lewenson, S. B. (2012). A historical perspective on policy, politics and nursing. In Mason, D., Leavitt, J. & Chafee, M. (2012). *Policy & politics in nursing and health care* (6th ed.). St. Louis, MO: Saunders.
- Mason, D., Leavitt, J. & Chafee, M. (2012). *Policy & politics in nursing and health care* (6th ed.). St. Louis, MO: Saunders.

Montgomery, T. M. (2012). Health care and politics making your voice heard. *Nursing for Women's Health (AWHONN)*. 16(2), 198-201.

Ondercin, H. L., & Jones-White, D. (2011). Gender jeopardy: What is the impact of gender differences in political knowledge on political participation. *Social Science Quarterly*. 92(5), 675-694.

Porsche, D. J. (2012). *Health policy application for nurses and other healthcare professionals*. Sudbury, MA: Jones & Bartlett Learning.

Vandenhouten, C., Malakar, C., Kubsch, S., Block, D., & Gallagher-Lepak, S. (2011). Political participation of registered nurses. *Policy, Politics & Nursing Practice*. 12(3), 159-167.

Contact

amannfamily@verizon.net

Q 03 - Promoting Alternative Health Practices

Patients Being Weaned From the Ventilator: Positive Effects of Guided Imagery

Frank McVay, BSN, RN, USA
Elizabeth Spiva, PhD, MSN, BSN, RN, USA
Patricia L. Hart, PhD, RN, USA

Abstract

Background/Significance: Mechanical ventilation (MV) is a life-sustaining treatment for respiratory compromised patients with an estimated cost of \$27 billion a year. Patients requiring MV may experience anxiety, psychological and emotional distress and delusional memories. Guided imagery may reduce the frequency and severity of these symptoms. Therefore, a study was conducted to assess the effects of guided imagery on sedation levels, sedative and analgesic volume consumption, and physiological responses of patients being weaned from mechanical ventilation and to assess nurse perception of feasibility and satisfaction of using guided imagery as an intervention

Methods: Forty-two patients were selected from two community acute care hospitals. One hospital served as the comparison group and provided routine care (no intervention) while the other hospital provided the guided imagery intervention. The intervention included two sessions, each lasting 60 minutes, offered during morning weaning trials from mechanical ventilation. Measurements were recorded in groups at baseline and 30- and 60- minute intervals and included vital signs and Richmond Agitation-Sedation Scale (RASS) score. Researchers developed four questions addressing feasibility and satisfaction for using guided imagery as intervention; survey rated on 5-point Likert scale. Nurses directly involved with patients receiving intervention completed surveys.

Results: Sedative and analgesic medication volume consumption were recorded 24 hours prior to and after the intervention. The guided imagery group had significantly improved RASS scores and reduced sedative and analgesic volume consumption. During the second session, oxygen saturation levels significantly improved compared to the comparison group. Guided imagery group had 4.88 less days requiring mechanical ventilation and 1.4 reduction in hospital length of stay compared to the comparison group. Of 42 surveys distributed, 23 nurses (55%) completed survey with mean scores for each question ranging from 4.09 to 4.83. Nurses felt guided imagery was an effective nursing intervention ($M = 4.83$, $SD = .39$), successfully incorporated into weaning process ($M = 4.09$, $SD = .95$), simple to implement ($M = 4.13$, $SD = 1.0$), and intervention met intended purpose ($M = 4.09$, $SD = 1.08$).

Discussion: Guided imagery may be a part of the multimodal treatment approach and serve as a substitute to administering high doses of sedatives to assist with keeping the patient calm and relaxed. Nurses perceived the intervention as effective and easily incorporated into the weaning process.

Conclusion: Guided imagery may be complementary and alternative medicine intervention to provide during mechanical ventilation weaning trials. Guided imagery appeared to be an effective, safe and feasible intervention to use in patients being weaned from mechanical ventilation.

References

1. Blackwood, B., Burns, K.E., Cardwell, C.R., & O'Halloran, P. (2014). Protocolized versus non-protocolized weaning for reducing the duration of mechanical ventilation in critically ill adult patients. *Cochrane Database Syst Rev* Nov 6, 11: CD006904. Doi:10.1002/14651858.CD006904.pub3.
2. Chlan LL, Weinert CR, Heiderscheid A, Tracy, M.F., Skaar, D.J., Guttormson, J.L., & Savik, K. (2013). Effects of patient-directed music intervention on anxiety and sedative exposure in critically ill patients receiving mechanical ventilator support. *JAMA*, 309(22):2335-2344. doi: 10.1001/jama.2013.5670.
3. Rose, L., Nonoyama, M., Rezaie, S., & Fraser, I. (2014). Psychological wellbeing, health related quality of life and memories of intensive care and a specialised weaning centre reported by survivors of prolonged mechanical ventilation. *Intensive and Critical Care Nursing*, 30, 145-151.

Contact

fmcvay@comcast.net

Q 03 - Promoting Alternative Health Practices

Promoting a Restraint-Free Culture Through Sensory Modulation

Colleen Marie Glair, MSN, RN, PMHCNS-BC, USA

Caitlin E. Belvin, MS, OTR/L, USA

Marnie A. Dodson, MSN, RN, USA

Abstract

The American Nurses Association (ANA) promotes registered nurse participation in reducing patient restraint and seclusion in health care settings. Restraining or secluding patients either directly or indirectly is viewed as contrary to the fundamental goals and ethical traditions of the nursing profession, which upholds the autonomy and inherent dignity of each patient (ANA 2012). The American Psychological Nurses' Association (APNA) supports the psychiatric-mental health nurses', critical role in the provision effective treatment and milieu leadership to maximize the individual's ability to effectively manage potentially dangerous behaviors in the psychiatric setting (APNA 2014). The profession of occupational therapy emerged from some of the earliest restraint and seclusion efforts, realizing the need for more humane and nurturing interventions for people with mental health and rehabilitation needs (AOTA, 2014). Sensory modulation is a client centered approach used by occupational therapists to help individuals who are distressed and agitated regain a sense of calm by using a range of tools to moderate sensory input (Champagne, 2004 and 2011) Regulatory standards from The Joint Commission require staff to be able to demonstrate strategies to identify staff and patient behaviors, events, and environmental factors that may trigger circumstances that require the use of restraint or seclusion as well as the use of nonphysical intervention skills (TJC, 2010). Given the safety, ethical, professional, regulatory and legal standards related to reducing restraint, it is imperative that alternative, evidenced based strategies be employed throughout our health care settings.

Sensory Modulation teaches patient's self-regulation skills and improves the rapport between staff and patients by giving them additional opportunities for therapeutic communication, prevention of escalation and aggression, and tangible alternatives to PRN medications. Trauma informed care is patient strength based approach to care, as a least ninety per cent of public mental health consumers have been exposed to trauma (Felitti V. J. & Anda R. F. 2010). Instead of talk based therapies sensory approaches provide experiential opportunities to help individuals recognize and regulate their unique sensory experiences. By using sensory modulation strategies in combination with a trauma informed approach to care, patients can feel empowered by identifying their own individual preferences and can feel more secure knowing that staff will work with them during times of crisis to prevent seclusion and restraint episodes. Patients can also identify their own signs of escalation and aggression and alternative methods for coping during times of stress which can translate beyond the inpatient setting and can be used at home after discharge. Additionally, is that nursing staff can feel empowered with the knowledge provided by patients and suggest patient identified methods of calming during times of stress instead of blindly offering cookie cutter suggestions and care based on tradition instead of evidenced based care.

A sensory modulation program was developed and implemented on the inpatient behavioral health unit at Virginia Hospital Center in 2016. The process utilized a team collaborative approach with input from patients, nursing, occupational therapy, quality management, infection control, clinical practice committee, employee health, environmental services, and the department of facilities and engineering. A designated sensory space was created on the unit; equipped with a glider chair, beanbag chairs, a large mural, and a multitude of sensory supplies. The development of online training modules on sensory modulation and trauma informed care augmented the initial implementation of personalized safety and crisis prevention forms completed collaboratively by both the patients and staff. Individual sensory modulation competencies were completed by nursing and therapy staff. Trained staff, in collaboration with occupational therapy, presently provides bi-weekly recovery plan review groups with the patients to emphasize the use of sensory modulation in recovery.

Data was collected on restraint usage on the behavioral health unit from January 2015, through June 2016. Following institution of the program in January 2016, there has been a decrease in total numbers of

restraints on the unit. Data was also collected on the number of behavioral health staff injured due to workplace violence injuries involving patients and the number of restricted and lost work days as a result of injuries from January 2015, to the present.

Results suggest that the use of sensory modulation is an effective strategy in decreasing patient agitation; employee workplace violence related injuries and lost or restricted workdays due to injury. This has allowed for proper staffing in order to provide safe and high quality patient-centered care. Additionally, the application of sensory modulation could reach beyond the inpatient behavioral health setting and be implemented for patients on acute care units throughout the hospital in the future using sensory carts. Furthermore, there are additional implications for utilizing sensory modulation, as a self-care strategy to decrease provider stress is also an avenue, which holds promise.

References

- ANA March 12, 2012, Reduction of Patient Restraint and Seclusion in Health Care Settings, Status: Revised Position Statement Originated by: Center for Ethics and Human Rights.
- APNA 2014, Position Statement: The Use of Seclusion and Restraint.
- AOTA 2014, Occupational Therapy's Role with Restraint and Seclusion Reduction or Elimination, Fact Sheet.
- Chalmers, A., S. Harrison, K. Mollison, N. Molloy, and K. Gray. "Establishing Sensory-based Approaches in Mental Health Inpatient Care: A Multidisciplinary Approach." *Australasian Psychiatry* 20.1 (2012): 35-39. Champagne, T. (2003). *Sensory modulation and environment: Essential elements of occupation*. Southhampton, MA: Champagne Conferences & Consultation.
- Champagne, T. (2008). *Sensory modulation & environment: Essential elements of occupation*. Southhampton, MA: Champagne Conferences.
- Champagne, T. (2011). *Sensory modulation & environment: Essential elements of occupation: Handbook & reference*. Sydney, Australia: Pearson Australia Group.
- Champagne, T. (2015, October). *Sensory Processing, Trauma & Attachment Informed Care*. Lecture presented at Course 1 Sensory Modulation & Trauma Informed Care: An Introduction in MA, Hadley.
- Champagne, T., & Koomar, J. (2011, March). Expanding the Focus: Addressing Sensory Discrimination Concerns in Mental Health. *Mental Health Special Interest Section Quarterly*, 34(1), 1-4.
- Champagne, T., & Stromberg, N. (2004). Sensory Approaches in Inpatient Psychiatric Settings: Innovative Alternatives to Seclusion and Restraint. *Journal of Psychosocial Nursing*, 42(9). Retrieved March 23, 2016.
- Champagne, Tina, N. Stromberg, and R. Coyle. "Integrating Sensory and Trauma-Informed Interventions: A Massachusetts State Initiative, Part 1." *American Occupational Therapy Association* (2010). Web.
- Dunn, W. (2001) The sensations of everyday life: Empirical, theoretical, and pragmatic considerations. *American Journal of Occupational Therapy*, 55(6), 608-620.
- Masick, April, and Jennifer Landy. "Calming Rooms: A Sense-able Alternative." VA, Fairfax. 17 June 2015. Lecture.
- Miller, L. J., Reisman, J. E., McIntosh, D. N., & Simon, J. (2001). An ecological model of sensory modulation. In S. Smith Roley, E. Blanche, & R. C. Schaaf (Eds.), *Understanding the nature of sensory integration with diverse populations* (pp. 57–82). San Antonio, TX: Therapy Skill Builders.
- Moore, K. M. (2015). *The Sensory Connection Program: Curriculum for Self-Regulation*. Framingham, MA: Therapro.
- NASMHPD (2006). *Prevention Tools: A Core Strategy*. Retrieved on March 28, 2016 from <http://www.nasmhpd.org/sites/default/files/Consolidated%20Six%20Core%20Strategies%20Document.pdf>
- SAMSHA, (2006). *Roadmap to Seclusion and Restraint Free Mental Health Services*. Retrieved on March 28, 2016 from <http://store.samhsa.gov/shin/content/SMA06-4055/SMA06-4055-F.pdf?>
- TJC 2010, *The Hospital Accreditation Standards. Provision of Care, Treatment, and Services. Standards PC.03.05.01 through PC.03.05.19*

Contact

cmglair@hotmail.com

Q 06 - Global Surgical Safety Concerns

Prevention of Retained Surgical Items: Practice of Surgical Counts in Rwandan Operating Rooms

Gilbert R. Karonkano, RN, Rwanda

David Ryamukuru, RN, Rwanda

Joselyne Mukantwali, RN, Rwanda

Thierry Uwera, RN, Rwanda

Emmanuel Munyaneza, RN, Rwanda

Eric Sindayigaya, RN, Rwanda

Anita Collins, PhD, RN, RM, Rwanda

Abstract

Introduction: Patient safety is a global healthcare challenge, and surgery, in particular, is a dangerous procedure to human health (Andrew Howard, n.d.; Carvalho et al., 2015). Worldwide, annually, over 234 million surgical operations are performed with an average complications rate of 3–16%. This rate is not only a major cause of morbidity and mortality, but also a major financial burden for both the patients and their families. This also affects the healthcare facilities and their personnel (Melekie & Getahun, 2015). Prevention of surgical retained item (RSI) is an important responsibility of a surgical team. RSI prevention results in positive surgical outcomes and prevent unnecessary cost and long hospital stay. (Norton, Martin, & Micheli, 2012). RSI is serious adverse event and may include sponges, sharps, and instruments. An RSI is never-event resulting from unintentional occurrence in which surgical item is left in a patient during the course of surgical or invasive procedure and is associated with serious negative patient surgical outcomes that may end in death (Steelman, Schaapveld, Perkhounkova, Storm, & Mathias, 2015; Spruce, 2016).

Among others RSI prevention strategies, surgical count remains the most accessible and reliable way to avoid unintentional retention of surgical item. This high risk and high frequency operating room exercise requires multidisciplinary team involvement and attention to guiding police and procedure (Edel, 2012). The surgical count consists of counting the instruments, sponges, sharps, and other supplies used during a surgical procedure. Failure of performing this very crucial task to patient safety is associated with many complications after surgery (Moss, Kneedler, Pfister, & Major, 2014). This paper is a report from the one month experience of the Peri Operative students of the MSN program in operating rooms in Rwanda, with emphasis on surgical count

Purpose: The purpose of this paper is to study the current practice in operating rooms of Rwandan hospitals to better understand surgical count in Rwandan context in order to improve the vital element of surgical patient safety. Studies such on adherence to recommended count practice procedure, nature and incidence of breakdown in surgical count, effect of standardizing surgical count documentation, impact of available resources such as policy and supply may enlighten the surgical count situation in Rwanda and improve the safety of the surgical patient.

Method: Six Peri Operative track students of the MSN program along with their supervisor spend a month in the operating rooms in Rwanda and under took the project of recording their experience in relation to the practice of surgical counts in the operating rooms. The students spent ten hours for 3 days in a week with an hour for lunch break. They were posted in the Reception, Holding area, Induction room, PACU and Scrub room.

Based on the clinical experience in different operating rooms in Rwandan hospitals and reflecting on how the surgical count should be as per recommended practice, the students were able to come up with recommendations for further in-depth study in the prevention of retained surgical items in operating rooms in Rwanda

Conclusion: Surgical count remains the vital intervention for prevention of RSI. WHO, AORN, American college of surgeons and Joint commission recommend to use the surgical count protocol for all surgical

procedure with risk of RSI. Though there is some technological advancement toward prevention of RSI, manual counting is still the key intervention for RSI prevention.

Current practice in ORs of Rwandan hospitals reveals necessity to better understand surgical count in Rwandan context in order to improve the vital element of surgical patient safety. Studies such as adherence to recommended count practice procedure, nature and incidence of breakdown in surgical count, effect of standardizing surgical count documentation, impact of available resources such as policy and supply may enlighten the surgical count situation in Rwanda and improve the safety of the surgical patient.

Reducing inconsistency in surgical count practice requires health institutions to develop clear and concise policies and procedures to guide OR surgical teams on this. Furthermore, OR surgical team members should benefit OR safe practice teaching sessions that include among others; surgical count, teamwork and communication.

References

- Andrew Howard. (2011). *Surgical Safety*. Retrieved December 2016 from <https://ptolemy.library.utoronto.ca/sites/default/files/reviews/2011/September - Surgical safety.pdf>
- Carvalho, P. A., Bernarda, L., Göttems, D., Raquel, M., Maia, G., Liz, M., & Oliveira, C. De. (2015). Safety culture in the operating room of a public hospital in the perception of healthcare professionals, *Rev. Latino-Am. Enfermagem*, 23(6). <http://doi.org/10.1590/0104-1169.0669.2647>
- Edel, E. M. (2012). Surgical Count Practice Variability and the Potential for Retained Surgical Items. *AORN Journal*, 95(2), 228–238. <http://doi.org/10.1016/j.aorn.2011.02.014>
- Melekie, T. B., & Getahun, G. M. (2015). Compliance with Surgical Safety Checklist completion in the operating room of University of Gondar Hospital, Northwest Ethiopia. *BMC Research Notes*, 8, 361. <http://doi.org/10.1186/s13104-015-1338-y>
- Norton, E. K., Martin, C., & Micheli, A. J. (2012). Patients Count on It: An Initiative to Reduce Incorrect Counts and Prevent Retained Surgical Items. *AORN Journal*, 95(1), 109–121. <http://doi.org/10.1016/j.aorn.2011.06.007>
- Moss, R., Kneeder, J. A., Pfister, J. I., & Major, K. (2014). Technology and Sponge Counting - A Patient Safety Collaboration. Pfiedler Enterprises.
- Moss, R., Pfister, J. I., Peter, E. St., & Adams, A. (2012). Preventing Retained Surgical Items (RSIs): Practices to Promote Positive Outcomes. Colorado: Pfiedler Enterprises.
- Steelman, V. M. (2014). Excellence in Perioperative Management™ : Establishing a Culture of Safety. *Association of Registered Nurses*, 100(1), 1–3. <http://doi.org/10.1016/j.aorn.2014.04.010>
- Steelman, V. M., Schaapveld, A. G., Perkhounkova, Y., Storm, H. E., & Mathias, M. (2015). The Hidden Costs of Reconciling Surgical Sponge Counts. *AORN Journal*, 102(5), 498–506. <http://doi.org/10.1016/j.aorn.2015.09.002>
- Spruce, L. (2016). Back to Basics: Counting Soft Surgical Goods. *AORN Journal*, 103(3), 297–303. <http://doi.org/10.1016/j.aorn.2015.12.021>

Contact

karuta.gil@gmail.com

R 01 - Developing Nurse Leaders

Clinical Nurses and Executive Leaders Collaborating at the Bedside to Eliminate Hospital-Acquired Pressure Injuries

Patrice Duhon, MSN, RN, USA

Barbara J. Mayer, PhD, RN, CNS, USA

Abstract

Background: Hospital acquired pressure injury (HAPI) rates have not changed in the last eight quarters despite a large investment made in equipment and supplies, as well as education and training at a large academic teaching hospital. Clinical Nurses Leaders who pay close attention to work conditions and work environments give employees access to sufficient resources to be able to do their work effectively and have better organizational outcomes (Rich, LePine, & Crawford, 2010). Leaders that create work environments and work conditions that encourage employees to be self-motivated, assume responsibility for their job role, and provide opportunities for growth and development will have a higher level of productivity. Employee engagement is a key factor that helps to match the employee's values and beliefs with the organizational values and goals. Employees who are most likely to be engaged in job performance are the ones that believe their jobs have meaning and they are provided the tools to be successful (Joo, Jeung, & Yoon, 2010).

Aim: The goal of this project was to reduce the incidence of HAPI using a collaborative, shared-decision making approach between executive leaders, nursing managers, wound experts, and clinical nurses.

Methods: The Nursing Quality department's initial assessment revealed variability in structure, and variability in process of initial identification, reporting, assessment, and documentation of HAPI's. Clinical nurses, executive leaders, wound experts, and nurse managers formed a workgroup to identify the root cause of the current state problem, develop counter measures, design future state, and develop an implementation plan. A collaborative process called HAPI alert and Pressure Injury Prevention (PIP) Alerts was created. The purpose of the PIP alert was to assist the clinical nurses with diagnosing, staging, and implementing a treatment plan for Stage I/II, or Suspected Deep Tissue Injury (sDTI) pressure injuries. A communication algorithm was followed, alerting the unit manager, charge nurse, and clinical nurse specialist to respond to the bedside to determine treatment options. A HAPI Alert is activated when a stage III, IV, or unstageable PU is suspected. The team, consisting of the clinical nurse, unit manager, Chief Nursing Officer (CNO), Unit Director, Quality Manager, and Wound Ostomy Certified Nurse (WOCN) meets at the bedside to discuss the mechanism of injury, prevention strategies in place, the current condition of the patient, and any barriers to success.

Results: Since May 2014, 52% reduction in PU incidence and prevalence, virtual elimination of Stage III/IV PU, a potential cost savings of \$3,000,000.

Conclusion: Pressure injury prevention takes a collaborative approach from all levels of nursing. Continuous evaluation and individualization of processes are essential to delivering safe and effective patient-centered care. It is clear that implementing change in an organization is not an easy task but must be planned and calculated to be successful. Leaders who allow staff to be part of the decision making process are often successful with managing resistance to change. Implementing the HAPI alert team encouraged organizational leaders to work with the bedside workforce to come up with solutions collaboratively to reduce HAPI. When employees have a clear understanding of their job roles and responsibilities, accountability can be placed on performance and increased engagement occurs. This in turn motivates the staff to practice excellence and improve outcomes. This collaborative process is a best practice that is replicable in any health care organizations.

References

Aydin, C., Donaldson, N., Stotts, N. A., Fridman, M., & Brown, D. S. (2014). Modeling hospital-acquired pressure ulcer prevalence on medical-surgical units: Nurse workload, expertise, and clinical processes of care. Health Research and Educational Trust. Retrieved from

<http://onlinelibrary.wiley.com/doi/10.1111/1475-6773.12244/asset/hesr12244.pdf?v=1&t=i2zs0r1h&s=19d8d1f5b1055eb9d987d1b5d4542b7d319fb379>. doi: 10.1111/1475-6773.12244

Demarre, L., Verhaeghe, S., Hecke, A. V., Clays, E., Grypdonck, M., & Beeckman, D. (2014). Factors predicting the development of pressure ulcers in at-risk population who receive standardized preventive care: secondary analyses of a multicenter randomized controlled trial. *Journal of Advanced Nursing*, 5(1). doi: 10.1111/jan.12497

Samuriwo, R., & Dowding, D. (2014). Nurses' pressure ulcer related judgments and decisions in clinical practice: A systematic review. *International Journal of Nursing Studies*, 51 (12), 1667-1685.

Contact

patriceduhon@yahoo.com

R 01 - Developing Nurse Leaders

Developing Future Nurse Leaders Through Shared Governance

Janette Moreno, DNP, RN, CCRN-K, NEA-BC, USA
Anita S. Girard, DNP, RN, CNL, CCRN, CPHQ, NEA-BC, USA
Wendy Foad, MS, BSN, RN, NEA-BC, USA

Abstract

Background: With the rapid transformation of the healthcare delivery system and the uncertainty of the number of nursing workforce, the country may be faced with nurses unprepared to assume key leadership positions. Approximately 67,000 nurse managers are expected to retire in five years (1). The difficulty in filling the nurse manager position may adversely impact the nursing work environment and the quality of patient care. Assessment of current state in an academic medical center showed that the time to fill the Assistant Patient Care Manager (APCM) position is approximately 215 days in 2014. The estimated cost of the turnover of nurse managers is approximately 75–125% of their annual salaries. **Action Taken:** Succession planning (SP) is an essential organization strategy that has emerged as a result of the impending nursing leadership shortage. A comprehensive literature review was conducted using the evidence-based succession planning framework by Titzer and Shirey. In 2014, the Shared Leadership Councils (SLC) implemented structure and processes based on the evidence-based SP framework, which consisted of four phases: assessment, planning, implementation, and outcomes monitoring. The strategic interventions were leadership development sessions, experiential learning, coaching/mentoring. The monthly 8-hour council days provided the council members experiential learning, leadership development, and coaching. Individualized leadership competencies were identified and a structured monthly leadership development program was implemented. **Outcomes:** The four components of a balanced scorecard used to evaluate the program were decrease number of days to fill vacant positions due to internal promotion, internal processes such as leadership bench strength, leadership competency progression, and participant perception based on Kanter's structural empowerment components. After 18 months of implementation, 32 SLC members were promoted to Assistant Patient Care Managers (APCM) (16) and other leadership positions (16). Internal promotion of SLC members to APCM positions resulted to a decrease in the number of days to fill vacant APCM position from 215 days to 23 days. Council members on the professional nurse development program increased from 22 to 45, indicating increased in leadership bench strength. Based on the pre and post assessment survey results, there is a statistical difference in the participant perception as a leader ($p = 0.0001$), indicating an increase in perception as a leader overtime. A statistical difference was also noted on the participant project ($p = 0.04$) and committee participation ($p = 0.03$), indicating increase involvement in continuous process improvement. The post survey on Kanter's structural empowerment components indicated statistically significant difference on the top box score ($p < 0.05$) as compared to the pre-survey, signifying higher perception on access to support, resources, information, and opportunities to learn and grow. The evidence-based SP framework is applicable in any settings as the organization aim to develop succession planning at all levels of care.

References

- 1 Titzer, J. L., Shirey, M. R., & Hauck, S. (2014). A nurse manager succession planning model with associated empirical outcomes. *The Journal of Nursing Administration*, *44*, 37–46. doi:10.1097/NNA.000000000000019
- 2 Titzer, J., Phillips, T., Tooley, S., Hall, N., & Shirey, M. (2013). Nurse manager succession planning: synthesis of the evidence. *Journal of Nursing Management*, *21*, 971–979. doi:10.1111/jonm.12179
- 3 Titzer, J. L., & Shirey, M. R. (2013). Nurse manager succession planning: A concept analysis. *Nursing Forum*, *48*, 155–164. doi:10.1111/nuf.12024

Contact

jmoreno@stanfordhealthcare.org

R 01 - Developing Nurse Leaders Nurses at the Forefront of Integration

*Jill Case-Wirth, MHA, BSN, RN, USA
Elizabeth Spiva, PhD, MSN, BSN, RN, USA*

Abstract

With government regulations and reimbursement pressures, health systems are looking for efficiencies that will lead to higher quality, improved access to healthcare and lower cost. On December 1, 2015 we signed an agreement to purchase five hospitals and assume the lease of another. Over the next four months, nurses took on significant integration-related roles and responsibilities. They followed a tight timeline with key activities, deliverables, and milestones to achieve for each phase of the integration from Day 1 pre-planning, scoping, validation, finalization and execution, to post-planning. The primary objectives of Phases I (due diligence), II (Day 1) and III (stabilization) were to minimize changes to current state operations while promoting operation continuity and to limit interruptions to patient care.

Guiding principles, governance structure, roles and responsibilities, and issue escalation process were initially established. Local leaders were identified to drive requirements including addressing situations that posed imminent risk to patient safety or required immediate action to minimize Day 1 disruption. As planning progressed, Day 1 requirements were refined. Additional items were identified as Post-Day 1 and supported business performance but were not critical to patient safety and operations on Day 1. These items were documented and addressed in Phase III. Nurses collaborated to create work plans and guide team efforts. Meetings included contract negotiation; workforce recruitment; planning and deploying systems, for example, nurse scheduling, payroll and accounting; cutover plan and the need for a command center to ensure downtime procedure and operations were supported during the first week of go-live. Thereafter, weekly conference calls and site visits were conducted with all levels of leadership and staff to provide updates and answer questions.

During Phase III, specialty-specific standardized, evidence-based practice tools were created to assess clinical practice. This included assessing care of the patient (entry to discharge); evaluating practice (including but not limited to emergency, perioperative, behavioral health and critical care); practice and regulatory standards; policies; competencies; workflow; technology/equipment; resources; staffing models; and environment of care/safety. Lean methods were used including process maps to plan granular steps which allowed teams to look for waste in processes that could be eliminated. Also, fishbone diagrams to identify potential causes for issues identified in Phases I and/or II and these causes were listed on the diagram. The team utilized the 5-Why technique to drill down and identify the root cause of each problem. Once the root causes were identified, the team brainstormed potential solutions that would have the greatest impact on the problem. Solutions were prioritized using a PICK chart. This chart helped the team to identify which solution would have the greatest impact with the least amount of effort. Teams created action plans/timelines to implement improvements, strategies and best practices.

Outcomes of teamwork, communication and countless hours to plan for a smooth and effective transition April 1, 2016 included identifying, managing, and closing 330 operational items. Nursing in collaboration with information technology (IT) created, implemented and deployed one central operational command center and five satellite operational command centers for post go-live support. Operations continued to function normally with no operational issues related to transition and consistent emergency room patient volumes remained with fewer patients 'left without being seen' compared to baselines. Supply chain contracts increased by 1,743 and 3,400 contracts were transitioned over from one system to current. Supply chain item master increased by 30,000. New technology was deployed including an electronic medical record in 52 physician practices with 496 employees trained. Following the successful transition, we are 19,600 team members and 2,900 members physician network strong supporting 11 inpatient hospitals, 240 medical office locations, eight urgent care centers, two health parks (another under construction), 16 imaging centers, pediatric center, nursing centers, hospice and homecare.

Phase III (stabilization) included prioritization and inventory of future needs and integration opportunities including clinical practice assessment findings for a total of 243 clinical operational items. We successfully closed these items and transitioned to Phase IV (integration) and began taking a closer look at processes and structures to determine how we can most efficiently treat patients and meet our community's healthcare needs. Over the next several months to two years, we will continue to better stabilize, plan and optimize for a truly integrated healthcare system.

References

Castner, J., Wu, Y.W.B., Dean-Bbaar, S. (2015). Multi-level model of missed nursing care in the context of hospital merger. *Western Journal Nursing Research*, 37(4), 441-461.

Piper, L.R., & Schneider, M. (2015). Nurse executive leadership during organizational mergers. *Journal of Nursing Administration*, 45(12), 592-594.

Contact

jill.case-wirth@wellstar.org

S 01 - Alternative Practices in Women's Health

Effects of Aromatherapy Massage on Pregnant Women's Stress and Immune Function: A Randomized Controlled Trial

Jen-Jiuan Liaw, PhD, RN, Taiwan

Abstract

Purpose: Good maternal health can help predict public health challenges for families, communities, and health care systems by preventing preterm birth or child disability and enabling children to reach their full potential. Therefore, it is essential for clinicians to pay special attention to women's health, especially during pregnancy. The study's aims are to examine the effects of aromatherapy massage on women's stress and immune function during pregnancy.

Methods: This longitudinal, prospective, randomized controlled trial recruited 52 healthy pregnant women from a prenatal clinic in Taipei using convenience sampling. The participants were randomly assigned to the intervention ($n=24$) or control ($n=28$) group using Clinstat block randomization. The intervention group received 70 minutes of aromatherapy massage once biweekly for 20 weeks; the control group received only routine prenatal care. In both groups, participants' salivary cortisol and immunoglobulin A levels were collected before and after the intervention group received aromatherapy massage (every month from 16 to 36 weeks gestation) and were analysed using enzyme-linked immunoassay.

Results: The pregnant women in the intervention group had lower salivary cortisol ($P < 0.001$) and higher immunoglobulin A ($P < 0.001$) levels immediately after aromatherapy massage than those in the control group, which did not receive massage treatment. The findings suggest that differences in the pretest salivary immunoglobulin A levels at 32 ($P = 0.002$) and 36 ($P < 0.001$) weeks gestation were significantly higher than those at 16 weeks gestation between the two groups.

Conclusion: Complementary therapies are being incorporated into current medical practice. This study presented evidence that aromatherapy massage could significantly reduce stress and enhance immune function in pregnant women. Our study evidence can guide clinicians or midwives in providing aromatherapy massage to pregnant women throughout the pregnancy. To promote maternal and foetal health, it is essential for clinicians to incorporate aromatherapy massage into prenatal clinical practice. Maternity health care teams could work with personnel certified in aromatherapy massage and provide individualized stress-relief interventions to pregnant women based on their needs. The educational programme for midwifery could include training on complementary therapies and educate more midwives in providing aromatherapy massage or other complementary therapies to help promote health in pregnant women.

References

- Bershadsky, S., Trumpfheller, L., Kimble, H. B., Pipaloff, D., & Yim, I. S. (2014). The effect of prenatal Hatha yoga on affect, cortisol and depressive symptoms. *Complementary therapies in clinical practice*, 20(2), 106-113.
- Hur, M. H., Song, J. A., Lee, J., & Lee, M. S. (2014). Aromatherapy for stress reduction in healthy adults: a systematic review and meta-analysis of randomized clinical trials. *Maturitas*, 79(4), 362-369.
- Igarashi, T. (2013). Physical and psychologic effects of aromatherapy inhalation on pregnant women: a randomized controlled trial. *The Journal of Alternative and Complementary Medicine*, 19(10), 805-810.

Contact

jiuanliaw@gmail.com

S 01 - Alternative Practices in Women's Health

The Home Birth Summits: Finding Common Ground to Transform Policy and Practice

Judith Lothian, PhD, LCCE, FAAN, USA

Abstract

Background/Purpose: Although recent high quality research supports the value and safety of planned home birth for healthy low risk women (Cheney, M. et al, 2014; Olsen, O.& Clausen, J., 2012; de Jonge, A., van der Goes, et al, 2009; Janssen, P., & Saxell, et al, 2009), in the US planned home birth continues to be controversial and, although the rate of planned home birth is increasing, only slightly more than 1% of women in the US give birth at home. (MacDorman, M., Matthews, M. & DeClerq, 2014). Professional guidelines, health and hospital policy, legal and ethical issues, insurance coverage, regulation and licensure of birth attendants, and access to home birth reflect in powerful ways the controversy. In 2011, the major stakeholders including obstetricians, pediatricians, midwives, nurses, childbirth educators, lawyers, legislators, insurance companies, birth advocates, representatives from government agencies and women met to address their shared responsibility in providing safe maternity care across birth settings. This first Home Birth Summit set the stage for an unprecedented and effective collaboration of stakeholders that has raised awareness, and created policy and practice change. The purpose of this session is to present the process of finding common ground related to home birth and the policy and practice changes that resulted from this work.

Methods: A steering committee of major stakeholders planned the first Home Birth Summit with *Future Search*, an organization that helps stakeholders from diverse and often opposing backgrounds and viewpoints to untangle the issues and find solutions. Seventy stakeholders with influence and authority were invited to participate. The goal was to develop “common ground”.

Results: The Home Birth Summit stakeholders agreed on nine Common Ground Statements related to: autonomy and choice, inter-professional collaboration and communication, reductions in disparities and equality in access to care, regulation and licensure of home birth providers, consumer engagement and advocacy, inter-professional education, liability reform, research, data collection and knowledge translation, and physiologic birth. The statements provided the foundation for action.

The presentation will discuss these common ground statements and 12 major outcomes:

- ACNM and ACOG approved joint guidelines for Transfer (home to hospital).
- Presentations nationally and internationally (International Congress of Midwives, Normal Birth conferences, ACNM, AWHONN, Lamaze International, Sigma Theta Tau Research, ACOG conferences).
- ACNM's consumer statement on normal physiologic birth and the BirthToolKit (Oct. 2014).
- ACNM's Healthy Birth Initiative.
- A renewed focus on the importance of normal physiologic birth from major organizations, like AWHONN's *Go the Full Forty* (2012-ongoing).
- ACOG updated their statement on planned home birth acknowledging women's right to choose their place of birth and calling for seamless transfer of women from home to hospital. August 2016.
- The *Institute of Medicine* meeting on Place of Birth was held in March 2013.
- The *Journal of Clinical Ethics* released a special issue on planned home birth in October 2013
- An increased number of insurance plans cover planned home birth
- An increase in research, both qualitative and quantitative, on planned home birth including the largest ever study of US planned home birth (Cheney, et al, 2014), and a MANA dataset on home birth.
- Publication of articles in major nursing and medical journals.
- The *Lancet* special issues on midwifery in July 2014 and summer 2016.
- ACNM and ACOG joint statement on collaborative practice with both nurse midwives and certified professional midwives.

Conclusions: The model of finding common ground among stakeholders of influence and authority holds promise as a creative and effective way to find solutions when there are competing interests that make evidence based policy and practice change difficult. This might be an effective strategy for nursing to consider.

References

Cheney, M., Bovbjerg, M., Everson, C., Gordon, W, Hannibal, D. & Vedam, S. (2014). Outcomes of care of 16, 924 planned home births in the US: The Midwives Alliance of North America Statistics Project 2004-2009. *Journal of Nurse-Midwifery and Women's Health*. 59 (1), 17-24.

de Jonge, A., B. Y. van der Goes, et al. (2009) "Perinatal mortality and morbidity in a nationwide cohort of 529,628 low risk planned home and hospital births." *BJOG* 2009; DOI: 10.1111/j.1471-0528.2009.02175.x.

Janssen, P., Saxell, et al. (2009) "Outcomes of planned home birth with registered midwife versus planned hospital birth with midwife or physician." *Can. Med. Assoc. Journal* 181(6-7):377-83.

MacDorman, M., Matthews, M., DeClerq, E. ((2014). NCHS Data Brief #144.

<http://www.cdc.gov/nchs/data/databriefs/db144.pdf>

Olsen, O. and Clausen, J.. "Planned Hospital Birth Versus Planned Home Birth." *Cochrane Database of Systematic Reviews* (2012). Issue 2. CD000352. DOI: 10.1002/14651858.CD000352, pub2);

Home Birth Summits accessed at <http://www.homebirthsummit.org/>

Contact

judith.lothian@shu.edu

S 02 - Health Practices for Immigrants

Impact of Social Support and Stress on Blood Pressure Among West African Immigrants

Ruth-Alma N. Turkson-Ocran, MPH, MSN, RN, FNP-BC, USA

Yvonne Commodore-Mensah, PhD, RN, USA

Ozioma A. Amadi, BSc, MPH, USA

Abstract

Purpose: Stress negatively impacts health outcomes of individuals and social support is essential for the maintenance of both physical and mental health. Chronic stress has been linked to hypertension and atherosclerosis which result in the development of cardiovascular disease.¹ Adequate social support has been linked to resilience to stress, decreased morbidity and mortality. Social support is an important aspect of immigrants' adaptation to a new environment and has been shown to positively influence their health status and well-being.² Higher social support is associated with a lower likelihood of hypertension in racial/ethnic minorities and immigrants. Stress has been associated with cardiovascular disease disparities in persons of African ancestry.³ West African immigrants (WAIs) are one of the rapidly growing racial/ethnic minority groups in the United States (US) but are an understudied, vulnerable population.⁴ Despite being at an increased risk for hypertension upon migration to the US, little is known about the impact of stress and social support have on blood pressure in WAIs. The purpose of this study was to examine the relationship between social support, stress, and blood pressure in a sample of WAIs.

Methods: In this pilot, community-based study, we examined the association between social support, stress, and mean systolic blood pressure in first-generation WAIs (N=59) residing in the Atlanta metropolitan area. Social support was measured by the 7-item Enhancing Recovery in Coronary Heart Disease (ENRICH) Social Support Inventory (ESSI7). Scores for the ESSI7 range from 8 to 34 with higher scores indicating higher levels of social support. Stress was assessed using the Perceived Stress Scale (PSS), scores on this scale range from 0 to 40 with a score of 20 and above indicating higher stress. We fitted multivariable linear regression models to examine the associations between social support, stress, and systolic blood pressure after adjusting for known confounders.

Results: The participants' ages ranged from 36 to 76 years; the mean age(\pm SD) of the sample was 47.2(\pm 9.9). Females made up 61% of the sample and 59% of the participants were born in Nigeria. Fifty-two percent of the participants had a household greater than \$50,000 despite at least 78% having at least a college education and only 68% had any health insurance coverage. A total of 36% of the sample were diagnosed with hypertension, 60% of these were being treated for hypertension. Eighty-three percent (83%) of those being treated had their hypertension under control. The mean(\pm SD) social support score in this study was 28.3(\pm 7.0) and the mean (\pm SD) Perceived Stress Scale score of the participants was 18.6(\pm 7.7). The mean(\pm SD) systolic blood pressure was 122.2(17.7). Social support was not significantly associated with systolic blood pressure. An inverse association was observed between perceived stress and mean systolic blood pressure ($r^2 = -0.295$, $p = 0.023$). This negative association persisted in a multiple linear regression model after adjusting for age, sex, BMI, and income ($\beta = -1.07$; 95%CI: -1.68, -.45; $p = 0.001$)

Conclusion: An inverse relationship was observed between perceived stress and mean systolic blood pressure, but there was no association between social support and mean systolic blood pressure. This finding is consistent with the findings of earlier studies and suggests that chronic stress in WAIs may lead to habituation and adaptation. Additional research is needed to examine the mechanisms by which stress impacts blood pressure among WAIs and examine the role of protective factors such as resilience to stress among WAIs.

References

1. Sawyer PJ, Major B, Casad BJ, Townsend SSM, Mendes WB. Discrimination and the Stress Response: Psychological and Physiological Consequences of Anticipating Prejudice in Interethnic Interactions. *American Journal of Public Health*. 2012. p. 1020–1026. PMID: 22420818

2. van Hulsteijn LT, Kaptein AA, Louisse A, Biermasz NR, Smit JWA, Corssmit EPM. Illness perceptions, risk perception and worry in SDH mutation carriers. *Fam Cancer*. Netherlands; 2014 Mar;13(1):83–91. PMID: 23990281
3. Doamekpor LA, Dinwiddie GY. Allostatic load in foreign-born and US-born blacks: Evidence from the 2001-2010 national health and nutrition examination survey. *Am J Public Health*. 2015;105(3):591–597. PMID: 25602865
4. Commodore-Mensah Y, Sampah M, Berko C, Cudjoe J, Abu-Bonsrah N, Obisesan O, Agyemang C, Adeyemo A, Himmelfarb CD. The Afro-Cardiac Study: Cardiovascular Disease Risk and Acculturation in West African Immigrants in the United States: Rationale and Study Design. *J Immigr Minor Heal*. 2015;1–14.

Contact

rturkso1@jhmi.edu

S 02 - Health Practices for Immigrants

El Sol: An Interdisciplinary Center for Guatemalan Healthcare

Terri Rocafort, PhD, ANP-BC, USA

Abstract

The global migration of vulnerable populations influenced by both safety and economic factors in their home countries has developed into opportunities for interdisciplinary healthcare approaches to emerge in Jupiter, Florida. South Florida has a plethora of cultures. The My Clinic health project represented will describe a successful interdisciplinary care model implemented to care for undocumented Guatemalans within a local community. The undocumented workers in Jupiter are primarily from Jacaltenango, a valley town in the Huehuetenango region of the Western Highlands in Guatemala. The initial migration patterns began in the 1980's when political asylum and safety drove Guatemalans to South Florida ("El Sol," 2013) with migration centralizing to Jupiter, Florida during a period of economic growth. Jupiter has a 16% population of Hispanics with 10% of Hispanics assumed to be 200% below the poverty line. The El Sol Center came to existence in 2006 with concerned community leaders and the workers participating in solutions to benefit all persons residing in the village ("El Sol," 2013). In the period of a decade, the El Sol Center has developed a multifaceted approach to meet the needs of the vulnerable within the community. Fueled by interdisciplinary support of the healthcare community, El Sol has evolved to include My Clinic designed to meet the primary healthcare for the Guatemalan community in tandem with low income people in the local geographic area. El Sol has implemented programs utilizing educated community healthcare trainers, implemented ongoing educational classes, provides language, literacy and educational programs, and intersects successful nutrition programs including a community garden. Interdisciplinary collaboration is defined as "an interpersonal process characterized by healthcare professionals from multiple disciplines with shared objectives, decision-making, responsibility, and power working together to solve patient care problems" (Petri, 2010, p. 80). The successful interdisciplinary El Sol Center and healthcare aspect of My Clinic, will be presented and analyzed using the Life Course Theory (LCT). The LCT model includes three aspects for clinicians including 1) a whole-family, whole-community approach addressing social determinants of health, 2) to address early upstream determinants of health, and 3) participate in longitudinal, vertical, horizontal integration of services within medical and other service sectors (Fine and Kotelchuck, 2010). The development of My Clinic in 2013 was a natural progression of El Sol services developing longitudinally from identified needs amongst the population. Careful analysis and statistics of healthcare referrals grew annually and provided an impetus to consider developing a primary care clinic. A whole community approach was used with an interdisciplinary team inclusive of community leaders, insurance providers, physicians, Jupiter Medical Center, community volunteers, and El Sol directors. My Clinic focuses on primary care and health promotion, and disease prevention recognizing the economic impact of the services on the local community overall. The successful implementation of My Clinic resulted from the integration of healthcare services coupled with local foundation funding, volunteer advanced nursing and medical care, collaboration with the county health department, medical center, and social services. The model demonstrates longitudinal, vertical, and horizontal integration of services with multiple service sectors. Interprofessional collaboration remains a focus for nursing to impact population health (AACN, 2004). Globalization and migratory patterns presents unique opportunities for nurses within the local community of Jupiter, Florida. The role of nursing at the My Clinic includes nurse educators and volunteers, advanced nurse practitioners providing primary care, diabetes educators, and nursing within specialties at medical centers, and medical specialty locations. Information gleaned from the implementation of the El Sol center and presented from the Life Course Theory approach may be used by nurses worldwide in caring for a diverse migratory and vulnerable population.

References

- American Association of Colleges of Nursing. (2004). *Position statement on the practice doctorate in nursing*. Retrieved from <http://www.aacn.nche.edu>
- Bailey, D. N., & Dougherty, A. (2014). A Nurse-Led Wellness Program for Migrant Backstretch Workers. *Nursing Forum*, 49(1), 30-38. doi:10.1111/nuf.12048
- Cheng, T., & Solomon, B. (2014). Translating Life Course Theory to Clinical Practice to Address Health Disparities. *Maternal & Child Health Journal*, 18(2), 389-395. doi:10.1007/s10995-013-1279-9

Camann, M.A., & Long, J. (2014). Health promotion with vulnerable population groups. *Online Journal of Cultural Competence in Nursing and Healthcare*, 4(1), 29-37. doi:10.9730/ojccnh.org/v4n1a

Downes, L. (2011, February 25). Jupiter's El Sol. *The New York Times*. Retrieved from: http://www.nytimes.com/2011/02/26/opinion/26sat4.html?_r=0

Fine, A., & Kotelchuck, M. (2010) Rethinking MCH: The MCH life course model as an organizing life course model as an organizing framework. US DHHS, HRSA, Maternal and Child Health Bureau. <http://mchb.hrsa.gov/lifecourse/rethinkingmchlifecourse.pdf>.

Guatemala Quick Facts. (n.d.). Retrieved from: <http://larutamayaonline.com/guatemala.facts.php>

History and Background. (2013). Retrieved from <http://friendsofsol.org>

Model of hope. (2013). Retrieved from http://mpb.floridaweekly.com/news/2013-05-23/Top_News/Model_of_Hope.html

Contact

terrirocafort@gmail.com

S 03 - Workplace Cultures

Setting the Scene for Workplace Mental Health Promotion in a Swaziland Sugar Mill

Agnes A. Huiskamp, MA (Nsg), RN, RM, RPN, South Africa
Sifiso Manana, BA (Nsg), RN, Swaziland

Abstract

Purpose: The purpose of the study was to provide a descriptive summary of the mental health promotion needs related to the workplace of sugar mill factory workers in Swaziland.

Methods: A qualitative descriptive design was used and unstructured in-depth interviews were conducted with 20 purposively selected factory workers. Two questions were asked of the participants namely *Please tell me about your mental health (impilo yakho yengcodvo)* and *what do you think the workplace can do to help improve your mental health?* To clarify answers and responses probes were used to enrich the participants' descriptions. Data collection and analysis occurred concurrently until data saturation was achieved. The interviews were transcribed verbatim immediately after the interview and Tesch's (1992) method of data analysis was used.

Results: Two themes emerged from the interviews namely: Factors that influence mental health negatively (stressors) and mental health promotion needs in relation to the workplace. A major stressor for most of the participants was an inadequate salary. Other work related stressors that emanated from the data were heavy workloads and long hours, management style and approach, communication in the workplace and employee development. The factory workers were of the opinion that an increase in salary, improvement in conditions of employment and enhanced management and communication skills will ease the stressors. Furthermore, the participants indicated that health education and life skills education on financial management, mental health and stress management can facilitate the promotion of their mental health.

Conclusion: Mental health was not a familiar concept to the factory workers however stress was better known. Factory workers experience diverse conditions in the workplace as stressful. Economic factors such as the salary received caused a lot of stress for most participants. Factory workers want to learn more about mental health, stress and financial management and are of the opinion that if there is improvement in their working conditions and communication skills of supervisors and managers a more mentally healthier workplace can be created. The study can potentially set the scene for workplace mental health promotion gaining momentum in Swaziland.

References

Barry, M. M, Clarke, A. M, Jenkins, R & Patel, V. (2013). A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health* 2013 13:835
Asad, R., Jubeen, S., & Iqbal, S. 2013. Effects of industrial environment on health status of workers. a case of Noon Sugar mill Bhalwal. *Social Sciences and Humanities* 4(1) 215–222

Contact

Agnes.Huiskamp@wits.ac.za

S 03 - Workplace Cultures

Building the Healing Organization: Strategies for Successful Implementation, Cultural Transformation, and Sustaining High-Value Outcomes

Marie M. Shanahan, MA, RN, HN-BC, USA

Ann Marie Leichman, MSN, NEA-BC, USA

Veda L. Andrus, EdD, Hn-BC, USA

Abstract

Purpose: Becoming a healing organization for patients, families, employees and providers was the long-term goal of nursing leadership at this facility, a 451-bed full service acute care metro area US hospital. Re-awakening the team to the art of nursing occurred by engaging frontline nurses in a personal-professional transformation facilitated through an educational collaboration with nurse experts. Over a period of 15 years, nursing at all levels and all specialties developed, evolved and evaluated the infrastructure and practices that would result in a seismic culture change across acute and outpatient services. Today, this award winning and Magnet™ designated organization is recognized as national resource for holistic and integrative patient care (Christianson, Finch, Findlay, Jonas & Choate, 2007). In this presentation, the speakers will outline the route to success of this nurse-led innovation in creating the healing organization.

Background: The executive nursing team realized that an emphasis on technology coupled with an aggressive re-organization had created workplace stress and depleted the caring and compassionate internal resources of the nurse managers and clinical nurses. Nurses' ability to consistently deliver compassionate care is often impacted negatively by the stress they experience in the work environments (Dempsey, 2016). Patient satisfaction surveys bore this out and this in turn, captured the attention of several stakeholder groups within the organization. A call to action for re-infusing caring and empathy in nursing practice was answered by creating a partnership with experts in holistic nursing practice, integrative therapies and transformational leadership. Eliminating emotional exhaustion and burnout was a key objective within the nursing department in order to lower nurse stress levels, prevent widespread turnover and improve patient satisfaction (Van Bogaert, Clarke, Roelant, Meulemans & Van de Heyning, 2010). Holistic nursing was chosen as the foundation for the educational initiative due to its focus on nurse self-care and wellbeing and emphasis on caring-theory guided patient care.

Although holistic practice at this hospital began with a leadership vision, it quickly grew as a grassroots phenomenon that re-defined the usual methods employed to introduce organizational initiatives. The presentation will describe how nurse enthusiasm was nurtured while simultaneously providing the structure and practice standards needed to keep the vision growing, succeeding and measurable. A key to the organization's success was ensuring an evidence based approach to planning, engaging, educating, evaluating and guiding practice.

Approach, Structure and Process: Acknowledging the problem was the first step to engaging a weary nursing team. Honest discussion around the aftermath of organizational re-engineering on the team's nurse psyche and its effects on patient care opened the door to conceiving a plan to heal wounds and re-imagine a vibrant nursing workforce. What followed was house-wide development of a nursing vision calling for caring theory guided practice, nurse self-care and therapeutic healing environments that supported professional nurse growth and facilitated compassionate patient-nurse relationships.

With the nursing team energized around a holistic vision for practice, the nursing executives engaged nurse experts to deliver an educational platform that would transform nurse-to-nurse interactions, infuse greater caring in nurse-patient interactions and incorporate holistic and integrative therapies into patient care. (Shanahan, 2014). In addition, the educational methods had to support the shared governance process and have measurable outcomes. The nurse experts discussed the importance of nurse self-care as a key component to long-term engagement of nurses and a foundational component to the success of their vision. They included authentic communication, healing presence, psychoneuroimmunology, caring

theory, and spirituality in the curriculum that was delivered in-house to 25 nurses per cohort. The nurses were also taught personal renewal and resiliency skills to foster on the job support for nurse self-care.

As nurse participants cycled through the 4-session 10 month educational process, a Holistic Practice Council (HPC), reporting directly to the Professional Nurse Practice Council, comprising of cohort members and guided by the executive and expert teams was formed. The HPC was charged with developing appropriate policies and clinical integration standards for holistic practice based on the Scope and Standards of Holistic Nursing Practice (American Holistic Nurses Association and American Nurses Association, 2013). As the HPC matured, developing specific competencies and evaluation of practices were added to its scope. Critical to the success of the project was allowing the sequence and introduction of holistic practices to be determined by the HPC, to cultivate clinical nurse leadership through their shared governance model (Barden, Griffin, Donahue & Fitzpatrick, 2011).

Several interrelated components were responsible for the success of the project: a strong educational process that bridged leadership and frontline nursing concerns, expressed nursing leadership support, promoted grassroots enthusiasm and integration of holistic principles, and demonstrated significant achievement of organizational goals.

Outcomes and applications: Several outcomes of this culture change have occurred throughout the organization as a result of the initiative. A few of them are described in this abstract.

Professional Applications: Nurses are strongly encouraged to achieve certification and certified nurses are represented in all services area. There are now 75 (and growing) nationally board certified holistic nurses (HN-BC) and over 150 unit-based integrative healing resource nurses mentoring others in the organization. The holistic nursing certification rate is the highest of any organization nationally. The American Holistic Nurses Association recognized the organization in 2015 with its inaugural award for Institutional Excellence in Holistic Nursing. All nurses are taught the basics of holistic practice, beginning with interview screening and on-boarding orientation, and are required to attend a full day of education on holistic practice. To date, over 500 nurses have received the basic education and 260 have attended the in-depth 4 session program. Several nurses function in the role of full-time expert holistic practitioners promoting holistic practice throughout the organization. They are responsible for delivering integrative therapies to patients, families, nurses, providers and other employees. They meet with community groups and internal stakeholders. They keep abreast of current research in the field, updating practices, reporting to senior leadership and collecting data. Nurses in this organization apply evidence based integrative therapies in the treatment or promotion of patient surgical recovery, pain management, anxiety, sleeplessness, post-operative nausea, post chemotherapy nausea, maternal labor pain and anxiety, newborn restfulness and overall patient wellbeing. They combine therapeutic presence, holistic communication and assessment, guided imagery, clinical aromatherapy, music therapy, touch and energy therapies, medicinal harp melodies and pet therapies according to patient needs. They have presented their findings nationally and in publications.

Clinical application: Using the principle of holistic communication and leadership, the APRN leader of the Holistic Birth Program (HBP) sees pregnant women at several intervals prior to giving birth free of charge. Women and their significant others are introduced to multiple holistic interventions that are known to improve the birth experience, including relaxing hydrotherapy and aromatherapy. During the postpartum phase, the woman and her partner are provided with uninterrupted 2 hour bonding periods to encourage attachment. The HBP reported a C-section rate for spontaneous, term, vaginal, primipara, uncomplicated expected births of 14.2 percent compared to 36 percent for those not in the HBP.

Workforce application: A nurse PhD candidate studied the impact of nurse renewal room and reduction on nursing stress (Bodino, 2016). This organization has four nurse renewal rooms. Nurse renewal rooms are specifically designated spaces for nurses to rest and re-focus while they are on shift. Nurses are encouraged to use this space before, during and after their shift to avoid fatigue and enhance therapeutic presence. Nurses typically spend 15 minutes rejuvenating in these rooms in order to return to their patient care assignment relaxed and ready to re-engage with patients. There is a positive association between engaging in health promotion behaviors and the reduction of burnout (Neville & Cole, 2013).

Patient experience: The organization consistently surpasses state and national indices for the HCAHPS patient experience (most recently reported).

HCAHPS Questions	Hospital	State Average	National Average
Patients who reported their nurses "Always" communicated well	83%	76%	79%
Patients who reported their pain was "Always" well controlled	73%	69%	71%
Patient who gave their hospital a rating of 9 or 10 on a scale from 1 (lowest) to 10 (highest)	76%	64%	71%
Patients who reported YES they would definitely recommend the hospital	80%	66%	71%

Organizational application: Perhaps the most gratifying result of this healing initiative is the transformed culture. Nursing satisfaction is consistently high as is patient satisfaction. Especially telling is the impact on RN turnover and cost savings. In 2015, RN turnover rate stood at 9.0% in comparison to a national average of 17.1%. When compared to hospitals in the northeast region where the turnover rate stands at 14.6%, the cost avoidance for the organization is between \$2.1 million and \$3.2 million (as measured by the organization's CFO) when compared to hospitals with 350-500 beds on the national level.

Creating and maintaining a healing organization over time takes a comprehensive vision and commitment to caring and compassionate principles. It requires planning and executing with intentionality, creativity and the boldness to lead a path that is still unfolding. The impact of this path on the initially unforeseen creation of a healing organization is now clearly evident.

References

- American Holistic Nurses Association and American Nurses Association. (2013). *Scope and Standards of Practice: Holistic Nursing* (2nd ed.). Silver Spring, MD: American Nurses Association.
- Barden, A., Griffin, M., Donahue, M. & Fitzpatrick, J. (2011). Shared Governance and Empowerment in Registered Nurses Working in a Hospital Setting. *Nursing Administration Quarterly*, 35(3), 212-218.
- Bodino, J. (2016, June). The Use of a Zen Den and the Reduction of Stress in Registered Nurses: A Pilot Study. Paper presented at the meeting of the American Holistic Nurses Association, Bonita Springs, FL.
- Christianson, J., Finch, M., Findlay, B., Jonas, W. & Choate, C. (2007). *Reinventing the Patient Experience: Strategies for Hospital Leaders*. Chicago: Health Administration Press. p. 107-120.
- Dempsey, C. (2016, March). *Compassionate Connected Care for the Caregiver: Improving the Patient Experience by Improving the Caregiver Experience*. Paper presented at the Meeting of the American Organization of Nurse Executives, Fort Worth, TX.
- Neville, K. & Cole, D. (2013). The Relationships Among Health Promotion Behaviors, Compassion Fatigue, Burnout, and Compassion Satisfaction in Nurses Practicing in a Community Medical Center. *Journal of Nursing Administration*, 43(6), 348-354.
- Shanahan, M. (2014). The BirchTree Center Model: Transforming Healthcare with Heart! *Beginnings: A Publication of the American Holistic Nurses Association*, 34(3), p. 6-9, 30.
- Van Bogaert, P., Clarke, S., Roelant, E., Meulemans, H. & Van de Heyning, P. (2010). Impacts of Unit-Level Nurse Practice Environment and Burnout on Nurse-Reported Outcomes: A Multi-Level Modelling Approach. *Journal of Clinical Nursing*, 19(11), 1664-1674.

Contact

marie@birchtreecenter.com

S 06 - Global Health Promotion

Prevalent Vitamin D Deficiency and Impact of Vitamin D Supplementation on Acute GVHD in HCT

Linda DuPuis-Rosen, BSN, RN, OCN, USA

Tara Coghlin Dickson, MS, RD, CSSD, USA

Abstract

Purpose: Vitamin D, an essential hormone with function ranging from mediating bone hemostasis to immune modulation, has been reported to be deficient in the majority of myeloablative allogeneic hematopoietic cell transplant (HCT) recipients and associated with diagnosis of chronic graft versus host disease (GVHD). There are two types of GVHD (acute and chronic) which carries a high mortality rate of 34% (Grade II-IV).

Current studies continue to support the finding that there is a high prevalence of vitamin D deficiency within HCT recipients. Rosenblatt et al [1] has shown vitamin D deficiency may increase the risk of acute GVHD due to the loss of known immunomodulatory effects of vitamin D. Ganetsky [2] reported that vitamin D deficiency measured at 30 days post-HCT was associated with increased risk of grade II-IV cutaneous acute GVHD ($p=0.05$). Ganetsky proposed that vitamin D might confer a protective effect against cutaneous acute GVHD via reduction in CCR4 expression. The concept of a protective effect may be best illustrated by Glotzbeker [3] who reported an incidence of chronic GVHD of 63.8% at two years post transplant in HCT recipients with a vitamin D level $<25\text{ng/ml}$, compared to an incidence of 23.8% in recipients with higher vitamin D levels ($>25\text{ng/ml}$, $p=0.009$).

We tested the hypothesis that vitamin D deficiency is associated with acute GVHD within 90 days after HCT.

Methods: Fifty consecutive allogeneic recipients were selected from the HCT database based on blood samples available pre-transplant, 30 days, and 90 days post HCT over two years. To gauge the impact of vitamin D levels in the HCT, we assessed vitamin D levels at three time points, pre-transplant, day +30 and day +90, for a total of 150 samples. The bio-samples were analyzed by liquid chromatography-tandem mass spectrometry (LC-MS/MS) for 25-OH vitamin D (D2, D3 and total). For analytical purposes vitamin D deficiency was defined as a vitamin D 25-OH level of less than 25 ng/ml. Clinical data was abstracted from the medical record with acute GVHD scoring system (already completed in patient records).

Results: Of the 50 patients, 74% had vitamin D deficiency (median 20 ± 8 ng/ml) pre-HCT, 86% had vitamin D deficiency at 30 days (median 16 ± 8 ng/ml, $p=.048$), and remained vitamin D deficient at 90 days post HCT (median 16 ± 10 ng/ml). Thirty percent of these 50 patients were diagnosed with Grade II-IV acute GVHD by 90 days post transplant. All patients with grade II-IV acute GVHD by 90 days had vitamin D deficiency (median 12 ± 6 ng/ml, range 5-23ng/ml, $p=.08$).

Conclusion: Given our findings as well as other recent research, it has compelled our Blood and Marrow Transplant (BMT) program to adopt a standard of care for monitoring and supplementing vitamin D. In developing our standard of care, we polled six BMT Centers across the US to identify their practice for monitoring and supplementing vitamin D. We learned that although many BMT centers were supplementing their patients, there were widely varying protocols among the centers. The frequency of vitamin D level checks were often inconsistent and the dosing for supplementation covered a wide range, and limited follow-up was reported. Implementation of the standard of care involved multiple forms of communication such as faculty meetings and updates, RN, APP and fellow in-services, RN coordinator meetings, newsletters, MD guidebook update, EPIC charting templates and smart phrases, communication between inpatient and outpatient teams, inclusion in pre and post transplant letter to referring MD. A vitamin D EPIC report was also developed to assess compliance outcomes and data analysis of adequate dosing.

Our implementation of the standard of care for monitoring and supplementing vitamin D occurred 18 months ago. We will continue to collect the data for two years to evaluate the impact of adequate vitamin D levels and its potential buffering of acute GVHD. Our hypothesis is that this new data will provide the needed evidence to elucidate the benefits of adequate vitamin D levels for the allogeneic HCT recipient population.

References

Ganetsky, A., et al., *Vitamin D Deficiency Predicts Acute Cutaneous Graft-Versus-Host Disease in Reduced-Intensity Allogeneic Hematopoietic Stem Cell Transplantation*. *Biology of Blood and Marrow Transplant*, 2014. **20**(2): p. S267-S268.

Glantzbecker, B., et al., *Low levels of 25-hydroxyvitamin D before allogeneic hematopoietic SCT correlate with the development of chronic GVHD*. *Bone Marrow Transplant*, 2013. 48(4): p. 593-597.

Contact

ldupuisrosen@msn.com

S 06 - Global Health Promotion

Screening Recommendations for Baby Boomers With Chronic Hepatitis C and the Uncertainties That Surround Them

Humberto Reinoso, PhD, FNP-BC, ENP-BC, USA

Abstract

Background: Globally approximately 130 to 184 million individuals are living with hepatitis C, which translates to one in every 12 individuals affected by viral hepatitis worldwide (Institute of Medicine [IOM], 2010). It is projected that anywhere from 3.5 to 5.3 million Americans living with viral hepatitis do not know they are infected (U.S. Department of Health and Human Services [HHS], 2011). Viral hepatitis infections are three to five times more frequent than HIV infections in the U.S. (IOM, 2010). Baby boomers, those individuals born during 1945 and 1965 comprise an estimated 27% of the U.S. population and account for approximately three-fourths of all hepatitis C infections (CDC, 2012). Uncertainty regarding the duration of an illness or its outcome has been reported as the greatest single psychological stressor for individuals with a life-threatening illness (Mishel, 1999). The majority of the time the diagnosis of hepatitis C is made when the individual is in the chronic stage of the condition and asymptomatic. The newly diagnosed chronic hepatitis C individual has to cope with the paradox of a new diagnosis of a chronic, sometimes advanced, condition. Chronic illness, in addition to chronic uncertainty as a psychological constant can have detrimental effects on an individual

Problem: The Institute of Medicine, the U.S. Department of Health and Human Services, the Centers for Disease Control and Prevention, and the U.S. Preventative Services Task Force have called attention to the silent epidemic of viral hepatitis. These scientific institutions have created action plans on prevention, screening, and treatment of individuals with viral hepatitis. New screening practices that target the baby boomer population are sure to identify numerous cases of chronic hepatitis C. There is a gap in the literature that fails to link the uncertainties faced by individuals diagnosed with hepatitis C and the factors attributing to those uncertainties.

Purpose: The purpose of this study was to explore new hepatitis C screening recommendations and to investigate the influence a set of predictor variables prescribed by Mishel's Uncertainty in Illness Theory had on baby boomers' perception of uncertainty.

Methods: A multiple regression analysis was used to determine if the independent variables (i.e., level of education, credible authority, social support, length of diagnosis, familiarity of events, and cognitive capacity) were predictors of the participants' level of uncertainty. Multiple regression analysis allows the researcher to predict one variable from several variables (Norman & Streiner, 2008). Data were collected by the researcher using a 53-item questionnaire. This questionnaire encompassed three standardized instruments, Mishel's Uncertainty in Illness Scale – Community Form (MUIS-C), Duke Social Support Index – Abbreviated (DSSI), the Health Care Orientation subscale of the Psychosocial Adjustment to Illness Scale – Self Report (PAIS-SR), and a researcher-designed demographic questionnaire. Data were analyzed using the Statistical Program for the Social Sciences (SPSS) 22.0 software.

Setting: The main recruitment procedures gather data from baby boomers that self identified as hepatitis C positive via virtual settings through the use of SurveyMonkey.

Results: Data were collected over an 8-week period from a convenience sample of baby boomers that self-identify as having hepatitis C ($N = 146$). Baby boomers aged 49 to 69 provided data for this study with an average participant age of 58 years old. The linear combination of the predictors revealed a significant regression model, $F(5,115) = 27.091$, $p < .001$, with a R^2 value of 0.54. Two of five predictors, credible authority ($\beta = .625$) and social support ($\beta = -.169$), were significant predictors of perceived level of uncertainty.

Conclusion: The majority of the time, the diagnosis of hepatitis C is made when the individual is in the chronic stage of the condition. The newly diagnosed hepatitis C individual has to cope with the paradox

and uncertainties of a new diagnosis of a chronic and sometimes advanced condition. Uncertainty, or the inability to structure meaning, can develop if the individual does not form a cognitive schema for illness events. A cognitive schema is the individual's subjective interpretation of illness, treatment, and hospitalization. By providing anticipatory guidance, healthcare providers are seen as credible sources of information and have the greatest influence on the individual's perception of uncertainty ($\beta = .625$). Social support shared an inverse relationship with uncertainty ($\beta = -.169$). Therefore, as social support increases, perceived levels of uncertainty decrease.

Implications: Study results contribute to the understanding of baby boomers diagnosed with hepatitis C and the uncertainties surrounding illness events. Viral hepatitis has been deemed the silent epidemic. Silence and uncertainty are a deadly combination. It is the responsibility of nurses to not only educate themselves, as credible sources of information but also to educate the general public and policymakers to break the silence and reduce uncertainty for those affected by hepatitis C. It is imperative for nurses and nurse practitioners to maintain current on practice guidelines and comprehend the role they play as liaisons of the healthcare delivery system. As liaisons, connecting individuals diagnosed with hepatitis C to treatment and resources in the community, nurses might further assist in navigating illness events and ultimately decrease uncertainty. Early identification and treatment of hepatitis C, as recommended by the scientific community, may reduce prevalence and complications of this condition.

References

- Centers for Disease Control and Prevention (CDC). (2012). Recommendations for identification of chronic hepatitis C virus infection among persons born during 1945 – 1965. Retrieved from <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6104a1.htm>.
- Institute of Medicine (IOM). (2010). *Hepatitis and liver cancer: a national strategy for prevention and control of hepatitis B and C*. Washington, DC: The National Academies Press.
- Mishel, M. H. (1999b). Uncertainty in chronic illness. *Annual review of nursing research*, 17, 269-294.
- Norman, G. R., & Streiner, D. L. (2008). *Biostatistics: The bare essentials*, 3rd Ed. People's Medical Publishing House: Shelton, CT.
- U. S. Department of Health and Human Services (HHS). (2011). Combating the silent epidemic of viral hepatitis: Action plan for the prevention, care and treatment of viral hepatitis. Retrieved from <http://www.hhs.gov/ash/initiatives/hepatitis>.

Contact

reinoso_h@mercer.edu

Research Oral Presentations

A 07 - Disease Prevention in Oncology Patients

Development of a Decision Aid for Unaffected BRCA Mutation Carriers

Terri Jabaley Leonarczyk, PhD, RN, USA

Abstract

Purpose: Deleterious BRCA mutations confer high risks for developing breast and ovarian cancer (Chen & Parmigiani, 2007; Mavaddat, et al., 2013). For healthy women, diagnosis of a mutation is associated with emotional trauma, fear, and a sense of urgency to make health protective decisions. Cancer risk management decision making support needs are exigent and ongoing throughout the decision-making process. Women depict the process as a life journey (Jabaley Leonarczyk & Mawn, 2015). Priorities are survival, reducing the risk for cancer development, and maximizing quality of life (Stan et al., 2013). Making decisions necessitates a complex analysis of clinical variables, individual characteristics, and personal preferences. As emerging research elucidates the issues affecting cancer risk management decision making for BRCA+ women, guidelines evolve. Despite the rapid evolution of knowledge, evidence clearly supports risk management intervention. Primary health care providers, particularly those practicing in rural areas, lack resources for this population. Care may be fragmented, and specialists often view BRCA+ women through the lens of their specialty, neglecting the comprehensive approach needed (Jabaley Leonarczyk & Mawn, 2015).

Current decision support resources have various limitations. Clinical guidelines available online are not amenable to general population use, requiring a post graduate reading comprehension level and specialized knowledge in genomics and medicine (NCCN, 2016; Petrucelli, Daly, & Feldman, 2013; Schackmann, Munoz, Mills, Plevritis, & Kurian, 2013). In many studies, samples include both affected and unaffected mutation carriers, making it difficult to differentiate issues unique to each of these populations (Culver, et al., 2012; Llort, et al., 2015). Some resources do not address all options available to unaffected carriers (Metcalfe et al., 2007), and others exclude psychosocial issues impacting the decisional process (Petrucelli, Daly, & Feldman, 2013; Schackmann, Munoz, Mills, Plevritis, & Kurian, 2013).

The purpose of this study was to develop an evidence-based, comprehensive decision aid for women who are unaffected BRCA mutation carriers. Specific aims were to develop an aid based on decisional theory; consistent with internationally accepted clinical guidelines; at a reading level suitable for general population use; and to conduct an analysis of the aid.

Methods: The Ottawa Decision Support Framework (O'Connor, 2006) guided the development of the decision aid. According to the method recommended by Coulter, et al. (2013), the decision aid was developed by a steering committee and evaluated by twenty-two participants; seven experts and fifteen end users. Experts were genetic counselors and advanced practice nurses specializing in cancer genomics. End users were unaffected BRCA mutation carriers, recruited from the Facing our Risk of Cancer Empowered (FORCE), a support group for those with hereditary breast and ovarian cancer syndrome (HBOC). Quantitative and qualitative data were collected by survey.

Results: Expert reviewers were genetic counselors specializing in genetic cancer risk and advanced practice nurses specializing in cancer genomics. All were women. End user participants were all Caucasian women; all reported some level of college education; fifty percent reported a BRCA1 and fifty percent reported a BRCA2 mutation. The mean age of participants was 48.5 years; with an age range of 33-62. The mean time since receiving a positive BRCA mutation testing result was 5.2 years, with a range of 1-13 years. Results of the BRCA Decision Aid evaluation by expert reviewers revealed mean scores of 3.8 or higher on a four point likert scale from poor to excellent for organization, clarity, usefulness, comprehensiveness, and ease of understanding; and a mean score of 4.0 on a four point likert scale from not relevant to highly relevant for all sections of the decision aid. Results of the BRCA Decision Aid evaluation by end user reviewers revealed mean scores of 3.44 or higher on a four point likert scale from poor to excellent for organization, clarity, usefulness, comprehensiveness, and ease of understanding; and mean scores of 3.43 or higher on a four point likert scale from not relevant to highly relevant for all

sections of the decision aid. Qualitative data indicated an increase in knowledge among end users reviewing the aid and the acute need for the tool in clinical practice among both experts and end users.

Conclusions: Quantitative findings from this study suggest that the decision aid is well-organized, clear, comprehensive, and highly relevant to the cancer risk management decision making experience of unaffected BRCA+ women. Qualitative findings suggest that the decision aid is needed in practice and that it increases knowledge among end users. Through use of the decision aid with patients, nurses have a means of improving the quality and integration of care for unaffected BRCA+ women by guiding and coaching, clarifying values, and monitoring and facilitating progress in the cancer risk management decision making process. The aid prompts consideration of the unique values, characteristics and preferences of each BRCA+ woman and supports active collaboration of all members of the interdisciplinary team caring for unaffected mutation carriers.

References

- Chen, S., & Parmigiani, G. (2007). Meta-analysis of BRCA1 and BRCA2 penetrance. *Journal of Clinical Oncology*, 25(11), 1329-1333. doi: 10.1200/JCO.2006.09.1066
- Coulter, A., Stilwell, D., Kryworuchko, J., Mullen, P.D., Ng, C.J., van der Weijden, T. (2013). A systematic development process for patient decision aids. *BMC Medical Informatics and Decision Making*, 13(Suppl 2), S2. Retrieved from <http://www.biomedcentral.com/1472-6947/13/S2/S2>
- Culver, J. O., MacDonald, D. J., Thornton, A. A., Sand, S. R., Grant, M., Bowen, D. J., ... Weitzel, J. N. (2012). Development and evaluation of a decision aid for BRCA carriers with breast cancer. *Journal of Genetic Counseling*, 20(3), 294-307. doi.org/10.1007/s10897-011-9350-4
- Jabaley Leonarczyk, T. & Mawn, B. (2015). Cancer risk management decision making for BRCA+ women. *Western Journal of Nursing Research*, 37(1), 66-84. doi: 10.1177/0193945913519870
- Llort, G., Chirivella, I., Morales, R., Serrano, R., Sanchez, A. B., Teulé, A. ... Grana, B. On behalf of the SEOM Hereditary Cancer Working Group. (2015). SEOM clinical guidelines in hereditary breast and ovarian cancer. *Clinical & Translational Oncology*, 17, 956-961. doi: 10.1007/s12094-015-1435-3
- Mavaddat, N., Peock, S., Frost, D., Ellis, S., Platte, R., Fineberg, E., ... Easton, D. F. (2013). Cancer risks for BRCA1 and BRCA2 mutation carriers: Results from prospective analysis of EMBRACE. *Journal of the National Cancer Institute*, 105(11), 812-822. doi: 10.1093/jnci/djt095
- Metcalf, K.A., Poll, A., O'Connor, A., Gershman, S., Armel, S., Finch, A., ... Narod, S.A. (2007). Development and testing of a decision aid for breast cancer prevention for women with a BRCA 1 or BRCA 2 mutation. *Clinical Genetics*, 72, 208-217. doi: 10.1111/j.1399-0004.2007.00859x
- National Comprehensive Cancer Network (NCCN): NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) Genetic/Familial High-Risk Assessment: Breast and Ovarian (2016, March 15). Retrieved from https://www.nccn.org/professionals/physician_gls/pdf/genetics_screening.pdf
- O'Connor, A.M. (2006). Ottawa Decision Support Framework to Address Decisional Conflict. Retrieved from <https://decisionaid.ohri.ca/odsf.html>
- Petrucci, N., Daly, M.B., Feldman, G.L. (2013, September 26) BRCA1 and BRCA2 hereditary breast and ovarian cancer. In R.A. Pagon, M.P. Adam, H.H. Ardinger, et al. (Eds.). GeneReviews® [Internet]. University of Washington; Seattle. Retrieved from: <http://www.ncbi.nlm.nih.gov/books/NBK1247/>
- Schackmann, E.A., Munoz, D.F., Mills, M.A., Plevritis, S.K., & Kurian, A.W. (2013). Feasibility evaluation of an online tool to guide decisions for BRCA1/2 mutation carriers. *Familial Cancer*, 12(1), 65-73. doi:10.1007/s10689-012-9577-8
- Stan, D.L., Shuster, L.T., Wick, M.J., Swanson, C.L., Pruthi, S., & Bakkum-Gamez, J.N. (2013). Challenging and complex decisions in the management of the BRCA mutation carrier. *Journal of Women's Health*, 22(10), 825-834. doi: 10.1089/jwh.2013.4407

Contact

JABALEYT@EMMANUEL.EDU

A 07 - Disease Prevention in Oncology Patients

A Global Perspective: Meaning, Coping, and Health of Younger and Older Women with Breast Cancer

Kathleen A. Sternas, PhD, MSN, BSN, RN, USA

Abstract

Breast cancer is a major global public health issue. It is the most common disease in women worldwide and the leading cause of death in females including women in Argentina, Uruguay and Brazil (Brunello et al., 2008; Kalogerakos et al., 2014). Breast cancer is the most common cancer in women under 50 years old (Howard-Anderson et al., 2012; Trachtenberg, 2012). Mortality rates are higher for African American women at all ages (Phillips & Cohen, 2011). Cancer risk is rising because of increasing lifespan. More younger women are being diagnosed with breast cancer which is likely due to multiple factors including nutritional deficiencies, exposure to environmental toxicity, smoking, elevated estrogen. Breast cancer screenings are detecting more breast cancer (Centers for Disease Control and Prevention, 2011; Kalogerakos et al., 2014).

Breast cancer effects women's quality of life (Devi and Hegney, 2011). In younger women, breast cancer may require different interventions than for older women because cancers are more advanced, aggressive and often involve a genetic origin (Centers for Disease Control and Prevention, 2011). Younger women often have different issues than older women including body image, relationships and family life issues, career and financial concerns (Helms et al., 2008). Howard-Anderson, et.al (2012) found younger women experienced psychosocial, menopause concerns, weight gain, and physical inactivity. Trachtenberg (2012) found younger breast cancer survivors have issues older survivors do not face: early possible menopause, pregnancy after diagnosis, more advanced cancer, higher mortality rates contributing to more depression. Younger and older women have some similar post-treatment needs: increased emotional support from family and friends; learning new coping strategies to manage daily stress and recurrence fears. Snobohm and Heiwe (2013) found young persons with cancer experienced stressors similar to older persons (feeling physically ill from cancer treatment and psychological distress) but also have different stressors related to their youth.

Phillips and Cohen (2011) explored the meaning of breast cancer risk for African American women. Themes identified: life changing experience; fears, support and concern for relationships; the health care experience; raising awareness; strong faith. Coping strategies included: physical exercise; seeking professional help; trying to regain control; using new ways of thinking and acting; seeking help from family/friends. Problem focused, emotion focused, meaning based, social coping and defense mechanisms were used. Manuel, et al. (2007) studied coping with breast cancer in women 50 years or younger. Coping strategies included: positive cognitive restructuring, physical activity, medications, resting, wishful thinking, making changes, social support for anger and depression. Support groups for young women with early breast cancer in Australia helped women cope and significantly decreased their psychological distress (Gunn et al., 2015). Devi and Hegney (2011) found that women use religion and spirituality to cope with breast cancer and improve quality of life.

Women experience physical and psychological distress following a diagnosis of breast cancer (Helms, et al., 2008; Howard-Anderson, et al., 2012). Avis et al. (2005) studied 202 women with stage I to III breast cancer, 50 or younger after breast cancer and found over 70% of the women reported aches, pains, unhappiness with appearance, hot flashes, painful intercourse and bladder control problems. Younger women has a lower Global QOL than a non-patient sample of younger women. Younger women with impaired QOL may need interventions related to menopausal, sexual, relationship and body image problems and fertility options and genetic counseling. Wong-Kim et al. (2005) studied quality of life (QOL) beliefs among US born and foreign born Chinese women with breast cancer. Both groups reported a stigma of breast cancer which is viewed as contagious. Foreign-born women reported more stigma than US born women. Having cancer was a reminder to take better care of themselves.

Hassan, et al. (2015) found anxiety and depression among Malaysian breast cancer patients. The young were at higher risk for anxiety and depression. Less financial support and being single were associated with depression. In contrast, Ng et al. (2015) found Malaysian breast cancer patients had low levels of depression and anxiety and better quality of life following breast cancer diagnosis. Higher quality of life was related to high levels of social support and spiritual coping. Devi and Hegney (2011) found that women use religion and spirituality to cope with breast cancer and improve quality of life.

Purpose: Breast cancer is perceived as a stressful experience for women. Factors which can impact on quality of life of women include meaning attached to having breast cancer, coping, and health. The purpose of this study was to investigate meaning (appraisal) of having breast cancer, the ways women cope with breast cancer, and their health.

Methods: This study focused on comparing meaning, coping and health of younger (age 29 to 58 years, n= 32) and older (age 60 to 80 years, n = 15) women following first time diagnosis of breast cancer who were scheduled for breast surgery. Lazarus and Folkman's stress-appraisal-coping **theoretical framework** guided the study. A letter of explanation about the study was shared with potential subjects who were referred by their surgeons. Telephone follow-up was used to ascertain interest in participating. An interview with a nurse was scheduled if inclusion criteria were met. Instruments included the Appraisal of Breast Cancer Scale, Ways of Coping Revised, Profile of Mood States, Resources Assessment which included questions on nutrition, exercise, breast care, finances.

Results: Perceived causes of breast cancer included poor eating habits, eating too much meat, taking estrogen, and injury to the breast. Older women had more positive meanings of having breast cancer than younger women. Women appraised breast cancer as a challenging experience with harmful losses. Women were challenged to maintain their self-esteem, feel good emotionally, and stay socially active. Concerns included: loss of independence; changes in finances; changes in social life; grieving and sleeping problems; and husbands' needs for education and support. Women receiving chemotherapy had more negative meanings of breast cancer than women receiving no additional treatments or hormonal or radiation therapy. Helpful ways of coping included: positive reappraisal, planful problem-solving, prayer, keeping busy, and taking one day at a time. Lumpectomy patients used more escape-avoidance coping than mastectomy patients ($t = -2.07$, $p = .044$). Women having a mastectomy versus a lumpectomy did not differ in their use of confrontive, distancing, self-controlling, seeks social support, accepts responsibility, planful problem solving and positive reappraisal coping.

Younger women had poorer health outcomes than older women with breast cancer. African-American women had less tension-anxiety ($t = -2.56$, $p = .014$), less confusion ($t = -2.27$, $p = .028$), more vigor ($t = 4.47$, $p < .001$), less mood disturbance ($t = -3.22$, $p = .002$) than Caucasians. Breast cancer resulted in both younger and older women taking more control over their health and life, and making positive lifestyle changes including implementing good nutritional habits, reducing caffeine and alcohol intake; quitting smoking, exercising more, regular breast care practices, i.e., BSE, regular physician visits, becoming closer to family and friends, and a stronger faith.

Conclusion: Implications include the need to identify women with negative meanings (appraisals) of having breast cancer since they have poorer outcomes, and to educate women about helpful coping strategies and lifestyle behaviors which can improve their health. Global research findings have implications for advancing practice, research, education and policy to meet the needs of younger and older women with breast cancer.

References

- Devi, K. and Hegney, D. (2011). Quality of life in women during and after treatment for breast cancer: A systematic review of qualitative evidence, *JBI Library of Systematic Reviews*, 9 (580), 2533-2571.
- Hassan, M., Shah, S., Ghazi, H. et al. (2015). Anxiety and depression among breast cancer patients in an urban setting in Malaysia, *Asian Pacific Journal of Cancer Prevention*, 16 , 4031-4035.
- Howard-Anderson, J., Ganz, P., Bower, J., Stanton, A. (2012). Quality of life, fertility concerns, and behavioral health outcomes in younger breast cancer survivors, *Journal of the National Cancer Institute*, 104 (5), 386-405.
- Kalogerakos, K., Sofoudis, C., Koumousidis, A., Tzonis, P., Maniou, I. Breast cancer surgery in elderly women: A review. (2014). *Open Access Women's Health*, February 22; 2(1):3.

Ng, C.G., Mohamed, S., See, M.H., Harun, F., Dahlui, M, Sulaiman, A.H., Zainal, N.Z., Taib, N.A. (2015). Anxiety, depression, perceived social support and quality of life in Malaysian breast cancer patients: A 1-year prospective study. *Health and Quality of Life Outcomes*, 13, 205.

Phillips, J., Cohen, M. (2011). The meaning of breast cancer risk for African American Women . *Journal of Nursing Scholarship*, 43 (3), 239-247.

Contact

sternaka@shu.edu

A 08 - Global Interprofessional Health Disparities

Application of Evidence-Based Practices to Global Interprofessional Collaborations Aimed at Reducing Hearing-Related Health Disparities

Tracey Smith Page, DNP, RN, FNP-BC, USA

Abstract

Purpose: This presentation will provide an overview of the evidence based interventions and practices utilized in the development and implementation of a sustainable community owned hearing screening program for children in Jinotega, Nicaragua. Hearing loss in children can lead to social isolation, academic failure, and emotional distress (Daud, Kamarulzaman, Rahman, & Zakaria, 2013). Subsequently, hearing loss that is not effectively identified and managed can have a negative impact on a community due to increased use of resources and decreased productivity over a lifetime. Unfortunately, hearing screenings for school-aged children in Nicaragua are not routinely performed despite evidence to support effectiveness in identifying hearing related deficits (Muñoz, Caballero, & White, 2014; Prieve, Schooling, Venediktov, & Franceschini, 2015). The magnitude of hearing related deficits in children in Jinotega, Nicaragua, is documented, along with probable causation and interventions, to support the implementation of sustainable community programs to address the issue. Research conducted by Saunders, Vaz, Greinwald, Lai, Morin & Moica (2007) stands as the only evidence in publication that quantitatively reports the discrepancy in hearing screening failure rates in Jinotega, Nicaragua, (18%) when compared to the United States (<4%) and provides valuable information that can be applied to evidence based interventions for this population.

Methods: Health care professionals, educators, spiritual leaders, students and community members worked together to develop and implement a child hearing screening program that consists of educational training and direct patient care opportunities. Educational programs were provided for Nicaraguan nursing students and key community stakeholders over two separate week-long visits to Nicaragua. Direct patient care was also performed as children in three locations in and around Jinotega, Nicaragua, received a well child exam, hearing screening and other select interventions based on need.

I selected pure-tone hearing screens as the base patient intervention for this program as the literature supports this as the preferred method for hearing screens in school-aged children (Saunders, et al. 2007; Prieve, Venediktov & Franceschini, 2015; Munoz, Caballero & White, 2014; Sekhur, Zalewski & Paul, 2013). There are challenges of implementing pure-tone hearing testing in an environment without a sound booth but evidence based interventions to help manipulate the environment and perform effective screens are available (Swanpoel, McClennan-Smith & Hall, 2013). Implementing a questionnaire aimed at identifying children at risk was considered and ruled out based on a literature review conducted by Munoz, Caballero & White (2014) as it was found to be ineffective in accurately identifying children at risk of hearing loss.

The optimal frequency of providing hearing screens in school-aged children remains unproven. The literature supports hearing screens in school-aged children (Prieve, Venediktov & Franceschini, 2015; Munoz, Caballero & White, 2014; Sekhur, Zalewski & Paul, 2013; Swanepoel, Maclennan-Smith & Hall, 2013) but the frequency in which they are performed varies. Nicaragua currently does not mandate hearing screens for school-aged children and only 34 states in the United States require hearing screens in school (Sekhar, Zalewski & Paul, 2013). The Jinotegan community was provided with information on which to base their future decisions as they assume ownership of the program.

Results: The clinical days were challenging as 302 children in three different locations were provided with well-child exams, treatment of acute health issues and hearing screenings. Speech language consults and ear lavages were also provided as needed. Although this is not a research project, basic data was collected for the purposes of program evaluation and future needs consideration. An astonishing 34% of the 302 children assessed failed some portion of the hearing screening resulting in a recommendation for either a rescreening in 3 to 6 months or immediate referral to a hearing specialist. The unexpected findings were discussed by the interprofessional team to determine the presence of a

possible process problem. The hearing screening process was reviewed and found to be sufficiently controlled for this environment (Swanepoel, Maclennan-Smith, & Hall, 2013). Anecdotally, the high level of hearing screening deficits is thought to be due to a large amount of earwax, visualization of tympanic membrane scarring indicative of previous trauma or infection and presence of fluid behind the tympanic membrane interfering with sound transmission. Well cited in the literature, interprofessional collaboration was a key element for the development, implementation, and sustainability of this program (Kara, Johnson, Nicely, Niemeier, & Hui, 2015; Norgaard, Draborg, Vestergaard, Odgaard, Cramer, & Sorensen, 2013).

Conclusion: Implications for nursing practice are abundant as multiple interventions and strategies were utilized to create a program using existing evidence with success. The actions are replicable and have great potential for use in a formal research study. The content of this presentation also strongly supports the Congress objective to promote transformation of knowledge and practice to advance global health and nursing.

References

- Daud, M. M., Kamarulzaman, N., Rahman, N. A., & Zakaria, M. N. (2013). Sensorineural Hearing Loss in Chronic Suppurative Otitis Media. *International Medical Journal*, 20(5), 559-560 2p.
- Kara, A., Johnson, C. S., Nicley, A., Niemeier, M. R., & Hui, S. L. (2015). Redesigning inpatient care: Testing the effectiveness of an accountable care team model. *Journal Of Hospital Medicine*, 10(12), 773-779. doi:10.1002/jhm.2432
- Muñoz, K., Caballero, A., & White, K. (2014). Effectiveness of questionnaires for screening hearing of school-age children: A comprehensive literature review. *International Journal Of Audiology*, 53(12), 910-914 5p. doi:10.3109/14992027.2014.943846
- Norgaard, B., Draborg, E., Vestergaard, E., Odgaard, E., Cramer Jensen, D. C., & Sorensen, J. (2013). Interprofessional clinical training improves self-efficacy of health care students. *Medical Teacher*, 35(6), e1235-43. doi:10.3109/0142159X.2012.746452
- Prieve, B. A., Schooling, T., Venediktov, R., & Franceschini, N. (2015). An Evidence-Based Systematic Review on the Diagnostic Accuracy of Hearing Screening Instruments for Preschool- and School-Age Children. *American Journal Of Audiology*, 24(2), 250-267 18p. doi:10.1044/2015_AJA-14-0065
- Saunders, J., Vaz, S., Greinwald, J., Lai, J., Morin, L., & Mojica, K. (2007). Prevalence and etiology of hearing loss in rural Nicaraguan children. *Laryngoscope*, 117(3), 387-398.
- Sekhar, D., Zalewski, T., & Paul, I. (2013). Variability of State School-Based Hearing Screening Protocols in The United States. *Journal Of Community Health*, 38(3), 569-574 6p. doi:10.1007/s10900-013-9652-6
- Swanepoel, D. W., Maclennan-Smith, F., & Hall, J. W. (2013). Diagnostic Pure-Tone Audiometry in Schools: Mobile Testing without a Sound-Treated Environment. *Journal Of The American Academy Of Audiology*, 24(10), 992-1000 9p. doi:10.3766/jaaa.24.10.10

Contact

paget@uthscsa.edu

A 08 - Global Interprofessional Health Disparities

Nurses Crossing Disciplines and Borders: A Participatory Research Approach to Global Water Challenges

Vicki L. Simpson, PhD, MSN, RN, CHES, USA

Abstract

Purpose: The purpose of this presentation is to: 1) describe an ongoing project to provide access to safe water and improved sanitation and hygiene for rural, underserved areas of the Dominican Republic, and 2) delineate the contributions/roles of nurses as part of a cross-disciplinary team in addressing complex global challenges. According to the United Nations (UN), 1.8 billion people globally use water contaminated by fecal matter while 2.4 billion lack access to basic sanitation services. Additionally, issues related to unsafe water, poor sanitation and hygiene are major contributors to death for children under the age of five worldwide. Ensuring access to water and sanitation for all is sixth on the list of the UN Sustainable Development Goals. Achieving this goal will not only reduce morbidity and mortality, but also help to improve nutrition, address poverty, inequalities, and disparities, and enhance school and work attendance and performance (United Nations-Water, 2016; World Health Organization [WHO], 2016). Global health challenges such as these are complex and require effective global health partnerships including nurses. To address these challenges, education for health professionals should support development of global health competencies including a focus on interprofessional collaboration and cross discipline problem solving (Opollo, Bond, Gray, Lail-Davis, 2012; Jogerst et al., 2015). Professional nursing organizations including Sigma Theta Tau International (STTI) and the American Association of Colleges of Nursing (AACN) encourage nurses to work towards the UN Sustainable Development Goals through collaboration, identification of key goals, and the building of bidirectional reciprocal relationships to create ongoing sustainable efforts (Dalmida et al., 2016; Interprofessional Education Collaborative Expert Panel, 2011). Providing opportunities for nursing students to apply their skills and knowledge to meet global needs can support development of leadership skills, increase commitment to global health, and enhance the ability to provide culturally relevant care (Jogerst et al., 2015). This presentation will describe strategies and activities which have been used to sustain this initiative since 2012, including the impact on students, faculty and communities in the Dominican Republic, and plans for expansion.

Methods: An initiative began in 2012 using a cross disciplinary, service-learning approach to provide holistic solutions for safe water access for an underserved, rural community in the Dominican Republic. Initial faculty and students (graduate and undergraduate) represented the disciplines of nursing, agricultural economics, civil engineering, environmental and ecological engineering, and biological and food sciences. The class began as faculty driven and led; over time the course has evolved to being fully student driven with faculty guidance and support. Classes early in the process provided background from all disciplines to support understanding of the issue from multiple perspectives, an overview of the participatory research approach to be used, and discussions of possible solutions to provide access to safe water in collaboration with the selected community. As the class enters its fifth year, the focus has broadened to encompass sanitation and hygiene in addition to access to safe water and work has begun with three other communities in the Dominican Republic. Additionally, other disciplines have joined the project. Class time is now focused upon supporting ongoing communication and collaboration with the communities in the Dominican Republic, discussion of cultural, political, economic, and health aspects of water, sanitation, and hygiene issues, development of potential solutions to meet the needs of the communities, and identification of strategies to evaluate impact. Communication with the community is frequent and supports true collaboration and shared responsibility for the design, implementation, and management of solutions to provide access to safe water and improve sanitation and hygiene. Such collaboration is vital to effective global health partnerships and sustainability.

Every year, two to three visits to the Dominican Republic are made by faculty and students to maintain presence and enhance community trust. Various activities occur during these visits including: 1) meetings with community members, representatives from local service organizations, political representatives, and local health providers, 2) data collection via household surveys, focus groups, and visits to local health clinics, and 3) assessment of local resources available to support system design and implementation.

Results: Since the projects inception, 60-70 students have been involved, including 16 undergraduate nursing students. In 2014, the first system was built at a primary school located in the center of a poor rural community outside of Santiago. Several events surrounded the ribbon cutting ceremony including training related to safe operation and use of the system as well as education efforts led by the nursing students including a water, sanitation, and hygiene curriculum for implementation at the local schools and in the community. Since 2014, trips to the Dominican Republic have included visits to three new communities, along with return visits to the initial community to provide continued support, guidance and adaptations as needed for the water system. The process has not been without challenges, however each challenge is tackled collaboratively by the faculty, students and communities who consistently strive to reach the identified goals. The participatory research approach has allowed community members to participate in research, project design and review of policies which impact the issues surrounding access to safe water. For students, the impact has been truly transformative on both personal and professional levels. Knowledge of the complementary skill sets other disciplines bring to projects such as these has been broadened. Skills related to formal presentations, grant writing, manuscript preparation, leadership, fundraising, collaboration, and communication with non-English speaking populations have been enhanced. Students have witnessed issues not commonly seen in the US such as lack of access to soap and clean water for handwashing or water to flush a toilet as well as the giving nature of the Dominican people. This has led to development of respect, humility, and appreciation for the Dominican people; behaviors which are reciprocated by the communities they work with. As a result of this experience, several students have chosen to work in the public health arena locally and globally while others have gone on to additional degree programs in public health.

Conclusions: This project has provided many benefits in addition to access to safe water for the community. Nursing students as well as students from other disciplines have been able to develop global competencies and a respect for cultural diversity and the role it plays in providing care to populations. Nurse educators have a responsibility to prepare nurses to function competently in relation to global issues (Wilson et al., 2012); projects such as these provide support for the development of such skills and competencies. Students who have participated in this project are able to reflect upon their feelings of global connectedness and the ways in which this experience has influenced and enhanced their education as well as their choice of future careers. These experiences can support development of individuals who can help lead the charge to address global health challenges.

References

- Basu, R. R., Banerjee, P. M., & Sweeny, E. G. (2013). Frugal innovation: core competencies to address global sustainability. *Journal of Management for Global Sustainability*, 1(2), 63-82.
- Busse, H., Aboneh, E. A., & Tefera, G. (2014). Learning from developing countries in strengthening health systems: an evaluation of personal and professional impact among global health volunteers at Addis Ababa University's Tikur Anbessa Specialized Hospital (Ethiopia). *Globalization and Health*, 10(1), 1.
- Dalmida, S. G., Amerson, R., Foster, J., McWhinney-Dehaney, L., Magowe, M., Nicholas, P. K., ... & Leffers, J. (2016). Volunteer service and service learning: opportunities, partnerships, and United Nations Millennium Development Goals. *Journal of Nursing Scholarship*, 48(5), 517-526.
- Interprofessional Education Collaborative Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.: Interprofessional Education Collaborative.
- Jogerst, K., Callender, B., Adams, V., Evert, J., Fields, E., Hall, T., ... & Simon, L. (2015). Identifying interprofessional global health competencies for 21st-century health professionals. *Annals Of Global Health*, 81(2), 239-247.
- Larson, K. L., Hansen, C., Ritz, M., & Carreño, D. (2016). Acceptance and impact of point-of-use water filtration systems in rural Guatemala. *Journal of Nursing Scholarship*.
- Opollo, J. G., Bond, M. L., Gray, J., & Lail-Davis, V. J. (2012). Meeting tomorrow's health care needs through local and global involvement. *The Journal of Continuing Education in Nursing*, 43(2), 75-80.
- UN-Water, 2016: Water and sanitation interlinkages across the 2030 Agenda for Sustainable Development. Geneva. Retrieved from <http://www.unwater.org>
- Wilson, L., Harper, D. C., Tami-Maury, I., Zarate, R., Salas, S., Farley, J., ... & Ventura, C. (2012). Global health competencies for nurses in the Americas. *Journal of Professional Nursing*, 28(4), 213-222.
- World Health Organization (2016). Water sanitation hygiene. Retrieved from http://www.who.int/water_sanitation_health/diseases-risks/en/

Contact

vsimpson@purdue.edu

A 09 - HPV Vaccine Promotion

Completeness of Human Papilloma Virus (HPV) Vaccination: A Systematic Review of the Literature

Hee Sun Kang, PhD, RN, Korea, Republic of (South)

Jennie C. De Gagne, PhD, DNP, RN-BC, CNE, ANEF, USA

Ye Dong Son, MSN, RN, Korea, Republic of (South)

Abstract

Purpose: Human Papilloma Virus (HPV) vaccination is known to be effective for preventing cervical cancer and condyloma. For its maximum effects, it is important not only to initiate HPV vaccination, but also to complete it on time. However, it has been reported that the completeness rate of HPV vaccination is lower than its initiation rate. The aim of this study was to systematically review the intervention studies on HPV vaccination completion.

Methods: A systematic review of intervention studies examining the completeness of HPV vaccination in women (adolescents and young women) from 2006 to 2016 was conducted. The main outcome assessed was completion rate. We searched the databases of Web of Science, PubMed, and Cumulative Index to Nursing and Allied Health Literature, for relevant articles. Reference lists of included articles were also hand-searched. Two reviewers independently completed data extraction and bias assessments using standardized forms. Originally, the possibilities of pooling data were considered, but the data were analyzed narratively because of the heterogeneity of the types of interventions.

Results: Five studies were identified and reviewed. Intervention strategies were DVD education on HPV and reminder/recall systems using either electronic or non-electronic methods. Electronic reminders were either fixed without options or were preference-based, which allowed parents or women (adolescents or young women) to select one or two options among e-mail, text, automated telephone message, Facebook message, etc. Non-electronic reminders were letter, standard mail, phone call, etc. The rates of HPV vaccination completeness increased with the interventions. However, the completeness rate of HPV vaccination, remaining unsatisfactory, was lower than its initiation rate. The reviewed studies have mainly been conducted in a high income country.

Conclusion: Educational or reminder interventions on HPV vaccination could contribute to the promotion of HPV vaccination completion. However, this review highlights that more high quality studies are needed to explore the barriers to completion and to identify the best way to promote vaccination completion.

References

Chao, C., Preciado, M., Slezak, J., & Xu, L. (2015). A randomized intervention of reminder letter for human papillomavirus vaccine series completion. *Journal of Adolescent Health, 56*(1), 85-90.

Matheson, E. C., Derouin, A., Gagliano, M., Thompson, J. A., & Blood-Siegfried, J. (2014). Increasing HPV vaccination series completion rates via text message reminders. *Journal of Pediatric Health Care, 28*(4), e35-39.

Rahman, M., Laz, T. H., McGrath, C., & Berenson, A. B. (2014). Correlates of human papillomavirus vaccine series completion among young adult female initiators. *Human Vaccines & Immunotherapeutics, 10*(8), 2163-2167.

Contact

goodcare@cau.ac.kr

A 09 - HPV Vaccine Promotion

Knowledge, Attitude, and Intention to Obtain HPV Vaccination Among Undergraduate College Students in St. Lucia

Esther Shirley Daniel, PhD, RN, RM, Trinidad and Tobago

Tisha Nelson, MSN, RN, Saint Lucia

Gloria Ramdeen Mootoo, MSc (ClinPsy), RN, RM, Trinidad and Tobago

Abstract

Purpose: The purpose of this study was to investigate if there were any differences in the Knowledge, attitude and intention to obtain HPV vaccination among the male and female undergraduates of a selected Community College in St. Lucia.

Methods: A descriptive, quantitative and cross-sectional study. Previous research conducted of HPV has indicated many misconceptions and misperceptions of HPV and HPV vaccinations. Education and knowledge on HPV plays a significant role in the intention of receiving HPV vaccinations (Lambert, 2014). It is important to recognize benefits and barriers to obtaining HPV vaccinations to increase vaccination rates.

In the review of literature findings, problems pertaining to minimal knowledge level and awareness of HPV vaccine and cultural hurdles of HPV vaccination were discussed. The studies incorporated in this review showed a general lack of knowledge about HPV and HPV vaccine among males and females in some Caribbean countries as well as international countries such as China (Ribeiro et al., 2015; Lambert, 2014; Perrotte et al., 2011; Villa, 2012). On the other hand, knowledge deficit about HPV is not the only issue for males and female in the Caribbean but also the high cost attributed to the HPV vaccine (Stocker et al., 2013). Additional studies in Western countries, comparatively well-developed society, also showed similar deficiency in knowledge of HPV. As the deficiency of knowledge could be one of the obstacles for acceptance of HPV vaccine, the findings from current research suggest that there is an instantaneous and dire need for public education on HPV and its vaccines. Notwithstanding the low level of knowledge and awareness about HPV and HPV vaccines, studies conveyed relatively high intentions and optimistic attitudes toward HPV vaccination among males as well as females (Kim, 2015; Stocker et al., 2010, and Yanikkerem & Koker, 2013).

In general the various studies revealed some concerns about HPV vaccine efficacy, vaccine safety and side effects, overall cost of vaccine and the availability of insurance coverage for same (Fesenfeld, Hutubessy & Jit, 2014; Jit et al., 2014; and Laprise et al., 2014).

The present study was the first of its kind to be conducted in St. Lucia and an attempt was made to study the Knowledge, attitude and intention to obtain HPV vaccination among male and female undergraduate students at the selected Community College in St. Lucia.

The participants ($n=100$) were selected using stratified random sampling. Samples were drawn from five Departments viz Department of Arts, Science and General Studies; Department of Health Sciences; Department of Agriculture; Department of Teacher Education; and Department of Technical, management Studies. The objectives of the study were; to determine the knowledge, attitude and intention to obtain HPV vaccination among subjects and to examine the association of knowledge, attitude and intention to obtain HPV vaccination with selected social, demographic variables among subjects. Criteria for selection of the sample included respondents who were: Male or female between the ages of 18 to 26, willing to participate voluntarily. And full time students studying in the five main departments at the selected Community College. Exclusion criteria was respondents who were part time, on-line students and who did not give consent for the study. The Health Belief Model (HBM) was utilized as a framework for this study.

Ethical approval was obtained from the UWI Campus Ethics Committee as well as the college Ethics Board to conduct the study. Subjects of this research study had the right to consent freely in the absence

of coercion. They were offered the right to refuse to participate, or to withdraw at any time with no explanation, and without consequences or coercion of any kind.

Self-administered questionnaire were distributed to 100 undergraduate, full-time students at the selected college, in St. Lucia to assess socio-demographic characteristics, knowledge, and statements on vaccinations. Self-administered questionnaire included demographic profile and knowledge of HPV and HPV (10 items) vaccination (24 Items) Responses to items were rated using a 3-point Likert scale ranging from 3 (yes) to 1 (don't know) point and an Opinionnaire on attitude and intention to obtain of the HPV vaccination (15 items). Responses to items were rated using a 5-point Likert scale ranging from 4 (strongly agree) to 0 (strongly disagree). Scoring and Interpretation of reliability & validity of the tool was established through test retest method. Data were analyzed using SPSS. Multivariable statistical methods were applied to identify independent predictors for HPV-vaccine uptake among participants.

Limitations of the study is that it focused on the geographical region of St. Lucia which may not necessarily be applicable to other Caribbean territories.

Results: The analysis of the data was based on the research question; What is the Knowledge, attitude and intention to obtain HPV vaccination among the male and female undergraduates at the selected Community College in St. Lucia? Are there differences in knowledge, attitude and intention to obtain HPV vaccine that may impact one's likelihood of seeking medical aid? How informed are the subjects on HPV vaccination and it effectiveness in preventing cancer (cervical, oral) at the Sir Arthur Lewis Community College in St. Lucia?

The analysis of results showed majority, 56% of respondents were of African race and 93% do not have migration background. Nearly 75% respondents had past sexual intercourse. Most of the respondents 69% were not aware of HPV vaccination, 92% of them were not vaccinated against HPV, 51% of them felt the need for vaccination while 49% not. Majority of the respondents, 92% did not have history of abnormal pap smear or HPV infection, while 54% had not heard of the virus. However 46% confirmed that they had heard of the virus. Nearly 51% of the respondents had heard about the HPV vaccine while, 49% did not do not.

What was interesting though was almost 50% of the respondents felt a need for vaccination and heard of the virus and HPV vaccine. High T-values were found significant in the means of knowledge of HPV (1.35+0.57), HPV (1.08+0.75), HPV Causes (0.98+0.84), HPV and gender (1.04+0.53), HPV is preventable (0.84+0.54) and HPV infection is serious (0.68+0.54). All 6 variables showed P-values much less than the significance level ($p < 0.05$).

Factor Analysis of knowledge, attitude and intention to obtain HPV vaccination with selected social, demographic variables among subjects was measured against 26 variables. HPV vaccine cause short term problems like fever or discomfort had fairly high correlation with Factor 1 (4.368), HPV vaccine is being pushed to make money for drug companies had fairly high correlation with Factor 2 (3.332), if a teenage girl gets the HPV vaccine, more likely to have sex had fairly high correlation with Factor 3 (2.204), HPV vaccine is unsafe had fairly high correlation with Factor 4 (1.935), the risk that HPV can cause diseases like cancer is too little had fairly high correlation with Factor 5 (1.693), not enough information about the HPV vaccine to decide whether to take it or not had fairly high correlation with Factor 6 (1.372), HPV vaccine is effective in preventing genital warts had fairly high correlation with Factor 7 (1.159), belief that the vaccine has too many side-effects had fairly high correlation with Factor 8 (1.101), and in general against vaccination had fairly high correlation with Factor 9 (1.006).

However the factor analysis of intention to obtain HPV did not show any significance.

Component matrix was done for all the 9 factors. Factor 6 and 9 did not explain any variance when compared with other factors. In the second component matrix, except factor 9 all factors showed correlation. In the third component matrix, except factor 7 and 8, all factors showed correlation.

A scree plot displays the eigenvalues associated with a component or factor in descending order versus the number of the component or factor. A factor analysis was conducted on 26 different characteristics of HPV. This scree plot shows that 9 of those factors explain most of the variability because the line starts to straighten after factor 9. The slope is changing after 2 variables which means that most of the variance is explained by initial two factors. The remaining factors explain a very small proportion of the variability and are likely unimportant.

Conclusion: In conclusion despite risk acknowledgment the researcher had identified, the results revealed significant lack of public health promotion. Although HPV is very much prevalent in St. Lucia and it's the causative factor for cancer in both men and women, not enough is being done to create awareness about HPV. Secondly, the vaccine is unavailable in St. Lucia. Thirdly, the high cost of the vaccine (\$500 US) and HPV test (\$275 EC) have proven to be a deterrent to obtain the aforementioned. HPV vaccine uptake was low among the participants; only 7 out of the 100 participants had been vaccinated and had received it in the United States. Although low vaccine uptake 53% agreed that there was a dire need for vaccination.

References

- Kim, H. W. (2015). Awareness of human papillomavirus and factors associated with intention to obtain HPV vaccination among Korean youth: quasi experimental study. *BMC international health and human rights*, 15(1), 1.
- Ribeiro, A. A., Costa, M. C., Alves, R. R. F., Villa, L. L., Saddi, V. A., Carneiro, M. A., ... & Rabelo-Santos, S. H. (2015). HPV infection and cervical neoplasia: associated risk factors. *Infectious agents and cancer*, 10(1), 16.
- Lambert, L. (2014). Knowledge of HPV, Perception of Risk, and Intent to obtain HPV Vaccination among sampled Male University Students at Minnesota State University, Mankato.
- Halliday, D., Butler, R., Francis, D., Thompson, J., Joseph, M., & Ragin, C. C. (2013). Knowledge and attitudes toward HPV and the HPV vaccines in The Bahamas. *West Indian Medical Journal*, 62(8), 731-737.
- Yanikkerem, E., & Koker, G. (2013). Knowledge, attitudes, practices and barriers towards HPV vaccination among nurses in Turkey: a longitudinal study. *Asian Pacific journal of cancer prevention: APJCP*, 15(18), 7693-7702.
- Bendik, M. K., Mayo, R. M., & Parker, V. G. (2011). Knowledge, perceptions, and motivations related to HPV vaccination among college women. *Journal of Cancer Education*, 26(3), 459-464.

Contact

Esther.Daniel@sta.uwi.edu

A 10 - Effects of Intensive Care on Quality of Life

Living a Lie: The Biographical Disruption of Intensive Care Unit (ICU) Survivors

Beverley Ewens, PhD, BSc (Hons), RN, Australia

Abstract

Introduction: Millions of people across the world are admitted to intensive care units each year. This is expected to rise with increases in population and life expectancy. In tandem with this, the standard and capability of clinical care provided has improved significantly over the last three decades. An evolving body of evidence has confirmed that significant percentages of survivors are frequently and profoundly affected by their intensive care experience. Patients who would not have survived a critical health event 30 years ago now survive; with the concomitant rise of survivors the potential for developing emotional sequelae leading to chronic illness increases with only a few returning to pre-morbid life-styles. The cost therefore of survivorship in this population in financial and human terms, is significant.

Background: Major levels of physiological disturbance are apparent in ICU patients as they experience at least one, and frequently more body system/s failure that usually require invasive therapies to promote survival. Therapies often include deep sedation, ventilation and a variety of other invasive procedures, which in themselves are known to precipitate adverse physical and psychological consequences. As a result of these interventions, and in particular sedation, survivors experience an enforced disconnection from reality and are unable to reconcile their memories with what actually happened to them. This state can endure for weeks and even months in some instances. The consequences of this twilight existence and the associated invasive therapies have been likened by some patients to a torture-like existence. The experience of an ICU admission is clearly a stressful, potentially traumatic event for survivors and their families. The agreed definition of a traumatic event is one where individuals are confronted with unusual stress and are forced to cope with an unexpected and unfamiliar situation and which is an overwhelming, physical, emotional or social experience. In this instance, intensive care survivors may experience a level of trauma where the individual either perceives a risk of death to themselves or witnesses this in others, precipitating a psychological stress response. Although studies have identified the ICU experience for survivors, there has been limited research which provides an insight into survivors' experiences during recovery through their individual lens. Identifying the unique perspective of survivors during recovery, support strategies can be implemented which address this disruption to the self and aid a meaningful recovery. The therapeutic benefits of narrative discourse in trauma survivors have been well recognised. Writing a coherent story following a traumatic experience is positively linked to improved coping and recovery and enabling the individual to re-create their stories brings about positive change and healthier outlook of the self. In the health care context storytelling has been explored in many areas of practice including dementia care, chronic illness management and maternal health. Storytelling in these settings has been linked to maintaining dignity, being emancipatory and increasing coping. Despite applications of storytelling elsewhere in health care it has not been widely reported in the study of ICU survivors although there has been some application with family members.

Purpose: The purpose of this research was to explore the recovery stories of people who have been discharged from ICU during the first five months of recovery following a critical illness or event.

Methods: Data were collected from diaries, face to face interviews, memos and field notes. Participants diarised for three months commencing two months after hospital discharge. At five months following discharge participants were interviewed about the content of their diaries and the symbols and signifiers within them to create a shared meaning of their experiences. Analysis of diaries and interviews were undertaken using two frameworks. This process enabled the identification of themes throughout participants' stories and offers a unique portrait of recovery through their individual lens.

Results: All of the participants considered their lives had irreparably changed as a result of their experience. The biographical methods provided a safe and creative way to reveal inner thoughts and feelings which may not have been revealed using other methods. This unique view through the lens of the survivor identified how unsupported by health care professionals they felt following discharge. Turmoil

existed between survivors' surface and inner worlds as they struggled to conform to the constraints of what recovery should be; imposed by the biomedical model. The process of constructing their stories enabled participants to reflect upon their experiences of recovery and bring a sense of coherence to their experiences.

Conclusion: The use of guided reflection in the initial months following discharge from ICU creates a story which enables survivors to harness this 'space for thought' to provide a way forward from their trauma event or life disruption. Engaging with survivors during this vulnerable period and enabling them to reflect upon their experiences and pre-morbid lives assists them to re-focus upon the here and now as they recover and to reconcile the space between who they once were and who they are now. This study has implications for practice and research and has provided the impetus for further exploration of diarising as an intervention and the role of storytelling in this and other populations. Identifying the unique perspective of survivors during recovery, support strategies can be implemented which address this disruption to the self and aid a meaningful recovery.

References

- American Psychiatric Association (Ed.). (2013). *Diagnostic and Statistical Manual of Psychiatric Disorders* (5th ed. ed.). Washington, D.C.: American Psychiatric Association.
- Chaitin, J. (2014). "I need you to listen to what happened to me": Personal narratives of social trauma in research and peace-building. *American Journal of Orthopsychiatry (Wiley-Blackwell)*, 84(5), 475-486. doi: 10.1037/ort0000023
- Clukey, L., Weyant, R. A., Roberts, M., and Henderson, A. (2014). Discovery of unexpected pain in intubated and sedated patients. *American Journal of Critical Care*, 23(3), 216-222. doi: doi.org/10.4037/ajcc2014943
- Grassley, J. S., & Nelms, T. P. (2009). Tales of resistance and other emancipatory functions of storytelling. *Journal of Advanced Nursing*, 65(11), 2447-2453.
- Heggstad, A. K. T., & Slettebø, Å. (2015). How individuals with dementia in nursing homes maintain their dignity through life storytelling – a case study. *Journal of Clinical Nursing*, 24(15-16), 2323-2330. doi: 10.1111/jocn.12837
- Jones, C. (2013a). Post Traumatic Stress Disorder – The critical care effect. *Australian Critical Care*, 26(1), 4-5. doi: <http://dx.doi.org/10.1016/j.aucc.2012.12.004>
- Jones, C. (2013b). What's new on the post-ICU burden for patients and relatives? *Intensive Care Medicine*, 39(10), 1832-1835. doi: 10.1007/s00134-013-3015-8
- Kahn, J., M., & Angus, D., C. (2007). Health policy and future planning for survivors of critical illness. *Current Opinion in Critical Care*, 13, 514-518.
- Lane, N., I., Seretny, M., Wild, S., H, Rowan, K., M, Murray, G., D, & Walsh, T., S. (2013). Surviving intensive care: A systematic review of healthcare resource use after hospital discharge. *Critical Care Medicine*, 41(8), 1832-1843. Retrieved from doi:10.1097/CCM.0b013331828a409c
- Liu, R. Z. (2013). "The Things They Carried": Unpacking trauma scripts inside a community writing workshop. *Counselling Psychology Quarterly*, 26(1), 55-71. doi: 10.1080/09515070.2012.728306
- Lucius-Hoene, G., Thiele, U., Breuning, M., & Haug, S. (2012). Doctors' voices in patients' narratives: coping with emotions in storytelling. *Chronic Illness*, 8(3), 163-175. doi: 10.1177/1742395312449026
- Wilson, T. D. (2011). *Redirect: The surprising new science of psychological change*. New York, NY: Little Brown and Company.

Contact

b.ewens@ecu.edu.au

A 10 - Effects of Intensive Care on Quality of Life

Impact of Prior Intensive Care Unit (ICU) Experience on ICU Patients' Family Members' Psychological Distress

Chrystal L. Lewis, PhD, RN, USA

Jessica Z. Taylor, PhD, LPC, NCC, USA

Abstract

Purpose: Psychological distress including anxiety, depression, and stress in family members of intensive care unit (ICU) patients is a well-documented phenomenon across a wide variety of countries including, but not limited to, Brazil, Italy, China, Greece, France, and the United States (Chiang et al., 2016; Davidson, Jones, & Bienvenu, 2012; Fumis, Ranzani, Faria, & Schettino, 2015; Konstanti, Gouva, Dragioti, Nakos, & Koulouras, 2016; Mistraletti et al., 2016; Pochard et al., 2001). A real clinical example of the impact a family member's psychological distress has for nursing occurs with the comprehension of simple concepts, such as that of time. In one instance, a family was unable to grasp the concept of time when the end of a nurse's shift occurred; yet, this same family was being asked to make crucial life or death decisions. The clinical example presented here embodies what we have learned from advances in neurobiology, which have demonstrated that humans under stress have a reduced recall capacity and recognition performance (Schwabe & Wolf, 2010).

Having a family member in the ICU goes beyond stress for some individuals, and actually leads to the development of post-traumatic stress disorder (PTSD) (Sundararajan et al., 2014). The overstimulating influence of technology present in the ICU environment has been identified as a contributing factor to anxiety in ICU patient family members (Fumis & Deheinzeln, 2009). Relatively recently, research conceptualized this persistent psychological distress experienced by family members of ICU patients as *Postintensive Care Syndrome (PICS) – family* (Davidson, Jones, & Bienvenu, 2012). Despite the acknowledgment that PICS - family may occur for up to four years after an ICU experience, no known research has investigated whether previous ICU experience contributes to ICU patient family members' experiences of anxiety, depression, and stress symptoms. This particular lack of literature is intriguing when considered with the recommendation from 1996 by Jamerson et al. for nurses to assess the family members' prior experiences with ICUs as part of the ICU education process for the family members.

As part of a multi-phase study investigating ICU family member's experience of psychological distress, the sub-aim presented here was to determine if current levels of anxiety, depression, and acute stress disorder symptoms differ significantly among family members of ICU patients, depending upon previous ICU experience.

Methods: This study used a prospective, descriptive study design. Data collection occurred between 2013 and 2014. Family members (n=127) from patients admitted within the past 72 hours to the medical, surgical, cardiac, and neuro ICUs were recruited from the ICU waiting rooms at a medium sized community hospital in the Southeastern United States. Participants completed the Hospital Anxiety and Depression Scale (HADS), the Impact of Events Scale-Revised (IES-R), the Acute Stress Disorder Scale (ASDS), and a demographic survey. IRB approval was granted as an expedited review.

Results: A multivariate analysis of variance (MANOVA) revealed that family members of ICU patients who had a prior ICU experience within the past two years (n= 56) were significantly more likely to report anxiety, depression, and stress symptoms than family members of ICU patients who had not had a prior ICU experience within the past two years, $\Lambda = .92$, $F [4,122] = 2.70$, $p = .034$, partial $\eta^2 = .08$, observed power = .74

Conclusion: Nursing intuition suggests novice ICU family members experience more psychological distress and need more support during a family member's ICU admission. However, the results of this study show that family member's psychological distress is actually higher with previous ICU experience. These findings are of important consideration in light of nursing practice's continued disregard of Jameson et al.'s (1996) recommendation for nursing to assess previous ICU experience. The ICU patient

family members' experience of psychological distress transcends a single culture or country. As a global health phenomenon, nursing needs to assess family members' previous ICU experience when providing family-centered care for ICU patients and families and determine how the families would prefer to be supportive. In addition, collaboration with chaplain services, social services, counseling services, and patient advocates is encouraged to assist with addressing how the family member's previous ICU experience is impacting their current psychological distress. Collaborating support professionals' acknowledgement and normalization of family members' psychological distress related to previous ICU experience can provide family members with a safe outlet to share openly and honestly about their affective experiences in a way that does not burden the patient. Furthermore, support professionals could facilitate support group experiences for family members with previous ICU experience to provide them with a safe group of understanding others who can provide them with support so that they may better support the patient.

References

- Chiang, V. C., Chien, W. T., Wong, H. T., Lee, R. L., Ha, J., Leung, S. S., & Wong, D. F. (2016). A Brief Cognitive-Behavioral Psycho-Education (B-CBE) Program for Managing Stress and Anxiety of Main Family Caregivers of Patients in the Intensive Care Unit. *Int J Environ Res Public Health*, 13(10). doi:10.3390/ijerph13100962
- Davidson, J. E., Jones, C., & Bienvenu, O. J. (2012). Family response to critical illness: postintensive care syndrome-family. *Crit Care Med*, 40(2), 618-624. doi:10.1097/CCM.0b013e318236ebf9
- Fumis, R. R., & Deheinzeln, D. (2009). Family members of critically ill cancer patients: assessing the symptoms of anxiety and depression. *Intensive Care Med*, 35(5), 899-902. doi:10.1007/s00134-009-1406-7
- Fumis, R. R., Ranzani, O. T., Faria, P. P., & Schettino, G. (2015). Anxiety, depression, and satisfaction in close relatives of patients in an open visiting policy intensive care unit in Brazil. *J Crit Care*, 30(2), 440.e441-446. doi:10.1016/j.jcrc.2014.11.022
- Jamerson, P. A., Scheibmeir, M., Bott, M. J., Crighton, F., Hinton, R. H., & Cobb, A. K. (1996). The experiences of families with a relative in the intensive care unit. *Heart Lung*, 25(6), 467-474.
- Konstanti, Z., Gouva, M., Dragioti, E., Nakos, G., & Koulouras, V. (2016). Symptoms of Cardiac Anxiety in Family Members of Intensive Care Unit Patients. *Am J Crit Care*, 25(5), 448-456. doi:10.4037/ajcc2016642
- Mistraletti, G., Umbrello, M., Mantovani, E. S., Moroni, B., Formenti, P., Spanu, P., . . . Investigators, h. w. i. i. (2016). A family information brochure and dedicated website to improve the ICU experience for patients' relatives: an Italian multicenter before-and-after study. *Intensive Care Med*. doi:10.1007/s00134-016-4592-0
- Pochard, F., Azoulay, E., Chevret, S., Lemaire, F., Hubert, P., Canoui, P., . . . Group, F. F. (2001). Symptoms of anxiety and depression in family members of intensive care unit patients: ethical hypothesis regarding decision-making capacity. *Crit Care Med*, 29(10), 1893-1897.
- Schwabe, L., & Wolf, O. T. (2010). Learning under stress impairs memory formation. *Neurobiol Learn Mem*, 93(2), 183-188. doi:10.1016/j.nlm.2009.09.009
- Sundararajan, K., Martin, M., Rajagopala, S., & Chapman, M. J. (2014). Posttraumatic stress disorder in close Relatives of Intensive Care unit patients' Evaluation (PRICE) study. *Aust Crit Care*, 27(4), 183-187. doi:10.1016/j.aucc.2014.04.003

Contact

cllewis@southalabama.edu

A 11 - Adolescent Health

Perceptions of Health, Healthy Decision-Making, and Living: A Study of Young Mothers Living in Jamaica

Katherine M. Haigh, MSN, APRN, CNP, USA

Judith Herrman, PhD, MS, BSN, RN, ANEF, FAAN, USA

Kathleen Luckner, BSN, RN, USA

Abstract

Purpose: Adolescent health, including sexual health and pregnancy, are topics of concern for healthcare providers, family members, communities, and teens around the world. These concerns and their ramifications are apparent in the Caribbean nation of Jamaica. In a population based study done in Jamaica, of the total participants aged 15-19, one-third of females and half of the males reported being sexually active within the last year (Ishida, Stupp & McDonald, 2011). While the Age Specific Fertility Rate (ASFR) for adolescents in this same age group is declining, the Jamaica National Family Planning Board (JNFB) (2008), reports there are still 72 births per 1000 women identified in 2008, previously in 2002, there were 79 per 1,000. And, in 2008, approximately 82% of these pregnancies were unplanned (JNFB, 2008). Pregnancy is not the only a concern for these Jamaican teens, as teenage pregnancy is unlawful in the country and sexually transmitted infections (STIs) are still a veritable risk. With 79% of females between the ages of 15-24 reporting using contraception at first sexual intercourse as a help to keeping pregnancy rates down, only 49% of females reported using a condom at last intercourse, and 48% of females reporting using a condom with each encounter with a non-steady partner. (Serbanescue, Ruiz & Suchdev, 2010; JNFB, 2008). This lapse in condom use and possibly barrier contraception use, is detrimental to the reproductive health of these young adults and gravely indicates the need for further education. While the literature is replete with sexual health information and curricula directed toward adolescents, there is a paucity of knowledge regarding this specific group of teenagers living in Jamaica. Identifying health interventions is crucial to this population's well-being. Young mothers may incur health risks associated with lifestyle and decision-making; availability of supports and resources; and challenges related to stress and time limitations associated with pregnancy, breastfeeding and parenting. Teen perceptions about health, healthy decision-making and healthy lifestyles may guide development of interventions designed to promote health. Nursing students, as part of a service learning activity, traveled to Jamaica to provide health instruction to young mothers in a residential home. The young mothers participated in focus groups, which provided beneficial information identifying some of the gaps in knowledge of general and sexual health in this vulnerable population. Thematic analysis of focus group transcripts and study findings may be useful as they inform health intervention development.

Methods: This qualitative study was conducted at a residential home for young mothers' in Kingston, Jamaica, during the spring of 2016. To be considered eligible to participate in the focus groups, the young women needed to be residents of the setting, aged 12-17 and either pregnant and/or parenting. The focus groups were conducted by the researchers and audiotaped; one researcher led the groups while another observed and took marginal notes during the process. The participants received \$10 (US) and a healthy snack. Data were analyzed for content, then organized into topics with frequency of responses used to construct themes.

Results: The participants in the discussion included thirteen teenage mothers, whose ages ranged from twelve years old to seventeen years old. The ages of their babies ranged from two weeks to nine months old. All thirteen girls were either currently attending school or planned on returning to school when their babies were old enough. From the discussion with the young mothers, three themes emerged. The themes were: Personal Meaning of Health, Considerations in Health Decision-Making, and Thoughts on Healthy Living.

Conclusion: The study of young mothers' perceptions about health, health decision-making, and healthy lifestyles yielded important insights into the thoughts and behaviors of young women in Jamaica. Due to social and political laws and beliefs, young women in Jamaica who become pregnant experience marginalization and duress associated with isolation, financial stressors, and stigma. These exacerbate

the vulnerability inherent of adolescence, pregnancy, and parenting. The nurse has an integral role to provide education, counseling, and resources to enhance the supports and reduce the challenges young mothers confront in their personal quests to attain and maintain health. Perhaps, even more important is the need for nursing advocacy to influence the gender issues associated with subjugating young women, with little stigma associated with fathering a pregnancy, to address bullying via empathy-building strategies, and providing interventions and resources to foster parenting, including mothering and fathering interventions, to ensure health of the current and future generations in Caribbean countries.

References

Ishida, K., Stupp, P., & McDonald, O. (2011). Prevalence and correlates of sexual risk behaviors among Jamaican Adolescents. *International Perspective on Sexual and Reproductive Health*, 37, 1, 6-15.

Jamaican National Family Planning Board (JNFB), (2008). *National Family Planning Board (NFPB) Data Sheet*. Retrieved from http://198.63.37.126/assets/NFPB_DATA_SHEET-Total_Fertility_Rates.pdf

Serbanescu, F., Ruiz, A., & Suchdev, D. (2010). Reproductive health survey Jamaica, 2008, final report. *National Family Planning Board, 2010*. Retrieved from https://stacks.cdc.gov/view/cdc/8254/cdc_8254_DSI.pdf

Contact

khaigh@udel.edu

A 11 - Adolescent Health

Psychological Distress Among Adolescents in Laos, Mongolia, Nepal, and Sri Lanka

Heeyoung Lee, PhD, APRN- BC, USA

Eun Young Lee, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Adolescence is a critical period for the emergence of a broad range of psychiatric disorders, which negatively impact psychosocial functioning and social cost. Global health projects primarily have addressed communicable disease—not mental health; moreover, limited research and resources are available to meet the needs of adolescents with mental health problems—particularly in low- and middle-income countries. The purpose of this study was to explore psychological distress and examine the relationship between distress and individual, family, and school factors among adolescents in Laos, Mongolia, Nepal, and Sri Lanka.

Methods: A total of 4,098 adolescents in Laos, Mongolia, Nepal, and Sri Lanka were surveyed as part of the Healthy School Development Project. The project was designed to develop school capacity for improving health among all school members and the school environment through tailored school health programs in the four countries. A self-report questionnaire was used to assess psychological distress (i.e., stress, loneliness, anxiety, sadness, suicidal thoughts, suicidal plans, and suicidal attempts), family factors (i.e., parent understanding and monitoring, and parent smoking and alcohol use), and school factors (i.e., having close friends, not bullied, school attendance, health education) among the participants. Data were collected from September to November in 2012 and 2013. Descriptive statistics, chi-squared testing, and logistic regression were used to analyze data collected in 2012.

Results: Over half of the participants were female (56.8%) and below 15 years of age (57.7%). Approximately 44% of the students reported good health status, and 33% reported the presence of psychosocial distress. Forty-four percent and 60% of the students reported that their parents understood them and monitor their activities, respectively. Most students (94%) had one or more close friends, and 20% were bullied. School attendance and providing health education were reported by 81% and 74% of respondents, respectively, as causing distress. Overall, older students were more vulnerable to psychosocial distress (OR=1.78; 95% CI 1.53-2.08), and factors associated with psychological distress comprised food insecurity (OR 1.51; 95% CI 1.05-2.17), family factors (i.e., parent understanding, parent monitoring, and parent smoking) ($p < .05$), and school factors (i.e., being bullied, school absence, and health education) ($p < .001$).

Conclusion: Approximately one-third of the adolescents reported psychological distress. Parent involvement and school environments can function as either protective factors or risk factors of psychological distress among adolescents in Laos, Mongolia, Nepal, and Sri Lanka. Interventions that (1) empower the family to ameliorate psychological distress (2) reduce the likelihood of bullying by peers at school and (3) provide effective health education programs are recommended for these four countries. Additionally, subsequent inquiry into adolescent mental health research and resources in low- and middle-income countries would contribute to reducing psychological distress among adolescents in these contexts.

References

- Atilola, O., Balhara, Y. P. S., Stevanovic, D., Avicenna, M., & Kandemir, H. (2013). Self-Reported Mental Health Problems Among Adolescents in Developing Countries: Results from an International Pilot Sample. *Journal of Developmental and Behavioral Pediatrics, 34*(2), 129-137. doi:10.1097/DBP.0b013e31828123a6
- Eaton, J., McCay, L., Semrau, M., Chatterjee, S., Baingana, F., Araya, R., . . . Saxena, S. (2011). Scale up of services for mental health in low-income and middle-income countries. *Lancet, 378*(9802), 1592-1603. doi:10.1016/s0140-6736(11)60891-x
- Morris, J., Belfer, M., Daniels, A., Flisher, A., Ville, L., Lora, A., & Saxena, S. (2011). Treated prevalence of and mental health services received by children and adolescents in 42 low-and-middle-income countries. *J Child Psychol Psychiatry, 52*(12), 1239-1246. doi:10.1111/j.1469-7610.2011.02409.x

Park, S., Lee, E. Y., Gittelsohn, J., Nkala, D., & Choi, B. Y. (2015). Understanding school health environment through interviews with key stakeholders in Lao PDR, Mongolia, Nepal and Sri Lanka. *Health Education Research, 30*(2), 285-297. doi:10.1093/her/cyu069

Peltzer, K., & Pengpid, S. (2012). Injury and Social Correlates among in-School Adolescents in Four Southeast Asian Countries. *International Journal of Environmental Research and Public Health, 9*(8), 2851-2862. doi:10.3390/ijerph9082851

Rocha, T. B., Graeff-Martins, A. S., Kieling, C., & Rohde, L. A. (2015). Provision of mental healthcare for children and adolescents: a worldwide view. *Curr Opin Psychiatry, 28*(4), 330-335. doi:10.1097/ycp.0000000000000169

Contact

leehee@pitt.edu

A 12 - Pediatric Care and Safety

Risks and Protector Factors: Access to a Diagnosis and Services for a Child With Autism

Susan A. Bonis, PhD, RN, USA

Abstract

Purpose: Autism spectrum disorder (ASD) is a growing global issue (Autism Speaks, 2016; World Health Organization, 2016) characterized by verbal and nonverbal social communication deficits, including difficulty following rules for conversation and forming and maintaining relationships (APA, 2013). The child's ability to effectively engage in social and academic activities is impacted. Children often fall victim to criticism and bullying and respond with isolation, aggression, hostility, or self-injury (Schroeder, et al., 2014). These difficulties are compounded by inflexible adherence to routines and excessive response to sensory input (Author, 2012; 2016; Author & Sawin, 2016). A projected increase of 6-15% in ASD diagnoses per year makes ASD the fastest growing developmental disability in the country. These alarming statistics are associated with a projected increase in cost of ASD services from \$175-262 billion per year to \$200-400 billion per year (CDC, 2015).

One in 68 children in the United States and one in 160 children worldwide (World Health Organization, 2016) are diagnosed with autism spectrum disorder (ASD) (Baio, 2014; Childstats, 2015). Greater than 80% of their parents report they feel "stressed beyond their limits" (Bitsika, et al., 2013, p. 540). Their ability to parent effectively is affected, as well as the ability to manage their child's special needs and maintain the marital relationship (Ludlow, et al., 2011). Although parental stress has primarily been attributed to the child's challenging behaviors, few studies have focused on other factors that impact parental stress, such as seeking a diagnosis for their child and accessing services.

Many parents spend years moving from one healthcare provider to another in an attempt to find answers for their child's challenging behavioral and communication issues (Silva, et al., 2012), only to become increasingly concerned by the child's delayed development and odd repetitive patterns (Braddock, et al., 2014; Moh, et al., 2012; Nealy, et al., 2012). Healthcare providers frequently attribute the child's behavior to poor parenting and disregard parental concerns (Nealy, et al., 2012; Silva, et al., 2012).

Although some researchers have specifically studied age of diagnosis and have not found any association between later diagnosis and ethnic background (Williams, et al., 2015), others have identified that African-American and Hispanic children are diagnosed later than other children with similar symptoms (Fountain, 2011; Jo, et al., 2015; 2010; Rosenberg, et al., 2011; Valicenti-McDermott, et al., 2012). Researchers are in agreement that children from lower socioeconomic backgrounds (Harstad, et al., 2013; Rosenberg, et al., 2011; Valicenti-McDermott, 2012) and rural areas (Braddock, et al., 2014; Harstad, et al., 2013; Rosenberg, et al., 2011) also receive later diagnoses. Although parents from all backgrounds feel a sense of disparity related to autism diagnoses and care, specific factors related to access and utilization of services are poorly understood (Williams, et al., 2015).

Autism interventional services are effective in helping parents learn what works and what does not work in managing their child's behaviors (Thomas, et al., 2007). Frequent and consistent integration of methods learned in these programs have been successful in managing challenging behaviors (Steiner, et al., 2012) and improving social and communication skills (Siller, et al., 2013). Confidence and parenting self-efficacy increases and parents are better able to manage challenging behaviors with fewer conflicts (Bekhet, et al., 2012; Siller, et al., 2013; Whittingham, et al., 2009). Quality of the parent-child relationship improves (Whittingham, et al., 2009) and parents are better able to meet the overall needs of their child (Bekhet, et al., 2012). Although geographical availability and accessibility, cost and coverage by insurance (Carlson, et al., 2013; 2015; Rivard, et al., 2015) have been proposed as potential factors that affect use of services, little is known about parental needs and services available to meet those needs. Accordingly, the purpose of this study is to identify factors that affect access to diagnosis and services for parents of children with ASD. Knowing more about parental needs and access to services will contribute

to development of efficacious and appropriate means to meet the unique needs of these parents and their children with autism spectrum disorder

Methods: Focus groups and individual interviews were conducted with parents of children with ASD who were ages 3-37 years, who were ethnically and socioeconomically diverse, and highly educated. A semi-structured discussion guide was used that was developed with input from an advisory panel composed of parents of children with ASD. Discussion questions were focused on: 1) *factors that contribute to parent seeking healthcare for their child*, 2) *factors that affect access to an ASD diagnosis* 3) *parent responses to the ASD diagnosis*, and 4) *factors that affect access to ASD service*. All discussions were audio-recorded, transcribed, coded and thematically analyzed using a reflexive approach and inductive reasoning. The resultant themes were organized according to the framework of the Individual and Family Self-management Theory. APSS-PC ® version 20 was used to analyze thematic similarities and differences across and within demographic groups (ethnic, educational, and level of income).

Results: APSS-PC ® version 20 was used to determine frequencies, means and perform statistical tests. Analysis revealed parents visited their child's healthcare provider 3-30 times while seeking an ASD diagnosis over a period of 2-10 years. A priori Chi Square revealed no significant differences between income and ethnicity, education and ethnicity, and income and education. Mann-Whitney was then used, and no significant relationship was found between race/ethnicity and age of ASD diagnosis ($t=1.49$; $df=31$; $p= .144$) and no significant relationship existed between race/ethnicity and wait time ($t=-1.718$; $df=27$; $p= .097$). Contrary to published research findings, 55% of parents reported feeling their child's healthcare provider listened to their concerns, 48% had a good understanding of ASD, 50% respected their concerns and 48% were supportive of their concerns. However, 62% of parents believed their HCP had a negative view of ASD, which is consistent with previous findings. Thematic analysis of qualitative data revealed knowledge, awareness, acceptance and stigma were factors that affected access to diagnosis and services across all ethnic and socioeconomic groups. Access to diagnosis was earlier for children with profound physical delays and comorbid conditions and was delayed for higher functioning children. Mothers were more proactive than fathers in seeking answers for the child's challenging behaviors and delays, with African-American mothers being particularly persistent in accessing services for their children. Fathers frequently denied the diagnosis, which delayed access to services and affected the marital relationship. Parents also talked about needing support and networking opportunities, educational services to help manage their child's care, and professional services to assist in executive and transitional care of the child.

Conclusion: In this highly educated sample, parents across ethnic and socioeconomic backgrounds struggled to access a diagnosis for their child. Healthcare providers who are knowledgeable and supportive can facilitate earlier referral, diagnosis, and entry into interventional services. This is critically important, as early diagnosis and treatment are associated with improved brain function, enhanced social communication, and decreased need for costly services as the child develops. Parents also waited up to a year or more for intervention appointments post-diagnosis. Findings of this study will be used to create a film production of parents talking about their experiences accessing diagnoses and services for their child. The film will be used as an intervention to facilitate early diagnosis and access to services, shed light on the need for parent education and support services, and to affect policy and government budget allocations for autism-related services.

References

- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Autism Speaks. Autism Speaks Global Autism Public Health Initiative. Retrieved on December 6, 2016 from <https://www.autismspeaks.org/science/research-initiatives/global-autism-public-health>.
- Baio, J. (2014). Prevalence of autism spectrum disorder among children aged 8 years - Autism and Developmental Disabilities Monitoring Network, 11 sites, United States, 2010. *Center for Disease Control and Prevention*. Accessed February 12, 2015 from http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6302a1.htm?s_cid=ss6302a1_w
- Bekhet, A. K., Johnson, N. L., & Zauszniewski, J. A. (2012). *Resilience in family members of persons with autism spectrum disorder: A review of literature*. *Issues in Mental Health Nursing*, 33, 650-656.
- Bitsika, V., Sharpley, C. F., & Bell, R. (2013). The buffering of resilience upon stress, anxiety and depression in parents of a child with an autism spectrum disorder. *Journal of Developmental and Physical Disabilities*, 25, 533-543.

- Bonis, S. A. (2011). Contentment in "Songs of the Gorilla Nation: My Journey through Autism": A humanbecoming hermeneutic Study. *Advances in Nursing Science*, 35(3), 273-283.
- Bonis, S. A. (2016). Stress and Parents of Children with Autism: A Review of Literature. *Issues in Mental Health Nursing*, 37, 153-163.
- Bonis, S. A., & Sawin, K. J. (2016). Risks and protective factors for stress self-management in parents of children with autism spectrum disorder: An integrated review of literature. *Journal of Pediatric Nursing*, 31(6), 567-579.
- Braddock, B. & Twyman, K. (2014). Access to Treatment for Toddlers With Autism Spectrum Disorders. *Clinical Pediatrics*, 53(3), 225-229.
- Braddock, B. & Twyman, K. (2014). Access to Treatment for Toddlers With Autism Spectrum Disorders. *Clinical Pediatrics*, 53(3), 225-229.
- Carlson, S., Carter, M., & Stephenson. (2015). Decision-Making Regarding Early Intervention by Parents of Children with Autism Spectrum Disorder. *Journal of Developmental and Physical Disabilities*, 27, 285-305.
- Centers for Disease Control and Prevention. (2013). Autism Spectrum Disorder (ASD). *Data & Statistics*. Retrieved on February 24, 2015 from <http://www.cdc.gov/NCBDDD/autism/data.html>
- Childstats.gov: Forum on Child and Family Statistics. Retrieved on January 12, 2016 from www.childstats.gov/americaschildren/tables/pop1.asp.
- Harstad, E., Huntington, N., Bacic, J., & Barbaresi, W. (2013). Disparity of care for children with parent-reported autism spectrum disorders. *Academic Pediatrics*, 13, 334-339.
- Jo, H., Schieve, L. A., Rice, C. E., Yeargin-Allsopp, M., Tian, L. H., et al. (2015). Age at autism spectrum disorder (ASD) diagnosis by race, ethnicity, and primary household language among children with special health care needs, United States, 2009-2010. *Maternal and Child Health Journal*, 19, 1687-1697.
- Ludlow, A., Skelly, C. & Rohleder, P. (2011). Challenges faced by parents of children diagnosed with autism spectrum disorder. *Journal of Health Psychology*, 17(5), 702-711.
- Moh, T. A. & Magiati, I. (2012). Factors associated with parental stress and satisfaction during the process of diagnosis of children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 6, 293-303.
- Nealy, C. E., O'Hare, L., Powers, J. D., & Swick, D. C. (2012). The impact of autism spectrum disorders on the family: A qualitative study of mother's perspectives. *Journal of Family Social Work*, 15, 187-201.
- Polfuss, M., Johnson, N. J., Bonis, S. A., Hovis, S. L., Meyer-Wentland, F., & Sawin, K. (2016). Autism Spectrum Disorder and the Child's Weight-Related Behaviors: A Parents' Perspective. *Journal of Pediatric Nursing*, 31(6), 598-607.
- Rivard, M., Lepine, A., Mercier, C., & Morin, M. (2015). Quality determinants of services for parents of young children with autism spectrum disorders. *Journal of Child and Family Studies*, 24, 2388-2397.
- Rosenberg, R. R., Landa, R. J., Law, J. K., Stuart, E. A., & Law, P. A. (2011). Factors affecting age at initial autism spectrum disorder diagnosis in a national survey. *Autism Research and Treatment*, 2011 Article ID 874619, 11 pages, doi:10.1155/2011/874619.
- Schroeder, J. H., Cappadocia, M. C., Bebko, J. M., Pepler, D. J., & Weiss, J. A. (2014). Shedding light on a pervasive problem: A Review of Research on bullying experiences among children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 44, 1520-1534.
- Siller, M., Hutman, T., & Sigman, M. (2013). A parent-mediated intervention to increase responsive parental behaviors and child communication in children with ASD: A randomized clinical trial. *Journal of Autism and Developmental Disorders*, 43(3), 540-555.
- Silva, L. M. T. & Schalock, M. (2012). Autism Parenting Stress Index: Initial Psychometric Evidence. *Journal of Autism and Developmental Disorders*, 42, 566-574.
- Steiner, A. M., Koegel, L. K., Koegel, R. L., & Ence, W. A. (2012). Issues and theoretical constructs regarding parent education for autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 42, 1218-1227.
- Thomas, K. C., Morrissey, J. P., & McLaurin, C. (2007). Use of autism-related services by families and children. *Journal of Autism and Developmental Disorders*, 37(5), 818-829.
- Valicenti-McDermott, M., Hottinger, K., Seijo, R., & Shulman, L. (2012). Age at diagnosis of autism spectrum disorders. *Journal of Pediatrics*, 161(3), 554-556.
- Whittingham, K., Sofronoff, K., Sheffield, J., & Sanders, M. R. (2014). "Stepping stones triple P: An RCT of a parenting program with parents of a child diagnosed with an autism spectrum disorder.": Erratum. *Journal of Abnormal Child Psychology*, 42(7), 1249.
- Williams, L. W., Matson, J. L., Beighley, J. S. & Konst, M. (2015). Ethnic disparities in early autism assessment: A large scale screening study of infants and toddlers. *Journal of Developmental and Physical Disabilities*, 27, 141-148.
- World Health Organization (2016). Autism Spectrum Disorders Fact Sheet. Retrieved on December 6, 2016 from <http://www.who.int/mediacentre/factsheets/autism-spectrum-disorders/en/>

Contact

susanbonis53@gmail.com

A 12 - Pediatric Care and Safety

Direct Clinical Application With Nurse-Led Research: Impact of "Boot Camp" Intervention for Caregiver Discharge Readiness

Mary Cazzell, PhD, RN, USA

Julie Van Orne, MSN, RN, CPN, USA

Kaylan Branson, MSN, RN, CPN, USA

Abstract

Purpose: The purpose of this clinical nurse-led interventional research study was to determine the effectiveness of a "boot camp" training-for-discharge program on 34 caregivers of 34 medically-dependent children (compared to retrospective data prior to January 2015 start of boot camp training) as measured by lengths of stay on a transitional care unit (TCU) and overall days in the hospital, total days of documented discharge teaching, and levels of caregiver stress and satisfaction with training. Unprepared or poorly trained caregivers for medically-dependent children could result in poor patient outcomes, added caregiver stressors such as psychological distress or "burn out", and increased financial strain on families and hospitals (DiZazzo-Miller, Samuel, Barnas, & Welker, 2014; Hendrix, Landerman, & Abernethy, 2013). Teaching parents, families, and caregivers to care for their complex medically-dependent children can be a challenge. These infants and children are often discharged home with tracheostomies, ventilators, feeding tubes, and other conditions that require specific learned skills or competencies to manage. A lack of individualized training can lead to inconsistent practice and poor patient outcomes once the patient is transferred home (Hendrix et al., 2013). When a patient lacks a well-trained caregiver, the discharge environment can be considered unsafe. The patient is directly affected by the training of their caregiver. If a caregiver is trained well and thoroughly, there is a higher likelihood that the patient will receive adequate care from their caregiver (Forster et al., 2013). The caregiver is affected by their training because an unprepared caregiver can be anxious, depressed, and unprepared for the complex care sometimes needed by patients (Hendrix et al., 2013). The medical team is affected because lack of a training program or inconsistent teaching for each caregiver can lead to confusion on how to properly prepare caregivers. Often, patients are limited in the amount of days allowed by insurance to be inpatient on a teaching floor or TCU. If the parents or caregivers are not trained within the allotted days, much of the inpatient stay is not reimbursed to the hospital or the caregivers are left with a substantial medical bill (O'Brien, & Dumas, 2013). It is more cost-effective to provide home health care than institutional medical care (Bookman, & Harrington, 2007). The economic value of the care provided by caregivers at home in the United States was estimated to be \$350 billion in 2006 (DiZazzo-Miller et al., 2014). The term "boot camp" typically refers to military basic training. This standardized training prepares military recruits for service by providing the basic tools to perform their duties in a structured format with time constraints (Kubin & Fogg, 2010). The term "boot camp" was chosen for this caregiver training program because the basic skills needed to care for their dependents will be taught in a structured format within a predetermined time frame.

Methods: Developed and implemented by two night-shift frontline nurses, the study utilized a quasi-experimental comparative intervention design. The study was conducted on the transitional care unit within a large metropolitan pediatric medical center in the southwestern United States; Institutional Review Board approval was obtained. Study sample included: (1) experimental group composed of prospectively-recruited caregivers (n = 34; average age 34 years; 88% female) and (2) a medical-condition-matched control group (n = 34; average age 5 months; 59% male; 74% respiratory failure diagnosis) where retrospective chart review data from pre-intervention TCU patients, prior to January 2015, were obtained for the length of stay and days of documented discharge teaching variables. In addition, this study also used a within-group repeated-measure study design for parental stress levels of experimental group caregivers at two time points: prior to start of boot camp training program and upon completion of program. The "boot camp" training program included: (1) admission care conference, (2) training contract, (3) structured daily training schedule, and (4) completion with nine structured training sessions (three hours of content per session). Outcome measurements included: (1) demographic data from 34 caregivers and their children, (2) pre- and post-intervention scores on parental stress levels from the 36-item Parenting Stress Index-4-Short Form with three subscales (PSI-4-SF; Abidin, 2012), (3)

caregiver satisfaction related to the training, and (4) comparisons of average or median lengths of stay of patients (on unit and in hospital) whose caregivers were enrolled in the experimental group and matched-control group of medically-dependent patients whose caregivers completed pre-boot camp training. Data analyses performed were descriptive data (means, standard deviations, medians, percentages, frequencies for all study measures, independent-sample Mann-Whitney *U* tests for non-normal data (total length of stay in hospital, length of stay on TCU), paired-sample *t* tests for total number of days of documented discharge training, and repeated measures analysis of variance (RMANOVA) for within-group PSI-4-SF scores.

Results: Results pre-and post- boot camp implementation included: (1) median unit length of stay (LOS; 77 versus 43 days [$p=0.004$]), decreased by 44%; (2) median hospital LOS (146.5 versus 82 days [$p=0.017$]), decreased by 44%; (3) average documented discharge training days (41.5 versus 15.7 days [$p<0.0001$]), decreased by 62%; (4) Parental Stress scores related to: (a) Perceived Parental Distress (26.7 versus 23.1 [$p<0.0001$]), (b) Dysfunctional Interaction (22.3 versus 20.5 [$p=0.012$]), (c) Perceived Difficult Child (23.4 versus 21.8 [$p=0.021$]), and (c) Total Parental Stress scores (72.8 versus 65.4 [$p<0.0001$]); and (4) Caregiver Satisfaction with Boot Camp Training (>90% were very satisfied). With DRG-related 42-50 day LOS limits, pre-boot camp 77-day LOS, and average daily unit cost of \$1974, savings were estimated between \$53,300 and \$69,900 per patient on the transitional care unit.

Conclusion: The boot camp training program significantly decreased days of documented discharge training, parental stress, and length of stay with positive financial impact. One lesson learned was the need for frequent communication between disciplines regarding research process and outcomes, to sustain support and buy-in. The structured training format and engagement of research team with unit frontline nurses have contributed to caregiver satisfaction and accountability as well as nursing staff engagement with the boot camp initiative. Based on study findings, senior nursing administration has agreed to develop a Family Educator position to track and evaluate boot camp discharge education and its outcomes on the transitional care unit. Next step will be the evaluation of correlations between caregiver boot camp training and patient early hospital readmissions. The implementation of a structured "boot camp" training program for caregivers led to increased staff comprehension on what is expected for the discharge training needed by caregivers of complex medically-dependent children. This model could be customized to other areas (adult and pediatric) where there are medically complex patients.

References

- Abidin, R. R. (2012). *Parenting Stress Index* (4th Ed.). Lutz, FL: PAR.
- Bookman, A., & Harrington, M. (2007). Family caregivers: A shadow workforce in the geriatric health care system? *Journal of Health Politics, Policy & Law*, 32(6), 1005-1041. doi:10.1215/03616878-2007-040
- DiZazzo-Miller, R., Samuel, P. S., Barnas, J. M., & Welker, K. M. (2014). Addressing everyday challenges: Feasibility of a family caregiver training program for people with dementia. *American Journal of Occupational Therapy*, 68(20), 212-220. doi:10.5014/ajot.2014.009829
- Forster, A., Dickerson, J., Young, J., Patel, A., Kalra, L., Nixon, J., & Farrin, A. (2013). A structured training programme for caregivers of inpatients after stroke (TRACS): A cluster randomized controlled trial and cost-effectiveness analysis. *Lancet*, 382(9910), 2069-2076. doi:10.1016/S0140-6736(13)61603-7
- Hendrix, C. C., Landerman, R., & Abernethy, A. P. (2013). Effects of an individualized caregiver training intervention on self-efficacy of cancer caregivers. *Western Journal Of Nursing Research*, 35(5), 590-610. doi:10.1177/0193945911420742
- Kubin, L., & Fogg, N. (2010). Back-to-basics boot camp: An innovative approach to competency assessment. *Journal of Pediatric Nursing*, 25(1), 28-32. doi:10.1016/j.pedn.2008.07.004
- O'Brien, J. E., & Dumas, H. M. (2013). Hospital length of stay, discharge disposition, and reimbursement by clinical program group in pediatric post-acute rehabilitation. *Journal of Pediatric Rehabilitation Medicine*, 6(1), 29-34. Retrieved from <http://search.ebscohost.com.ezproxy.uta.edu/login.aspx?direct=true&db=a9h&AN=85985367&site=ehost-live>

Contact

mary.cazzell@cookchildrens.org

A 13 - Promoting Healthy Work Environments for the Clinical Nurse A Model-Based Ergonomic Risk Management Program to Reduce the Musculoskeletal Symptoms of ICU Nurses

*Duygu Sezgin, PhD, MScN, BScN, RN, Ireland
Melek Nihal Esin, PhD, MScN, BScN, RN, Turkey*

Abstract

Purpose: Nursing profession is identified as having the highest risk in terms of ergonomic risk. Nurses stand for long hours, do pushing, pulling, elevating movements, as a result of which, musculoskeletal disorders may easily develop (Rasmussen et al. 2013, Sezgin and Esin 2015). The prevalence of the musculoskeletal symptoms (MSS) of nurses working in the clinical settings is found to be between 69.55-88.2% in the literature (Samaei et al. 2015, Barkhordari et al. 2015, Ganiyu et al 2015). Having MSS decreases work performance, and increases work absenteeism, this affects patient care negatively and increases the illness costs (Lee et al. 2013, Lu et al. 2012, Khamisa et al. 2013) Musculoskeletal disorders may be prevented by effective ergonomic risk management programs. These programs include; body mechanics training, exercise education, giving educational materials and they do not require for the nurses to leave their daily work (Lim et al. 2011, Black et al. 2011, Odeen et al. 2013, Côté et al. 2013, Stigmar et al. 2013). The aim of this study is to evaluate the effects of ergonomic risk management program with a view to reduce MSS of the ICU nurses.

Methods: The study which is developed as “Pre-test post-test design for non-equivalent control groups” comprised in Istanbul, Turkey. The study population consists of two hospitals that are connected to Ministry of Health and have adult intensive care units. The data was collected from 8 ICUs including general, emergency, reanimation, coronary and neurology. The ICUs were evaluated and compared by their physical and ergonomic environmental characteristics. They are found to have the similar characteristics following the criterias such as architectural structural appropriateness, patient transfer equipments (lifts, stretchers) and bedside support areas.

The study sample included 116 nurses with high ergonomic risk who have been working in intensive care unit more than 6 months, and accepted to participate the study (Hospital A: 57, Hospital B: 59). The sample size was calculated by power analysis as 72 ICU nurses (36 in intervention group, 36 in control group). According to that, 35 nurses were selected for the intervention group and 37 nurses were selected for the control group by systematic sampling.

In the pre-test section of the study, the “Descriptives of Nurses and Ergonomic Risk Reporting Form” and “Rapid-Upper Limb Assessment (RULA)” tool were used to collect data about demographics of nurses and the level of ergonomic risks. An “Ergonomic Risk Management Program (ERMP)” was applied to the nurses in the intervention group. The ERMP is a health promotion program developed by using PRECEDE-PROCEED Model. The interventions included by the ERMP are (1) a video training lasts for two weeks which is related to the musculoskeletal risks and exercises to prevent them in the ICU settings without disrupting the works processes of the nurses (2) providing educational materials such as booklets and CDs including the training program (3) personal interviews about discussing the predisposing, reinforcing and enabling factors of behavior change (4) providing exercise mats for the nurses to be able to do the exercises shown during the video training. In 26 weeks following the intervention, SMS reminders were sent to the nurses every four weeks and there was a follow-up including ergonomic risk assessments in the first and third months. After this, the same data collection forms related to nurses’ levels of ergonomic risk were applied to the both groups.

The Statistical Package for Social Sciences 16.0 software was used in statistical analysis. The sociodemographic, ergonomic and working conditions of the nurses were displayed as number, percentage and mean. The paired samples t-test, Q-square test, the analysis of variance in repeated measures, and Cochran’s Q test were applied to evaluate and compare the association between the variables considering the homogeneity and the type. The findings were evaluated in between the 95% confidence interval.

Results: The mean age of the nurses was 27.71 ± 5.21 and 73.6% were female. The Body Mass Index of the nurses was 22.6 ± 3.1 , and 62.5% of them were not doing regular exercise. In the results of the study it is found that there was no difference between the intervention and control group for sociodemographic characteristics, general health and work conditions, MSS, level of pain and ergonomic risk scores ($p > 0.05$). Following this information, these two groups were identified as having similar characteristics before the ERMP intervention.

The legs and lower back were the body parts that MSS are mostly seen before and after the ERMP intervention. In the following month of ERMP intervention, the RULA arm, hand, wrist (score A), trunk, leg, feet (score B) and total scores were found to be decreased as, 0.79, 0.96 and 0.82 points for the patient turning movements and 0.82, 1.85 and 1.40 points for the bending down movements, respectively.

At the end of the ERMP follow-up by the sixth month, the nurses in the intervention group were found to have a significant increase on the frequency of exercise. Moreover, there was a significant decrease on the perceived MSS related pain intensity scores as 0.77 points ($p < 0.05$). The mean total RULA score of nurses for patient turning movement was found to be 4.39 ± 1.49 which means "immediate further analyses and modifications recommended". The mean total RULA score of the nurses for bending down movement was found to be 3.75 ± 1.64 which means "further analyses and modifications recommended". However, there was no significant change in the sick leave days in the intervention group before and after the ERMP.

Conclusion: This study revealed that ERMP was effective not only to reduce the ergonomic risks and MSS related pain level but also to increase the exercise frequency of the ICU nurses. The ergonomic risk management interventions intended at reducing the musculoskeletal symptoms will improve the quality of life of the nurses and their work performance in the long term. The programs focused on risk management and continuous risk assessment which is applied at the workplace could be recommended for the future studies. The study designs in relation to ergonomic risk prevention should be developed in a model based framework and also include visual technologies such as video films and valid measurement risk assessment tools in order to reduce MSS of the ICU nurses.

References

- Barkhordari, A., Halvani, G., & Barkhordari, M. (2015). The prevalence of low back pain among nurses in Yazd, Southeast Iran. *International Journal of Occupational Hygiene*, 5(1), 19-21.
- Black, T. R., Shah, S. M., Busch, A. J., Metcalfe, J., & Lim, H. J. (2011). Effect of transfer, lifting, and repositioning (TLR) injury prevention program on musculoskeletal injury among direct care workers. *Journal of Occupational and Environmental Hygiene*, 8(4), 226-235.
- Côté, J. N., Ngomo, S., Stock, S., Messing, K., Vézina, N., Antle, D. ve ark. (2013). Quebec research on work-related musculoskeletal disorders: Deeper understanding for better prevention. *Relations Industrielles/Industrial Relations*, 68(4), 643-660.
- Ganiyu, S. O., Olabode, J. A., Stanley, M. M., & Muhammad, I. (2015). Patterns of occurrence of work-related musculoskeletal disorders and its correlation with ergonomic hazards among health care professionals. *Nigerian Journal of Experimental and Clinical Biosciences*, 3(1), 18.
- Khamisa, N., Peltzer, K., & Oldenburg, B. (2013). Burnout in relation to specific contributing factors and health outcomes among nurses: A systematic review. *International Journal of Environmental Research and Public Health*, 10(6), 2214-2240.
- Lee, S. J., Faucett, J., Gillen, M., & Krause, N. (2013). Musculoskeletal pain among critical-care nurses by availability and use of patient lifting equipment: an analysis of cross-sectional survey data. *International Journal of Nursing Studies*, 50(12), 1648-1657.
- Lim, H. J., Black, T. R., Shah, S. M., Sarker, S., & Metcalfe, J. (2011). Evaluating repeated patient handling injuries following the implementation of a multi-factor ergonomic intervention program among health care workers. *Journal of Safety Research*, 42(3), 185-191.
- Lu, H., Barriball, K. L., Zhang, X., & While, A. E. (2012). Job satisfaction among hospital nurses revisited: a systematic review. *International Journal of Nursing Studies*, 49(8), 1017-1038.
- Odeen, M., Magnussen, L. H., Maeland, S., Larun, L., Eriksen, H. R., & Tveito, T. H. (2013). Systematic review of active workplace interventions to reduce sickness absence. *Occupational Medicine*, 63(1), 7-16.

- Rasmussen, C. D., Holtermann, A., Mortensen, O. S., Søgaard, K., & Jørgensen, M. B. (2013). Prevention of low back pain and its consequences among nurses' aides in elderly care: a stepped-wedge multi-faceted cluster-randomized controlled trial. *BMC Public Health*, 13(1), 1088.
- Samaei, S., Hasheminejad, N., & Zolala, F. (2015). Evaluation of risk factors influencing low back pain in patient transfer tasks. *International Journal of Occupational Hygiene*, 7(2), 76-82.
- Sezgin, D., Esin, M.N. (2014). Predisposing factors for musculoskeletal symptoms in intensive care unit nurses. *International nursing review*, 62(1), 92-101.
- Stigmar, K. G., Petersson, I. F., Jöud, A., & Grahn, B. E. (2013). Promoting work ability in a structured national rehabilitation program in patients with musculoskeletal disorders: outcomes and predictors in a prospective cohort study. *BMC Musculoskeletal Disorders*, 14(1), 1.

Contact

duygu.sezgin@ul.ie

A 13 - Promoting Healthy Work Environments for the Clinical Nurse Evaluation of a Planned Rest/Nap for Hospital Night-Shift Nurses

Diane A. Drake, PhD, RN, USA

Monica Malcuit, BSN, RN, USA

Abstract

Purpose: The purpose of the study was to investigate a fatigue risk management intervention for surgical intensive care unit nurses working twelve-hour night shifts.

Background: The American Nurses Association (ANA) position statement addressing nurse fatigue identifies a shared responsibility between nurses and employers to diminish the risk of nurse fatigue, endorse a culture of safety and create balance in work-life settings. ANA recommendations emphasize nurses and employers work together and strategically implement fatigue countermeasures to reduce fatigue and sleepiness in the work place (ANA, 2014). Night shift nurses have significant risk to experience alterations in both waking and sleeping states because of disrupted circadian regulation (Lee, Gay & Alsten, 2014). Fatigue induced impairment may result in medication and medical errors, mislabeled lab samples and calculation errors. Fatigue studies conducted with other 24-hour professionals including law enforcement officers indicate shiftwork has a cumulative and debilitating effect on judgment and decision-making (Violanti, 2012).

Methods: A quasi-experimental descriptive design was used for the purpose of this study to investigate the feasibility and effects of a fatigue risk management strategy that included a planned rest/nap for nightshift registered nurses (RNs) working full-time on a Surgical Intensive Care Unit (SICU). The study team included nurse leaders who reported to the hospital chief nurse officer and the principal investigator was an administrative nursing supervisor. The specific aim of the study was to answer three research questions:

- 1) What was the rate of nurse participation in the fatigue risk management intervention?
- 2) Was participation in the planned rest/nap associated with changes in; a) nurse fatigue, b) nurse sleepiness and c) nurse sleep quality?
- 3) Was participation in the planned rest/nap associated with SICU unit changes in a) medication errors, and b) sleep room logistic difficulties?

Subjects: All SICU RNs working night shift were invited to participate in the study. Study eligibility required RNs to: (a) be an SICU nurse working night shift with an independent assignment for at least six months, (b) be scheduled to work during the study period, (c) not have a diagnosis of a primary sleep disorder, and (d) provide written consent to participate in the study.

Sample: There were 21 respondents during recruitment, 17 nurses met inclusion criteria and were enrolled. One nurse transitioned to day shift at week 6 and was dropped from the study. A total of 16 nurses completed the twelve-week study. Participation in the study was voluntary. Prior to initiation of recruitment, the study received approval from the healthcare system investigational review board (IRB).

Protocol: RN participants were asked to schedule a planned rest/nap during a thirty-minute lunch period in a designated rest/nap room. The rest/nap room was designed and arranged by nursing leaders and members of the study team with financial support from the CNO. Each RN was responsible to begin and end the rest/nap according to the planned scheduled time and return to work alert. Rest/naps schedules were coordinated each shift by RNs with the charge nurse who maintained a form listing tentative break times between the hours of 1- 4 a.m. RNs were encouraged to eat lunch during another fifteen-minute break and were provided with a "Nap Protocol" that clarified expectations of a planned rest/nap and nap room logistics. Taking a nap was not mandatory but sleep was encouraged if possible. If unable to sleep, resting was recommended.

Setting: The study took place at a Magnet designated, level II trauma center in South Orange County, California in a twenty bed SICU.

Data collection: Following informed consent, RNs provided descriptive information and completed three study questionnaires using a survey generator, Qualtrics[®].

Data entry and analysis: Study forms used a study code assigned to each RN and all data collected was kept confidential. There was no individual identification of RN participant in the data file or analysis of results. Statistical analysis was conducted using IBM Statistical Package for the Social Sciences (version 22). Descriptive statistics were used to describe sample characteristics of RNs. A percentile rest/nap participation was calculated using a summary of rest/nap log reports from each shift worked. An average (mean) was calculated from fatigue and sleep scores using six and twelve week survey responses. Weekly unit medication errors and sleep room logistic difficulties were summarized from pharmacy and study log reports.

Study measures: Each RN completed a planned rest/nap log. Descriptive measures included nurse age, years worked, nursing degree and chronotype and history of napping at work. Pre-test and week-six and week-twelve survey measures included the Pittsburgh Sleep Quality Index (PSQI), The Epworth Sleepiness Scale (ESS), the Occupational Fatigue Exhaustion and Recovery Scale (OFER) and the Chalder Fatigue Scale. Weekly medication error rate reports were provided by the pharmacy to the study team during the twelve-week study. Sleep room logistics difficulties were summarized from the nurse rest/nap logs.

Results: Sixteen nurses, thirteen females and three males completed the twelve-week study. The average age was 37. Highest education was BSN (11), and ADN (5). The range for continuous night shift work years was 2 – 23 years, mean 7.09 (7.36) years. Ten nurses reported chronotype more evening type (owls), and 6 were more morning type (larks). Nine RNs reported never napping at work prior to the study and seven RNs reported only occasionally napping at work prior to the study. Average RN rest/nap participation during the twelve-week study was 62% with a range of 42% - 86%. Of 573 shifts worked, 196 naps were taken and 160 rests were taken. The majority, twelve RNs reported taking a combination of rest and naps. Two RNs took naps only, and two RNs took rests only. Improvements were observed in the average scores of physical fatigue, inter-shift recovery, and sleepiness at six weeks and improvements again at twelve weeks. Improvements in chronic fatigue were observed and week six and stable at week twelve. Mental and acute fatigue scores improved at week six and were worse (increased) at week twelve. Sleep quality did not improve at week six, but did improve at week twelve. There was one “low risk” of harm to the patient medication error reported by pharmacy during the study period. There were four reports by RNs of difficulty with room logistics because the rest/nap room was not available (already scheduled). There were twelve reports the rest/nap room was noisy.

Conclusion: Although many hospital nursing units provide a break room where nurses may rest or eat away from patient care, designated rest/nap rooms are not commonly available to nursing staff. Hospital nurses have many reasons to not rest or nap during the work shift. Many nurses are concerned with lack of administrative support, perceived inability to work twelve hours, a culture that does not tolerate sleep on the job, sleep inertia, and inadequate facilities to promote quiet, clean, undisturbed, secure and private rest/napping. This twelve-week study demonstrated that nurses who previously would never rest or nap were able to rest/nap on most shifts work and report less physical fatigue, less sleepiness, and improved sleep quality. A planned rest/nap intervention was an effective fatigue risk management strategy. The findings in this study support the shared responsibility of fatigue risk management between nursing leadership and clinical nursing staff.

References

ANA Position Statement, (2014). Retrieved December 10, 2014 from: <http://www.nursingworld.org/positionstatements>
Lee, K., Gay, C., & Alsten, C. (2014). Home-based behavioral sleep training for shift workers: A pilot study. Behavioral Sleep Medicine, 12(6), 455-468.

Violanti, J., M. (2012). Shifts, extended work hours and fatigue: An assessment of the health and personal risks for police officers. Research funded by the United States Department of Justice. Retrieved May 27, 2016 from: <https://www.ncjrs.gov/pdffiles1/nij/grants/237964.pdf>

Contact

diane.drake@stjoe.org

A 14 - Adherence in Hypertension Patients

Improved Adherence Status in Patients With Hypertension: A Community-Based Intervention

Thitipong Tankumpuan, MSN, BSN, RN, USA
Sakuntala Anuruang, PhD, RN, Australia
Debra Jackson, PhD, RN, FACN, United Kingdom
Louise D. Hickman, PhD, MPH, BN, RN, Australia
Michelle DiGiacomo, PhD, MHS (Hons), BA, Australia
Patricia Mary Davidson, PhD, MEd, BA, RN, FAAN, USA

Abstract

Purpose: Although high quality treatment and modern hypertension clinical practice guidelines have been developed worldwide, the outcomes of hypertension patients in Thailand are not optimal. Previous hypertension management interventions mostly focused on knowledge improvement with a short time follow-up of outcome. Moreover, the accessibility to advanced treatment is limited to metropolitan areas and for high socioeconomic status patients. Ignoring characteristics such as social determinants of health may cause the failure of the previous intervention. Implementing person-centered and integrated health services model (PC-IHS) such as community-based intervention is challenging for health care providers in Thailand to improve the hypertension management. The objectives of this study aim to predict the effect of community-based intervention and socioeconomic status influencing adherence status at baseline, 1, 3, and 6 months following a self-management intervention; and to evaluate the model selection of community-based intervention and other socioeconomic status influencing factors between improved and non-improved adherence status at the end of the study

Methods: A cross-sectional data analysis of each time phase of the parent study “Community-based intervention to promote self-management for rural dwelling older people with hypertension: mixed method study”. The study settings comprised of residents in 17 villages, and were users of the primary health care center in Nakhon Ratchasima Province, Thailand. All participants were separated into two groups based on geographical area and allocated into the intervention and the control group through a simple random technique. Both groups received routine care and a self-management tool kit. In addition, the intervention group received the four-week community-based intervention program which contained group activities, individual home visits by researcher. Multiple linear regression was applied to predict adherence status at each phase followed by stepwise regression with backward selection technique to select significant predictors. After 6 month, patients were categorized into improved and non-improved adherence status. Parametric and non-parametric were applied to compare general characteristics between groups. Then, multiple logistic regression was implemented to predict influencing factors between groups followed by a model selection using Akaike information criterion (AIC) with forward selection technique.

Results: A sample of 156 elderly with hypertension, 70 years old on average and mostly female (68.5%). 77 (49.36%) participants attended a community-based intervention. Patients who received intervention had significant lower adherence score (a higher score reflects a lower level of adherence) at 3 and 6 months after intervention by 1.66 points (95%CI 0.61-2.71, $p<0.001$), and 1.45 points (95%CI 0.47-2.42, $p<0.001$) respectively when adjusting other variables. Moreover, women had a statistically significantly lower adherence score than men at baseline and 3 months after intervention, patients with other comorbidities had significant lower adherence score than patients with hypertension only at all follow-up period. After six month from baseline, there were 74 (47.44%) participants who had improved adherence status. The community-based intervention was associated with a significant improvement in adherence adjusted for other variables (odds ratio = 2.65 [95% CI 1.32–5.35], $P=0.006$). The decreasing of waist circumference demonstrated a trend in improved adherence (odds ratio = 1.85 [95% CI 0.91–3.77], $P=0.09$). The final model that impacted on improve adherence by forward selection with AIC comprised of intervention, decreasing of waist circumference and marital status (LR χ^2 (4) =15.98, $P=0.003$, AIC=209.87)

Conclusion: This study provides evidence to support the use of community-based intervention as an effective adjunct to hospital-based care of patients with hypertension. Understanding the influencing factors between health outcomes and social determinants of health is critical for informing intervention development.

References

- Anuruang, S., Hickman, L. D., Jackson, D., Dharmendra, T., Balen, J., & Davidson, P. M. (2014). Community-based interventions to promote management for older people: an integrative review. *Journal of clinical nursing*, 23(15-16), 2110-2120.
- Anuruang, S., Davidson, P. M., Jackson, D., & Hickman, L. (2015). Strategies to enhance recruitment of rural-dwelling older people into community-based trials. *Nurse researcher*, 23(1), 40-43.
- Anuruang, S. (2015). Cross-Cultural Adaptation and Assessment of the Reliability and Validity of the Thai Hill-Bone Compliance to High Blood Pressure Therapy Scale.
- Attridge M, Creamer J, Ramsden M, Cannings-John R & Hawthorne K (2014) Culturally appropriate health education for people in ethnic minority groups with type 2 diabetes mellitus. *The Cochrane Library*.
- Leelacharas, S., Kerdonfag, P., Chontichachalalauk, J., & Sanongdej, W. (2015) Illness Perceptions, Lifestyle Behaviors, Social Support, and Cardiovascular Risks in People with Hypertension in Urban and Rural Areas of Thailand. *Pacific Rim International Journal of Nursing Research*, 19(3),245-256
- Mozaffarian, D., Benjamin, E. J., Go, A. S., Arnett, D. K., Blaha, M. J., Cushman, M., ... & Howard, V. J. (2016). Executive Summary: Heart Disease and Stroke Statistics-2016 Update: A Report From the American Heart Association. *Circulation*, 133(4), 447.
- Parker CP, Cunningham CL, Carter BL, Vander Weg MW, Richardson KK & Rosenthal GE (2014) A Mixed-Method Approach to Evaluate a Pharmacist Intervention for Veterans With Hypertension. *The Journal of Clinical Hypertension* 16, 133-140.
- Porapakham Y, Pattaraarchachai J & Aekplakorn W (2008) Prevalence, awareness, treatment and control of hypertension and diabetes mellitus among the elderly: the 2004 National Health Examination Survey III, Thailand. *Singapore Med J* 49.
- Seeberg J, Pannarunothai S, Padmawati RS, Trisnantoro L, Barua N & Pandav CS (2014) Treatment seeking and health financing in selected poor urban neighbourhoods in India, Indonesia and Thailand. *Social science & medicine* 102, 49-57.
- World Health Organization (2012) Older Population and Health System: A profile of Thailand. Available at: http://www.who.int/ageing/projects/intra/phase_one/alc_intra1_cp_thailand.pdf.
- World Health Organization (2016) A global brief on hypertension: silent killer, global public health crisis. World.
- Yiengprugsawan, V., Caldwell, B. K., Lim, L. L. Y., Seubsman, S. A., & Sleigh, A. C. (2011). Lifecourse urbanization, social demography, and health outcomes among a national cohort of 71,516 adults in Thailand. *International journal of population research*, 2011.

Contact

ttankum1@jhu.edu

A 14 - Adherence in Hypertension Patients

Health Beliefs and Medication Adherence Among Omani Patients With Hypertension

Huda Al Noumani, PhD, RN, CNS, Oman

Jia-Rong Wu, PhD, RN, USA

Debra Barksdale, PhD, RN, FNP-BC, CNE, FAANP, FAAN, USA

George Knafel, PhD, USA

Gwen Sherwood, PhD, RN, FAAN, USA

Esra Al-Khasawneh, DNSc, MSN, RN, FAAN, Oman

Abstract

Hypertension (HTN) is a public health concern around the globe, which if not treated will lead to serious cardio and cerebrovascular complications. Antihypertensive medication is central in controlling BP and preventing HTN-related complications. Despite the effectiveness of medications, adherence to antihypertensive medications remains a challenge and less than 50% (WHO, 2013). Plenty of literature has reported different factors contributing to better or worse medication adherence in patients with HTN (AlGhurair, Hughes, Simpson, & Guirguis, 2012). Health beliefs about HTN and its medications are among patient-related factors that significantly related to antihypertensive medication adherence (AlGhurair et al., 2012). For example, stronger beliefs about HTN severity and susceptibility to its consequences, stronger beliefs about necessity of antihypertensive medications, higher self-efficacy, and fewer concerns about medication were associated with higher medication adherence (Kamran, Ahari, Biria, Malpour, & Heydari, 2015). These studies are consistent with the health beliefs model. In Oman, a high-income developing country, HTN prevalence is high and many studies have examined HTN prevalence and risk factors (Al-Maqbali, Temple-Smith, Ferler, & Blackberry, 2013; Al-Mawali, 2015). However, studies examining medication adherence and patients' beliefs and medication adherence are lacking. It is essential that clinicians assess patients' beliefs when aiming to improve medication adherence to plan effective and personalized plan of care.

Purpose: The aim of this study is to examine Omani patients adherence with antihypertensive medications and their beliefs regarding HTN severity, necessity of and concerns about medications, and medication adherence self-efficacy. The study also aims to examine the relationship between 1) patients' beliefs and medication adherence and 2) medication adherence and blood pressure (BP) control in Oman.

Methods: This cross-sectional study used descriptive correlation design and was conducted in Oman using 25 primary health care settings in 6 Omani governorates. Participants completed 4 questionnaires in Arabic version to measure medication adherence (Morisky medication adherence scale), beliefs about HTN severity (Brief illness perception questionnaire), beliefs about medication necessity and concerns (Beliefs about medicine questionnaire), and self-efficacy (Medication adherence self-efficacy scale). In this study, high medication adherence is defined as a Morisky scale of ≥ 6 . BP values of the day of the study were taken from patients' electronic medical records. Descriptive and Bivariate and multivariate logistic regression were used to conduct the analyses.

Results: The study included a total of 215 participants with HTN with a mean age of 54 years ($SD=13.1$). Study findings showed 68% of participants reported high adherence and 63% have uncontrolled BP. Majority of participants reported stronger beliefs about necessity of medication (mean score = 3.7, $SD = 0.9$), higher self-efficacy regarding their ability to adhere to medications (mean score = 3.4, $SD = 0.7$), fewer concerns about medication (mean score = 2.4, $SD = 0.8$), and believed that HTN is not a severe condition (mean score=25.8, $SD = 12.2$). Logistic regression analysis showed that higher self-efficacy ($OR=2.59$; 95% $CI 1.54-4.37$), stronger beliefs about medication necessity ($OR=1.98$; 95% $CI 1.21-3.23$), increased age ($OR=1.06$; 95% $CI 1.03-1.10$), and fewer medication concerns ($OR=0.34$; 95% $CI 0.20-0.57$) were significantly related to high medication adherence and explained 37% of variation in medication adherence. Furthermore, participants with high medication adherence were less likely to have their BP uncontrolled ($OR=0.47$; 95% $CI 0.24-0.93$) and explained 3% in BP control variation.

Conclusion: Findings regarding the relationship between medication adherence and beliefs about the necessity of and concerns about medication and self-efficacy are consistent with studies among patients with HTN and other chronic conditions. Although we did not find a significant relationship between medication adherence and beliefs about severity of HTN, the direction of the relationship was negative, which is inconsistent with majority of studies that reported a positive relationship. This inconsistency in findings could be related to cultural variation and the influence of unique Islamic beliefs on disease and treatment. Therefore, clinicians and researchers should be aware that beliefs might vary across cultures and/or within cultures.

Results of this study indicated that patients beliefs play significant role in medication adherence, which highlight the significance of assessing and incorporating patients' health beliefs in clinical practice by the clinicians (e.g., physicians, nurses). Moreover, strategies to improve medication adherence should incorporate beliefs as key component for effective and personalized plan of care for patients with HTN generally and Omani patients specifically.

References

- AlGhurair, S. A., Hughes, C. A., Simpson, S. H., & Guirguis, L. M. (2012). A systematic review of patient Self-Reported barriers of adherence to antihypertensive medications using the world health organization multidimensional adherence model. *The Journal of Clinical Hypertension*, 14(12), 877-886.
- Al-Maqbali, A. A., Temple-Smith, M., Ferler, J., & Blackberry, I. (2013). Prevalence and determinants of pre-hypertension among omani adults attending non-communicable disease screening program in primary care setting in sohar city. *Oman Medical Journal*, 28(5), 316-323.
- Al-Mawali, A. (2015). Non-communicable diseases: Shining a light on cardiovascular disease, oman's biggest killer. *Oman Medical Journal*, 30(4), 227.
- Kamran, A., Ahari, S. S., Biria, M., Malpour, A., & Heydari, H. (2015). Determinants of patient's adherence to hypertension medications: Application of health belief model among rural patients. *Annals of Medical and Health Sciences Research*, 4(6), 922-927.
- World Health Organization. (2013). A global brief on hypertension, silent killer, global public health crisis. Retrieve from [Http://Apps.Who.Int/Iris/Bitstream/10665/79059/1/WHO_DCO_WHD_2013.2_eng.Pdf](http://apps.who.int/iris/bitstream/10665/79059/1/WHO_DCO_WHD_2013.2_eng.Pdf) [Accessed 2013-07-17][WebCite Cache ID 6IBqA12eN].

Contact

hudasn@squ.edu.om

A 15 - Research and Implementation

Strategies to Increase Research Productivity in a College of Nursing

Stephen J. Cavanagh, PhD, RN, FACHE, FAAN, USA

Abstract

Purpose: The purpose of this five-year evaluation case study (2011-2016) was to identify changes in faculty scholarly performance metrics associated with the introduction of a research strategic plan within a college of nursing in the United States of America.

Methods: The methods used in this case study included the collection of scholarly performance data (e.g. external funding, publications, etc.) and the research interests of nursing faculty. This data was obtained from self-reports, literature searches and official university research expenditure data. In addition, individual and small group interviews were held with nursing faculty as a means of clarifying personal research priorities. Data from these meetings (2011) were used as a focus for a number of faculty-wide discussions aimed at determining research priorities for the next 5 years. From these, a series of four research priorities were identified: symptom management, gerontology, health services, and social justice research. A national comparison of research active schools/colleges was also performed to gauge current research expenditures. Other data was calculated including a measure of 'tenure density' (ratio of tenure track and tenured faculty and the size of the undergraduate student body). This metric was calculated from data made available from the American Association of Colleges of Nursing (AACN). Data was also collected from a number of other sources, including faculty self-reports of scholarly output. Data was collected on the growth in faculty and student enrolment and on alumni and development fund-raising activities. All the above data was collected annually and entered into a database.

Results: The results and findings from this case study report the changes in research productivity following the introduction of a research strategic plan. Data showed that it was possible to identify a series of measures that may be indicative of future success in obtaining research funding. These were identified as a formal research strategy, growth in the faculty size, the determination of tenure density metric, the number of collaborative relationships outside of the college of nursing, growth in development funds, and financial investment in faculty development. One of the most important findings from this evaluation was the growth in submission of requests for external funding. During the study, the total number of grants submitted rose from 13 (2011) to 33 (2016), while external funding rose from \$48k to \$2.33m in the same time period, and included the awarding of a P20 center grant.

Conclusion: The findings of this evaluation study suggest the importance of developing research priorities as part of an overall research strategy for a college. Aligning these priorities with activities such as hiring new faculty and developing partnerships across campus was essential in developing a growing research and scholarly output. It was also recognized that the concept of tenure density might be an important measure to consider when developing a research strategy. This, in turn, may provide important insight into determining what the optimum college might be, based on faculty and student numbers. The idea of growing a research program based upon tenure density, however, needs further work in nursing. This study illustrates that many factors can influence the growth of research productivity, including fund-raising and inter-collegiate collaborations.

References

- Best, K. M., Jarrin, O., Buttenheim, A. M., Bowles, K. H., & Curley, M. A.Q. (2015, AUGUST). Innovation in creating a strategic plan for research within an academic community. *Nursing Outlook*, 63(4), 456-461.
<http://dx.doi.org/10.1016/j.outlook.2015.01.005>.
- Kulage, K. M., Ardizzone, L., Enlow, W., Hickey, K., Jeon, C., Kearney, J., Larson, E. L. (2013). Refocusing research priorities in schools of nursing. *Journal of Professional Nursing*, 29(4), 191-196.
<http://dx.doi.org/10.1016/j.profnurs.2012.10.005>.
- Parlour, R., & Slater, P. Developing nursing and midwifery research priorities: A Health Service Executive (HSE) North West study. *Worldviews on Evidence-Based Nursing*, Jun 2014; 11(3); 200-2008.
onlinelibrary.wiley.com/doi/10.1111/wvn.12035/abstract.

Contact

dean@scavanagh.net

A 15 - Research and Implementation

Making Your Research More Robust With Implementation Science

Linda Costa, PhD, RN, NEA-BC, USA
Marianne Weiss, DNSc, RN, USA
Kathleen Bobay, PhD, APRN, BC, USA
Ronda Hughes, PhD, MHS, RN, CLNC, FAAN, USA
Susan A. Nuccio, MSN, RN, ACNS-BC, CGRN, USA
Sarah J. Bahr, MSN, RN-ACNS, USA
Danielle M. Siclovan, MSN, NE-BC, USA

Abstract

Purpose: Implementation science is the study of methods, interventions, and variables that promote uptake and use of research and other evidence-based practices by organization with the goal of improving health care quality. This study applies the Consolidated Framework for Implementation Research (CFIR) and its constructs to describe the implementation experiences of 34 Magnet hospitals in the United States and Saudi Arabia participating in the Readiness Evaluation and Discharge Intervention (READI) Study. The READI study seeks to implement discharge readiness as a standard of nursing practice. The study has three phases: Phase 1 nurses perspective of discharge readiness, Phase 2 patient perspective of readiness added to nurse perspective, and Phase 3 addition of a discharge action guide. The study is implemented over 12-months. Formative evaluation was used to gather information on the facilitators and challenges of the implementation process from the site Principle Investigators (PIs).

Methods: Each participating hospitals designated a site PI who was responsible for implementation of the READI study in their hospital including obtaining institutional review board (IRB) approval. The site PIs were invited to participate in an interview in the last phase of the READI study (Phase 1 + Phase 2+ Phase 3 [discharge action guide]). The interview guide was developed by the READI researchers using a Delphi process identifying CFIR constructs significant to the study process from among the 38 constructs in the framework. The constructs were used to develop an interview guide around eight themes. After IRB approval, each site PI was invited to participate in the interview using Go-to-Meeting. The national study team conducted each interview, one team member asked questions and one team member recorded notes. Interviews were recorded to clarify any missing information. NVivo 10 was used for analysis.

Results: CFIR constructs identified as important to the implementation process included the site PI role and recognition within the organization, the skills/attributes important to being the site PI, logistics planning with the unit staff, changes to hospital leadership particularly the Chief Nurse, engaging leaders, and identifying unit champions. When queried about adding the patient's perspective of discharge readiness (Phase 2), to the nurse's perspective (Phase 1), several site PIs identified positive changes in Hospital Consumer Assessment of Healthcare Providers and Systems (HCHAPS) scores, a patient satisfaction survey required by the Centers for Medicare and Medicaid Services (CMS) for all hospitals in the United States. Overall patients welcomed the dialogue with the nurse as part of their discharge care. Improvement in HCHAPS scores was an unexpected study finding.

Conclusion: The CFIR proved to an optimal framework for developing an interview guide for formative research. Although the main quantitative READI study outcome was to reduce unplanned readmissions, the formative evaluation process of interviewing site PIs identified additional outcomes that provide measures of study success important to hospitals: bringing research to bedside nurses, having practicing registered nurses see the value of participating in clinical research, and recognizing the importance of the patient s perspective of discharge readiness. The information gathered from key stakeholders (site PIs) provided additional evaluation information of study success and challenges from the organizations perspective

References

Fisher, E.S., Shortell, S. M. & Savitz, L.A., Implementation science: A potential catalyst for delivery system reform. *JAMA*, 315 (4):339-340.

Kirk, M.A., Kelly, C., Yankey, N., Birken, S., Abadie, B., & Damschroder, L. (2016) A systematic review of the use of the Consolidated Framework for Implementation Research. *Implementation Science*, 11:72 DOI 10.1186/s13012-016-0437-z

Weiss, M, Bobay, K,; Bahr, S, Costa, L, Hughes, R, Holland, D. (2015). Conceptual Model for Hospital Discharge Preparation. *JONA*. 45(12): 606-614

Contact

costa@son.umaryland.edu

A 16 - Strategies in Disaster Preparedness

Crisis Leadership and Decision-Making: Hospital Administration and Nurse Leaders' Concerns for Disaster Response

Tener Goodwin Veenema, PhD, MSN, MPH, RN, CPNP, FAAN, USA

Katherine DeRuggiero, DNP, RN, USA

Sarah Lynn Losinski, MPH, RN, USA

Daniel Barnett, MD, MPH, USA

Abstract

Purpose: The purpose of this study was to characterize and explore the essential elements of effective hospital and nursing leadership during disasters and MCIs and to identify those events of greatest concern for response. Disaster and mass casualty incidents (MCIs) impose a huge burden on health care leaders. These events create a sudden, unanticipated demand for care referred to as 'patient surge' that has the potential to quickly overwhelm a hospital's capacity to function properly. The demand for health care services exceeds capacity to respond and the institution's normally acceptable patterns of operations and logistics are disrupted. Strong crisis leadership is critical for timely, effective and coordinated response. This requires that hospital administration and nursing leadership are competent in making rapid and complex decisions – often in the absence of complete information and involving the allocation of scarce resources (staff, medical equipment and supplies, pharmaceuticals, etc). It requires implementation of crisis standards of care.

Methods: A series of structured focus groups was conducted with a purposive sample of hospital administrators (n=36) and nurse leaders (n=17) in a large urban hospital in the U.S. Northeast widely recognized for its expertise in hospital emergency preparedness. Participants were asked a series of semi-structured questions related to observations of crisis leadership during recent disaster and MCI events. Data were collated and analyzed to determine events of greatest concern, impact of event on leadership decision-making, and perceived capacity for organizational surge.

Results: The results suggest hospital administration and nurse leaders harbor serious concerns regarding crisis leadership competence and organizational capacity to surge up in response to large scale community violence/civil unrest, biological event/pandemics, and acts of terrorism (fire/bombings/active shooters) that result in a mass tragedy. The results of hospital administration and nursing leadership decisions have the potential to directly impact staff and patient safety and quality of care and ultimately, patient outcomes. As such, there is compelling need to prepare hospital administrators and nurse leaders for crisis conditions resulting from disasters and MCIs.

Conclusion: Disaster and mass casualty incidents (MCIs) impose a huge burden on health care leaders and strong crisis leadership is critical for timely, effective and coordinated response. The purpose of this study was to characterize and explore the essential elements of effective hospital and nursing leadership during disasters and MCIs and to identify those events of greatest concern for response. The results suggest hospital administration and nurse leaders harbor serious concerns regarding crisis leadership competence and organizational capacity to surge up in response to large scale community violence/civil unrest, biological event/pandemics, and acts of terrorism (fire/bombings/active shooters) that result in a mass tragedy.

References

1. Veenema, T. G., Griffin, A., Gable, A. R., MacIntyre, L., Simons, R. A. D. M., Couig, M. P., ... & Larson, E. (2016). Nurses as Leaders in Disaster Preparedness and Response—A Call to Action. *Journal of Nursing Scholarship*, 48(2), 187-200.
2. Veenema, T. G., Walden, B., Feinstein, N., & Williams, J. P. (2008). Factors affecting hospital-based nurses' willingness to respond to a radiation emergency. *Disaster medicine and public health preparedness*, 2(04), 224-229.
3. Kolker, R. A hospital flatlines: inside the NYU Langone Medical Center evacuation. *New York Magazine*. November 3, 2012. <http://nymag.com/daily/intel/2012/11/hospital-flatlines-inside-the-nyu-evacuation.html>. Accessed November 14, 2102.

4. Powell, T., Hanfling, D., & Gostin, L. O. (2012). Emergency preparedness and public health: the lessons of Hurricane Sandy. *JAMA*, *308*(24), 2569-2570.
5. Institute of Medicine. *Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response*. Washington, D.C: National Academies Press; 2012.
6. Veenema, T. G., Losinski, S. L. A., & Hilmi, L. M. (2016). Increasing Emergency Preparedness. *AJN The American Journal of Nursing*, *116*(1), 49-53..
7. VEENEMA, T. G., LOSINSKI, S. L. A., & NEWTON, S. M. (2016). Exploration and development of standardized nursing leadership competencies during disasters.
8. Yin, H., He, H., Arbon, P., Zhu, J., Tan, J., & Zhang, L. (2012). Optimal qualifications, staffing and scope of practice for first responder nurses in disaster. *Journal of clinical nursing*, *21*(1-2), 264-271.
9. Danna, D., Bernard, M., Schaubhut, R., & Mathews, P. (2010). Experiences of nurse leaders surviving Hurricane Katrina, New Orleans, Louisiana, USA. *Nursing & health sciences*, *12*(1), 9-13.
10. Mitchell, C. J., Kernohan, W. G., & Higginson, R. (2012). Are emergency care nurses prepared for chemical, biological, radiological, nuclear or explosive incidents?. *International emergency nursing*, *20*(3), 151-161.
11. Baack, S., & Alfred, D. (2013). Nurses' preparedness and perceived competence in managing disasters. *Journal of Nursing Scholarship*, *45*(3), 281-287.

Contact

tveenem1@jhu.edu

A 16 - Strategies in Disaster Preparedness

American Red Cross Simulation and Student Nurse Disaster Preparedness

Patricia Frohock Hanes, PhD, MAEd, MS-DPEM, RN, CNE, CLSSGB, USA
Anna Marie Hefner, PhD, MSN, BSN, RN, MaEd, CPNP, USA

Abstract

Background: Disasters, natural and man-made, are increasing world-wide. Student nurses are an under-utilized resource in disaster response. As pre-professionals with some training, they have the ability to increase response capacity during disasters. Nursing organizations in the United States such as the American Association of Colleges of Nursing (AACN) and the National League for Nursing (NLN) advocate some form of disaster nursing education across all levels of nursing (AACN, 2006, 2008, 20011; NLN, 2013). The International Council of Nurses (ICN) developed a list of core competencies for disasters in 2009; the National Student Nurses' Association in the United States (2012) promoted the training and use of student nurses during disasters. Nurses lack confidence and adequate education to participate in disaster activities (Hanes, 2016; Locke & Fung, 2014). In 2012 the American Red Cross introduced a four-hour hybrid disaster nursing course.

Purpose: This presentation will describe the conduction of a web-enhanced, low-fidelity disaster simulation and the results of an evaluative survey administered after a disaster simulation and hybrid (online and face-to-face) disaster nursing course with student nurses.

Conceptual Frameworks: Theories of learning styles, social cognitive learning, self-efficacy, volunteerism and human behavior theories.

Methods: The American Red Cross developed a disaster course to enable student nurses to increase awareness of their roles in disaster preparedness and how to actually participate in a disaster. The course consisted of a web-enhanced low-fidelity simulation with interactive injects where students responded to disaster scenarios. Students, placed in groups, discussed responses to web prompts, videos, and facilitator questions. Prior to the first administration of the course in 2014, the course had only been held once in the Los Angeles region. This four-hour, non-credit course was held on a Saturday morning; 100 nursing students participated. Unfortunately, due to space limitations, some students desiring to attend were unable to participate. Subsequent courses held in smaller venues were well attended; to date, approximately 200 students (and some faculty) have completed the course. Three hypotheses were explored: Hypothesis 1: Simulation will provide a supportive learning process in disaster preparedness. Hypothesis 2: Disaster simulation will increase self-efficacy in students in disaster situations. Hypothesis 3: Low-fidelity disaster simulations are an effective way to teach disaster preparedness.

Evaluative survey data was collected in four areas: demographics, simulation design, educational practices, and student satisfaction and self-efficacy.

Results: Demographics: Participants in this descriptive study consisted of 84.2% females and 8.9% males. Hypothesis 1: 88% of the participants agreed that the simulation design for disaster preparedness provided an opportunity for them to think critically about the scenarios and globally about their roles in disasters; 93% felt the simulation design supported the gaining of knowledge in disaster preparedness. Hypothesis 2: 87% of participants became more confident in their ability to provide care. They found the simulation challenged their comfort level allowing for learning from mistakes and holistically viewing the individual and the community. Hypothesis 3: The simulation provided a hands-on opportunity to see the classroom learning/skills gained applied in multiple realistic settings. Eighty-four percent found the variety in scenarios and delivery in the simulation increased both their knowledge and interest in, as well as response to, disasters. In the debriefing session conducted at the conclusion of the exercise, students reported a desire to learn more about disaster nursing and to volunteer for disaster organizations.

Conclusions: Student nurses are a valid asset in disaster preparedness and response and increase the region's capacity to respond in times of crisis. National and international nursing organizations have mandated that nursing students have preparation in disaster preparedness and response. Students are enthusiastic about having the opportunity to respond to disasters and are willing to work beyond their regular duties to participate in disaster-related learning activities. Future research must explore ways to effectively incorporate broad disaster nursing education into existing curricula while providing practical experiences via participation in simulations and/or actual disasters. More faculty need training to be prepared to teach this essential content. Further opportunities for nursing disaster education and research are needed in this evolving field.

References

- American Association of Colleges of Nursing. (2006). *Essentials of Doctoral Education for Advanced Nursing Practice*. Retrieved from: <http://www.aacn.nche.edu/education-resources/essential-series>
- American Association of Colleges of Nursing. (2008). *Essentials of Baccalaureate Education for Professional Nursing Practice*. Retrieved from: <http://www.aacn.nche.edu/education-resources/essential-series>
- American Association of Colleges of Nursing. (2011). *Essentials of Master's Education in Nursing*. Retrieved from: <http://www.aacn.nche.edu/education-resources/essential-series>
- American Red Cross. (2012). *Nursing Students: New nation-wide student nurse disaster response course*. Retrieved from: <http://www.redcross.org/support/volunteer/nurses/students>
- Hanes, P. F. (2016). Wildfire disasters and nursing. *Nursing Clinics of North America*. (51), 4; 2016. doi.org/10.1016/j.cnur.2016.07.006.
- International Council of Nurses. (2009). *ICN framework of disaster nursing competencies*. Retrieved from: http://www.icn.ch/images/stories/documents/networks/DisasterPreparednessNetwork/Disaster_Nursing_Competencies_lite.pdf.
- Locke, A. Y. and Fung, O.W.M. (2014). Nurses' competencies in disaster nursing: Implications for curriculum development and public health. *International Journal for Environmental Research and Public Health*, 11, 3289-3303. doi:10.3390/ijerph110303289
- National League for Nursing. (2013). Emergency! Educating nurses and nursing students to handle disasters. *NLN Report*, 19, 1-4.
- National Student Nurses' Association, Inc. (NSNA). (2012). *Guidelines for planning disaster preparedness, recovery, and relief projects*. Retrieved from: http://www.nсна.org/Portals/0/Skins/NSNA/pdf/Disaster%20Preparedness%20Guidelines%202011_12.pdf

Contact

phanes@apu.edu

B 05 - Factors Affecting Oncology Patients

Skin Toxicity Assessment in Breast Cancer Patients: A Study on Interobserver Variability and Self-Reported Measures

Kristiina Hyrkas, PhD, LicNSc, MNsc, RN, USA

Susan Getz, BSN, RN, OCN, USA

James R. Kavanagh, MSN, RN, ARNP-BC, OCN, USA

Nellie P. Bergeron, BSN, RN, OCN, USA

Julie A. Wildes, RN, OCN, USA

Ian J. Bristol, MD, ABR, USA

Abstract

Purpose: Radiation skin reactions are a common acute side effect in breast cancer patients undergoing curative radiotherapy (RT). The manifestation of acute skin toxicity ranges in many patients from erythema to dry desquamation, moist desquamation, and in rare cases, ulceration and necrosis. It has been estimated, that radiation induced skin reactions, also known as radiodermatitis, affects most of cancer patients (74% to 100%) receiving radiation therapy (Schurn et al. 2011). Risk factors for acute radiation skin reactions (ARSR) including treatment-related factors such as the radiation dose, volume, RT technique and previous treatment, type of surgery and previous chemotherapy, and patient-related factors such as body mass index (BMI), smoking status and previous skin damage have been reported in the literature with conflicting results (Sharp et al. 2013,b).

Although the majority of skin reactions heal within several weeks from completion of therapy, skin reactions may cause distressing symptoms to patients, and occasionally may be dose limiting or cause a therapy break (Banning, 2011). An extensive range of topical agents and dressings have been studied for prevention and management of radiodermatitis (Feight et al., 2011). For example, corticosteroid products have been tested in a few clinical trials, but so far, no clear benefits regarding the effect on ARSR have been demonstrated (Feight et al., 2011; Miller et al., 2011). The effects of Aloe Vera products have also been investigated in randomized controlled trials (RCTs) but failed to show significant benefits in preventing or minimizing ARSR (Hoopfer et al. 2015). Other types of products containing such agents as sucralfate, urea and hyaluronic acid have shown no or limited positive effects in preventing or reducing ARSR (Pinnix et al., 2012).

The effects of skin care products containing *Calendula officinalis* (marigold plant) on ARSR in patients with breast cancer have been investigated by Pommier and colleagues (2004) and also Sharp and colleagues (2013,a). In Pommier's study, patients in the experimental group, treated with *Calendula* cream had a statistically significant lower incidence of severe ARSR, pain and treatment interruptions in comparison with the patients in the control group, treated with trolamine. However, Sharp and colleagues (2013) did not find any differences in ARSR between patients randomized to two groups using either *Calendula* or *Essex* cream (i.e. an aqueous, moisturizing cream). These results called for further investigations. Therefore, we designed and conducted a randomized, open-label study to test whether skin care using topical *Calendula officinalis* was superior to aqueous cream (Aquaphor)/Aloe Vera in reducing the risk of severe ARSR in patients with breast cancer treated with adjuvant RT. We had also learned from the literature (Schurn et al. 2011) that only a few studies had been conducted on acute toxic effects experienced and assessed by patients undergoing curative RT and that there was a need for close investigation on the skin assessment scale in use.

The purpose of this study was to describe the skin toxicity assessments in breast cancer patients treated with radiotherapy, and the level of agreement and variability between observers'/ investigators' scorings. The objective was to evaluate up- or downgrading in the prospectively collected data on acute toxic effects, photos and patient-reported outcomes in our randomized, open-label study comparing *Calendula* versus Aquaphor/Aloe Vera.

Methods: In our study, skin assessments were conducted weekly (weeks 0 – 7) using the Radiation Therapy Oncology Group (RTOG) Acute Radiation Morbidity Scoring Criteria and documented in the data

collection tool by four RT nurses of our research team. An educational session was organized for these nurses, prior to the study, regarding the data collection and the RTOG Acute Radiation Morbidity Criteria, and including photos of skin reactions. All nurses of the research team completed a written quiz and scored correctly at least 85% or higher of the skin assessments. A refresher education was organized annually.

The RTOG scale grades ARSR from 0 to 4 (0= No change over baseline; 1= Follicular, faint, or dull erythema; epilation, dry desquamation, or decrease in sweating, 2= Tender, bright erythema; patchy, moist desquamation or moderate edema, 3= Confluent, moist desquamation other than skin folds; pitting edema, 4= Ulceration, hemorrhage, necrosis). In this study, we used the RTOG scores and digital photos that were taken of the treatment area on weeks 0, 2, 4, 6. The digital photos were reviewed and scored, using the RTOG, by a radiation therapy RN, physician/Radiation Oncologist and a research nurse. Self-reported skin care, reactions and symptoms from the irradiated area (i.e. skin reactions, sensation, skin color and pain) were documented in a home journal weekly by patients. The data from the patients' perspectives in this study were comprised of the documented skin reactions (i.e. reactions= yes or no; sensation/itchy skin=no, slight/mild, very; color=no, pink, red, very red, brown; pain=no, mild, moderate, severe) during weeks 2, 4 and 6.

Descriptive statistical methods were used. Interobserver variability was calculated using Cohen's and Fleiss' Kappa methods and correlations were determined with Spearman's correlation test. P-values of <.05 were considered statistically significant. The analyses were performed using the Statistical Analysis System (SAS) Version 9.1 and Statistical Package for Social Sciences (SPSS) Version 17.0.

Results: Patients (n=148) were enrolled between 4/10/13 – 3/8/16 and randomly assigned to the usual care (Aloe Vera/Aquaphor, n= 71, 48%) or intervention (Calendula, n= 77, 52.0%) groups. The women were primarily Caucasian (99.3%) with fair skin type (79.7%). Average age was 60.7 years (SD 9.25) with a BMI of 30.9 kg/m². They used the skin care products an average of 30 days and spent 33 days in the study. More than one in five subjects (22.1%) received silver sulfadiazine ointment for skin irritation over the course of radiation therapy and 4.2% experienced a break in radiation treatment. The majority of subjects (99%) reported daily skin cleaning per instructions, but adherence was reduced towards the end of the treatment. Self-reported skin reactions increased from 14% at week 1 to 80% by weeks 5 and 6. Most women (88% - 98%) reported no/or mild pain throughout the treatment.

No RTOG changes (99.3%) were documented during the appointment at week 0. However, the scores indicating follicular faint erythema increased during week 2 (29.1%) and week 4 (62.8%). At week 6, the documented scores indicated that all study subjects had skin reactions (follicular faint erythema= 42%, tender or bright erythema = 50%, confluent, moist desquamation=8%). The calculated interobserver variability decreased from moderate to fair agreement (Week 0: Fleiss' Kappa=0.328, p<.000; Week 2: Fleiss' Kappa=0.464, p<.000; Week 4: Fleiss' Kappa=0.292, p<.000; Week 6: Fleiss' Kappa=0.266, p<.001). Upgrading or downgrading the RTOG scores was more common during weeks 4 and 6. Over half of the study subjects (64%) reported no skin reactions during week 2, however over half had documented reactions during week 4 (77.4%) and week 6 (72.4%). Skin sensation changes were rare during week 2 (slight/mild=22.5%), but these increased during week 4 (slight/mild=63.2%) and week 6 (slight/mild=51.7; very=3.4%). Over half of the study subjects reported skin color changes during week 2 (no change=39.4%, pink=49.2%, red=10.6%, brown=0.8%), and these changes increased during week 4 (no change=5.1%, pink=55.6%, red=34.2%, very red =4.3%, brown=0.9%), and week 6 (no change=9.7%, pink=38.7%, red=35.5%, very red =12.9%, brown=3.2%). The documented RTOG scores correlated positively and significantly, but weakly with the self-reported skin reactions during weeks 2 and 4 (week 2: r=0.273, p<.01, week 4: r=0.251, p<.05), self-reported skin reactions during week 4 (r=0.197, p<.05) and self-reported skin color changes during week 2 (r=0.232, p<.05).

Conclusion: The results of this study demonstrate that the rating criteria of the RTOG scale are likely to be interpreted subjectively, especially during longitudinal observations when there are more acute radiation skin reactions. The education that was organized to the nurses of our research team may have decreased the variability between the documented scores and the scorings of the digital pictures. However, the variability and the upgrading or downgrading of the RTOG scores increased during weeks 4

and 6. The self-reported skin reactions supported the documented RTOG scores, but strong associations were not demonstrated. We conclude that more research is needed to determine the best, objective measures to evaluate radiodermatitis, including the experiences from a patient perspective.

References

- Banning, M. (2011). Adherence to adjuvant therapy in post-menopausal breast cancer patients: a review. *European Journal of Cancer Care*, 21(1), 10-19. DOI: 10.1111/j.1365-2354.2011.01295.x
- Feight, D., Baney, T., Bruce, S. & McQuestion, M., (2011). Putting evidence into practice. *Clinical Journal of Oncology Nursing*, 15(5), 481-492. doi: 10.1188/11.CJON.481-492.
- Hoopfer, D., Holloway, C., Gabos, Z., Alidrisi, M., Chafe, S., Krause, B.,... Severin, D. (2015). Three-Arm Randomized Phase III Trial: Quality Aloe and Placebo Cream Versus Powder as Skin Treatment During Breast Cancer Radiation Therapy. *Clinical Breast Cancer*, 15 (3), 181-190. doi: 10.1016/j.clbc.2014.12.006. Epub 2014 Dec 24.
- Miller, R.C., Schwartz, D.J., Sloan, J.A., Griffin, P.C., Deming, R.L., Anders, J.C., ... Martenson, J.A. (2011). Mometasone furoate effect on acute skin toxicity in breast cancer patients receiving radiotherapy: a phase III double-blind, randomized trial from the North Central Cancer Treatment Group N06C4. *International Journal of Radiation Oncology Biology Physics*, 79(5), 146-1466. doi: 10.1016/j.ijrobp.2010.01.031
- Pinnix, C., Perkins, G.H., Strom, E.A., Tereffe, W., Woodward, W., Oh, J.L.,... Yu, T.K. (2012). Topical hyaluronic acid vs. standard of care for the prevention of radiation dermatitis after adjuvant radiotherapy for breast cancer: single-blind randomized phase III clinical trial. *International Journal of Radiation Oncology Biology Physics*, 83(4), 1089-1094. doi: 10.1016/j.ijrobp.2011.09.021.
- Pommier, P., Gomed, F., Sunyach, M., D'Hombres, A., Carrie, C., & Montbarbon, X. (2004). Phase III randomized trial of *Calendula Officinalis* compared with trolamine for the prevention of acute dermatitis during irradiation for breast cancer. *Journal of Clinical Oncology*, 22(8), 1147-1453. doi: 10.1200/JCO.2004.07.063
- Schurn, J.B., Love, B., Schecker, B.J., Green, S., Wernicke, A.G. & Montgomery, A.G. (2011). A systematic review of patient-rated measures of radiodermatitis in breast cancer radiotherapy. *American Journal of Clinical Oncology*, 34(5), 529-536. doi: 10.1097/COC.0b013e3181e84b36.
- Sharp, L., Finnilä, K., Johansson, H., Abrahamsson, M., Hatschek, T., & Bergenmar, M. (2013,a). No differences between Calendula cream and aqueous cream in the prevention of acute radiation skin reactions - Results from a randomised blinded trial. *European Journal of Oncology Nursing*, 17(4), 429-435. doi: 10.1016/j.ejon.2012.11.003.
- Sharp, L., Johansson, H., Hatschek, T. & Bergnmar, M. (2013,b). Smokin as an independent risk factor for severe skin reactions due to adjuvant radiotherapy for breast cancer. *The Breast*, 22 (5), 634-638. doi: 10.1016/j.breast.2013.07.047.

Contact

hyrkak@mmc.org

B 05 - Factors Affecting Oncology Patients

Symptom Clusters and Oxidative Stress in Patients With High-Grade Brain Cancers: A Longitudinal Study

Sanghee Kim, PhD, MCN, RN, Korea, Republic of (South)

Abstract

Background: Cancer treatments can increase the levels of oxidative stress because of the mechanisms of cancer drugs and radiotherapy. Patients with cancer experience many concurrent symptoms, commonly referred to as “symptom clusters,” during the treatment periods. However, the relationship between oxidative stress and the symptom clusters have not been identified in patients with high-grade brain cancer.

Purpose: The purpose of this study was to identify a relationship between the symptom clusters and the levels of oxidative stress in patients with high-grade brain cancers undergoing concurrent chemoradiotherapy (CCRT).

Methods: Patients with high-grade primary brain cancers were asked to report their symptoms using the Memorial Symptom Assessment Scale, and the level of oxidative stress was evaluated on the basis of lipid ratios such as the total cholesterol (TC) to high-density lipoprotein (HDL)-cholesterol (TC/HDL-c), low-density lipoprotein (LDL)-cholesterol to HDL-cholesterol (LDL-c/HDL-c), and triglycerides to HDL-cholesterol (TG/HDL-c). This prospective longitudinal survey was conducted before CCRT was initiated, and at 2–3 weeks and 4–6 weeks after the initiation of CCRT.

Results: A total of 48 patients with newly diagnosed primary malignant brain cancers were enrolled. Six symptom clusters were identified, and two symptom clusters were present at each time point (i.e., the “negative emotion and neurocognition” cluster was reported before CCRT, “negative emotion and decreased vitality” and “gastrointestinal and decreased sensation” clusters were noted at 2–3 weeks, and “body image and decreased vitality” and “gastrointestinal” clusters were identified at 4–6 weeks). The lipid ratio was an indicator of the level of risk for oxidative stress at 2–3 weeks and 4–6 weeks. The symptom clusters at 2–3 weeks and 4–6 weeks demonstrated a significant relationship with the lipid ratio.

Conclusion: Symptom clusters and levels of oxidative stress in patients with high-grade brain cancer were altered during CCRT. In addition, the levels of oxidative stress correlated with symptom clusters, and these correlations could change during the course of CCRT. Therefore, oxidative stress in patients with high-grade brain cancer should be considered for symptom management during CCRT.

References

1. Boele, F. W., Klein, M., Reijneveld, J. C., Verdonck-de Leeuw, I. M., & Heimans, J. J. (2014). Symptom management and quality of life in glioma patients. *CNS Oncology*, 3(1), 37 – 47.
2. Chi, J., Zhang, Q., Zhai, C. K., Zhang, H., Han, S. F., Liu, Y. Q., & Zhou, S. Y. (2012). Influences of compound whole grain on oxidative stress to hyperlipidemia population. *Zhonghua Yu Fang Yi Xue Za Zhi*, 46(2), 143 – 147.
3. Dicle, A., Simsek, A. B., & Vahaplar, A. (2014). Investigation of symptoms severity, symptoms clustering and status of interference in the life of patients with primary brain tumors. *International Journal of Basic and Clinical Studies*, 3(1), 40 – 54.
4. Gupta, R. K., Patel, A. K., Kumari, R., Chugh, S., Shrivastav, C., Mehra, S., & Sharma, A. N. (2012) Interactions between oxidative stress, lipid profile and antioxidants in breast cancer: a case control study. *Asian Pacific Journal of Cancer Prevention*, 13(12), 6295 – 6298.
5. Lai, J. S., Jensen, S. E., Beaumont, J. L., Abernethy, A. P., Jacobsen, P. B., Syrjala, K.,... & Cella, D. (2014). Development of a symptom index for patients with primary brain tumors. *Value Health*, 17(1), 62 – 69.

Contact

shkim07@gw.kmu.ac.kr

B 06 - Cultural Impact in Nursing Education

Evaluating an Online Global Community of Practice: Student Nurse Experiences of a Cross-Cultural Blogging Activity

Siobhan T. Wragg, MSc, MEd, RN, Australia
Nancy A. Edgecombe, PhD, MN, BN, OPN, RN-NP, Canada
Moira Stephens, PhD, MSc, BSc (Hons), CertEd, RN, Australia

Abstract

Purpose: Internationalization at Home, a concept developed in the Netherlands, enables students to have a global experience and engage with international students without leaving home (Teekens, 2015). The use of technology such as social media can provide a viable mechanism by which this can be achieved (Beleen & Jones, 2015; Chan & Nyback, 2015). Social media provides students with an opportunity to share ideas, develop digital communication skills and enrich their learning experience (Roland, Johnson & Swain, 2011; Schmitt, Sims-Giddens & Booth, 2012). The purpose of this project was to create an online community of practice using a blog to stimulate discussion between Canadian and Australian nursing students, focusing on culture and family.

Methods: Australian and Canadian nursing students participated in an international, cross-cultural blog activity that provided an opportunity to engage with each other through a shared blog experience. This learning and teaching activity was imbedded within a Bachelor of Nursing subject at each University. This activity was expected to expand their knowledge through interaction with students from another country, learn about other cultures and share ideas. Questions were posted by faculty to stimulate student discussion related to culture and family. The students posted their response to the questions and replied to each other's postings. Students who took part in the international blog were invited to evaluate the activity. The evaluation was in the form of an anonymous online questionnaire located within the respective schools eLearning platforms.

Results: Preliminary results indicate that students found this to be a worthwhile learning activity. They were interested in exploring each others personal and professional experience of culture and family through discussion with students from another country. Students reported that the blog was a useful medium for an international learning experience, which they also enjoyed.

Conclusion: Participating in the evaluation provided students with an opportunity to interact with nursing students from another country in a guided learning experience. Students then reflected on their blog experience and assisted instructors to identify the strengths and limitations of the learning activity, illuminate areas for improvement and determine if it would be worthwhile repeating in future. Communication through social media is fast becoming more relevant to nursing practice and the use of social media in nursing education will prepare students to effectively utilize social media and function in a global community of practice.

References

- Beelen, J & Jones, (2015). Europe Calling: A new Definition for internationalization at home. *International Higher Education*.83(SI), 12-13.
- Chan, E. A., Nymark, M. (2015). Avirtual caravan-Ametaphor for home-internationalization through social media: A qualitative content analysis. *Nurse Education Today*, 35(6), 828-632. doi: 10.1016/j.nedt.2015.01.024
- Roland, E. J., Johnson, C., & Swain, D. (2011). "Blogging" as an educational enhancement tool for improved student performance: A pilot study in undergraduate nursing education. *New Review of Information Network*, 16, 151-166. doi: 10.1080/13614576.2011.619923
- Schmitt, T., Sims-Giddens, A., & Booth, R. (2012). Social media use in nursing education. *Online Journal of Issues in Nursing*,17(3), 1-15.
- Teekens, H. (2015). The freedom to be: International education and crossing borders. *2015 Mestenhauser Lecture on International Higher Education. Minneapolis, MN:*

Contact

swragg@uow.edu.au

B 06 - Cultural Impact in Nursing Education

Long-Term Impact of Study Abroad in Undergraduate Nursing Education on RN Nursing Practice

Arlene E. Kent-Wilkinson, PhD, RN, CPMHN(C), Canada

Marie Dietrich Leurer, PhD, RN, Canada

Janet Luimes, MScN, RN-NP, Canada

Linda M. Ferguson, PhD, RN, Canada

B. Lee Murray, PhD, RN, Canada

Vicki Squires, PhD, MEd, BEd, Canada

Carmen M. Dell, BScN, BA, RN, Canada

Abstract

Purpose: Study abroad experiences often have a significant impact on the lives of university students. This impact is not always understood in terms of learning outcomes, lived experience perspectives, or the impact it has on future professional practice. The purpose of the study is to explore the long-term impact of the study abroad experience on subsequent nursing practice, from the perspective of alumnae registered nurses (RNs) in Canada, who in the last eight years had a study abroad clinical placement as part of their undergraduate nursing program. **Recent societal and educational trends.** Changing immigration patterns globally have resulted in more than 20 percent of Canadian residents being foreign-born. Recently, various levels of government have called for education that promotes international experiences in order to prepare graduates with the international knowledge and skills to work and live in an increasingly diverse and interdependent world. With Canadian healthcare systems experiencing increasing culturally diverse client populations, cultural competence is widely recognized as an essential component of undergraduate nursing education. Research that evaluates study abroad as a strategy to promote long-term cultural competence among nursing students is timely given recent government directives and population trends. Nursing educators worldwide are gradually recognizing the importance of exposing students to a range of learning experiences that will broaden their global perspective and enhance their cultural competency. These experiences generally occur with international exchanges, study abroad programs, university partnerships, and globally focused curriculum changes. **Background.** The College of Nursing, University of Saskatchewan has facilitated study abroad clinical placements since 1998 to at least 10 different countries. Currently, the College offers clinical placements as part of their undergraduate nursing program to: Australia, Finland, the Philippines, and Tanzania, however only Finland and Australia are reciprocal. Typically the clinical and cultural placements have been between five to twelve weeks. Since 1998, the College has facilitated outgoing placements to over 300 nursing students and hosted clinical placements to over 50 incoming nursing students. In 2013, faculty from the University of Saskatchewan formed as an International Research Group (IRG) to conduct research around the study abroad student experience. The first study, launched in 2013, was a five-year longitudinal *Study Abroad Survey of Factors Influencing Student Decisions to Study Abroad*. This research is IRG's second project, *Long-Term Self-Reported Impact of Study Abroad on Nursing Practice in Canada*, funded in 2016 by the Western and North-Western Region Canadian Association of Schools of Nursing (WNRCSN). **Literature review.** Study abroad refers to a wide range of credit-granting programs, courses and learning experiences that take place internationally. The nursing study abroad literature consists of two main topics: (1) long term impact of study abroad, and (2) short-term impact of study abroad, including benefits and barriers of study abroad. Research on the long-term impact of SA on nursing practice have been primarily limited to a hand-full of studies that used the International Education Survey (IES) to survey nursing and non-nursing samples. There was however two nursing studies found on the long-term impact of study abroad that did not use the IES tool. In addition to the numerous articles and research studies in the literature exploring the short-term impact of study abroad, the literature also addresses the barriers to study abroad, both in terms of making the decision to study abroad and to the drawbacks of the experience itself, personally and professionally. Concepts of 'culture shock' 'adaptation' and the challenges of the study abroad experience, underscore that negative as well as positive experiences may impact RNs in the long term, as well as short term. **Theoretical framework: Theory to practice.** Undergraduate nursing programs that include clinical study abroad experiences within the baccalaureate degree allow students the opportunity to consolidate their theoretical knowledge and apply

it in a clinical setting, particularly related to cultural competence, foundational nursing skills, and global health care systems. Positive short-term impacts of study abroad reported by Canadian nursing students participating in study abroad experiences, include increased personal and professional growth, awareness of cultural diversity, and a 'defining moment' in their educational program. However, does that growth transfer to the long-term impact of study abroad experiences on nursing practice? Does the study abroad experience help nurses to provide culturally competent care that is measurably better when they graduate, or help to accelerate this learning process? **Instrument: International Education Survey (IES).** In the mid-1990s, CeCelia Zorn, PhD, RNC developed and tested the IES tool. The survey has since been used in both short-term and long-term analyses and with nursing and non-nursing students. When students have the opportunity to study abroad, the experience affects multiple dimensions. Relative to the long-term impact on nursing practice, research to date on the short-term impact of study abroad can be summarized in the IES framework of: personal development, professional development (including cultural competence), global perspective, and intellectual development. **Reason for the study:** Although study abroad clinical placements are offered in almost half of Canadian nursing programs, the long-term impact on nursing practice in Canada has yet to be explored, despite widespread recognition that internationalization of the nursing curriculum is essential to prepare the nurse professional for the rapidly changing challenges of the 21st century. While there has been a significant amount of research assessing the beneficial short-term impact of study abroad, there is little research exploring the narrative perceptions of how such experiences affect participants' nursing practice over the long-term. **Research question.** What is the long-term impact on nursing practice of study abroad experience during the undergraduate nursing program, from the perspective of RNs in Canada? **Ethical approval.** A certificate of approval was granted from the University of Saskatchewan Research Ethics Board.

Methods: Invitations were sent to 168 alumnae registered nurses (RNs) to participate in a study to explore the long-term impact of study abroad on nursing practice. A descriptive survey design included categorical, structured and open-ended questions constructed to elicit narrative responses. The survey respondents were additionally invited to participate in an interview to capture rich data to further explore the impact of study abroad. The International Education Survey (IES), adapted to net responses to the quantitative questions, was hosted on Campus Labs, an online survey platform. Interpretive description qualitative methodology analyzed the comments to the open-ended survey and the interview questions, while descriptive statistics reported findings from the categorical questions. **Limitations.** Study limitations were: small sample size therefore study findings cannot be generalized beyond this research; limitation to baccalaureate degree graduates only; and, the possibility of self-selection, with students having a more positive experience being more willing to complete and return the survey when requested. Unlike the limitations of previous studies using the IES tool: the student experience was not confined to a single destination country; a replication of this study in the near future in Australia will serve as a comparison group with which to further validate the reliability and validity of the survey tool; and in addition, while previous studies have been descriptive in nature, this study added the results of additional rich data from separate qualitative interviews.

Results: In May 2016, 168 RN alumnae of the SA program were contacted, 35(21.7%) completed the survey, and 13 alumnae RNs additionally agreed to an interview. The data analysis was completed by the end of the year; results of the study will be reported at the STTI conference in 2017.

Conclusion: The 'long-term' impact of study abroad experiences researched to date have been from nursing programs who offered a single clinical placement mainly in a developing countries, but rarely from nursing programs who offered study abroad placements to a variety of both developing (countries in Africa, Asia, South America) and developed countries (Australia, United States, and countries in Europe). The researchers believe this is the first study to look at the perceived long-term impact of study abroad on participants' nursing practice in Canada, and the first study to compare the impact on practice from placements in both developed and developing countries. While research from study abroad experiences in developing countries provide a significant cultural contrast for nursing students from a developed country like Canada, nursing practice experiences in countries of similar economic development and with a unique Indigenous population provide unique and insightful outcomes. Outcomes may help justify the costs to students and time invested by the program and by the University, as to whether the study abroad

program is beneficial to the nurse as a practitioner, and to the system as a whole. **Implications for future research.** Future international study abroad research is needed to determine: what areas of study abroad experience are most effective; differences in nursing practice from country to country; measurement of cultural competence as a result of study abroad experiences; and, faculty perspectives of the student study abroad experience. This study provides the basis for a future collaborative research project exploring comparisons with a reciprocal country partner in Australia. Plans are underway to replicate this “impact study” in Australia.

References

- Allam, E., & Riner, M. E. (2015). The global perspective of nursing students in relation to college peers. *Global Journal of Health Science*, 7(2), 236–243. <http://dx.doi.org/10.5539/gjhs.v7n2p235>
- Gower, S., Duggan, R., Dantas J. A. R., & Boldy, D. (2016). Motivations and expectations of undergraduate nursing students undertaking international clinical placements. *Journal of Nursing Education*, 55(9), 487–494. <http://dx.doi.org/10.3928/01484834-20160816-02>
- Kent-Wilkinson, A., Dietrich Leurer, M., Luimes, J., Ferguson, L., & Murray, L. (2015). Study abroad: Exploring factors influencing nursing students' decisions to apply for clinical placements in international settings. *Nurse Education Today*, 35(8), 941–947. <http://dx.doi.org/10.1016/j.nedt.2015.03.012>

Contact

arlene.kent@usask.ca

B 07 - Global Interprofessional Health Promotion

Step Into Wellness: A Nurse Practitioner-Directed Interprofessional Intervention for Underserved Populations

Patricia A. Rouen, PhD, FNP-BC, USA

Janet M. Baiardi, PhD, FNP-BC, USA

Abstract

Purpose: In the United States (U.S.), national data demonstrate high mortality rates and poor health outcomes from chronic diseases among persons without insurance or fragmented access to healthcare (Bittoni, Wexler, Spees, Clinton & Taylor, 2015). The era of accountable care emphasizes health promotion and new strategies to build capacity for equitable population-focused care in the primary care and community health setting (Edmonds, Campbell & Gilder, 2016). A key principle in patient engagement for health includes a sense of belonging and authentic participation that is associated with better outcomes and quality of life (Porter, Pabo, & Lee, 2013). A growing body of evidence documents that culturally relevant community-based nutrition education (Ball, McNaughton, Le, Abbott, Stephens, & Crawford, 2016; Ko, Rodriguez, Yoon, Ravindran & Copeland, 2016) and physical activity programs (Conn, Chan, Banks, Ruppap & Scharff, 2014) are effective strategies in low income populations. Emerging data also show that social media strategies, such as text messaging, support successful health outcomes (Head, Noar, Iannarino & Harrington, 2013). As health advocates, nurse practitioners (NPs) are providers grounded in health promotion, system thinking and community-based care that are well-positioned to implement culturally-relevant health promotion interventions to the underserved communities and patients they serve. **Purpose:** Guided by the social-ecological framework, the purpose of this project was to initiate nurse practitioner-led interventions to support accountable care and improve nutrition and physical activity health outcomes in a diverse underserved population receiving care in an urban free primary care clinic.

Methods: We used a multi-level approach to engage the populations receiving care at the clinic along with the administrative and clinical staff, and established partnerships with community-based organizations to support the planned health interventions. A quasi-experimental pretest-posttest study design was used. We enrolled three cohorts of diverse participants (ages 19-64 years) in a 13 week program: seven weeks of nutrition education/cooking classes that included a curriculum customized to the clinic population and six weeks of physical activity (gentle yoga, pedometer-guided walking programs). The groups met weekly for two hours. Ethnically diverse professionals: registered dietitians, a professional chef and yoga instructor supported the program. The nurse practitioners sent weekly text messages that were either spiritual or motivational in nature to reinforce the program content. System-level interventions included implementing participant identification cards and patient satisfaction surveys revisions. Clinical outcomes included nutrition knowledge, perceived stress, steps walked, blood pressure, and body mass index (BMI). System level outcomes addressed program evaluation and patient satisfaction. Data were analyzed with descriptive statistics and paired t-tests.

Results: The 42 participants were primarily female (81%; N=34) with eight men and included blacks (76%), Hispanics (14%) and whites (10%). Three patients were homeless. Participant were on average 50 years old and obese (mean BMI: 31.6 kg/m²). Nutrition knowledge improved from baseline (58.6+13.7 vs. 83.5+14.0; p<0.001) as did steps walked (4448.6 + 2719 vs. 7564.6 + 4151.1; p=0.03). Systolic and diastolic blood pressure values did decline as did BMI but did not achieve significance. Perceived stress levels were unchanged. Program satisfaction data was positive. Participants reported the yoga relieved muscle aches and pains, they felt cared for and were pleased and relieved to have identification cards. The community agencies and the clinic were able to secure ongoing partnership agreements.

Conclusion: Nurse Practitioners are well-positioned to organize and implement culturally-relevant and evidence-based patient and system level innovations in community settings that are customized to promote health outcomes among the uninsured and underserved.

References

Ball, K., McNaughton, S.A., Le, H., Abbott, G., Stephens, L. D., & Crawford, D. A. (2016). ShopSmart 4 Health: Results of a randomized controlled trial of a behavioral intervention promoting fruit and vegetable consumption among socioeconomically disadvantaged women. *American Journal of Clinical Nutrition* 104, 436-445.

Bittoni, M.A., Wexler, R., Spees, C. K., Clinton, S. K., & Taylor, C. A. (2015). Lack of private health insurance is associated with higher mortality from cancer and other chronic diseases, poor diet quality, and inflammatory biomarkers in the United States. *Preventive Medicine* 81, 420-426.

Conn, V. S., Chan, K., Banks, J., Ruppert, T. M., & Scharff, J. (2014). Cultural relevance of physical activity intervention research with underrepresented populations. *International Quarterly of Community Health Education* 34(4), 391-414.

Edmonds, J.K., Campbell, L. A., & Gilder, R. E. (2016). Public health nursing practice in the Affordable Care Act era: A national survey. *Public Health Nursing*. doi: 10.1111/phn.12286. [Epub ahead of print]

Head, K.J., Noar, S. M., Iannarino, N.T., & Grant-Harrington, N. (2013). Efficacy of text messaging-based interventions for health promotion: A meta-analysis. *Social Science & Medicine* 97, 41-48.

Ko, L.K., Rodriguez, E., Yoon, J., Ravindran, R. & Copeland, W. K. (2016). A brief community based nutrition education intervention combined with food baskets can increase fruit and vegetable consumption among low income Latinos. *Journal of Nutrition and Behavior* 48, 609-617.

Porter, M.E., Pabo, E.A., & Lee, T. H. (2013). Redesigning primary care: A strategic vision to improve value by organizing around patient needs. *Health Affairs* 32 (3), 516-525.

Contact

rouenpa@udmercy.edu

B 07 - Global Interprofessional Health Promotion

Global Interprofessional Study Abroad Impact on Nurse Practitioners' and Medical Students' Perceptions About Role Definition

Debra A. Kosko, DNP, RN, FNP-BC, USA

Deborah Chapa, PhD, RN, ACNP-BC, FNAP, FAANP, USA

Melvin S. Swanson, PhD, USA

Abstract

Purpose: Healthcare delivered by well-functioning teams results in improved clinical outcomes and lower costs. However, health professions students are typically educated in silos, seldom communicating across disciplines (Cox & Naylor, 2013). Once students graduate, the professional silos persist, resulting in fragmented care that increases cost and decreases quality. Therefore, educating health professions students about team-based care and how to work with other health professionals, known as Interprofessional Education (IPE), provides them the necessary skills to improve the healthcare delivery system and the lives of their patients upon graduation. The purpose of this project was to evaluate the impact of a 2 week interprofessional study abroad program on health professions student's readiness for interprofessional education (IPE).

Methods: This outcome-based summative program evaluation had a convenience sample of four family nurse practitioner (FNP) students and seven medical students. The education model was a two week immersion study abroad in Nicaragua where students provided patient care in FNP/medical student teams within a variety of clinical settings. The students attended debrief sessions throughout the experience that included discussions about IPE. All students and faculty stayed at the same hotel, shared meals and shared free time. Immediately before departing the US and immediately upon returning from the US, students received a web-based anonymous questionnaire via Qualtrics. An open-ended question was asked about the role of FNP's and physicians in healthcare. Several additional open-ended questions were added to the post-experience questionnaire. These questions inquired about the impact of the study abroad on future clinical practice and their impression about learning with students from another health profession.

Results: The phenomenological analysis compared medical student's responses to FNP student's responses. Both groups responded similarly when asked about learning with each other. Common themes included great experience, enhanced learning and well working teams. One NP student stated the experience highlighted a lack of knowledge as compared to medical students, while one medical student stated greater learning occurred because of working with FNP students who were experienced nurses. When asked about applying the study abroad experience to clinical practice, none of the FNP students identified learning with medical students as impactful while one medical student stated learning with FNP students provided needed preparation for future clinical practice. A dichotomy was found with responses about the role of each other's profession in healthcare delivery. There were no pre-travel responses from medical students while 4 of the 5 medical students provided post-travel responses. The theme of the responses was hierarchy. The medical students identified FNP students as physician extenders; that they are supervised by physicians and are below a physician. One FNP student responded pre-travel and one responded post-travel; both responses were also hierarchical such that the physician serves as a reference and was the health professional that guided patient care.

Conclusion: This study abroad provided students at our university a unique educational experience that enabled collaborative practice in a variety of clinical settings. Although the students worked in FNP/medical student teams and IPE core competency content was provided, an understanding of collaborative practice was not reflected in the qualitative data. Rather, the medical students and a FNP student used hierarchical terms to describe the relationship between the professions. An immersion experience abroad provides the opportunity for IPE, however, more research is needed in developing educational interventions that promote IPE and develop tools to measure IPE knowledge. This project will promote further development of interprofessional education models that can transform clinical practice. Study abroad models of IPE can also serve to promote interprofessional clinical practice globally.

References

Bentley, R., Engelhardt, J. A., & Watzak, B. (2014). Collaborating to implement interprofessional educational competencies through an international immersion experience. *Nurse Educator*, 39(2), 77-84. doi:10.1097/NNE.000000000000022

Brown, L. D. (2014). Towards defining interprofessional competencies for global health education: Drawing on educational frameworks and the experience of the UW-Madison global health institute. *Journal of Law, Medicine & Ethics*, 4232-37. doi:10.1111/jlme.12185

Cox, M. & Naylor, M. (2013). Transforming patient care: Aligning interprofessional education with clinical practice redesign, Macy Foundation Publication. Retrieved from: http://macyfoundation.org/docs/macy_pubs/JMF_TransformingPatientCare_Jan2013Conference_fin_Web.pdf

Frenk, J., Chen, L., Bhutta, Z.A., Cohen, J., Crisp, N., Evans, T. et al. (2010). Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. *The Lancet*, 376 (9756), 1923-1958.

Hanyok, L.A., Walton-Moss, B., Tanner, E., Stewart, R.W., & Becker, K. (2013). Effects of a graduate-level interprofessional education program on adult nurse practitioner student and internal medicine resident physician attitudes towards interprofessional care. *Journal of Interprofessional Care*, 27(6): 526–528.

Institute of Medicine. (2013). Interprofessional education for collaboration: Learning how to improve health from interprofessional models across the continuum of education to practice. Workshop summary. Washington, DC: The National Academies Press. Retrieved from: <http://www.iom.edu/Reports/2013/Interprofessional-Education-for-Collaboration.aspx>

Interprofessional Education Collaborative Practice Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C. Retrieved from: <http://www.aacn.nche.edu/education-resources/ipecreport.pdf>

Josiah Macy Jr. Foundation. (2013, January). Transforming patient care: Aligning interprofessional education with clinical practice redesign. Retrieved from: http://macyfoundation.org/docs/macy_pubs/TransformingPatientCare_ConferenceRec.pdf

Contact

koskod@ecu.edu

B 08 - Health Promotion

Herbal Supplements: Safety and Research Support

Rosanne H. Pruitt, PhD, APRN, FNP-BC, USA
Ashley Lemanski, USA
Adam Carroll, USA

Abstract

Purpose: Herb usage is extensive worldwide, however consumers are often not aware of whether or not the herb has undergone research evaluation to determine if it actually works as advertised. Jordan, Cunningham, and Marles (2010) state that the general public often views herbs as a safer alternative to pharmaceutically manufactured drugs because herbal ingredients are naturally occurring in the environment. Garner (2013) found herbal use as high as 30% among minorities, however usage is frequently not shared with healthcare providers. Nurses and other health care professionals typically receive very little formal education about herbs.

Many herbs can be traced to ancient times however some interact with prescription medication enhancing or inhibiting action which may be unintended and harmful. Current research findings demonstrate that costly supplements may be no better than a placebo (McRorie & Chey, 2016) or outcomes may be worse for intervention groups (Beck, Dent & Baldwin, 2016). The purpose of this project is to fill a gap and provide evidence to inform practice by evaluating the quality of the research supporting commonly used herbs and translate the information into an easily accessible format for health care providers.

Methods: This project is the culmination of a two-year study evaluating commonly used herbs to determine the quality of the research support. The research support for 55 commonly used herbs and essential oils were reviewed with over 150 research studies, many of which were meta-analyses. Quality of evidence was determined based on clinical trials and/or meta-analysis with a rating of 1, if the research was limited to survey or correlational data or inconsistent results, a rating of 2. A rating of 3 was utilized when research was very limited often consisting of animal studies. For example, the research supporting the use of gamma linolenic acid for use with rheumatoid arthritis is robust rating 1, but less conclusive in the treatment of type 2 diabetes rating 2. Any side effects or precautions are also addressed.

Results: To increase knowledge of commonly used herbs, we have developed a chart to be used by nurses and other health care providers that summarizes the data in a handy format which will be available to attendees. A component of this project was a pilot to determine the utility of the information for provider use and a reflection from the patient as to the helpfulness of the discussing addressing vitamin and herb usage. The chart was also reviewed by health care providers for utility and revised as recommended.

Conclusion: Our goal was to fill a knowledge gap and provide evidence to inform practice by evaluating the quality of the research supporting commonly used herbs and translate the information into an easily accessible format for nurses and health care providers. Our focus is implications for adults age 18-65 with the precaution of working with a health care provider related to surgery, pregnancy or any acute or chronic health condition. Usage recommendations are consistent with health authorities as well as specialty organizations focused on specific populations or health conditions. A robust presentation will help attendees identify which herbs will improve common health symptoms.

References

1. Alhazmi, A., Stojanovski, E., Garg, M., & McEvoy, M. (2014). Fasting whole blood fatty acid profile and risk of type 2 diabetes in adults: A nested case control study. *Plos ONE*, 9(5), 1-6. doi:10.1371/journal.pone.0097001
2. Beck, A., Dent, E. and Baldwin, C. (2016). Nutritional intervention as part of functional rehabilitation in older people with reduced functional ability: A systematic review and meta-analysis of randomized controlled studies. *Journal of Human Nutrition & Dietetics*. 29(6). 733-45. DPO: 10.1111/jhn.12382.

3. Gardiner, P., Whelan, J., White, L., Filippelli, A., Bharmal, N., Kaptchuk, T. (2013) A Systematic Review of the Prevalence of Herb Usage Among Racial/Ethnic Minorities in the US. *Journal of Immigrant & Minority Health*. 15 (4). 817-28. DOI: 10.1007/s10903-012-9661-z.
4. Jordan, S. A., Cunningham, D. G., & Marles, R. J. (2010). Assessment of herbal medicinal products: challenges, and opportunities to increase the knowledge base for safety assessment. *Toxicology and Applied Pharmacology*, 243(2), 198-216. doi:10.1016/j.taap.2009.12.005.
5. McRorie, J. & Chey, W; (2016). Fermented Fiber Supplements Are No Better Than Placebo for a Laxative Effect. *Digestive Diseases & Sciences*. 61(11).3140-6. DOI: 10.1007/s10620-016-4304-1.
6. Reed, G., Leung, K., Rossetti, R., VanBuskirk, S., Sharp, J., & Zurier, R. (2014). Treatment of Rheumatoid Arthritis with Marine and Botanical Oils: An 18-Month, Randomized, and Double-Blind Trial. *Evidence-Based Complementary & Alternative Medicine*, 20141-9.

Contact

prosan@clemson.edu

B 08 - Health Promotion

Planning an Efficacy Study of a Web-Based Yoga Intervention Based on Feasibility Findings

Jane M. Flanagan, PhD, RN, ANP-BC, AHN-BC, USA

Abstract

Purpose: It is well known that the end of active cancer treatment (surgery, +/- chemotherapy, +/- radiation) is a very stressful time during which survivors report many physical and psychological concerns. In one study conducted with breast cancer survivors at the end of active treatment, participants reported that they felt abandoned and that they were on their own to manage care; however, they also reported not wanting to return to the hospital for care from providers. These women did report that they would like to be able to access information via the Internet. (xxx, xxx, Habin & Cashavelly, 2012). Further research suggests women want strategies to be vetted and/or created by their healthcare team to support wellness and healing (xxx, Wegler, xxx, Habin & xxx, 2016).

Research supports that yoga may help to reduce physical and psychological symptoms in breast cancer survivors (Chandwanti et al., 2014; Culos-Reed, Mackenzie, Sohl, Jesse, Zahavich, & Danhauer, 2012; Galantino, Desai, Greene, DeMichele, Stricker, & Mao, 2011; Kiecolt-Glaser et al., 2014; Mustain, 2013). However, there are limitations to in person yoga classes especially if they are not sensitive to the needs of breast cancer survivors.

While a web streamed video may be a self-care strategy women are seeking, research is needed to determine if this is a feasible approach, how patients perceive this strategy and what outcomes yoga may impact. The purpose of the first step in this research project was to:

1. Develop a yoga video created by a multidisciplinary team of breast cancer care providers that was tailored to breast cancer survivors.
2. To describe patients with breast cancer experience of using a web-streamed yoga video including, feasibility and barriers/facilitators to its use.
3. To inform the next step of the efficacy trial including the choice of appropriate outcome measures.

Methods:

The study employed an open ended qualitative descriptive design using conventional content analysis.

Video development

The video was created by an interdisciplinary team of breast cancer caregivers and incorporated movements similar to stretches prescribed post-operatively.

Data collection: Patients with early stage estrogen receptor positive breast cancer within one year of initiating adjuvant endocrine therapy were recruited in routine follow-up visits by their oncology providers. Patients who were enrolled received the video by email, were asked to complete a demographic questionnaire, view the video twice a week for four weeks and complete open-ended telephone interviews at three time points to determine how the video was used and perceived.

Data analysis: Conventional content analysis was used to understand the feasibility and patient experience of using the video.

Results: Fourteen women who had ended active treatment and were on adjuvant therapy participated in this study. The participants reported they were easily able to access the video, but only one described using the video as instructed (2 times per week for 4 weeks). The participants were interested in making some healthy lifestyle changes but implementation of change was challenging. Several participants did not understand this to be a mindfulness practice and instead expected it to be an exercise video. Therefore, they found it "boring". Others described feeling the need for more education on self-care

strategies, but reported being overwhelmed by taking on self-care as they were also returning to usual life responsibilities.

Conclusion: The web streamed intervention was an acceptable way to provide this intervention. Our findings indicate more education about yoga as a mindfulness based self-care strategy is needed. Further, mindfulness strategies (as opposed to exercise) should be practiced daily so it is not reasonable to assume that twice weekly would yield desirable results.

Persons with breast cancer who were not on adjuvant therapy expressed an interest in being enrolled in this study, but basing this work on previous work we did not include all breast cancer survivors ending active treatment and going forward we should. When we initiated this study, we were not sure what outcomes – physical or psychological may be impacted by a yoga video. The findings from this study have informed the outcome measures we will use in that they will be sensitive to a mindfulness based strategy such as well-being and anxiety as opposed to physical function. This study findings are limited in that the sample was a well-educated, all Caucasian sample.

References

- Chandwani, K. D., Perkins, G., Nagendra, H. R., Raghuram, N. V., Spelman, A., Nagarathna, R., ... & Kirschbaum, C. (2014). Randomized, controlled trial of yoga in women with breast cancer undergoing radiotherapy. *Journal of Clinical Oncology*, 32(10), 1058-1065.
- Kiecolt-Glaser, J. K., Bennett, J. M., Andridge, R., Peng, J., Shapiro, C. L., Malarkey, W. B., ... & Glaser, R. (2014). Yoga's impact on inflammation, mood, and fatigue in breast cancer survivors: a randomized controlled trial. *Journal of Clinical Oncology*, JCO-2013.
- Mustian, K. M. (2013). Yoga as treatment for insomnia among cancer patients and survivors: a systematic review. *European medical journal. Oncology*, 1, 106.

Contact

flanagjg@bc.edu

B 09 - Improving Baccalaureate Nursing Program Care Models

The Transformation of Knowledge and Practice as Undergraduate Baccalaureate Nursing Students Actualize Caring

Donald N. Rose, PhD, MN, BScN, RN, Canada

Claire Mallette, PhD, MScN, BScN, RN, Canada

Karen Poole, MEd, MA (Nsg), RN, Canada

Abstract

Purpose: Caring has always been at the core of nursing education and practice. Yet there is little in the literature describing how undergraduate nursing students are taught or internalize caring. All 14 University Schools of Nursing (SON) in Ontario, Canada, state in different ways that they educate future nursing professionals to care for the person, the family and the community. But what does this really mean? What do we teach? How do we teach it? How effective are we? And how could we do better? The purpose of this multi-site, 18-month mixed-methods research was to examine how caring is defined, taught, integrated, measured and evaluated in nursing undergraduate curricula. The participants include senior BScN students, faculty members and recent BScN alumni (practicing for 2 to 3 years) from across the province.

Literature Review: Caring has been linked to nursing since the time of Florence Nightingale. Nightingale was committed to promoting health rather than illness and believed medical interventions were not as important as care (Grove, 1991). Since then, theories of caring in nursing have been developed and applied in research, education, and standards of care (Wojnar, 2009). The literature describes many theories, definitions, and perspectives of caring within nursing. Nursing theorists such as Watson (1979, 1988, 1999), Benner (1984), Benner and Wrubel (1989), Boykin (1994), Boykin & Schoenhofer (2001), and Roach (1984, 1989), all contributed to an understanding of what nursing care encompasses.

While the literature indicates there are many definitions and lenses to examine caring in nursing, common themes emerge describing the caring interaction as a process that encompasses knowledge, being present with another, and actions leading to outcomes. The researchers concluded that caring for this research study can best be captured through Swanson's (1991) mid-range theory based on the definition that caring is "a nurturing way of relating to a valued other toward whom one feels a personal sense of commitment and responsibility" (Swanson, 1991, p. 165). This process has also been described as being implemented with each nurse-client interaction that involves the nurses knowledge and understanding of the person's needs (knowing); the verbal and nonverbal interactions that occur during the therapeutic relationship (being); and through actions striving to achieve the best client outcomes (doing) (Wojnar, 2009).

Nursing education involves the teaching of knowledge and skills for professional practice and attitudes, beliefs and values that are central to becoming a professional nurse (Brown, 2011; Larson, Brady, Engelman, Prekins & Schultz, 2013). Nursing curricula are challenged in educating students to acquire the vast amount of knowledge needed to meet the demands of today's complex healthcare environment and professional licensing requirements. Teaching professional caring within nursing curricula is increasingly important since with the multiple demands there is always a risk that learning how to be a caring relational healthcare professional may become less of a priority (Spadoni, Doane, Sevean, & Poole, 2015).

Although caring for others is a basic human trait, caring nursing practices and competencies must be an essential component of nursing education (Wagner, 2008). Teaching caring science should occur both in theory and practice. The literature states that teaching strategies which foster caring in students include critical reflection, role playing, narrative inquiry, role modeling, dialogue, journaling, clinical simulations, case studies, and other critically reflective tools (Brown, 2011, Adamski, Parsons & Hooper, 2009, Watson, 1989). However, there is little literature describing how nursing students internalize caring (Brown, 2011).

Drawing on the literature review, the purpose of this research study is to examine how the knowledge of caring is taught to undergraduate nursing students in Ontario; how it is embedded into the curriculum and translated into actual teaching-learning processes (the process of knowing); how students embrace caring practices within themselves and clients (being); and the nursing interventions they implement demonstrating caring while meeting their client's needs (doing) to achieve positive outcomes as a student and graduate nurse.

Methods: Data were collected through a mixed method of focus groups with senior nursing students and practicing nursing alumni, and an online faculty survey. Focus groups explored student (n = 100) and practicing alumni perceptions (n = 24) of how caring is taught, effective and ineffective learning practices, and learning experiences that helped strengthen their caring abilities. Faculty members (n = 50) in each School of Nursing were sent an email inviting them to participate in an on-line anonymous survey that elicited feedback on a definition of caring for nursing education, strategies and activities faculty think are effective for teaching caring and in which year of study they are being taught. An online repository of leading practices and strategies is being developed and findings from the study are being presented to each of the 14 schools of nursing, as a foundation for transforming caring in Ontario nursing curricula.

Data Analysis: The 6 phases of thematic analysis based on Braun and Clarke (2006) were used to analyze the qualitative data. In Phase 1, familiarization of the data was done by reading through the entire data set to become immersed and intimately familiar with its content. Then, initial coding was conducted in Phase 2 to organize segments of data from the entire data set into meaningful codes. Phase 3 involved the examination of codes to identify significant broader patterns of meaning (potential themes) across the data. The initial 3 phases were conducted by the two co-principal investigators and three co-investigators who made up a steering committee. The reviews were conducted independently and then discussed by all members of the steering committee in order to reach consensus. In Phase 4, the themes were independently reviewed and revised by another member of the steering committee. This independent review and revision of themes involved re-examining the original data for relevant incidents of data for each potential theme; expanding, collapsing, or discarding of initial themes; generation of new themes; and re-discussion of themes with the full steering committee. The themes were presented as a model (Actualization of Caring) depicting the five themes and their interconnections. In Phase 5, the five themes were defined and named. Segments of text were then identified as exemplars for each theme. In the final phase, Phase 6, the literature review findings will be used to inform the themes for the final research report and manuscript. While these phases are meant to be sequential, each phase building on the previous phase, Braun and Clarke (2006) note that "analysis is typically a recursive process, with movement back and forth between different phases (p.86)."

Results: The findings indicate that students enter nursing programs with a personal identification of caring. Through their nursing program, they undergo a process of growth and development of professional caring with the goal of them graduating with a professional identity of caring that is sustained and fostered in practice. A professional identity of caring is achieved through caring pedagogy practices, clinical experiences, and relationships with peers, faculty and nurses. As students go through this process they demonstrated ongoing self-awareness of professional caring that is influenced by facilitators and barriers within educational and clinical environments. The results for each of these themes will be presented in greater depth during the presentation.

Conclusion: This study will inform which content, strategies, and practices in undergraduate nursing curricula are most effective in terms of fostering and maintaining caring in students and graduates. The findings will also facilitate future incorporation of more of these practices and content in Ontario university nursing programs with the development of the online repository. The researchers believe this online repository will be the first of its kind that not only schools within Ontario, but also SON's nationally and internationally will be able to access.

References

- Adamski, M., Parsons, V., & Hooper, C. (2009). Internalizing the concept of caring: An examination of student perceptions when nurses share their stories. *Nursing Education Perspectives*, 358-361.
- Benner, P. E. (1984). *From novice to expert*. Menlo Park, CA: Addison-Wesley.

- Benner, P. E., & Wrubel, J. (1989). *The primacy of caring: Stress and coping in health in illness*. Menlo Park, CA: Addison-Wesley.
- Braun V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brown, L. (2011). Revisiting our roots: Caring in nursing curriculum design. *Nurse Education in Practice*, 11(6), 360–364.
- Boykin, A. (1994). *Living a caring-based curriculum*. New York: National League for Nursing.
- Boykin, A., & Schoenhofer, S. (2001). *Nursing as caring: A model for transforming practice*. Sudbury, MA: Jones & Bartlett.
- Grove, S. J. (1991). *Who cares? The crisis in Canadian nursing*. Toronto, Ontario: McClelland & Stewart.
- Larson, J., Brady, M., Engelmann, L., Perkins, B.I., & Shultz, C. (2013). The formation of professional identity in nursing. *Nursing Education Perspectives*, 34(2), 138.
- Roach, S. (1992). *The human act of caring: A blueprint for the health professions*. Ottawa, Canada: Canadian Hospital Association Press.
- Roach, S. (1984). *The human mode of being: Implications for nursing-perspectives in caring (Monograph 1)*. Faculty of Nursing, University of Toronto: Toronto.
- Spadoni, M., Doane, G.H., Sevean, P., & Poole, K. (2015). First-year nursing students—Developing relational caring practice through inquiry. *Journal of Nursing Education*, 54(5), 270–275.
- Swanson, K. M. (1991). Empirical development of a mid-range theory of caring. *Nursing Research*, 40(3), 161-166.
- Wagner, L. (2008). Caring scholar response to: Uncovering meaning through the aesthetic turn: A pedagogy of caring. *International Journal for Human Caring*, 12(2), 24–29.
- Watson, J. (1979). *Nursing: The philosophy and science of caring*. Boston: Little, Brown and Company.
- Watson, J. (1988). New dimensions of human caring theory. *Nursing Science Quarterly*, 1, 175-181.
- Watson, J. (1999). *Nursing: Human science and human care: A theory of nursing*. Boston: Jones and Bartlett.
- Wojnar, D. M. (2009). *Caring in middle range theories: Application to nursing research (2nd Edition)*.(pp. 189-201). Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkens.

Contact

cmallett@yorku.ca

B 09 - Improving Baccalaureate Nursing Program Care Models Teaching Quality Improvement to Baccalaureate Nursing Students: Strategies That Work!

Laurie Bladen, PhD, MBA/HCM, RN, USA

Abstract

Purpose: The purpose of this presentation is to describe strategies that work in teaching quality improvement to baccalaureate nursing students. According to American Association of Colleges of Nursing (AACN) (2015) expected outcomes for graduates of baccalaureate nursing programs include scholarship for evidence-based practice, leadership, and the ability to promote health. Baccalaureate nurses are expected to use data and methods to continuously improve quality and safety of patient care (Dolansky & Moore, 2013; Phillips & Cullen, 2014; Quality Safety and Education for Nurses (QSEN), 2014). The mission of the Quality and Safety Education for Nursing is to address the challenge of assuring that nurses have the knowledge, skills and attitudes (KSA) necessary to improve the quality and safety of their patients in the world. According to the World Health Organization (WHO) (2011) as cited in White, Clark Lewis and Robson (2016) change management principles should be used to incorporate quality improvement practices in nursing education. A challenge for nurse educators is to identify instructional methods to promote success of these outcomes and to prepare graduates with the necessary quality improvement skills (Dotson & Lewis, 2013).

Clarion University of Pennsylvania in the United States offers students an opportunity to earn a baccalaureate degree in the RN to BSN online program that traditional is a 15 week or semester course. A pilot program for the RN to BSN program is offered to teach the same content in a 7-5 week term. Student learning outcomes and the delivery method for these courses are identical. The purpose of this quantitative study was to examine the knowledge, skills, and attitudes (KSAP) gap of students enrolled in a leadership course. This study was approved by Clarion University of Pennsylvania IRB#34-15-16.

A course revision in the RN to BSN program created an opportunity to provide students with an opportunity to learn the quality improvement process developing nursing vigilance. Nursing vigilance combines nursing knowledge, evidenced-based practice, and critical thinking that enable BSN graduates to engage in safety and quality care. Quality improvement teaching strategies should be part of a global nursing curriculum to help students recognize how to develop solutions to nursing practice and to avoid devastating safety errors. Application assignments empower nursing students to experience solving a nursing problem (Murray, Douglas, Girdley, & Jarzemy, 2010). This presentation is designed to provide information on teaching strategies to enable faculty to teach quality improvement in a baccalaureate online program. Information on the difference found between teaching quality improvement in a 15 week program versus a 7-5 week program will be presented. Challenges to teaching quality improvement in an online program will be discussed.

Methods: In the beginning of a 15-week (full semester) and a 7.5-week (accelerated term) course of NURS.457 Leadership in Nursing, students will be provided in the classroom and through email an introductory letter, which provides an explanation of the study. If students are interested in participating in the study, they are asked to email the researcher. The students who volunteer to be a participant will be emailed an informed consent and the modified QulSKA. Permission from the author of the QulSKA has provided permission to use and modify the instrument.

The QulSKA is a 73-item survey that measures knowledge, skills and attitude across the six core QSEN domains (patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics) (Dycus & McKeon, 2009). The results from the survey were expected to inform faculty of the development of targeted educational strategies focusing on the cognitive, behavioral, and affective needs of students in their understanding of the knowledge, skills, and attitudes of the QSEN core competencies in the Leadership in Nursing Class.

The students are asked to read and sign the informed consent. The signature on the informed consent can be electronically signed or it can be an ink signature. The researchers contact information is provided to the potential participants through e-mail and on the informed consent in case the participants had questions concerning the study or wish to withdraw. Participants will be assured that their participation in this study is voluntary; they can withdraw from the study at any time by contacting the researcher at the phone number or email listed on the informed consent. The potential participants will be informed that whether they participate or do not participate in this study it does not affect their grade in the class.

A four-digit code number will be assigned to each participant's informed consent and corresponding pretest and posttest. The pretest was given in the beginning of each course and the post-test will be given during the last weeks of each individual course. The participant's identity and the assigned four-digit code will be placed on a separate code sheet. Only the researcher had access to the code sheet that links the four-digit code to the individual participants. The code sheet is located on a different flash drive stored in a locked office in a locked drawer and only the researcher has the key. This code sheet is the only document that links the code to the participant. Following this process allows identification in case the participant chooses to withdraw from the study and allows the researcher to match the participant's individual survey to the informed consent.

Results: The results of this study revealed that students showed a significant difference for evidence-based practice, informatics, and quality (the QSEN core competencies) after taking the NURS 457 Leadership class. There is no significant difference in students learning the QSEN competencies between a class that is 15 weeks in length versus a class that is 7.5 weeks in length.

Although the 15 week mean score for safety, teamwork and collaboration was slightly higher; they were only significant at the .10 alpha level. Quality was the only core domain that was significant higher between the 15 week pretest and 7 week pretest.

Conclusion: The teaching strategy for having students develop a process improvement (PI) proposal for a nursing problem at their employment during a leadership class enables students to learn and design new processes using the QSEN competencies. The existence of gaps in the curriculum related to the QSEN competencies of evidence, based practice, informatics, and quality are now removed with the existence of the process improvement project. As a result of this study the RN-BSN nursing faculty is currently reviewing the curriculum courses to determine the student learning outcomes and practice experience assignments. A limitation to this study is the amount of students who participated in this study. There was a potential of 70 participants and 40 participated for a response rate of 57%.

References

- American Association of Colleges of Nursing. (2015). *Fact Sheet: The impact of education on nursing practice* [Fact Sheet]. Retrieved from <http://www.aacn.nche.edu/media-realtions/fact-sheets/impact-of-education>
- Bertch, D. A. (2012). *Quality and safety education in newly hired RNs and RNs in staff leadership roles* (Doctoral dissertation). Retrieved from <http://scholarworks.gvsu.edu/cgi/viewcontent.cgi?article=1007&context=dissertations>
- Dolansky, M. A., & Moore, S. M. (2013). Quality and safety education for nurses (QSEN): The key is systems thinking. *The Online Journal of Issues in Nursing*, 18(3), 1-16. <http://dx.doi.org/10.3912/OJIN.VOL18No03MAN01>
- Dotson, B. J., & Lewis, L. (2013). Teaching the quality improvement process to nursing students. *Journal of Nursing Education*, 52(7), 398-400. <http://dx.doi.org/10.3928/01484834-20130613-01>
- Murray, M. E., Douglas, S., Girdley, D., & Jarzemy, P. (2010). Teaching quality improvement. *Journal of Nursing Education*, 49(8), 466-469. <http://dx.doi.org/10.3928/01484824-20100430-09>
- Phillips, J. M., & Cullen, D. (2014). Improving the adoption of evidence-based practice through RN-to-BSN education. *The Journal of Continuing Education in Nursing*, 45(10), 467-472. <http://dx.doi.org/10.3928/002201240916-02>
- Quality Safety and Education for Nurses (QSEN). (2014). <http://www.qsen.org/competencies/pre-licensure-ksas>
- White, N., Lewis, R., & Robson, W. (2016). The introduction of "safety science" in an undergraduate nursing programme [sic] at a large university in the United Kingdom. *International Journal of Nursing Education*, 13(1), 239-248. <http://dx.doi.org/http://dx.doi.org/10.1515/ijnes-2015-0007>

Contact

lbladen@bright.net

B 10 - Interprofessional Education Collaborations

Interprofessional Education and Team-Based Learning in a Research Methods Course

Vicki Schug, PhD, RN, CNE, USA

Abstract

Purpose: Interprofessional education (IPE) assists in developing the workforce of the future in response to the need for “better patient/client care, improved health outcomes, and for achieving more efficient and affordable educational and health care systems” (IOM, 2013, p. 29). A hallmark of interprofessional education is the incorporation of interactive learning methods that promote the development of relational, team-based learning and attainment of interprofessional competencies of values/ethics for interprofessional practice, roles and responsibilities, interprofessional communication, and teams/teamwork. Interprofessional evidence-based practice is unique in that combining theoretical perspectives, expertise, and methods adds to the depth of understanding. For instance, Moyers (2016) defines interprofessional evidence-based practice as “a dynamic team process that blends the patient’s preferences and values, the expertise of practitioners, and multidisciplinary evidence to implement practice changes that challenge current disciplinary paradigms and biases to create an integrated approach to patient care” (Moyers, 2016, p.5). Problems are no longer discipline specific, but are patient problems that require multiple disciplines to solve through collaboration. Engaging students in an interprofessional collaborative research process, strengthens and expands their ability to use multiple sources of evidence and work as a team to improve patient outcomes.

Methods: Based on findings in the literature about introductory research/evidence-based practice course and the type of students taking the course, faculty selected the topic of football and concussions to focus the course. The connection between concussions and chronic traumatic encephalopathy is a controversial topic with many ethical, social, and cultural issues. Evidence was shared from a variety of disciplines, illustrating multiple research methods and a growing body of knowledge. The topic is current both in the research literature and social media. An innovative approach to teaching this interprofessional research methods course included the four essential elements of team-based learning pedagogy including the formation of strategically formed permanent teams, readiness assurance, application activities that promote critical thinking and team development, and peer evaluation (Michaelsen & Sweet, 2011). The goal of the course was to develop the capacity of nursing, exercise science, and nutrition science students to critically interpret research, apply scientific evidence in practice/service, and to participate in the research process within an interprofessional team that increases the body of knowledge for collaborative practice and interprofessional education. Faculty were challenged in creating a course that fostered an interest in research and evidence-based practice that would be continued following completion of the course. With enrolled students whose primary disciplines were nursing, nutrition science, and exercise and sports science, faculty created an opportunity to bring research of interest to the various student groups by selecting concussion in football players as an evidence-based practice focus throughout the course.

Results: The *Readiness for Interprofessional Learning Scale* (Parsell & Bligh, 1999) was administered at the beginning and conclusion of the course to assess IPE competencies in students. This tool contains nineteen items organized into 4 subscales (McFayden et al, 2005), 1) teamwork and collaboration, 2) negative professional identity, 3) positive professional identity, and 4) roles and responsibilities. Students score each statement with a level of agreement using a Likert scale of 1 (strongly disagree) to 5 (strongly agree). Scores on the RIPLS survey were analyzed using parametric and nonparametric tests. Mean scores for each subscale were high both at the beginning and end of the course with no statistically significant difference in subscale scores. This result was not surprising since the majority of students had completed several IPE courses prior to the research methods course; faculty were encouraged that student perceptions remained positive relative to working in interprofessional teams.

Conclusion: The ultimate goal of interprofessional education is to engage students in interactive learning that spans the length of their degree program and continues beyond graduation through professional

development and continuing education. Learning theory supports the notion of team-based pedagogy to facilitate student achievement of IPE competencies. The topic of concussion in football has been an excellent choice to provide interprofessional learning experiences for students; it provided a vehicle to present research and evidence that has social, political, and ethical implications. Working in teams and using evidence as a foundation for nursing practice are essential skills that will contribute to better patient outcomes.

References

Interprofessional Education Collaborative. (2016). *Core competencies for interprofessional collaborative practice: 2016 update*. Washington, DC: Interprofessional Education Collaborative.

Michaelsen, L. & Sweet, M. (2011). *Team-based learning. New directions for teaching and learning*. no. 128. Wiley Periodicals. DOI: 10.1002/d.467.

National League for Nursing (2015). *Interprofessional collaboration in education and practice: A living document from the National League for Nursing*. Author: Washington, DC.

Contact

vlshug@stkate.edu

B 10 - Interprofessional Education Collaborations

Nursing and Physical Therapy Students Learning and Collaborating Together

Mary Francis, PhD, RN, NP-BC, USA

Robert Wellmon, PhD, PT, DPT, NCS, Aland Islands

Kristin Lefebvre, PhD, PT, CCS, USA

Ellen Erdman, DPT, PT, HPCS, USA

Abstract

Purpose: The purpose of this study was to examine student's attitudes and beliefs regarding interprofessional learning (IPL) and collaboration (IPC) following an interprofessional transfer laboratory experience. The study also explored student's perception of professional identity and self-efficacy.

Methods: Forty-nine doctorate of physical therapy (DPT) students and 136 baccalaureate student nurses (BSN) were assigned into groups of 1 DPT and 2-3 BSN students. One week prior to the laboratory experience, the students attended a lecture discussing how to transfer a patient and the importance of mobility during a hospitalization. The lecture focused on the clinic decision making involved in deciding how to transferring a patient, the hazards of immobility for a patient, and the body mechanics involved in actually moving a patient. The student's expectations for the mobility lab were reviewed at this time. During the laboratory experience, five different clinical scenarios were provided to the students to allow them multiple opportunities to practice transferring a patient out of bed into a chair (variations included different weightbearing statuses, diagnoses and devices). The laboratory experience was scheduled for 90 minutes. Immediately following the laboratory experience all students participated in a 30-minute debriefing that included various DPT and BSN subgroups. Surveys were sent to participants one week prior to the experience to collect pre-experience data. Students completed their post- survey immediately following the debriefing. Valid and reliable measures of IPC and IPL were used to collect data. Measures included the Interprofessional Education Perspective Scale (IEPS), the Readiness for Interprofessional Learning scale (RIPLS), the Attitudes Toward Healthcare Teams Scale (ATHTS), the Confidence for Interprofessional Learning and Cooperation scale (CILC), and the Self-Efficacy for Experiential Learning (SEEL). ANOVA and paired sample T tests were performed using SPSS 21.0 to measure between and within group differences arising as a result of the experience.

Results: DPT and BSN students showed significant improvements in competency and autonomy ($p<.002$), perceived need for cooperation ($p<.005$), perception of actual cooperation ($p<.003$) as measured by the IEPS. In addition, student showed a significant improvement in team work and collaboration ($p<.001$) and professional identity ($p<.001$) as measured by the RIPLS. The ATHTS showed significant findings around improvements in team value ($p<.001$) and team efficiency ($p<.001$) and finally several items of the SEEL showed significant improvements around student perceptions of self efficacy ($p<.001$).

Conclusion: Study participants reported improvement in domains identified in the literature as important to interprofessional learning and collaboration following an interprofessional transfer laboratory experience. Areas of greatest improvement included student's perceptions of self-efficacy, team work, team value, team efficiency, competency and autonomy. Student's perceptions described during the debriefing were a new self-awareness of mobility skills and their ability to convey instructions to others. Students appreciated the opportunity to work with another discipline and felt it increased their understanding of professional roles.

References

Institute of Medicine (IOM). 2015. *Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes*. Washington, DC: The National Academic Press.
Yan, J., Gilbert, JHV., Hoffman, SJ. (2007). World Health Organization of Interprofessional Education and Collaborative Practice. *Journal of Interprofessional Care*, 21:588-589.

Contact

mcf Francis@mail.widener.edu

B 11 - Stress and Burnout in the Nursing Profession

Nurses' Stress and Coping: In the Midst of Work and Back to School

Joyce A. Brill, PhD, RN, CPNP, USA

Paulette Dorney, PhD, RN, USA

Robert T. Brill, PhD, USA

Abstract

Purpose: Nursing tends to be a highly stressful occupation (Chen, Brown, Bowers, & Chang, 2015; Happell, Dwyer, Reid-Searl, Burke, Caperchione & Gaskin, 2013) demanding they draw on substantive coping resources to deal with their work stressors (Eslami-Akbar, Elahi, Mohammadi, & Khoshknab, 2015). The tapestry of stressors confronting health care providers requires they be adept with a full arsenal of coping skills. We hope to look at nurses' perceptions of stress levels and investigate any associations with particular types of coping strategies. Although such "coping profiles" for particular stressors will not be accompanied by any effectiveness criteria to help evaluate the efficacy of the coping, having some sense of the normative coping behaviors that tend to be elevated (positively correlated) when stressors are having higher levels of intensity can help us understand the current battleground for work stress.

In addition to the taxing demands in their work role context, many nurses are further challenging themselves by returning to the classroom for degrees in higher education. A meta-analysis by Almann (2011) discussed many societal influences pulling nurses into the higher education pipeline of professional development, along with some insights regarding their attitudes and perceptions that are helping and hindering this difficult decision and the subsequent sacrifices it entails.

The purpose of the present study was to explore levels of stress intensity and coping strategy frequency, as well as relationships between these groups of variables. Finally, stress levels and coping styles will be compared against some demographic variables.

Methods: Registered nurses returning to a small liberal arts school in the northeast were asked to complete an internet-based survey ($n = 51$, 31.48% return rate), which included the Nursing Stress Index (NSI: six dimensions specified in **Results**) and Brief Coping Questionnaire (BCQ: 14 dimensions specified in Results). In addition, demographic items and three open ended questions on the nurses' incentives, barriers and supports related to their decision to return to school were also collected. All student nurses from three types of programs (RN to BSN, Masters of Science in Nursing, and Nurse Practitioner Graduate program) were sent an email invitation with the survey link and asked for their voluntary participation.

Results: Quantitative responses from the 51 nursing students were coded into SPSS Version 23 in order to explore possible significant relationships between demographics, stress levels, and frequency of coping behaviors. In terms of demographics, neither gender nor racial background generated sufficient variability for analysis. Regarding curriculum program differences, the only significant difference was that the RN to BSN students reported significantly higher frequency of distraction coping methods ($M = 5.86$) compared to the advanced degree programs, both the Masters students ($M = 4.74$) and the Nurse Practitioners ($M = 4.31$), $F(2, 36) = 4.88$, $p < .05$. The age of the nurse yielded several significant correlations, including a negative relationship with stress due to dealing with patients ($r = -0.42$), and several times strongly positively associated with using the following coping strategies: Planning ($r = .51$), Advisory Support ($r = .38$), Acceptance ($r = .35$) and Religion ($r = .60$).

Five of the six stress dimensions of the NSI were significantly correlated with at least one dimension of coping. The only stressor not associated with any coping strategy was work-life conflict. Dealing with patients was the only stress source to have a significant negative correlation with a coping strategy (Religion: $r = -0.36$); while being positively correlated with Venting. For the following summary of paired variables, all correlations are significantly positive. Hours worked was correlated only with Distraction techniques. Stress due to Work Relationships was related to Distraction, Venting, Humor, and Religion;

while stress due to Conflicting Priorities was associated with Distraction, Behavior Disengagement, Venting, Planning, Humor and Self Blame. The stress of maintaining role competence and confidence was correlated with Denial, Behavior Disengagement, Venting, and Positive Reframing. Stress due to time pressures was correlated with 11 of the 14 coping strategies

In order to explore the incentives, barriers, and support structures for nurses returning to school for a baccalaureate or advanced degree in nursing, three open-ended questions were used. Thirty textual responses were obtained with ten participants from the RN to BSN program, fifteen participants from the Master's of Science program, and five participants from the Nurse Practitioner program. The textual responses, referred to as participant' statements, were subject to hand analysis using a five step method for each research question. Each response was read line by line, to identify key phrases. After review of key phrases, sub categories or cluster themes were identified. Following review of cluster themes or sub categories, researchers searched for processes, meanings, and actions to identify emergent themes or broader categories.

The resultant themes emerged providing a description of the experience of the adult learner returning to school. Themes identified regarding incentives included: personal goal, financial influence, employment requirement, and career advancement. Themes identified regarding barriers included: finances, balance, and challenges. Lastly, themes identified regarding solutions to return to school included: support, personal drive, career advancement, and finances. Results of thematic analysis was confirmed through the use of a peer group, analyzing the same data and comparing findings to aid in establishing trustworthiness of findings.

Conclusion: Given the high pressure and multi-faceted stressors that bombard nurses in their work environment, it is important to explore what coping strategies and demographic predictors are associated with such stressors. This study supports some interesting "coping profiles" that accompany the six dimensions of stress of the NSI. Age of the nurse was found to be a frequent predictor of coping behavior frequency suggesting that indeed experience seems to bolster adaptability and a greater wealth of coping strategies along with the discipline to employ them. Also, there are important qualitative themes that emerged from their narrative responses to the incentives, challenges, and sources of support that have allowed them to embrace the daunting task of returning to school.

Although the sample size limits the generalizability of the findings, the study encourages some discussion of implications for orientation of nurses into the field; as well as their ongoing professional development, particularly those returning to higher education for a degree. The results are also encouraging for continued exploration of the stress and coping dynamics among nurses, and better understanding the formidable journey of those nursing professionals who enter the pipeline of higher education to procure the critical degrees needed to maintain the collective high quality of standards, achievements, and learning within the profession.

References

- Almann, T. (2011). Registered nurses returning to school for a bachelors degree in nursing: Issues emerging from a meta-analysis of this research, *Contemporary Nurse*, 39 (2), 256-272.
- Chen, Brown, R., Bowers, B. J., & Chang, W. (2015). Work-to-family conflict as a mediator of the relationship between job satisfaction and turnover intention. *Journal of Advanced Nursing*, 71(10), 2350-2363. doi:10.1111/jan.12706
- Eslami-Akbar, R., Elahi, M., Mohammadi, E., & Khoshknab, F., M. (2015). What strategies do the nurses apply to cope with job stress? A qualitative study. *Global Journal of Health Science*, 8 (6), 55-64.
- Happell B., Dwyer T., Reid-Searl K., Burke K.J., Caperchione C.M. & Gaskin C.J (2013). Nurses and stress: Recognizing causes and seeking solutions, *Journal of Nursing Management*, 21, 638–647.

Contact

brillj@moravian.edu

B 11 - Stress and Burnout in the Nursing Profession

The Impact of Burnout on Doctorate Nursing Faculty's Intent to Leave Their Academic Position

Elizabeth Florez, PhD, RN, USA

Young-Me Lee, PhD, RN, USA

Nadia Spawn, MS, RN, USA

Jessica Bishop-Royse, PhD, N/A, USA

Abstract

Purpose: The demands placed on nursing educators puts them at high risk for burnout, leading to decreased job satisfaction and increased intent to leave their faculty positions. Despite the fact that nursing faculty are at great risk for job burnout; there are limited studies exploring the relationship between burnout and leaving their academic positions. The aim of this study is to address the national nursing faculty shortage by examining demographics, predictors including teaching preparation, and burnout to determine intent to leave nursing academia among PhD and DNP-prepared nursing faculty.

Methods: A descriptive survey research design was used to examine the relationships among the key study variables and identify the most significant factors related to faculty leaving. A national survey of doctorate faculty teaching in undergraduate and/or graduate nursing programs throughout the U.S. was administered via Qualtrics survey software. Logistical regression models were used to interpret data significance.

Results: A total of 146 nursing faculty responded to the online survey. 51.4% of the respondents (n=75) had a DNP degree and 48.6% (n=71) had a PhD degree. 61% of the respondents were over the age of 50 with the remaining 39% of the respondents between ages 20 and 49. PhD-prepared faculty reported higher emotional exhaustion compared to DNP-prepared faculty. Findings revealed that degree type (PhD versus DNP), age, and emotional exhaustion and depersonalization in burnout were significant predictors related to intent to leave nursing academia. Results indicated that younger faculty, PhD-prepared faculty, and higher reported levels of emotional exhaustion significantly determined intent to leave their positions. Depersonalization, conversely, was found to significantly decrease intent to leave.

Conclusion: The findings from this study found that PhD-prepared nursing faculty experienced more emotional exhaustion compared to the DNP-prepared faculty, a significant factor influencing decisions to leave nursing academia. To address the nursing faculty shortage issue, it is critical to create supportive and positive working environments to promote the well-being of both nursing faculty members and the institutions in which they work.

References

American Association of Colleges of Nursing (2014). Nursing Faculty Shortage. Retrieved from

<http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-faculty-shortage>

American Association of Colleges of Nursing (2013). Special Survey on Vacant Faculty Positions for Academic Year 2013-2014. Retrieved from <http://www.aacn.nche.edu/leading-initiatives/research-data/vacancy13.pdf>

Contact

ylee23@depaul.edu

B 12 - Pediatric Pain Management

Untreated Procedural Pain Increases Urine Markers of Adenosine Triphosphate (ATP) Utilization in Preterm Neonates

Danilyn Mag-akat Angeles, PhD, RN, USA

Danilo Boskovic, PhD, USA

Abstract

Purpose: We previously published that a single dose of oral sucrose significantly increased plasma markers of adenosine triphosphate (ATP) utilization (hypoxanthine) and oxidative stress (xanthine, allantoin) in neonates undergoing a clinically required heel lance [1,2]. However, the effect of repeated doses of sucrose and other sweet solutions such as glucose on above markers is unknown.

Methods: Using a prospective randomized double blind clinical trial, we measured urinary markers of ATP utilization and oxidative stress in preterm neonates over days of life 3-7. Subjects were preterm neonates who are 28-34 weeks in gestation. Exclusion criteria include: significant cardiovascular and respiratory disease, IVH, NEC, on opioids or sedatives. After obtaining parental consent, subjects were randomly assigned to receive standard of care (control, n=12) or either 24% oral sucrose (n=14) or 30% oral glucose (n=13) two minutes before any tissue-damaging procedure (TDP). Demographic data for categorical variables were analyzed using Chi-square test. Repeated measures ANOVA for one between subject factor (group) and one within subject factor (time) were assessed to evaluate the effect of the procedures (control, 24% oral sucrose, 30% oral glucose) over time. Interaction terms in the General Linear Model were used for this purpose.

Results: We found that neonates who received 24% oral sucrose tend to have higher urinary concentration of xanthine compared to those who received 30% oral glucose, specifically at day of life 4. However, the highest urinary concentrations of xanthine (P=0.019) and uric acid (P=0.028) were found in control subjects who received the least amount of oral sucrose analgesia.

Conclusion: These data support our previous findings that untreated pain results in increased ATP utilization and oxidative stress [2]. In addition, this finding suggests that 30% oral glucose may be an acceptable and metabolically less demanding alternative to oral sucrose as a non-pharmacological intervention to procedural pain. Further studies are required to examine more effective ways to decrease procedural pain in preterm neonates.

References

1. Asmerom Y, Slater L, Boskovic DS, Bahjri K, Holden MS, Phillips R, Deming D, Ashwal S, Fayard E, Angeles DM. Oral sucrose for heel lance increases adenosine triphosphate use and oxidative stress in preterm neonates. *J Pediatr*. 2013. Jul;163(1):29-35.
2. Angeles DM, Asmerom Y, Boskovic DS, Slater L, Bacot-Carter S, Bahjri K, Mukasa J, Holden M, Fayard E. Oral sucrose for heel lance enhances adenosine triphosphate use in preterm neonates with respiratory distress. *SAGE Open Med*. 2015 Oct 28;3: 2050312115611431
3. Slater L, Asmerom Y, Boskovic DS, Bahjri K, Plank MS, Angeles KR, Phillips R, Deming D, Ashwal S, Hougland K, Fayard E, Angeles DM. Procedural pain and oxidative stress in premature neonates. *J Pain*. 2012 Jun;13(6):590-7

Contact

dangeles@llu.edu

B 12 - Pediatric Pain Management

Frontline Nurse-Initiated Interventional Research: Use of Distraction Versus Oral Midazolam in Reducing Pediatric Perioperative Anxiety

Barbara Stewart, MSN, RN, CPN, USA

Rebecca Severnak, ADN, RN, USA

Terri Pearcy, BSN, RN, CPN, USA

Abstract

Purpose: The purpose of this frontline nurse-initiated study was to examine if the use of interactive distraction (iPad™) was more or as effective in reducing preoperative anxiety, at parental separation and mask induction, as oral midazolam in children, four to twelve years old, undergoing outpatient surgery with a duration of 1-1/2 hours or less. The Seiden et al. (2014) study protocol was replicated in order to increase the body of evidence, but addressing their study limitations. In the Seiden et al. study, anesthesiologist researchers found no significant differences between interactive distraction and oral midazolam in pediatric perioperative patients. Preoperative anxiety is a global problem in pediatric surgical patients. Children often experience anxiety before outpatient surgical procedures during parental separation and at mask induction (De Querioz Siqueira et al., 2014; Kerimoglu, Neuman, Paul, Stefanov, & Twersky, 2013; Seiden et al., 2014). Currently, the most common treatment for pediatric preoperative anxiety is administration of oral midazolam, a benzodiazepine with undesired side effects of prolonged sedation, behavioral changes, and emergence delirium (Wetzel, 2016). The use of interactive distraction has not been sufficiently investigated in its effectiveness to minimize preoperative anxiety. Frontline perioperative nurses identified needs to: (1) evaluate non-pharmacological preoperative interventions, (2) enhance patient and family satisfaction, and, (3) promote patient safety during their outpatient surgical experiences. This is the first research study conducted by frontline nurses as previous studies have been conducted by anesthesiologists (De Querioz Siqueira et al., 2014; Seiden et al., 2014).

Methods: Single-blinded prospective comparative study design was used with randomized assignment to experimental iPad™ group and control oral midazolam group. The study was conducted at 403-bed urban pediatric medical center in the southwestern United States; Institutional Review Board approval was received. Research personnel in the Post-Anesthesia Care Unit (PACU) were blinded to study intervention. A total of 102 pediatric patients with 102 primary caregivers were recruited: 51 patients (mean age 6.8 years, 51% male) with 51 primary caregivers (mean age 35.7 years, 84% females) for iPad experimental group and 51 patients (mean age 6.9 years, 65% male) and 51 primary caregivers (mean age 35.3 years, 75% females) for oral midazolam control group. When the child participant picked the “dinosaur” card, the child received the control intervention of oral midazolam 15 to 45 minutes prior to parental separation. When the “robot” card was selected, the child was given an iPad™ mini with an age-appropriate gaming application one minute prior to parental separation to be continued through mask induction. Outcome measures included: (1) psychometrically established, modified Yale Preoperative Anxiety Scale (mYPAS; Jenkins, Fortier, Kaplan, Mayes, & Kain, 2014; Kain et al., 1997) at admission, parental separation, and mask induction, scored from nurse observations on activity, vocal, emotional expression, and arousal; (2) Pediatric Anesthesia Emergence Delirium (PAED; Bajwa, Costi, & Cyna, 2010; Sikich & Lerman, 2004) Scale upon awakening and 15 minutes post-awakening, scored from nurse observations in PACU; (3) parent’s perception of child’s anxiety at admission and separation, with Likert-style responses; (4) parent satisfaction with child separation, with Likert-style response; (5) time in minutes from PACU arrival to awakening, (6) time from PACU arrival to discharge home, and (7) assessment of post-hospitalization behavioral change in pediatric patients at 7 and 14 days postoperatively using Post Hospitalization Behavior Change Questionnaire for Ambulatory Surgery (PHBQ-AS; Jenkins et al., 2015). Data was analyzed using descriptive and inferential or non-parametric statistics (based on level of data) such as: Repeated Measures Analysis of Variance (RMANOVA) or Friedman Two-Way Analysis of Variance by Ranks or paired-sample *t*-tests for measurements within groups and multifactorial Analysis of Variance (ANOVA) or independent-samples Mann-Whitney U Test or independent-sample *t*-tests between groups.

Results: Children in the interactive distraction group demonstrated significantly lower mYPAS scores at times of parental separation and mask induction compared to oral midazolam group on activity, vocal, and arousal. On PAED scores at 15 minutes post-emergence, the iPad™ mini group had significantly lower scores (oral midazolam: 6.65 versus iPad™ mini: 3.3; $p=0.001$). Within groups, there were statistically significant differences on caregiver ratings of their child's anxiety from admission to separation; all rated their child's anxiety lower at time of separation. There were no statistically significant findings between groups on overall parent satisfaction. Times from PACU arrival to awakening were significantly lower ($p = 0.007$) in the distraction group. Times from PACU arrival to discharge home were statistically significant between groups (oral midazolam: 2.07 hours versus iPad™ mini: 1.66 hours; $p < 0.0001$). On 7-day PHBQ-AS responses, caregivers of children who received oral midazolam ($n=12$) reported higher percentages of poor appetite (25%) and temper tantrums (17%) while caregivers of children ($n=9$) in the distraction group reported more bad dreams (11%). By 14 days, the majority of PHBQ-AS responses returned to baseline except for continued temper tantrums (11%) and poor appetite (11%) in the oral midazolam group ($n=9$) and caregivers of the distraction group ($n=9$) said their children had more trouble getting to sleep (22%).

Conclusion: Use of interactive distraction was more effective in reducing preoperative anxiety and post-emergence delirium in pediatric outpatient surgery patients, 4 to 12 years old, when compared to the administration of oral midazolam preoperatively. Participants who used the iPad™ mini were extubated earlier and were discharged in less time than the oral midazolam group. Use of less sedative medications translates to decreased length of stay in the PACU which could result in increased productivity and financial savings for the medical center. Due to low response rates at 7 and 14 days on the PHBQ-AS, these findings cannot be generalized but can guide discharge teaching of caregivers on potential post-hospital behaviors. Interactive distraction was shown to be an effective alternative to oral midazolam in reducing preoperative anxiety and post-emergence delirium in pediatric surgical patients. Nurses worldwide can utilize this evidence to: (1) incorporate the age-appropriate and evidence-based use of interactive electronic distraction into their practice, (2) promote empowerment of families and patients through education on available options for reduction of preoperative anxiety, and (3) collaborate with various disciplines (i.e. anesthesiologists and child life specialists) to decide treatment options for preoperative anxiety. Frontline nurses are equipped with the skills and knowledge to identify needs for practice change and, with mentoring, can engage in the successful conduct of clinical research positively impacting patient outcomes.

References

- Bajwa, S. A., Costi, D., & Cyna, A. M. (2010). A comparison of emergence delirium scales following general anesthesia in children. *Pediatric Anesthesia*, 20, 704-711.
- De Queroz Siqueira, M., Tosseti, S., Marechal, C., Cogniat, B., Berthilier, J., & Chassard, J. (2016). *Effect of iPad tablet on children and parental anxiety during anesthesia*. Poster presented at 16th Annual Meeting of the World Congress of Anesthesiologists; August 2016; Hong Kong, People's Republic of China.
- Jenkins, B. N., Fortier, M. A., Kaplan, S. H., Mayes, L. C., & Kain, Z. N. (2014). Development of a short version of the Modified Yale Preoperative Anxiety Scale. *Anesthesia & Analgesia*, 119(3), 643-650.
- Jenkins, B. N., Kain, Z. N., Kaplan, S. H., Stevenson, R. S., Mayes, L. C., Guadarrama, J., & Fortier, M. A. (2015). Revisiting a measure of child postoperative recovery: Development of the Post Hospitalization Behavior Questionnaire for Ambulatory Surgery. *Pediatric Anesthesia*, 25(7), 738-745.
- Kain, Z. N., Mayes, L. C., Cicchetti, D. V., Bagnall, A. L., Finley, J. D., & Hofstadter, M. B. (1997). The Yale Preoperative Anxiety Scale: How does it compare with a "gold standard"? *Anesthesia & Analgesia*, 85, 783-788.
- Kerimoglu, B., Neuman, A., Paul, J., Stefanov, D., & Twersky, R. (2013). Anesthesia induction using video glasses as a distraction tool for the management of preoperative anxiety in children. *Anesthesia & Analgesia*, 117(6), 1373-1379.
- Seiden, S., McMullan, S., Sequera-Ramos, L., DeOliveira, G., Roth, A., Rosenblatt, A., Jesdale, B., & Suresh, S. (2014). Tablet-based interactive distraction (TBID) vs oral midazolam to minimize perioperative anxiety in pediatric patients: A noninferiority randomized trial. *Pediatric Anesthesia*, 24, 1217-1223.
- Sikich, N. & Lerman, J. (2004). Development and psychometric evaluation of the Pediatric Anesthesia Emergence Delirium Scale. *Anesthesiology*, 100(5), 1138-1145.
- Wetzel, R. C. (2016). Anesthesia, perioperative care, and sedation. In R. M. Kliegman (Ed.), *Nelson textbook of pediatrics* (20th ed., pp. 416-430). Philadelphia: Elsevier.

Contact

barbara.stewart@cookchildrens.org

B 13 - Care of Minority Populations

Clinicians and Bicultural Workers' Views on Coassessment to Improve Mental Health Assessments in Multicultural Clients

Saras Henderson, PhD, MEd, RN, FRCN, Australia

Abstract

Purpose: In Australia, multicultural people are overrepresented in mental health inpatient facilities and are more likely to be on involuntary orders (Australian Bureau of Statistics, 2012; Warnock-Parks et al., 2010). This is partly attributable to the many cultural and language barriers limiting access to and effective utilisation of services (Queensland Health, 2012). In Australia, mental health services use a service delivery model that provides clinicians such as mental health nurses, psychologist, psychiatrist, social workers with interpreters to overcome language barriers which is important in producing accurate assessments and diagnosis but do not address cultural barriers (Scala, 2012). Overcoming cultural barriers is more complicated but understanding how culture impacts on mental health and help seeking behaviour can improve mental health outcomes for multicultural communities (Owiti et al. 2014; Scala, 2012). Typically an ethnic matching model of matching the ethnicity of the mental health professional and client has been used with some success (Cabral & Smith, 2011). One Australian study using ethnic matching reported reductions in crisis presentations and hospital admissions and an increase in contact with community mental health services (Ziguras et al., 2003). However, ethnic matching has limitations; in particular it is difficult to find a range of ethnically diverse mental health professionals to respond to the broad cultural diversity of clients/patients. Ethnic matching is particularly difficult in Australia when there is an increasing number of new and emerging communities, in which there are only a few or no mental health professionals within the population. To overcome this problem and to ensure mental health assessments are culturally appropriate, the co-assessment model which pairs a mental health clinician with a bicultural worker to jointly assess multicultural clients was used in an Australian mental health facility. It was envisaged that the use of the co-assessed model would help clinicians to better understand how cultural factors impact on clients' understanding of mental health. The purpose of our study was to explore clinicians and bicultural workers' views on using the co-assessment model.

Methods: Qualitative design was used with a purposeful sample of nine clinicians and nine bicultural workers drawn from a transcultural mental health facility. Using semi-structured open-ended questions, two focus group interviews, one with the clinicians and one with the bicultural workers were conducted. Information was sought from participants on the co-assessment process, perceived benefits and challenges, and how the model differed from the use of interpreters. Data were transcribed verbatim, coded and analysed using content analysis

Results: The findings indicate the model is effective in increasing cultural understanding and sensitivity in mental health assessments. Clinicians found bicultural workers provided the cultural lens to better assess and diagnose clients. Bi-cultural workers stated their cultural and personal experience in the assessment process facilitated a holistic approach. A common challenge for participants was time constraints and the blurring of role boundaries.

Conclusion: Our findings suggest the co-assessment model has applicability to mental health nurses and health professionals to enhance optimum assessment outcomes for multicultural communities.

References

- Australian Bureau of Statistics (2012). *Cultural Diversity in Australia*. Canberra: Author.
- Cabral, R. R. & Smith T. B. (2011). Racial/ethnic matching of clients and therapists in mental health services: A meta-analytic review of preferences, perceptions and outcomes, *Journal of Counseling Psychology*, 58 (4) 537-554.
- Owiti, J. A., Ajaz, A., Ascoli, M., de Jongh, B., Palinski, A., and Bhui, K. S. (2014). Cultural consultation as a model for training multidisciplinary mental healthcare professionals in cultural competence skills: preliminary result. *Journal of Psychiatric & Mental Health Nursing* 21 (9): 814-826. doi: 10. 1111/jpm.12124
- Queensland Government (unpublished). *The Queensland Plan for Multicultural Mental Health and Well Being 2012-2017*, Queensland Health, Brisbane.
- Warnock-Parks, E., Young, S. & Gudjonsson, G. (2010). Cultural sensitivity in forensic service

Contact

s.henderson@griffith.edu.au

B 13 - Care of Minority Populations

Beliefs, Attitudes, and Perceptions of Spirituality: A Case Study of Homeless Women in Nevada

Jene' M. Hurlbut, PhD, RN, CNE, USA

Marcia M. Ditmyer, PhD, MBA, MS, MCHES, USA

Abstract

Purpose: The purpose of this qualitative case study was to assess the beliefs, attitudes, and perceptions of the meaning of spirituality in a cohort of sheltered homeless women in an urban area in southeast Nevada.

Methods: Fourteen (14) personal interviews were conducted at a homeless shelter located in the southwest of the United States. Open-ended questions were used to allow respondents to answer questions in their own terms or in a manner that reflects their own attitudes, beliefs, and/or perceptions rather than those of the researcher. A process for categorization the data collected was used. Respondents agreed to be tape recorded for the purpose of data collection. Only aggregate data was used for purposes of reporting. The data was subsequently transcribed, and grouped in an effort to synthesize the data into identified patterns/themes. Once identified, the themes were then looked at to better determine the beliefs, attitudes and perceptions of respondents.

Results: The convenience sample of women meeting the inclusion criteria interviewed ranged in age from 20-68 (M=46). A majority of the women in this sample had experienced homelessness 1-2 times and had been homeless for approximately 0-3 months. From the interviews five overarching themes emerged: 1) a belief in God or a higher power, 2) a distinction between religious beliefs and spirituality, 3) a belief that there is a plan for their life, 4) spirituality and beliefs provides guidance for what is "right" and what is "wrong", and 5) a belief that their life will improve. In their descriptions of spirituality the women often shared stories and life experiences to illustrate their understanding of this concept.

Conclusion: The findings of this study support the fundamental importance of spirituality in the lives of homeless women. Spirituality was acknowledged as providing hope and support and the ability to improve health and well-being. Implications from this study can help healthcare professionals to design interventions that support spiritual practices and perhaps lessen the negative impact of homelessness for these women. Moreover, healthcare professionals need to become comfortable in addressing the spiritual needs of clients, in doing so this will improve the holistic care that is provided to this marginalized and vulnerable population. During a time when rates of homeless for women have increased, further research is needed to explicate the meaning of spirituality and how this impacts their overall resiliency and health.

References

- Gravell, C. (2013). *Lost and found faith and spirituality in the lives of homeless people*. 64 Highgate High Street, London: Lemons & Crane
- Hodge, D., Moser, S., & Shafer, M. (2012). Spirituality and mental health among homeless mothers. *Social Work Research, 36*(4), 245-255. <http://dx.doi.org/10.1093/swr/svs034>
- Walsh, C., & Gulbrandsen, C. (2014). Spirituality as strength: Reflections of homeless women in Canada. *The International Journal of Religion and Spirituality in Society, 3*, 97-112.

Contact

jhurlbut@roseman.edu

B 14 - Promoting Clinical Outcomes

Nurse-Led Diabetic Retinopathy Screening: A Revolutionary Approach to Vision Care for Canadian Aboriginal Peoples

Shelley Spurr, PhD, MBA, BSN, RN, Canada

Jill Bally, PhD, RN, Canada

Carol Bullin, PhD, RN, Canada

Abstract

Purpose: Aboriginal people living in Canada are among the highest risk populations for diabetes and related complications, including retinopathy (Harris, Bhattacharyya, Dyck, Hayward, & Toth, 2013). Diabetic retinopathy is the most common cause of new cases of blindness in adults ages 20-74. Nearly two thirds (60%) of the population living with type 2 diabetes for 20 years or more suffer from retinopathy, and many individuals (21%) will have symptoms of retinopathy at the time their diabetes was diagnosed (Boyd, Advani, Altomare, & Stockl, 2013). The increasing prevalence of diabetes and the associated complications in Aboriginal peoples illustrate the pressing need to understand the impact of this chronic disease.

To date, visual health has been largely ignored, which has resulted in significant numbers of Aboriginal Canadians suffering from serious ocular and visual health problems. Only a few ocular health programs have evolved targeting Aboriginal communities (Venne, 2011). As such, the **purpose** of this study was to investigate the risk factors for type 2 diabetes and the possibility of using a portable fundus camera (Optovue) as a novel approach for convenient, earlier, and more accessible vision screening and referral for Aboriginal peoples living with type 2 diabetes in northern and remote Canadian communities. This mobile state-of-the-art technology allows for quick vision screening and can be used by registered nurses to screen for visual changes related to diabetes. The data can be saved and any images of concern can be securely emailed to the off-site ophthalmologist for further investigation.

Methods: Study Design: This two stage quantitative pilot study screened participants for identification of risk factors of type 2 diabetes with anthropometrical measurements, blood pressure, and a A1C point of care blood glucose test (Stage 1), followed by vision exams to screen for signs of retinopathy in participants diagnosed with type 2 diabetes using fundus photography (Stage 2).

Population: A purposeful sample of adults living in northern and remote Canadian communities were invited to participate in this pilot study. Participants were recruited from an ophthalmology clinic (n=33) and criteria for the study included a diagnosis of type 2 diabetes.

Stage 1 - Risk Measurements: As recommended by the Canadian Diabetic Association (CDA), weight, height, Body Mass Index (BMI), blood pressure, and an A1C were measured to screen for risk of type 2 diabetes. Descriptive statistics were computed using the Statistical Package for Social Sciences (SPSS v.22.0). **Stage 2 - Vision Exams:** The first vision exam involved the nurse screening for retinopathy using a portable fundus camera. The second eye exam involved fundus photography completed by the ophthalmologist. The nurse led vision exam results were compared to those of the ophthalmologist to determine sensitivity of the portable fundal camera as a screening tool for detection of diabetic retinopathy. A Cohen's Kappa was used to evaluate the inter-rater agreement between the nurses and ophthalmologist.

Results: Stage 1-BMI: The participant's BMI measurements ranged 18.75 and 48.63 with a mean of 32.22 (SD = 6.88). The percentage of obesity (≥ 30) = 54.5%. **A1C:** The A1C levels ranged from 5.50 to 13.00 with a mean of 8.30 (SD = 1.64). The percentage of elevated BMI (7.1 or higher) = 78.8%. **Blood Pressure:** The percentage of prehypertension (systolic = 120-130 OR diastolic = 80-89) and hypertension (systolic = 140-159 OR diastolic = 90-99) = 69.6%. **Stage 2-** Interrater reliability was calculated using Cohen's Kappa with results demonstrating a moderate agreement between the health professionals' judgments ($k = .67$).

Conclusion: Nurse-led vision screening in remote or northern communities can improve the standard of care by extending access to health services, lower the costs to families by reducing travel expenses, and prevent loss of vision for Aboriginal peoples. This research is being used as a foundation to advocate for expanded primary health services to improve the health outcomes for Aboriginal people living with type 2 diabetes in northern and remote Canadian communities. Future research with a larger sample is indicated to validate these results.

References

- Boyd, S. R., Advani, A., Altomare, F., & Stockl, F. (2013). Retinopathy. *Canadian Journal of Diabetes*, 37(Supplement 1), S137-141. doi:10.1016/j.jcjd.2013.01.038
- Harris, S. B., Bhattacharyya, O., Dyck, R., Hayward, M. N., & Toth, E. L. (2013). Type 2 Diabetes in Aboriginal Peoples. *Canadian Journal of Diabetes*, 37(Supplement 1), S191-S196.
- Venne, J. (2011). Aboriginal Canadians' ocular and visual health: A daunting challenge. *Optik*, 10, 46-53.

Contact

shelley.spurr@usask.ca

B 14 - Promoting Clinical Outcomes

Symptom Management in Adults With Knee Osteoarthritis Using Transcranial Direct Current Stimulation: A Pilot Study

Hyochol Ahn, PhD, MSN, MS-ECE, MS-CTS, RN, APRN, ANP-BC, USA
Roger Fillingim, PhD, USA

Abstract

Purpose: Osteoarthritis is a leading cause of pain and functional impairments in people 45 years and older (Lakkireddy, Bedarakota, Vidyasagar, Rapur, & Karra, 2015). Noninvasive brain stimulation, such as Transcranial Direct Current Stimulation (tDCS), has received significant attention for the treatment of pain in chronic conditions owing to its neuromodulatory effect (Ayache et al., 2016; Woods et al., 2016). tDCS involves the application of weak direct electric current to the head in a noninvasive and painless manner, leading to the modulation of the brain activity involved in pain processing (DaSilva et al., 2016; O'Connell & Wand, 2015). Therefore, we assessed the preliminary efficacy and safety of tDCS on pain symptoms in adults with knee osteoarthritis.

Methods: We conducted a double-blind, randomized, sham-controlled pilot clinical study in 40 community-dwelling participants with knee OA who were 50–70 years old. The participants were randomly assigned to receive either five daily sessions of 2mA tDCS for 20 minutes or sham tDCS (1:1 for two groups). Randomization was performed by a statistician with no clinical involvement in this trial. The anode electrode was placed over the primary motor cortex of the hemisphere contralateral to the affected knee, and the cathode electrode was placed over the supraorbital region ipsilateral to the affected knee. Osteoarthritis-related pain symptoms were measured at baseline and after tDCS via the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). The WOMAC consisted of 3 subscales relating to pain during activities (5 items), stiffness during the day (2 items), and impairments of physical function (17 items), with higher scores indicating worse pain, stiffness, and impairments of physical function. Also, we monitored possible side effects of tDCS by asking whether participants experienced the symptoms of tingling, itching sensation, burning sensation, pain, fatigue, nervousness, headache, difficulty concentrating, mood changes, or changes in vision or visual perception (Bikson et al., 2016). All the side effects were recorded, and their severity was graded from 0 (not at all) to 10 (highest degree). The safety questionnaire was administered after each stimulation session.

Results: The mean age was 59 years (Standard deviation = 8 years), and 53% were female. After five daily sessions, the tDCS group had a greater reduction than the sham group in pain during activities (active tDCS: 1.25 ± 3.13 , sham: 0.60 ± 2.11), stiffness during the day (active tDCS: 0.55 ± 1.36 , sham: 0.20 ± 0.83), and impairments of physical function (active tDCS: 2.40 ± 10.44 , sham: 0.10 ± 7.33). Effect sizes (Cohen's d) ranged from $d=0.24$ for reducing pain during activities ($t=0.77$, $df=38$, $p=0.44$), $d=0.31$ for reducing stiffness during the day ($t=0.98$, $df=38$, $p=0.33$), and $d = 0.27$ for reducing impairments of physical function ($t=0.88$, $df=38$, $p=0.39$). Also, all participants tolerated tDCS well without experiencing any significant adverse effects. No participants complained about fatigue, nervousness, headache, difficulty concentrating, mood changes, or vision changes during tDCS sessions. A few adverse events occurred during tDCS session, such as tingling, itching sensation, burning sensation, pain, and change in visual perception. However, these symptoms were mild (less than or equal to 2 out of 10) and transient, and the symptoms had resolved at the completion of the stimulation session.

Conclusion: Although our primary results were nonsignificant, there is a preliminary suggestion that tDCS targeting primary motor cortex may reduce osteoarthritis-related pain symptoms in adults with knee OA without any significant adverse effects. Future studies are needed to refine this novel approach for pain neuromodulation.

References

Ayache, S. S., Palm, U., Chalah, M. A., Al-Ani, T., Brignol, A., Abdellaoui, M., . . . Lefaucheur, J. P. (2016). Prefrontal tDCS Decreases Pain in Patients with Multiple Sclerosis. *Frontiers in Neuroscience*, 10, 147. doi:10.3389/fnins.2016.00147

Bikson, M., Grossman, P., Thomas, C., Zannou, A. L., Jiang, J., Adnan, T., . . . Woods, A. J. (2016). Safety of Transcranial Direct Current Stimulation: Evidence Based Update 2016. *Brain Stimulation*, 9(5), 641-661. doi:10.1016/j.brs.2016.06.004

DaSilva, A. F., Truong, D. Q., DosSantos, M. F., Toback, R. L., Datta, A., & Bikson, M. (2015). State-of-art neuroanatomical target analysis of high-definition and conventional tDCS montages used for migraine and pain control. *Frontiers in Neuroanatomy*, 9, 89. doi:10.3389/fnana.2015.00089

Lakkireddy, M., Bedarakota, D., Vidyasagar, J., Rapur, S., & Karra, M. (2015). Correlation among Radiographic, Arthroscopic and Pain Criteria for the Diagnosis of Knee Osteoarthritis. *Journal of Clinical and Diagnostic Research*, 9(12), RC04-07. doi:10.7860/JCDR/2015/17152.6889

O'Connell, N. E., & Wand, B. M. (2015). Transcranial direct current brain stimulation for chronic pain. *BMJ*, 350, h1774. doi:10.1136/bmj.h1774

Woods, A. J., Antal, A., Bikson, M., Boggio, P. S., Brunoni, A. R., Celnik, P., . . . Nitsche, M. A. (2016). A technical guide to tDCS, and related non-invasive brain stimulation tools. *Clinical Neurophysiology*, 127(2), 1031-1048. doi:10.1016/j.clinph.2015.11.012

Contact

hyochol.ahn@uth.tmc.edu

B 15 - Quality of Life in Cardiac Patients

Comparisons of Cardiometabolic Risk Between African American and Caucasian Women in a Worksite Wellness Program

Barbara Ann Graves, PhD, RN, USA

Susan J. Appel, PhD, RN, APRN-BC, CCRN, FAHA, USA

Abstract

Purpose: Cardiovascular disease (CVD) is the leading cause of death and chronic illness in the US. The burden of CVD is substantial in terms of mortality, disability, and cost. More than 82 million Americans have some type of CVD.¹ Total direct medical costs are projected to triple, from \$273 to \$818 billion, between 2010 and 2030.² More women die from CVD than men, but still represent an under-researched population.³⁻⁵ African-American women experience some of the highest age-adjusted prevalence rates for heart attack, stroke, hypertension, and diabetes. The purpose of the research study was to compare CMR or the interplay of risk for diabetes leading to heart disease, between African-American and Caucasian women.

Methods: A cross-sectional design was used to compare CMR variables in 50 women (25 African-American and 25 Caucasian) participants in a worksite wellness program. CMR profile data was obtained that included: 1) blood levels of fasting insulin and glucose (blood sugar), hemoglobin A1c (risk for diabetes), C-reactive protein (inflammation), 2) acanthosis nigricans scoring (darkened skin on the neck as risk for diabetes) and 3) Measures of body habitus (weight, height and waist circumference). A multivariate analysis of covariance (MANCOVA) was used to compare African American and Caucasian participants on the CMR variables while controlling for age and BMI. A regression analysis using a stepwise procedure was also used to determine which CMR measures were the best predictors of insulin resistance.

Results: There was a significant multivariate main effect of race, Wilks' $\Lambda = .58$, $F(10, 32) = 2.28$, $p = .04$, suggesting that there were significant differences between African American and Caucasian participants on measures of CMR. Stepwise regression analysis further revealed that the overall model was significant, $R^2 = .57$, $F(6, 38) = 8.36$, $p < .001$ for predicting insulin resistance. The analysis further indicating that BMI, fasting triglycerides, fasting HDL, and fasting hemoglobin A1c were significant predictors of insulin resistance.

Conclusion: Findings from this study provide valuable insights to guide the development of specific interventions to reduce CMR among understudied women in general. More specifically, findings inform how to tailor interventions among African-American women, as risks for heart disease and stroke have been found to differ by both gender and race.

References

1. Go AS, Mozaffarian D, Roger VL, Benjamin EJ, Berry JD, Borden WB, Bravata DM, Dai S, Ford ES, Fox CS, et al. Executive summary: Heart disease and stroke statistics--2013 update: A report from the American Heart Association. *Circulation* 2013 Jan 1; 127(1):143-52.
2. Heidenreich PA, Trogon JG, Khavjou OA, Butler J, Dracup K, Ezekowitz MD, Woo YJ. Forecasting the future of cardiovascular disease in the United States: A policy statement from the American Heart Association. *Circulation* 2011; 123(8), 933-944. doi:10.1161/CIR.0b013e31820a55f5; 10.1161/CIR.0b013e31820a55f
3. Shaw LJ & Butler J. Targeting Priority Populations to Reduce Disparities in Cardiovascular Care: Health Equity for All*. *Journal of the American College of Cardiology*, 2014; 64(4): 346-348.
4. Gupta A, Wang Y, Spertus JA, Geda M, Lorenze N, Nkonde-Price C, ... & Krumholz, H. M. Trends in acute myocardial infarction in young patients and differences by sex and race, 2001 to 2010. *Journal of the American College of Cardiology*, 2014; 64(4): 337-345.
5. Sharma K & Gulati M. Coronary artery disease in women: A 2013 Update. *Global Heart*, 2013; 8(2): 105-112.

Contact

agraves@ua.edu

B 15 - Quality of Life in Cardiac Patients

Cardiac Rehabilitation Improves Health-Related Quality of Life for Patients With Atrial Fibrillation: A Pilot Study

Lynn C. Macken, PhD, RN, USA

Charles Morrison Carpenter, MD, FACC, USA

Caitlin R. Coppenrath, MS, RCEP, USA

Gail Alison Crocker, BS, RN, USA

Karen Kurkjian, MD, FACC, USA

Aimee Chapman, BS, RN, CHFN, USA

Kristiina Hyrkas, PhD, LicNSc, MNSc, RN, USA

Abstract

Purpose: The prevalence of atrial fibrillation (AF) has reached epidemic proportions world-wide and in the U.S. (Abed et al., 2013). Patients with AF are at high risk for stroke, functional impairment, depression, symptom recurrence and poor quality of life (Alli et al., 2013). Medical treatment for AF has focused on controlling the arrhythmia and preventing stroke. Pharmacological or electrical cardioversion and ablation have shown limited success over time (Ganesan et al., 2013). Recurrent symptoms of fast, irregular heart rate, breathlessness and other troublesome symptoms foster profound psychological distress and limit patients' capacities to make important lifestyle changes. A recent study (Abed et al., 2013) investigating intensive cardiometabolic risk factor management showed a significant improvement in AF symptom burden, symptom severity, number of episodes and duration of episodes compared to usual care in overweight/obese patients with symptomatic AF. While cardiometabolic risk factor modification shows promise, strategies for improving health-related quality of life (HRQOL) in these patients are not clear (McCabe, Schumacher, & Barnason, 2011). Cardiac rehabilitation is an established, underutilized and low cost, evidence-based intervention that has been shown to improve physical function, reduce cardiometabolic risk factors and improve HRQOL in patients with known heart disease such as myocardial infarction and coronary artery bypass surgery (American Association of Cardiovascular and Pulmonary Rehabilitation [AACVPR], 2013). However, in the U.S., patients served by community-based cardiac rehabilitation programs rarely have AF as a primary diagnosis, often due to a lack of insurance coverage for this outpatient service. In the U.S., nurses provide the majority of patient-centered care in cardiac rehabilitation programs in collaboration with physicians, exercise therapists, dietitians and other rehabilitation specialists. This pilot study aims to examine cardiac rehabilitation as an innovative approach for improving the HRQOL of patients with symptomatic AF.

The purpose of this study was to describe and compare the six-month trajectory of HRQOL outcomes of patients with symptomatic AF who participate in cardiac rehabilitation or receive usual care.

Methods: A prospective, observational, longitudinal design was used for this IRB approved, one-year pilot study. Subjects were recruited from a convenience sample of patients with symptomatic paroxysmal or persistent AF who were referred by their physicians to the community-based cardiac rehabilitation program of a large, tertiary care hospital in the northeastern U.S. For study inclusion, patients were required to have rate-controlled cardiac rhythm, at least one cardiometabolic risk factor, and be medically cleared for moderate exercise. A potential pool of 10 patients per month was estimated from the number of patients with AF treated in the institution's cardiology-electrophysiology clinics. Cardiac rehabilitation staff contacted the referred patients by phone and described the program. After patients accepted or declined cardiac rehabilitation, staff invited them to participate in the research study. The intervention group received an intake interview to develop an individualized exercise and cardiometabolic risk modification care plan. They participated in 2-3 supervised, non-EKG monitored exercise sessions weekly for 12 weeks and attended educational classes for risk factor modification. Subjects who chose not to participate in cardiac rehabilitation but agreed to participate in the study were followed by their usual care providers and received risk factor modification advice and education at routine office visits.

HRQOL outcomes included AF symptoms and disease-specific quality of life. Questionnaires were collected at three time points: entry into the study/cardiac rehabilitation (T1), 3-months or completion of

cardiac rehabilitation (T2), and 6-months after study entry (T3). Symptoms related to AF were assessed with the University of Toronto Atrial Fibrillation Severity Scale (AFSS) (Dorian et al., 2013). HRQOL life was assessed with the Atrial Fibrillation Effect on Quality of Life (AFEQT) instrument (Spertus et al., 2011). Permission to use the AFSS and AFEQT was obtained from the authors. Subjects received a small stipend (\$25 U.S.) upon completion of the questionnaires at each time point. The modest cost of the cardiac rehabilitation program (\$60 U.S. per month) was paid by an internal grant for intervention subjects.

Results: Data were analyzed with descriptive and non-parametric statistics using SPSS, version 17. Thirty-four eligible patients were referred to cardiac rehabilitation between October 2015 and March 2016. Eighty-eight percent (30/34) agreed to study participation, with 23 (77%) selecting the intervention and 7 (23%) choosing usual care. Intervention subjects were significantly younger (66 vs. 73 years, $p=.017$) and were more likely to present with paroxysmal versus sustained AF ($p=.044$) compared to the usual care group. The majority of subjects reported a history of hypertension, hyperlipidemia, central obesity, orthopedic limitations, and no regular exercise at baseline. Intervention subjects were significantly more likely to have been treated with cardioversion (15/23, 65%) than the usual care group (1/6, 17%) ($p=.033$).

The AFSS symptom score (range 0-35) indicates how bothered subjects are by palpitations, shortness of breath at rest and during physical activity, exercise intolerance, fatigue at rest, lightheadedness and chest pain/pressure. The AFSS burden subscale (range 3 to 30) is the sum of frequency, duration and severity of AF episodes. Higher scores on both scales indicate worse symptoms or burden. AFSS global well-being was assessed with a visual analog scale rating how the subject feels about his/her life (1=worst possible; 10=best possible). The symptom trajectory for the intervention group showed significantly improved ratings of AF symptoms ($M=11.3$ vs. 5.8 , $p=.005$) and global well-being ($M=6.5$ vs. 7.6 , $p=.003$) between baseline and three months. There were no significant changes in AF burden, symptoms, severity or global well-being in the usual care group over time. Group comparisons showed that the intervention subjects had significantly worse AF burden scores at baseline ($M=18.8$ vs. 12.4 , $p=.030$) and six months ($M=15.1$ vs. 9.5 , $p=.011$); and worse AF severity at six months ($M=5.8$ vs. 2.8 , $p=.003$) than usual care subjects. No significant differences between groups were found for health care utilization by number of emergency room visits, hospitalizations and specialist visits in the year prior to study enrollment.

AF-specific quality of life was measured with the AFEQT overall and subscale scores (range 0 to 100; extreme to minimal disability/difficulty). For the intervention group, the HRQOL trajectory showed improvement in overall AFEQT scores ($M=60.8$ vs. 80.1 ; $p=.001$) and three of the four subscales for daily activities, treatment concerns and treatment satisfaction between T1 and T2. No significant changes in AFEQT scores were found for the usual care group at any time point. AFEQT meaningful important improvement scores were examined as described by Dorian et al. (2013), in which a 19-point or greater change indicates a substantial improvement in quality of life ($p=.385$). Between baseline and 3-months, 61% (11/18) of intervention subjects were found to have a meaningful improvement. No meaningful improvements in quality of life were found for usual care subjects between time periods. Group comparisons showed that the intervention subjects reported significantly worse treatment concern scores than the control group at baseline ($M=59.5$ vs. 85.3 , $p=.029$). Treatment concern items rate how worried or anxious the subject feels about their AF starting at any time, worsening other medical conditions and worry about medication and treatment side effects. Except for the treatment concern subscale, no statistically significant differences for overall AFEQT, AF symptoms, daily activities and treatment satisfaction were found between groups at any time period.

Limitations: One important limitation was the small sample size, especially in the usual care group. However, referral and participation rates were consistent with the anticipated number of eligible patients at this site. No sample size calculation had been planned for the pilot study.

Conclusion: The results of this study confirmed that many patients with a primary diagnosis of symptomatic AF often present with multiple cardiometabolic risk factors. While usual care providers are aware of the need to address lifestyle modifications, office time is limited and typically focuses on medical management issues. Referring appropriate patients to a community-based cardiac rehabilitation program significantly improved AF symptoms, symptom burden, daily activities, treatment concerns, treatment

satisfaction, global well-being and AF-related quality of life for the intervention group. A recent study by Dorian and colleagues (2013) found a meaningful important improvement in overall HRQOL in 35% of patients after three months of usual care treatment. With the addition of the cardiac rehabilitation intervention in our study, 61% of subjects with similar baseline characteristics reported a meaningful improvement in HRQOL over the same time period. The advantages for patients to participate in cardiac rehabilitation include the repetitive interaction with and coaching by skilled nurses and clinicians who specialize in exercise therapy, dietary modification, stress management and self-care strategies (AACVPR, 2013).

These results also suggest that patients with AF who voluntarily participate in a 12-week cardiac rehabilitation program may present with unique characteristics such as being relatively younger, experienced cardioversion, had worse treatment concerns and reported greater disease burden related to frequency, duration and severity of AF episodes. Future research aimed at identifying patients with symptomatic AF who may benefit the most from cardiac rehabilitation would be useful to nurses and other clinicians who regularly care for these patients. This pilot study also suggests that strategies to sustain improvement in HRQOL beyond the cardiac rehabilitation intervention are still needed.

References

- Abed, H. S., Wittert, G. A., Leong, D. P., Shirazi, M. G., Bahrami, B., Middeldorp, M.E.,... Sanders, P. (2013). Effect of weight reduction and cardiometabolic risk factor management on symptom burden and severity in patients with atrial fibrillation: A randomized clinical trial. *Journal of the American Medical Association*, 310(19), 2050-2060. doi: 10.1001/jama.2013.280521
- Alli, O., Doshi, S., Kar, S., Reddy, V., Sievert, H., Mullin, C.,...Homes, D. (2013). Quality of life assessment in the randomized PROTECT AF (Percutaneous Closure of the Left Atrial Appendage Versus Warfarin Therapy for Prevention of Stroke in Patients with Atrial Fibrillation) trial of patients at risk for stroke with nonvalvular atrial fibrillation. *Journal of the American College of Cardiology*, 61(17), 1790-1798. doi: 10.1016/j.jacc.2013.01.061
- American Association of Cardiovascular and Pulmonary Rehabilitation. (2013). *Guidelines for Cardiac Rehabilitation and Secondary Prevention Programs*. 5th ed. Champaign, IL: Human Kinetics.
- Dorian, P., Burk, C., Mullin, C. M., Bubien, R., Godejohn, D., Reynolds, M. R., ...Spertus, J. (2013). Interpreting changes in quality of life in atrial fibrillation: How much change is meaningful? *American Heart Journal*, 166;381-387.e8. doi: 10.1016/j.ahj.2013.04.015.
- Ganesan, A. N., Shipp, N. J., Brooks, A. G., Kuklik, P., Lau, D. H., Lim, H. S.,...Sanders, P. (2013). Long-term outcomes of catheter ablation of atrial fibrillation: A systematic review and meta-analysis. *Journal of the American Heart Association*, 2:e004549. doi: 10.1161/jaha.112.004549
- McCabe, P. J., Schumacher, K., & Barnason, S. A. (2011). Living with atrial fibrillation: A qualitative study. *Journal of Cardiovascular Nursing*, 26(4), 336-344. doi: 10.1097/jcn.0b013e31820019b9
- Spertus, J., Dorian, P., Bubien, R., Lewis, S., Godejohn, D., Reynolds, M. R.,... Burk. C. (2011). Development and validation of the Atrial Fibrillation Effect on QualiTy-of-Life (AFEQT) questionnaire in patients with atrial fibrillation. *Circulation: Arrhythmia and Electrophysiology*, 4, 15-25. doi: 10.1161/CIRCEP.110.958033

Contact

lynn.macken@gmail.com

B 16 - Adolescent Sexual Health

Using Youth-Participatory Research to Address Health Disparities in Sexually Transmitted Infections Among Homeless Youth

Michelle Dang, PhD, RN, APHN-BC, USA

Abstract

Purpose: Sexually transmitted infections (STIs), including HIV, among homeless youth are a significant public health issue with STI rates among homeless youth being more than twice that of nonhomeless youth. Despite known risk factors, effective interventions for STI prevention and treatment for this population remain elusive. Evidence-based STI interventions targeted at adolescents typically encompass community or school-based, behavioral approaches; such approaches are a poor fit with a highly mobile population and do not address underlying social conditions that contribute to unsafe sexual behaviors such as survival needs, social norms, and access to health education.

This project is an exploratory study using a youth-participatory approach to determine the most effective methods in STI research with homeless youth as well as identifying key social and structural characteristics that will inform programs that target this population in developing culturally-specific interventions that will increase protective sexual behavior and improve access to care. Four current and former homeless youth (2 males, 2 females, ages 19-21) were recruited as co-researchers and cultural informants and co-designed the study's methodologies and instruments.

Methods: The PI and youth researchers, hereafter team, determined that focus groups with homeless youth would be the appropriate first step design to gather data about the overall health care access for STI-related issues and the general perceptions of youth about STIs. After completing IRB training, the youth researchers collaborated with the PI to develop focus group questions and recruited other homeless youth to participate in the focus groups through word of mouth and in-person invitations. The PI trained the youth researchers in how to facilitate focus groups, and the team conducted mock focus groups prior to actual data collection. A total of three focus groups were completed, and one youth researcher facilitated each focus group along with the PI, who was present at all the focus groups.

Results: The team analyzed the data together using thematic analysis. Data from the focus groups revealed four main themes: 1) mistrust of the healthcare system; 2) stigma and shame related to STIs; 3) concerns about confidentiality; and 4) lack of knowledge about insurance coverage. These findings support the need for more in-depth qualitative interviews with homeless youth to illuminate processes related to these concerns (2nd phase). As a youth-participatory project, the research team also identified systems issues that posed challenges to a full academic-youth partnership.

To gain more in-depth information about the issues identified in the focus groups, the team collaborated in developing interview questions and identified brief standardized questionnaires about STI knowledge and stigma to include in the study. Twenty homeless youth were recruited for one-on-one interviews conducted by the PI. Data analysis indicated that participants had good knowledge about STIs with the vast majority being able to identify all of the correct answers on a brief quiz about STIs. Sample questions included, "A person can have a sexually transmitted disease or STD and not know it," "STDs that aren't cured early can cause sterility in women." Participants also reported that access to STI testing and treatment was not a barrier to them getting tested, and that they advocated for testing for themselves and their partners. Two main themes arose regarding concerns about getting tested: 1) fear of the unknown and how their friends will perceive them; and 2) fear of getting STDs that non-curable such as herpes and HIV. In terms of the decision making process as to whether they would use condoms during sex, several themes emerged: 1) condoms reduce pleasure associated with sex; 2) condoms are not necessary if you know someone well; and 3) not using condoms when they are "in the moment".

Conclusion: Findings from both the focus groups and semi-structured interviews indicate that homeless youth have adequate understanding about STIs and access to testing and treatment as well as free condoms. Interventions to prevent STIs often focus on education alone. The narratives provided by the

youth in this study support a need to provide developmentally appropriate interventions. The youth in this study have a clear understanding about how STIs are spread and prevented; and access to testing and treatment does not pose a barrier as would be expected for this population. They also reported feeling comfortable talking with health care providers about getting tested for STIs. Findings suggest that interventions should not focus only on education and access to care. An emphasis should be placed on normalizing routine STI testing and reducing stigma and fear. Nurses and other health care providers are trusted by youth and can serve as an important catalyst in changing young people's perceptions about getting tested for STIs.

References

- Tyler , K. A., & Melander, L. A. (2012). Individual and social network sexual behavior norms of homeless youth at high risk for HIV infection. *Children & Youth Services, 34*(12), 2481-2486.
- Valente, A. M., & Auerswald, C. L. (2013). Gender differences in sexual risk and sexually transmitted infections correlate with gender differences in social networks among San Francisco homeless youth. *Journal of Adolescent Health, 53*(4), 486-491.
- Ober, A. J., Martino, S. C., Ewing, B., & Tucker, J. S. (2012). If you provide the test, they will take it: Factors associated with HIV/STI testing in a representative sample of homeless youth in Los Angeles. *AIDS Education and Prevention, 24*(4), 350-362.

Contact

dang@csus.edu

B 16 - Adolescent Sexual Health

Understanding the Intersection of Adolescent Girls' Motives for Sex and Risk Profiles

Dianne Morrison-Beedy, PhD, MSN, BSN, RN, WHNP-BC, FNAP, FAANP, FAAN, USA

Linsey Grove, MPH, CPH, CHES, USA

Ming Ji, PhD, USA

Elizabeth Baker, PhD, MPH, CPH, USA

Abstract

Purpose: Sexual risk behaviors resulting in HIV, STIs and unplanned pregnancy continue to pose a significant health risk to adolescent girls globally. Tested in a randomized controlled trial, the Health Improvement Project Teens (*HIPTeens*) is recognized by the Department of Health and Human Services (DHHS) and the Centers for Disease Control (CDC) as an HIV/STI and teen pregnancy prevention evidence-based intervention (EBI) (Morrison-Beedy, Jones, et al., 2013). Understanding what motivates girls to participate in safe and risky sex is important to developing and tailoring behavioral interventions to increase their utility across the globe. The purpose of this study was to examine the baseline sex motives of *HIPTeen* participants and the intersection of these motives with demographic, sexual and mental health risk profiles. These findings can be used to identify vulnerable subgroups for future health promotion interventions.

Background/Literature: In 2015, The CDC estimate that approximately 25% of adolescents have acquired an STI (Prevention, 2015). Although U.S. teen pregnancy rates have fallen in the past decade, disparities in STIs and unintended pregnancies continue among minority groups and those with a history of risk behaviors (CDC, 2015). Young women of color accounted for the highest number of estimated new HIV diagnoses compared to all other racial groups (CDC, 2016). Reproductive history and demographic variables have been linked with sexual risk behaviors as well; for example, younger sexually active females experience higher rates of unprotected sex and multiple sexual partners (Vasilenko, Kugler, & Rice, 2016) and face sexual coercion from older partners (Morrison-Beedy, Xia, & Passmore, 2013; Volpe, Hardie, Cerulli, Sommers, & Morrison-Beedy, 2013). A history of pregnancy, especially repeat pregnancy, is associated with negative long-term health implications (Meade & Ickovics, 2005) as well as having other negative impacts as teen moms are less likely to graduate high school and find stable employment (Hoffman & Maynard, 2008; Seth, Wingood, DiClemente, & Robinson, 2011; Shrier, Walls, Lops, Kendall, & Blood, 2012).

For most teens, adolescence is a time of great biological and psychosocial change. Unfortunately for some, this can mean facing mental health and substance abuse challenges. A recent study found that over the course of a year 12-17 year old girls experienced nearly three times more major depressive events than their male peers (Substance Abuse and Mental Health Services Administration, 2012). Adolescent girls were more likely to feel sad or hopeless almost every day for two weeks or more, drink at least one alcoholic beverage, and smoke marijuana in the past month (Kann et al., 2015). Struggling with mental health and substance abuse issues can increase sexual risk as well as compound it (Mazzaferro et al., 2006; Jackson, Seth, DiClemente, & Lin, 2015). Substance use and depression have been linked with sexual risk behaviors including decreased condom use and substance use co-occurrence with sexual activities (Shrier et al., 2012). Studies have shown that varying motives for having sex influence risk behavior among adolescents. The relationship between motives for sex and condom use was examined in a study by 277 females; intimacy motives were associated with a reduction in condom use (Gebhardt, Kuyper, & Greunsven, 2003). Conversely, participants with low scores on the motive "to express love" (intimacy) with steady partners were more likely to have protected sex (Gebhardt et al., 2003; Gebhardt, Kuyper, & Dusseldorp, 2006). In another study, inexperienced and sexually active adolescent girls motivations to have sex were driven differently by personal values and religious influence (Paradise, Cote, Minsky, Lourenco, & Howland, 2001). Cooper, Shapiro and Powers, investigated motivations for sex categorized into four areas: self-focused or socially-focused interactions with positive or negative reinforcement (1998) identifying differences among subsets of respondents across genders. Still, limited information exists on the motivations of why vulnerable or disenfranchised adolescent girls

have sex. Understanding their motives to participate in sexual risk behaviors taking into account their risk profiles can help us tailor interventions to at-risk subgroups.

Methods: Sexually-active girls, ages 15-19 ($n=738$) were recruited from urban community-based settings and provided a gender-specific intervention in small group sessions. This intervention was theoretically-driven from the Information-Motivation-Behavioral Skills model which highlights these three constructs in successful behavioral approaches (Fisher & Fisher, 1992). Data were collected via audio computer-assisted self-interview surveys (ACASI) including a 17-item sex motives 5-point scale encompassing six domains: intimacy, enhancement, self-affirmation, coping, peer pressure, and partner approval (Morrison-Beedy, Carey, & Tu, 2006). Descriptive and inferential statistics and cluster analyses were used to describe the baseline distribution of sex motives in various subgroups defined by demographics and other risk factors and t-tests to determine differences between these subgroups.

Results: Participants were predominantly African American, impoverished, and exhibited multiple sexual risk factors. The principal sex motives identified were enhanced ($M=4.95$, $SD=3.09$) and intimacy ($M=7.69$, $SD=3.38$) while partner approval, peer pressure, and self-affirmation were reported infrequently. Statistically significant motive differences across domains were identified among mental health risk profiles (depression, marijuana use, binge drinking) at baseline. Girls who reported high depressive symptoms had significantly higher peer pressure ($M=0.30$, $SD=0.95$), partner approval ($M=2.06$, $SD=3.40$), coping ($M=2.15$, $SD=2.72$), and self-affirmation ($M=2.00$, $SD=3.07$) motives mean scores. Coping ($M=1.38$, $SD=2.18$), self-affirmation ($M=1.17$, $SD=2.28$), and enhanced ($M=5.43$, $SD=3.10$) motives mean scores were significantly higher among participants that had ever used drugs. Sex motives also differed significantly among demographic and reproductive health characteristics including race, age, and parental status. No history of pregnancy ($M=0.19$, $SD=0.68$) or children ($M=0.17$, $SD=0.65$) were associated with significantly higher peer pressure motives mean scores. Significantly higher mean intimacy motive scores (protective factor) were found among girls who were older ($M=8.01$, $SD=3.19$), black ($M=7.85$, $SD=3.36$), had never been treated for an STI ($M=8.00$, $SD=3.23$), and were not depressed ($M=7.87$, $SD=3.30$).

Conclusion: Understanding sex motives in girls and their relationship to modifiable and unmodifiable factors can improve tailoring of evidence-based risk reduction interventions to target specific subgroups. Opportunities to address modifiable variables during pre-intervention may augment intervention efficacy. *HIPTeensis* a scientifically tested intervention translated to inform evidence-based practice (EBP) in at-risk communities and settings. Understanding the motivational context of decision-making in adolescent girls regarding sexual choices and the intersection with their risk profiles is an important next step in translational science.

Relevance to Conference Themes & Objectives: Furthering research on sex motives in adolescent girls and their interaction with different profiles of risk is a critical step in promoting the transformation of sexual risk knowledge and evidence-based practice to advance global health and nursing. Utilizing interprofessional environments and partnerships like Sigma Theta Tau International to disseminate evidence-based interventions can fuel meaningful discussion on implementation strategies, provide opportunities for interdisciplinary learning, and promote the exchange of ideas on how to integrate technology which accelerates the translation of research into evidence-based practice.

References

- Centers for Disease Control and Prevention (2013). CDC vital signs: Preventing repeat teen births. Retrieved from <http://www.cdc.gov/vitalsigns/teenpregnancy/>
- Centers for Disease Control and Prevention (2015). STDs in racial and ethnic minorities. Retrieved from <https://www.cdc.gov/std/stats14/minorities.htm>
- Centers for Disease Control and Prevention (2016). HIV among youth. Retrieved from <http://www.cdc.gov/hiv/group/age/youth/index.html>
- Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: a functional perspective. *J Pers Soc Psychol*, 75(6), 1528-1558.
- Fisher, J. D., & Fisher, W. A. (1992). Changing AIDS-risk behavior. *Psychological Bulletin*, 111(3), 455-474. doi:10.1037/0033-2909.111.3.455

Gebhardt, W. A., Kuyper, L., & Dusseldorp, E. (2006). Condom use at first intercourse with a new partner in female adolescents and young adults: The Role of cognitive planning and motives for having sex. *Archives of Sexual Behavior*, 35(2), 213.

Gebhardt, W. A., Kuyper, L., & Greunsvan, G. (2003). Need for intimacy in relationships and motives for sex as determinants of adolescent condom use. *Journal of Adolescent Health*, 33(3), 154-164. doi:[http://dx.doi.org/10.1016/S1054-139X\(03\)00137-X](http://dx.doi.org/10.1016/S1054-139X(03)00137-X)

Hoffman, S., & Maynard, R. (Eds.). (2008). *Kids having kids: Economic costs and social consequences of teen pregnancy* (2nd ed.). Washington, D.C.: Urban Institute Press.

Jackson, J. M., Seth, P., DiClemente, R. J., & Lin, A. (2015). Association of depressive symptoms and substance use with risky sexual behavior and sexually transmitted infections among african american female adolescents seeking sexual health care. *American Journal of Public Health*, 105(10), 2137-2142. doi:10.2105/AJPH.2014.302493

Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Hawkins, J., & al., e. (2015). Youth risk behavior surveillance — United states, 2015. Atlanta, GA: Centers for Disease Control and Prevention Retrieved from http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506_updated.pdf.

Mazzaferro, K. E., Murray, P. J., Ness, R. B., Bass, D. C., Tyus, N., & Cook, R. L. (2006). Depression, stress, and social support as predictors of high-risk sexual behaviors and STIs in young women. *Journal of Adolescent Health*, 39(4), 601-603. doi:<http://dx.doi.org/10.1016/j.jadohealth.2006.02.004>

Meade, C. S., & Ickovics, J. R. (2005). Systematic review of sexual risk among pregnant and mothering teens in the USA: Pregnancy as an opportunity for integrated prevention of STD and repeat pregnancy. *Social Science & Medicine*, 60(4), 661-678. doi:<http://dx.doi.org/10.1016/j.socscimed.2004.06.015>

Morrison-Beedy, D., Carey, M. P., & Tu, X. (2006). Accuracy of audio computer-assisted self-interviewing (ACASI) and self-administered questionnaires for the assessment of sexual behavior. *AIDS & Behavior*, 10(5), 541.

Morrison-Beedy, D., Jones, S. H., Xia, Y., Tu, X., Crean, H. F., & Carey, M. P. (2013). Reducing sexual risk behavior in adolescent girls: Results from a randomized controlled trial. *Journal of Adolescent Health*, 52(3), 314-321. doi:10.1016/j.jadohealth.2012.07.005

Morrison-Beedy, D., Xia, Y., & Passmore, D. (2013). Sexual risk factors for partner age discordance in adolescent girls and their male partners. *Journal of Clinical Nursing*, 22(23/24), 3289.

Paradise, J. E., Cote, J., Minsky, S., Lourenco, A., & Howland, J. (2001). Personal values and sexual decision-making among virginal and sexually experienced urban adolescent girls. *Journal of Adolescent Health*, 28(5), 404-409. doi:[http://dx.doi.org/10.1016/S1054-139X\(01\)00199-9](http://dx.doi.org/10.1016/S1054-139X(01)00199-9)

Substance Abuse and Mental Health Services Administration. (2012). National survey on drug use and health data spotlight: Depression triples between the ages of 12 and 15 among adolescent girls. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUH-SP77-AdolescentGirlsDepression-2012/CBHSQ-NSDUH-Spotlight-077-AdolescentGirlsDepression-2012.pdf>.

Seth, P., Wingood, G. M., DiClemente, R. J., & Robinson, L. S. (2011). Alcohol use as a marker for risky sexual behaviors and biologically-confirmed sexually transmitted infections among young adult African American women. *Women's health issues*, 21(2), 130-135. doi:10.1016/j.whi.2010.10.005

Shrier, L. A., Walls, C., Lops, C., Kendall, A. D., & Blood, E. A. (2012). Substance use, sexual intercourse, and condom nonuse among depressed adolescents and young adults. *Journal of Adolescent Health*, 50(3), 264-270. doi:<http://dx.doi.org/10.1016/j.jadohealth.2011.07.005>

Vasilenko, S. A., Kugler, K. C., & Rice, C. E. (2016). Timing of first sexual intercourse and young adult health outcomes. *Journal of Adolescent Health*. doi:<http://dx.doi.org/10.1016/j.jadohealth.2016.04.019>

Volpe, E. M., Hardie, T. L., Cerulli, C., Sommers, M. S., & Morrison-Beedy, D. (2013). What's age got to do with it? Partner age difference, power, intimate partner violence, and sexual risk in urban adolescents. *Journal of Interpersonal Violence*, 28(10), 2068-2087. doi:10.1177/0886260512471082

Contact

dmbeedy@health.usf.edu

C 04 - Challenges in Substance Abuse

A Retrospective Descriptive Study of Chemically Impaired Nurses in Texas

Mercy N. Mumba, PhD, RN, CMSRN, USA

Abstract

Purpose: The purpose of this study was to describe the population of nurses with impaired practice in the state of Texas going through a peer assistance program between 2013 and 2016.

The lack of education and screening for substance abuse, negative attitudes towards substance abuse, and the stigma associated with mental illness have further exacerbated this problem (Darbro & Malliarakis, 2012). Furthermore, very few interventional studies have been conducted on nurses with impaired practice. This is partly due to the complexities involved with studying nurses with impaired practice, specifically when considering confidentiality problems and maintaining anonymity of these nurses.

Consequently, very little is known concerning the characteristics of nurses with impaired practice, especially those going through peer assistance programs. Few recent studies have aimed at comprehensively describing this population, including their recent prevalence, demographic characteristics, and interventions specific to nurses in order to promote recovery and reduce relapse rates. In Texas, no studies were found in the literature that addressed the aforementioned concerns. Before any specific interventions can be recommended, a clear picture of who these nurses with impaired practice are is needed

Methods: This study was a retrospective analysis of secondary data of nurses who are chemically impaired collected by TPAPN between January 2010 and October 2016. It included both associational and comparative designs. Associational design was used to examine the strengths of relationships among variables, as well as to predict the behavior of one variable based on how another variable was acting. A comparative design was also used to answer research questions that examined differences between groups but lacked an active independent variable.

Results: Currently, 348 nurses in TPAPN are actively participating in the program for substance abuse related offenses. Many nurses are also referred to the program are for dual diagnoses. Of all the nurses that were referred to TPAPN over the last six years, 1553 were specifically for substance abuse related problems. These represent two percent of the population of nurses in Texas. The average age of participants in this study was 40.1 years, and approximately half of them were under the age of 40. Females represented 75% of participants and 76% were registered nurses. About 32% relapsed while they were in the program, and about 41% successfully completed the program. Nurses with impaired practice abuse variety of substances including prescription drugs and illegal drugs. Opioids were the most frequently abuse class of drugs, followed by alcohol, and then stimulants. The majority of nurses obtained their drugs by diverting from patients. Contrary to what is in the literature, nurses working in long-term care, medical-surgical units, and home health care had the highest prevalence of impaired practice. In this study, psychiatric comorbidity was not significantly associated with relapse. Self-report status was significantly associated with gender, age category, license type, relapse, and drug of choice. There was a significant inverse relationship between time it takes to enroll and number of days abstinent. Men were also more likely to be employed while in the program compared to their female counterparts. Of the twelve-predictor variables used in Cox Regression analysis, only two were significant predictors of relapse among nurses with impaired practice in TPAPN. These two predictors were (a) having substance use disorder as the referral type and (b) having alcohol as the primary drug of choice

Conclusion: A significant number of nurses still suffer from substance use disorders. From the results of this study, it is evident that the prevalence of substance abuse among nurses is higher than what is traditionally reported. Also, only a small percentage of nurses report themselves to the peer assistance programs. This who report themselves see to have better outcomes and thus, self-report should be encouraged.

References

Angres, D., Bologeorges, S., & Chou, J. (2013). A two year longitudinal study of addicted healthcare professionals: An investigation of the role of personality variables. *Substance Abuse: Research and Treatment*, 7, 49-60.

doi:10.4137/SART.S10556

Cares, A., Pace, E., Denious, J., & Crane, L. A. (2015). Substance abuse and mental illness among nurses: Workplace warning signs and barriers to seeking assistance. *Substance Abuse*, 36(1), 59-66.

doi:10.1080/08897077.2014.933725

Darbro, N., & Malliarakis, K. D. (2012). *Substance abuse: Risk factors and protective factors*. *Journal of Nursing Regulation*, 3(1), 44-48. Retrieved from <http://www.journalofnursingregulation.com/>

Davis, K., Powers, C., Vuk, J., & Kennedy, R. (2014). Predictors of substance use recidivism among Arkansas nurses. *Journal of Nursing Regulation*, 5(1), 39-44. Retrieved from <http://www.journalofnursingregulation.com/>

Contact

mercy.mumba@mavs.uta.edu

C 04 - Challenges in Substance Abuse

A Redemption Story: A Case Study of a Faith-Based Addiction Recovery Process

Chitra Paul Victor, PhD, RN, RM, CNE, USA

Abstract

Purpose: The purpose of this study is to acquire an in-depth descriptive explanation regarding the role of the faith-based recovery program and the influence of this program on the healing of body, mind, and spirit and the restoration of hope for women recovering from substance addiction.

Methods: The researcher used a single embedded interpretive case study design based on the social process theory: Understanding God as Sponsor. Data was collected through observations, in-depth interviews, and the analysis of artifacts. The researcher used purposive sampling to recruit female drug addicts recovered in a faith-based recovery program and their care providers. The researcher used interpretivist approach to explore the perception and the real-world experiences of the faith-based recovery process. The interpretivist approach of case study draws a conclusion of individuals, units, or cases within specific contexts and involves description and exploration (Yin, 2013). The interpretivist approach allowed the researcher to explore *how* faith is understood and implemented in the reality of day-to-day recovery from addiction and *why* questions about whether faith-based recovery process are occurring or not. The interpretivist paradigm in nursing research helped the nurse researcher to explore the process, meaning, and qualities of a faith-based recovery process from substance addiction that is not subject to measurement or experiment.

Results: Within the boundaries of the single case of the selected faith-based program, fifteen female participants who underwent the faith-based recovery process and five of their caregivers were interviewed. Rich description of the interview data and the program interventions revealed the case. The data analysis using inductive strategy and coding process revealed five major themes, twelve subthemes, and eight outliers. The major themes include (1) I was Battling with Addiction (2) In You, I Found a Love Unconditional and Divine (3) I know I have a Future (4) New Hope, New Dreams, and New Life (5) I'm a New Person: God created Me to be. The themes revealed participants were subjected to drug addiction because of abuse, low self-esteem, rejection, depression, and hopelessness. Therefore, addiction was perceived as a symptom, and alienation from God was considered to be the root of the problem. However, the findings revealed that the faith-based interventions restored addicts' relationship with God, which promoted self-esteem. The themes also revealed developing a relationship with God is one's free will and cannot be forced by discipline or rules. The faith-based program interventions help the recovering addict to complete one step at a time to reach a complete recovery and the healing of body, mind, and spirit. These five steps include (1) Hopelessness, (2) Surrender, (3) Future, (4) Hope, and (5) Healing. Recovery from addiction and the healing of body, mind, and spirit began when the women realized God's unconditional love and believed God wants to help them to be free from the addiction. When the participants experienced holistic healing through the faith-based recovery process, they developed hope for the future.

Conclusion: Substance Use Disorders (SUD) and addiction lead to significant socio-economic costs due to crime, increased health care, and loss of productivity (Giardano, 2014). The epidemic of SUD is costly and costs the nation hundreds of billions of dollars each year. In the United States, \$700 billion is spent on health care and productivity losses related to SUD each year. Many individuals with Substance Use Disorders (SUD) are living without hope because of their repetitive and uncontrolled behavior to use drugs (NIDA, 2014). These individuals need hope for recovery and social acceptance (Timmons, 2012). Holistic healing, the healing of body, mind, and spirit can promote this hope and quality of life. Instilling hope through spiritual faith reconnects the addicts to their recovery and healing. Faith is the powerful factor for promoting hope and is a key concept in holistic nursing (Benefiel, Fry, Geigle, 2014; Miller, & Ewest, 2013).

From the data analysis of this single embedded interpretive case study, five main themes emerged reflecting the success of the program and the process of the faith-based recovery. The influence of the

faith-based recovery program on the recovery process was explained by identifying various faith-based interventions. Nursing is a caring profession founded in spirituality and in a religious background that involves a holistic perspective of caring for the mind, body, and spirit of the patient (O'Brien, 2013). In a rapidly changing health care environment, it is imperative to implement cost-effective and holistic interventions to help addicts recover and abstain from Substance Use Disorders.

References

Benefiel, M., Fry, L., & Geigle, D. (2014). Spirituality and religion in the workplace: History, theory, and research. *Psychology of Religion in the Workplace*, 6, 175-187.

doi:<http://dx.doi.org.ezproxy.apollolibrary.com/10.1037/a0036597>

Giardano, V.A. (2014). Public acceptance for drug treatment in lieu of incarceration for drug offenders in Florida. *Journal of Drug Issues*, 44, 414-429.

Miller, D. W., & Ewest, T. (2013). The present state of workplace spirituality: A literature review considering context, theory, and measurement/assessment. *Journal of Religious & Theological Information*, 12, 29-54.

National Institute of Drug Abuse. (2014). *The science of drug abuse and addiction: The basics*. Retrieved from <http://www.drugabuse.gov/publications/media-guide/science-drug-abuse-addiction-basics>

O'Brien, M. E. (2014). *Spirituality in nursing: Standing on holy ground*. (5th ed.). Sudbury, MA: Jones & Bartlett Learning.

Timmons, S. M. (2012). A Christian faith-based recovery theory: Understanding God as Sponsor. *Journal of Religious Health*, 51, 1152-1164. doi:10.1007/s10943-010-9422-z

Yin, R. K. (2013). *Case study research: Design and methods applied social research methods*. SAGE Publications. Kindle Edition.

Contact

chitrafelts@yahoo.co.uk

C 06 - Alternative Health Promotion

Relieving Pain and Anxiety via Sensory Modification

Christi M. Turnage, ADN, RN, USA

Abstract

Purpose: The purpose of this review was to evaluate literature related to the efficacy of sensory modification in relieving pain and anxiety and promoting comfort during medical procedures and hospital stays as an alternative to pharmacological management.

Methods: A single researcher conducted individual searches using OVID, CINAHL/EBSCO, and PubMed. Several keyword combinations were used, but those yielding usable results were procedure, noise, ICU, light, surgery, pain, and anxiety reduction. Inclusion criteria included English language, human subjects, free full text, clinical trial, and date range including only those articles published within the last five years. After application of criteria, 15 topic relevant studies were located. All studies reviewed were randomized controlled trials (RCTs). All but eight studies were rejected as they involved sample populations that were either children or undergoing dental procedures. These eight RCTs were retained for this review.

Results: Of the seven RCTs examined, six reported significant reduction in pain and anxiety with sensory modifications of mixed modality. These included earplugs, eye masks, music intervention, and therapeutic touch. Two RCTs examined the addition of earplugs and eye masks to care routines in intensive care and postoperative units during nights following surgery in order to reduce anxiety and physiological stress for patients during their stay. The study by Hu et al was a prospective single-center randomized controlled parallel-group clinical trial. Using the closed envelope method, 45 patients were randomly assigned to either an intervention group or control group. Earplugs and eye masks were provided to the experimental group for three days prior to surgery. Control group received usual care. Subjective sleep perception was evaluated by self report. Nocturnal melatonin and cortisol levels were measured one day prior to surgery and for two days following surgery. Nocturnal noise and light levels were measured in the ICU beginning when patients arrived on the unit following surgery. Mean \pm standard deviation were used to express measurement data and ratios were used to express count data. An independent samples t test was used for comparison of the intervention and control groups. The chi square was used to compare count data. One way ANOVA was used to express differences in cortisol and 6 SMT over time. Cronbach's alpha of 0.05 was significant. This study indicated that eye masks and earplugs are effective in reducing disturbance in sleep that can lead to anxiety. In the study by Le Guen et al, 41 patients were randomized into an intervention group receiving earplugs and eye masks on the first night after surgery or a control group receiving routine care. Sleep quality was evaluated by self report, actigraph placed on nondominant wrist, and external assessment by a nurse. For this study, all data are expressed in terms of mean, median, or percentage. MANOVA with $P < 0.05$ considered significant was used to compare each night's data while in unit. This study suggests that eye masks and earplugs preserve sleep quality and may reduce anxiety.

Another three studies looked at the effect of music therapy via headphones and either CD or MP3 players on perceived anxiety of patients undergoing medical treatment. The study by Eckhouse et al was a pretest/posttest study in which 112 patients were randomized into three groups. One group received usual care before during and after treatment. The remaining groups received either music focused relaxation via headphones and compact disc (CD) during treatment or viewed a 20 minute music video during treatment. One way ANOVA and paired t tests were used to compare patient characteristics and pre and posttest scores. $P = 0.05$ was considered significant. There were no statistical differences between scores of each group to suggest that audio or visual intervention was more effective in reducing anxiety. In the study by Chlan et al, 373 ICU patients were randomized into a control group receiving usual care, a group receiving noise abating headphones, or a group receiving self directed music therapy. Anxiety was measured using daily anxiety assessment and measures of sedative intensity and frequency. Repeated measures ANCOVA was used to measure anxiety and sedative exposure. Significance level was set at $p < 0.05$. Results showed that anxiety and sedative exposure was most reduced by self directed music

therapy. In the study by Palmer et al, 207 patients undergoing breast surgery were randomly assigned to receive patient directed live music preoperatively with therapist directed recorded music intraoperatively, recorded music selected by patient preoperatively and selected by therapist intraoperatively, or usual care preoperatively with noise blocking earmuffs intraoperatively. Anxiety was measured by self report and propofol required during surgery. With a significance level of $p < .001$, one way ANOVA showed a greater reduction in anxiety scores, but not in the amount of propofol required for anesthesia.

The remaining studies explored the impact of preoperative physical conditioning prior to surgery or therapeutic massage prior to surgery on pain and anxiety of patients undergoing surgery. The study by Rosenfeldt et al randomized 117 cardiovascular surgery patients in two groups. The first group received usual care while the second received what was termed holistic care involving physical conditioning for two weeks prior to surgery and mental stress reduction. Outcomes were measured via self report using the Short Form 36 item Health Survey Questionnaire and medical records to assess length of stay. Chi square and Fischer's exact tests were used for continuous variables and parametric data were analyzed with the student's t-test. Two way repeated ANOVA was used to compare variables with repeated measures. Results were not statistically conclusive, but further research was warranted. The study by Braun et al examined the effect of massage therapy on anxiety and pain levels in cardiac surgery patients. A total of 152 patients were randomized into two groups that received wither massage or rest after surgery. Visual analog scales (VAS) were employed to assess levels of pain and anxiety both before and after each intervention. Fischer's exact test was used to examine proportional differences between groups. Repeated measures ANOVA was used to assess changes in VAS scores. Massage significantly relieved pain and anxiety when performed on day 3 or 4 postoperatively ($P < .0001$). The study by Peng et al also looked at the effect of massage on anxiety in patients receiving percutaneous coronary intervention. A total of 117 participants were randomized into two groups receiving either massage of head, neck, shoulders, and back for 20 minutes before surgery or usual care. Blood pressure, heart rate, and anxiety levels were assessed and compared. Anxiety levels were measured via the State Trait Anxiety Inventory (STAI). The groups were compared using the t-test for independent samples. Comparisons within groups were obtained using a paired t-test. Comparisons of indicators of pain and anxiety were compared between groups using repeated measures ANOVA. Results showed significant reduction in anxiety levels in those patients receiving massage therapy. Self reported anxiety, heart rate, and blood pressure were notably lower in the experimental group. Significance level was $p < 0.05$.

Conclusion: According to studies, compared with groups of patients receiving no environmental sensory modifications, patients undergoing medical procedure in sensory controlled environments experienced more positive outcomes. These outcomes include reduction in anxiety, decreased perception of pain, and improved sleep quality. Addition of complementary therapies to usual care for those patients who are hospitalized or undergoing treatment offer an easy, inexpensive way to reduce anxiety and pain without the side effects of pharmacological management.

References

- Braun, L., Stanguts, C., Casanelia, L., Spitzer, O., Paul, E., Vardaxis, N.J., & Rosenfeldt, F. (2012). Massage therapy for cardiac surgery patients – A randomized trial. *The Journal of Thoracic and Cardiovascular Surgery*, *144*(6), 1453-1459.
- Chlan, L.L., Weinert, C.R., Heiderscheit, A., Tracy, M.F., Skaar, D.J., Guttormson, J.L., & Savik, K. (2013) Effects of patient directed music intervention on anxiety and sedative exposure in critically ill patients receiving mechanical ventilatory support: A randomized clinical trial. *JAMA* *309*(22), 2235-2344.
- Eckhouse, D.R., Hurd, M., Cotter-Schaufele, S., Sulo, S., Sokolowski, M., & Barbour, L. (2014). A randomized controlled trial to determine the effects of music and relaxation interventions on perceived anxiety in hospitalized patients receiving orthopaedic or cancer treatment. *Orthopaedic Nursing*, *33*(6), 342-31.
- Le Guen, M., Nicolas-Robin, A., Lebard, C., Arnulf, I., & Langeron, O. (2013). Earplugs and eye masks vs routine care prevent sleep impairment in post anaesthesia care unit: A randomized study. *British Journal of Anaesthesia*, *112*(1), 89-95.
- Hu, R.F., Jiang, X.Y, Hegadoren, K.M., & Zhang Y.H. (2015). Effects of earplugs and eye masks combined with relaxing music on sleep, melatonin, and cortisol levels in ICU patients: A randomized controlled trial. *Critical Care*, *19* (115), 1-9.
- Palmer, J.B., Lane, D., Mayo, D., Schluchter, M., & Leeming, R. (2015). Effects of music therapy on anesthesia requirements and anxiety in women undergoing ambulatory breast surgery for cancer diagnosis and treatment: A randomized controlled trial. *American Society of Clinical Oncology*, *33*(28). 3162-3168.

Peng, S., Ying, B., Chen, y., & Sun, X. (2015). Effects of massage on the anxiety of patients receiving percutaneous coronary intervention. *Psychiatria Danubina*, 27(1), 44-49.

Rosenfeldt, F., Braun, L., Spitzer, O., Bradley, S., Shepherd, J., Bailey, M., van der Merwe, J., Leong, J., & Esmore, D. (2011). Physical conditioning and mental stress reduction- A randomised trial in patients undergoing cardiac surgery. *Alternative Medicine* 2011, 11(20), 1-7.

Contact

cturnage@UAMS.edu

C 06 - Alternative Health Promotion

Anxiety-Reducing Efficacy of Inhaled Essential Oils: A Case Study and Literature Review

Dawn L. Langley-Brady, MSN, RN, AHN-BC, CHPN, CCAP, USA

Abstract

Purpose: Anxiety disorders impact approximately 40 million adults, are the most prevalent mental health-related diagnosis, and cost the United States healthcare system over 42 billion dollars annually. Additionally, anxiety can mimic many other health problems (e.g., shortness of breath, chest pain, nausea and vomiting), thus adding to the burden on patients and healthcare systems. Current anxiety treatment consists of pharmacotherapy, cognitive behavioral therapy, and some complementary therapies, but not aromatherapy. Pharmacological approaches to reduce anxiety primarily include the administration of benzodiazepines, but may also include SSRIs, and beta-blockers. These pharmacological approaches come with a myriad of potential side effects including dry mouth, confusion, constipation, fatigue, headaches, nausea, weight gain, and sexual dysfunction. Aromatherapy is understood as aroma from essential oils eliciting psychological or physiological responses via the limbic system in the brain. The following essential oils were reviewed: *Angelica archangelica* (Angelica Root), *Citrus x aurantium* (Bergamot), *Elettaria cardamomum* (Cardamom), *Lavandula angustifolia* (Lavender), *Citrus aurantium* (Petitgrain), and *Origanum marjorana* (Sweet Marjoram). The purpose of this project was to present a clinical aromatherapy case study and review the literature as a foundation for future research investigating the effectiveness of clinical aromatherapy in reducing adult anxiety instead of or in addition to standard treatment.

Methods: The adult anxiety case study was conducted over a three week period, following guidelines of the National Association for Holistic Aromatherapy, by a registered nurse and certified clinical aromatherapy practitioner. CINAHL, Medline (via Ovid and PubMed), ProQuest, and TRIP databases were searched for peer-reviewed journal articles in English with the following keywords: angelica, bergamot, cardamom, generalized anxiety disorder, lavender, marjoram, and petitgrain. **Results** were further filtered by inhalation, and human studies. No publication date limitations were used.

Results: The case study demonstrated efficacy of the aromatherapy blend in reducing generalized anxiety with nausea and vomiting after both the initial, and each subsequent use. The literature review found significant evidence-based knowledge of the use of lavender essential oil for reduction in generalized anxiety via oral administration and inhalation. One animal study was found that demonstrated bergamot essential oil efficacy compared to diazepam in a rat model. No information was found regarding the use of angelica, cardamom, marjoram, or petitgrain for anxiety, despite their use in clinical aromatherapy. No studies were found assessing the effect of these essential oils' chemical constituents for anxiety either.

Conclusion: The anxiety-reducing efficacy of essential oils in humans has yet to be explored beyond clinical aromatherapy case studies with the exception of lavender which recently completed clinical trials and is now available as an over-the-counter product. Aromatherapy has the potential to reduce generalized anxiety without the adverse effects of prescription medications. Other essential oils may also reduce generalized anxiety, but warrant further research.

References

- Kasper, S., Gastpar, M., Müller, W. E., Volz, H. P., Möller, H. J., Schläfke, S., and Dienel, A. (2014, June). Lavender oil preparation Silexan is effective in generalized anxiety disorder: A randomized, double-blind comparison to placebo and paroxetine. *The International Journal of Neuropsychopharmacology*, 17(6): 859-869.
- National Institute of Mental Health. (2016, October). Any anxiety disorder among adults. Retrieved from <https://www.nimh.nih.gov/health/statistics/prevalence/any-anxiety-disorder-among-adults.shtml>.
- National Institute of Mental Health. (2016, October). Mental health medications. Retrieved from https://www.nimh.nih.gov/health/topics/mental-health-medications/index.shtml#part_149857.
- Saiyudthong, S. and Marsden, C.A. (2011, June). Acute effects of bergamot oil on anxiety behaviors and cortisone levels in rats. *Phytotherapy Research*, 25(6): 858-862. <http://www.doi.org/10.1002/ptr.3325>.

Shutes, J. (2013). *Constituents and essential oils: A research reference manual*. Chapel Hill, NC: East West School of Herbal and Aromatic Studies.

Tisserand, R., & Young, R. (2014). *Essential oil safety: A guide for health care professionals* (2nd ed.). New York: Churchill Livingstone Elsevier.

Contact

dlangley@augusta.edu

C 07 - Factors in Suicide

Suicide Risk Assessments: A Mixed-Methods Study of Nurses' and Patients' Experiences With Evidence-Based Practice

Elaine E. Santa Mina, PhD, RN, Canada

Elizabeth McCay, PhD, RN, Canada

Donald N. Rose, PhD, MN, BScN, RN, Canada

Beth Hamer, MSc, RN, Canada

Abstract

Background: Suicide remains a serious safety concern. In 2012, suicide was the 15th leading cause of death as the global rates remain persistently high despite the focus on prevention (http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/retrieveddec 2 2016). Suicide risk assessments are fundamental to prevent suicidal behaviours and death by suicide (Boudreaux et al, 2016). Nurses, as front-line clinicians, are pivotal in the accurate diagnosis and the delivery of care to prevent suicide through the identification and documentation of risk, in the clinical record, as per evidence-based best practice (Canadian Federation of Psychiatric and Mental Health Nurses, 2014). A Centre for Mental Health Care developed and implemented a policy for suicide risk assessment and documentation, in response to jurisdictional accreditation requirements and to meet the needs of their patient population. The policy was informed by evidence-based practice guidelines. Nursing leaders implemented the policy within the institution over the subsequent 1.5 years. This study provides a unique opportunity to explore nurse and patient perspectives of suicide risk nursing assessments. Patient narratives may sensitize nurses to important aspects of the nurse-patient relationship during this critical interaction and may enhance nursing assessment skills. The research questions were: 1) What is the evidence that suicide risk assessments, as measured by proxy via nursing documentation, adhere to best practice recommendations? 2) What are nurses' perspectives of their knowledge of suicide risk assessment and practice? 3) What are the patients' experiences of the assessments of their suicide risk by nurses?

Purpose: This study investigated evidence of nurses' congruence with and patients' experience of suicide risk assessment post implementation of evidence-based practice education.

Methods : This study used a cross sectional, mixed-method, post-intervention (guideline implementation and education) design in which the qualitative and quantitative methods were conceptualized, designed, and implemented within the pragmatist paradigm. This mixed-method design with a complementarity purpose sought elaboration, enhancement, illustration, and clarification of the results from one method with the results from the other approach. Interpretation and meaning was enhanced by via the inherent strengths of each method (quantitative: patient record / documentation audit and qualitative: focus group with RNs and RPNs plus individual interviews with patients), while counteracting the respective inherent methodological biases. Quantitative and qualitative methods were used to measure overlapping but also different facets of the phenomenon, yielding an enriched, elaborate understanding. The expansion purpose was used to measure different and distinct phenomena (i.e. nurses' and patients' perceptions of the nursing assessments of patient suicide risk versus documentation of assessment and response to suicidal ideation). This extended the breadth and range of inquiry through different methods for different inquiry components. The triangulation purpose was based on the logic of convergence. This logic required that the quantitative and qualitative methods be different from one another with respect to their inherent strengths and limitations (biases) and that both method types be used to assess the same phenomenon. Data was collected from one acute care and one long term care unit plus the outpatient department. Quantitative Methods: The researchers collected key nurse and patient demographic data to describe the sample. The Principal Investigator and the Co-Principal Investigators conducted patient record audits of nurses' notes to measure nurses' suicide risk assessment documentation. The researchers used the audit data from the patient record nurses' notes instrument, created by the investigators for this study, to measure congruence with the guideline recommendations, via compliance indicators as measured on a 3-point likert scale. The quantitative data was analyzed with SPSS version 20. Qualitative Methods: The Investigators conducted three (3) – 30 minute nurse focus groups (5-7

persons per group) in order to provide adequate time for all participants to contribute and discuss their perceptions of their assessment and documentation of patients' suicidal ideation and/or behavior. The investigators conducted nine (9) individual out-patient interviews to assess patients' perceptions of nurses' assessment of their suicidal feelings and behaviours. Each individual interview required approximately one-half (1/2) hour of each patient's time. The qualitative data was analyzed using methods consistent with constructivism. Ethics approval was granted from the University and the Health Care Centre.

Results : Thirty-four patient records (long term care n = 15, acute care = 19) were audited for evidence of congruence and/or divergence of suicide risk assessment according to guideline recommendations. Fourteen nurses (female n = 10, male = 4) participated in three focus groups. Nine patients (female n = 6, male n = 3) participated in individual interviews. Data triangulation revealed practice congruence with and divergence from recommendations specific to suicide risk assessment constructs. Descriptive analyses demonstrated that all patient records had at least some dimension of suicide risk assessment documented by nurses. However, nurses more frequently documented patients' future plans to attempt suicide (100 %) than the suicide plan that prompted admission to hospital (46%), or previous history of suicide attempts (57%). Documentation of suicidal ideation, suicidal behaviour, and suicide attempt method were also less frequent (66%, 78%, 44%, respectively). Documentation of other risk factors for suicide attempts and protective factors against suicide was also less frequently documented (85% and 76% respectively). Thematic analysis of narratives complemented the quantitative results and supported the quantitative evidence that suicide risk was assessed by nurses. However, both patients and nurses described 'the dance-who will invite whom?' between them that may facilitate or hinder assessment. This theme may indicate that nurses and patients may be reluctant to approach the other to engage in a conversation about suicidality and timing of that approach was described as similar to the timing involved in an invitation to 'dance'.

Conclusion: Study findings demonstrate the richness of triangulation of nurse-patient data to evaluate implementation outcomes and understanding of the phenomenon: suicide risk assessment. Although there is substantive evidence from suicide risk assessment documentation as well as nurse and patient experience of such assessments, some crucial dimensions of assessment may not be as fully assessed and documented as appropriate to patient needs. If both patients and nurses experience a tentative approach to each other to discuss this risk dimensions, then critical intervention opportunities to provide safe care may be missed. Issues around this 'dance' may be grounded in the foundations of the nurse-patient therapeutic relationship. Therefore, the study highlights the limitations of a linear approach to application of recommendations from one guideline without integration with, reference to, and education of other related guidelines. It also highlights the limits of a purely positivist approach to understanding and applying evidence in practice; and that a more holistic, intuitive approach may be appropriate to complex nursing care (Welsh & Lyons, 2001). This presentation highlights the importance of including the patients' voices in addition to the nurses' perspectives to expand upon the traditional, objective metrics in evaluation of evidence-based practices to inform clinicians, educators, and researchers.

Implications: Findings provide direction for guideline education for nurses. Related guidelines, such as a guideline for the nurse-patient therapeutic relationship, need to be considered and included in nursing education of suicide risk assessment. Suicide risk assessment guidelines are not linear per se and need to be taught simultaneously, within the context of holistic patient care. Nursing education and practice need to focus on areas of risk that are less likely to be assessed and documented. Nursing research on evaluation of evidence-based practice needs to include the nurse and patient narratives to more fully understand dimensions of practice. Larger multi-site studies would be beneficial to explore potential, broader similarities and differences across practice settings and demonstrate a global reach to improve risk assessment and suicide prevention.

References

Canadian Federation of Psychiatric and Mental Health Nurses (2014). *Standards of Practice for Psychiatric and Mental Health Nursing 4th Edition*. First Stage Enterprises: Ottawa, Canada.
Edwin D. Boudreaux, Carlos A. Camargo Jr., Sarah A. Arias, Ashley F. Sullivan, Michael H. Allen, Amy B. Goldstein, Anne P. Manton, Janice A. Espinola, Ivan W. Miller (2016). Improving Suicide Risk Screening and Detection in the Emergency Department. *American Journal of Preventive Medicine*, 50(40), 445-453.

WHO-Suicide Data: World Health Organization

http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/retrieveddec 2 2016

Contact

esantami@ryerson.ca

C 07 - Factors in Suicide

The Association Between School-Related Victimization, Depressive Symptoms, and Suicidality Among U.S. High School Students

Nancy Pontes, PhD, RN, FNP-BC, USA

Cynthia Ayres, PhD, RN, FNAP, USA

Manuel C. F. Pontes, PhD, USA

Abstract

Purpose: Research has shown that victimization during adolescence is associated with numerous adverse health outcomes (Bauman, Toomey & Walker, 2013; Bowes, Johnson, Wolke & Lewis, 2016; Cole et al., 2014; Messias, Kindrick & Castro, 2014; and Sibold, Edwards, Close & Hudziak, 2015). The primary purpose of this research is to use data from the Youth Risk Behavior Survey (YRBS) to examine the relationships between two types of school-related victimization, 1) bullying and 2) threats or injuries with a weapon, and depressive symptoms and suicidality, including suicidal ideation and suicide attempts among US high school students.

Methods: This research is a secondary analysis of YRBS data, which are collected biennially from a nationally representative 3-stage cluster sample design of US high school students. The binary (Yes/No) dependent variables for this study are depressive symptoms, suicidal ideation, and suicide attempts. The independent variables of primary interest are school-related bullying and threats or injuries with a weapon. Covariates are gender, race/ethnicity, survey year, and grade level. Four waves of YRBS data (2009, 2011, 2013, and 2015) were pooled for analyses. Data were analyzed using multivariate logistic regression with SPSS 24 Complex Samples™, which correctly incorporates the multi-stage sampling design and sampling weights and enables nationally-representative estimates with associated standard errors and confidence intervals. Analyses were performed for three samples, 1) all students, 2) male students, and 3) females students.

Results: Among all students, there were significant relationships between school bullying victimization and depressive symptoms (OR=2.79, 95% CI=2.63-2.97), suicidal ideation (3.03, 95% CI=2.85-3.23), and suicide attempts (OR=2.86, 95% CI=2.57-3.18). Results also showed that there were significant relationships between school-related threats or injuries with a weapon and depressive symptoms (OR=2.57, 95% CI=2.34-2.83), suicidal ideation (2.80, 95% CI=2.51-3.12), and suicide attempts (OR=4.76, 95% CI=4.14-5.48). The association between weapon related victimization and suicide attempts was more positive (OR=4.76) than the association between bullying victimization and suicide attempts (OR=2.80). Separate analyses by gender showed that the relationship between weapon-related victimization and suicidal ideation was significantly greater among male students (OR=3.10, 95% CI=2.71-3.55) than among female students (OR=2.46, 95% CI=2.11-2.87). Results also showed that the relationship between weapon-related victimization and suicide attempts was significantly greater among male students (OR=6.45, 95% CI=5.29-7.85) than among female students (OR=3.56, 95% CI=3.01-4.21). There were also significant effects of race/ethnicity and depressive symptoms and suicidality. Notably Hispanic students were significantly more likely than non-Hispanic White students to report depressive symptoms, suicidal ideation, and suicide attempts. All minority student groups were significantly more likely to attempt suicide than non-Hispanic White students.

Conclusion: School-related bullying victimization and threats or injuries with a weapon have very large effects on depressive symptoms and suicidality among US high school students. Future efforts are imperative using evidence-based interventions to prevent all forms of bullying and weapon-related victimization and reduce the health-harming effects of school-related victimization.

References

Bauman, S., Toomey, R. B. and Walker, J. L. (2013). Associations among bullying, cyberbullying and suicide in high school students. *Journal of Adolescence*,36, 341-350. DOI: 10.1016/j.adolescence.2012.12.001

Bowes, L, Johnson, C., Wolke, D. and Lewis, G. (2016). Peer victimization during adolescence and its impact on depression in early adulthood: Prospective cohort study in the United Kingdom. *British Journal of Sports Medicine*, 50, 176-183. Doi:10.1136/bjsports-2015-h2469rep

Cole, D. A., Dukewich, T. L, Roeder, K. Sinclair, K. R., McMillan, J., Will, E., Bilsky, S. A., Martin, N. C. and Felton, J. W. (2014). Linking peer victimization to the development of depressive self-schemas in children and adolescents. *Journal of Abnormal Child Psychology*, 42,1490160. DOI 10.1007/s10802-013-9769-1.

Messias, E., Kindrick, K., Castro, J. (2014). School bullying, cyberbullying or both: Correlates of teen suicidality in the 2011 CDC youth risk behavior survey. *Comprehensive Psychiatry*.55(5), 1063-1068.

Sibold, J. Edwards, E., Murray-Close, D. and Hudziak, J. (2015). Physical activity, sadness and suicidality in bullied US Adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 54(10), 808-815.

Contact

pontesnh@camden.rutgers.edu

C 08 - Global Midwifery Practices

Psychosocial Knowledge for Future Nursing and Midwifery Practice in Community Placement in Vietnam and Australia

Yvonne Karen Parry, PhD, MHSM, GradCertEdu, BA, RN, Australia
Pauline Hill, ME (St), BN (Ed), DipApp (Sc), RN, RN, Australia

Abstract

Purpose statement: The two research projects illustrate the students learning gained from community placements in two different settings and the applications of the psychosocial knowledge gained to future nursing and midwifery practice.

Abstract Description: The oral presentation will report on two completed research projects which compare the levels of staff and student learning across two community based placements, one in the Vietnam highlands and one in a homelessness service in South Australia. Both community based placements provided health care to vulnerable and disadvantaged population groups. Community placements with vulnerable population groups provide nursing and midwifery students with the confidence needed to care for people with complex health and social issues in acute care settings. These placements enhanced the student's clinical skills and linkages to psychosocial theories of human development. The Australian research project mixed methods research design allowed for in-depth interviews and correlational analysis to explore the levels of knowledge gained and application to future practice. The findings outline the impact of these community based placements on the student's future clinical practice. The Vietnam community placement used in-depth, pre and post interviews, with the staff and students providing health clinic services in the rural Vietnam highlands. Both research projects found that the use of community based placements provides important experiences and learning outcomes for students that enhance their future nursing and midwifery practice.

Abstract summary: This research and community placement provide nursing and midwifery students with a broader understanding and practical application of psychosocial theories and the social determinants of health through innovative placement experiences. The Australian and Vietnam community placements are compared to determine the benefits or otherwise, of local or international experiences.

The Australian homelessness and student nurse community placement research.

In Australia at least one in 30 children under the age of 5 years are homeless. Further 26% of attendees at homelessness services are children under 10 years accompanied by an adult, with 44% of these children under 5 years. Homelessness is a time of great risk for children. Homeless children and their families have poorer health and educational outcomes. The purpose of this community based participatory research project aimed to provide services to match the identified gaps in service delivery for homeless children and their families. The placement of second year nursing students in a community based setting with vulnerable families had two main aims. Firstly, previous research by Parry and Grant (2015) found a lack of access to health services amongst homeless families leading to poor health in their children. Secondly, the homelessness service staff had limited knowledge and skills about child development, assessment, psychological and mental health issues. Consequently, they were unable to identify homeless families' health needs and potential issues requiring intervention. The addition of nursing students on placement in the service was recognised as adding value while also contributing significantly to the students learning. The research project of Parry and Hill (2106) demonstrated that the use of community placements provide expanded knowledge on the application of psychosocial theories and advanced skills in working with vulnerable populations groups.

Method: This mixed methods community based participatory research project used qualitative interviews and surveys with the managers, staff and nursing students regarding the inclusion of nursing students in home visiting service to families in emergency and short term housing. The interviews were thematically analysed and the quantitative data provided before and after views of the students and staff regarding the

student's knowledge of factors leading to homelessness and the impact of the nursing students on the care, health information and referral services provided.

Results: Previous research found themes from the staff and parent's interviews identified the need for greater links with health services. A lack of engagement with health services often resulted in no immunization and children missing developmental milestones. This result for children often occurred due to the homelessness service staff's lack of health knowledge and the parents coping with the homelessness crisis were unable to connect their child with the appropriate health service. There is a need for expanded community health nursing, and collaborative health/homelessness practice to provide support for homelessness children and their families, in order to decrease children's exposure to poorer health outcomes. Community health nursing is ideally placed to address this dire need.

This research investigated student nurses and homelessness staff regarding their knowledge, skills and perceptions of the value of community based placements. This oral presentation reports on these findings and compares the results indicating student's recognition of the skills to be learned in a non-acute setting "are relevant and useful in traditional nursing roles". The staff in the homelessness service espouse the enhancement provided by the expertise of the nursing students working with vulnerable populations. This research highlights the benefits as perceived by students on often undervalued community based placements. The Australian research findings are compared to the knowledge and skills learned for an international community placement in Vietnam.

Conclusions: Teaching students of nursing about the broader population through community based placements with disadvantaged groups increases the student's confidence in dealing with the variety of people they will encounter in the acute care setting. The psychosocial assessment of a patient is an extremely important part of nursing care but often under prioritised in preference to immediate physical care requirements.

The Vietnam highlands student nurse/midwife community placement research.

As above community placements are important to student learning and future professional practice. This research project explored the students' experiences of this 3 week community health placement. The research provided an insight into how this placement will inform their future practice as health professionals. The results have assisted administrators and academics on the needs of students on overseas placements, cultural safety, interprofessional learning.

The research promoted students and staff understanding of the relationship between different social phenomena and the process of OS community health placement. Additionally, the OS community placement provided an understanding the needs of interdisciplinary health students, their education and the nature of work integrated education.

Methods: A thematic analysis of student interviews and journal entries revealed the environment, communication, culture, resources, education, group dynamics, politics and personal development were important key experiences. This paper provides insight into student learning outcomes from an overseas community health placement and extends our knowledge about WIL with an international partner.

A qualitative study design was used to describe the student experiences and reflections relating to an inter-professional community health placement in Vietnam. Ethics approval was received from the Flinders University Social and Behavioural Research Ethics Committee.

A semi-structured face to face interview with 14 students was facilitated prior to the placement to enable the researchers to ascertain the expectations of the students and their previous travel experience. After the placement seven participants were interviewed face to face or by phone and asked to compare and contrast their reflections having completed their trip. An additional source of in-depth data was obtained from reflective journals kept by seven of the participants. The journals afforded an insight into their experiences providing a significant component of the research data. The interview transcripts and reflective journals were read and analysed for emergent themes, words or ideas which described the community placement experience.

Results: This study is important as it provides insight into the student perspectives about their learning experiences when undertaking an international, inter-professional work integrated placement. A review of the literature has identified that, while there has been research on work integrated learning, inter-professional education and study abroad programs, there appears to be limited research on bringing these concepts together. By investigating the synergistic effect of combining these three concepts in one experience, universities will be better positioned to provide more high quality international learning opportunities to supplement local placements.

Overall conclusion: The application of developmental psychosocial theories to clinical practice, and assessment techniques, can be difficult to achieve in traditional acute care placements. In the current BN/BM curriculum community based experiences are provided in each year level to develop student's understandings about the psychosocial aspects of people in their care. While there are differences between the two community placements overall there is an intrinsic value in community based placement in enhancing students learning of, psychosocial theories, and the social determinants of health, and these impacts on health care for vulnerable population groups. Additionally, these research projects support previous findings that the nursing and midwifery students gain confidence in dealing with vulnerable population groups for their future practice.

References

- Anderson, E., 2009, *Learning pathways in contemporary primary care settings-student nurses' views.* Nurse Education Today, 2009. **29**(8):p.835-839.
- Australian Education International (AEI), 2011, Australian student mobility in the higher education sector. Retrieved <https://aei.gov.au/research/Research-Snapshots/Documents/StudentMobility2009.pdf>
- Baglin, M. and Rugg, S., 2010, "Student nurses' experiences of community-based practice placement learning: a qualitative exploration." Nurse Education in Practice, 2010. **10**(3):p.144-152.
- Commonwealth of Australia., 2010, Study overseas. Retrieved from www.studyoverseas.gov.au
- Crossman, J. E., & Clarke, M., 2010, "International experience and graduate employability: stakeholder perceptions on the connection". Higher Education, 59 (5), 599-613.
- Delpech, P. A., 2013, "Developing a Short-term International Study-abroad Program: From Beginning to End." PRISM: A Journal of Regional Engagement, 2 (2). Retrieved from <http://encompass.eku.edu/prism/vol2/iss2/5>
- Flinders University 2007 Graduate Qualities, viewed 25 May 2014, retrieved from <http://www.flinders.edu.au/graduate-qualities/>
- Flinders University, 2014 Work Integrated Learning (WIL), viewed 26 May 2014, retrieved from <http://www.flinders.edu.au/teaching/quality/teaching-methods/work-integrated-learning.cfm>
- Gerber, L., *Bringing home effective nursing care for the homeless.* Nursing, 2013. **43**(3):p.32-38.
- Gibson, C., Morphet, K, and Johnstone, T, 2010, "Think Child, Think Family: Child and Family Sensitive Practice within Specialist Homelessness Services," S.M. Fund, Editor. Sidney Myer Fund & Australian Centre for Child Protection Adelaide.
- Gonzalez, J. (2013). "The pedagogy of Short-Term Study-Abroad Programs". Journal of Arts and Humanities, 2 (8), 1-5.
- Jones, A. M., Neubrandner, J., & Huff, M., 2012, "A Cultural Immersion Experience for Nursing Students". Global Partners in Education Journal, 2 (1), 1.
- Malicki, R, & Potts, D., 2013, "The outcome of outbound student mobility: A summary of academic literature", AIM Overseas, viewed 25 May 2014 retrieved www.universitiesaustralia.edu.au
- Mawji A, Loewen, S., Underwood, M., & Thompson-Isherwood, R. 2014, "Slapped In the Face with It": Internalizing Community Health Concepts from an International Practice Setting". International Journal of Applied, 4(2).
- Murphy, F., Rosser, M, Bevan, R, Warner, G, and Jordan, S, 2012, "Nursing students' experiences and preferences regarding hospital and community placements." Nurse Education in Practice, 2012. **12**(3): p.170-175.
- Parry YK, and Grant, J, "The in-service educational needs of frontline homelessness service staff in a Generic Homelessness Service to deliver Child Aware Practice in accordance with the 'no wrong door' policy" project report. 2015, Flinders University, School of Nursing & Midwifery, UnitingCare Wesley Bowden: Adelaide.
- Parry, YK, Grant, J, and Burke, L, 2015, "A scoping study: children, policy and cultural shifts in homelessness services in South Australia: are children still falling through the gaps?" Health and Social Care in the Community, Nov: p.210-226.
- Parry, Y.K. and Hill, P.A., 2015, "Applying psychosocial theories for nursing students". Australian Nursing and Midwifery Journal, 23 (6) pp. 49.
- Patrick, C. J., Peach, D., Pocknee, C., Webb, F., Fletcher, M., & Pretto, G. 2008, "The WIL (Work Integrated Learning) report: a national scoping study [Final Report]". Queensland University of Technology.

Contact

yvonne.parry@flinders.edu.au

C 08 - Global Midwifery Practices

Evidence-Based Research and Delayed Cord Clamping: Implications for Cross-Cultural Education, Research, and Policy

Mary Ann Faucher, PhD, MPH, MS, BS, RN, CNM, FACNM, USA

Abstract

Purpose: Conduct an educational capacity building research initiative for nurse midwives in India to improve iron status of newborns by delaying the clamping of the umbilical cord at birth. In India, iron deficiency affects nearly 80% of reproductive aged women and their offspring (Viveki 2012). Compared to immediate cord clamping, delayed cord clamping is a physiologic practice that also results in significantly enhanced serum levels of iron in newborns up to 6 months after birth (McDonald et al., 2013).

Methods: A two-part research design was implemented. Part 1 was quantitative utilizing a single group pre and post-test research design incorporating lecture and simulation. In Part 2, ten months after completion of Part 1, focus groups were conducted with the same group of nurse midwives about the benefits and barriers to implementation of delayed cord clamping.

Results: Significant improvement in knowledge, beliefs and the practice of delayed cord clamping were found comparing pre-test to post-test results both immediately after the intervention and at a 10-month follow-up visit. Simulation revealed important nuances of midwifery practice pertinent to the uptake of delayed cord clamping. Results from the focus groups illuminate perceived factors that affect midwife decision-making, areas of concern related to practice and perceived benefits of delayed cord clamping expressed by the nurse midwives.

Conclusions: One consequence of the medicalization of childbirth is immediate clamping of the umbilical cord at birth resulting in the newborn not receiving a significant amount of blood from the placenta that provides a substantial source of iron (McDonald et al., 2013). The upscaling of midwifery practice and education has been recommended as a strategy to improve maternal and infant outcomes around the world including in India, to address both the qualifications of midwives and the escalating rates of cesarean birth (Renfrew et al., 2014). Findings from this study have implications for cross cultural education with nurse midwives, research design, policy, , and keys to sustainability of evidence base-practice in this setting.

References

Blouin, B., Penny, M.E., Maheu-Giroux M., et al. (2013). Timing of the umbilical cord-clamping and infant anaemia: the role of the maternal anaemia. *Paediatrics and International Child Health*. 33(2),79-85. Kusuma, Y.S., Babu, B.V. (2011). An ethnographic note on Khondh, a primitive tribe and Valmiki, an acculturizing tribe from Andhra Pradesh, India. *Antrocom Online Journal of Anthropology*, 7(2), 263-270. McDonald, S., Middleton, P., Dowswell, T., Morris, P.S. (2013). Effect of timing of umbilical cord clamping of term infants on maternal and neonatal outcomes. *Cochrane Database Systematic Reviews*. 7:CD004074. doi:10.1002/14651858.CD004074. Prasad, R., Dasgupta, R. (2013). Missing midwifery: Relevance for contemporary challenges in maternal health. *Indian Journal of Community Medicine*, 38(1), 9-14. Rao, A.C. (2012). Evaluative study on effectiveness of maternal and child health care participatory training program among staff nurses, auxiliary nurse midwives and lady health visitors. *J South Asian Feder Obst Gynae*, 4(2), 120-122. Sharma, B., Mavalankar, D. (2012). Health policy processes in Gujarat: a case study of the policy for independent nurse practitioners in midwifery. *Indian Institute of Management Ahmedabad*-380 015 India. Renfrew, M.J. et al. (2013). Midwifery and quality of care: findings from a new evidence-informed framework for maternal and newborn care. *Lancet*. 384, 1129-45. Viveki, R.G., Halappanavar, A.B., Viveki, P.R., Malea V.S., & Deshpande, P.S. (2012). Prevalence of anaemia and its epidemiological determinants in pregnant women. *AVMS*, 5(3), 216-223

Contact

maryann_faucher@baylor.edu

C 09 - Health Promotion for Clinicians

A Learning Collaboration to Deliver Onsite Health Promotion for Hospital Staff

Mary Val Palumbo, DNP, MSN, BS, APRN, GNP-BC, USA

Abstract

Background: Using metrics including unscheduled absenteeism, workman's compensation claims, patient handling injuries, staff participation in biometric screening and participant satisfaction, an employee wellness program was evaluated in 2011. Based on the success of this program, the nurse practitioner students and an employee wellness team have continued to adjust this evidence based program over the past five years by tracking participation and introducing new social media methods of reach to the target population with health promotion messaging.

Methods: One unit at an academic health center was selected by the Employee Wellness team for delivery of the "Stepping Stones to Wellness program" over a six-month period. The unit management and staff was given a selection of weekly wellness topics to choose from and the Employee Wellness Team added other important topics. The nurse practitioner students were responsible for presenting the weekly health topics on a bulletin board, Facebook postings, Twitter messages and personal interactions. Biometric screening was made available on the unit and management worked to free up staff to attend these sessions. Health coaching was provided by the nurse practitioner students and S.M.A.R.T. (specific, measureable, attainable, realistic and timely) goal setting was encouraged. Nurse practitioner students received training in Motivational Interviewing and were instructed to use this during the health coaching session.

Results: In the fifth year of offering the unit based Stepping Stones to Wellness program, the goal for biometric screening of 60 employees was exceeded (n=68). Participant satisfaction with the program was high: 100% surveyed report they feel this offering made a positive difference and 100% surveyed hope to have this program replicated and offered again. Open ended questions indicated an appreciation for the NP students' help in the area of goal setting and visits to the night shift. The Facebook posting reached 475 (eating disorders) to 3428 (substance abuse) people depending on the topic; blogs views ranged from 35 for seasonal affective disorder to 589 for anxiety. The educational bulletin board was evaluated by a range of participants -10 for seasonal affective disorder to 22 for anxiety. All evaluation data from this evidence based program will be presented.

Discussion: Wellness offering must show a return on investment in order to be sustained. This unit-based wellness program was a 6-month comprehensive and integrated program with a primary focus on self-care and health education. The program initially paid for itself and may have contributed to a return on investment of \$3,745.17 by not paying unscheduled time off in comparison period. This unit-based wellness program using incentives, has continued to yield high participation and satisfaction over the past five years. This project found that bringing health promotion activities directly onto a hospital unit has been cost effective and satisfactory to the participants, as well as, nurse practitioner students.

Further research: This quality assurance project lacks the rigor and controls necessary for a research study and since it was conducted in one academic medical center, replication is recommended. Further research utilizing larger samples, testing unit-based nurse health promotion activities, is indicated.

References

- Goldberg, L., Lockwood, C., Garg, B., & Kuehl, K. S. (2015). Healthy Team Healthy U: A Prospective Validation of an Evidence-Based Worksite Health Promotion and Wellness Platform. *Front Public Health*, 3, 188. doi:10.3389/fpubh.2015.00188
- Schroer, S., Haupt, J., & Pieper, C. (2014). Evidence-based lifestyle interventions in the workplace--an overview. *Occup Med (Lond)*, 64(1), 8-12. doi:10.1093/occmed/kqt136
- Val Palumbo, M., Sikorski, E. A., & Liberty, B. C. (2013). Exploring the cost-effectiveness of unit-based health promotion activities for nurses. *Workplace Health Saf*, 61(12), 514-520.

Contact

mary.palumbo@med.uvm.edu

C 09 - Health Promotion for Clinicians

Nurses With Activity Limitations: Implications for an Aging Nurse Workforce

Barbara Wilson, PhD, RNC-OB, USA

Abstract

Purpose: Though previous studies have examined the causes of work-related illness and injuries among nurses, little is known about labor market disparities between nurses with and without long-term activity difficulties, e.g., some sort of physical or psychological impairment. Because nursing is a profession where physical or psychological difficulties increase sharply over the course of one's career as s/he ages (Matt, Fleming, & Maheady, 2015; Wray, Asplin, Gibson, Stimpson, & Watson, 2009), the issue of potential labor market disparities for nurses with activity limitations is an important one.

Dissimilar outcomes for nurses with activity limitations does not necessarily indicate any market *discrimination* against such nurses, where 'discrimination' means *disparate treatment where productivity is equivalent*. A nurse with an activity limitation may simply choose to work fewer hours so his/her total annual wage and salary may be less. But whether nurses with activity limitations are truly discriminated against is not clear. Hence, the purpose of this study was to understand the extent to which annual total wage and salary disparities were due to discriminatory treatment, and the extent to which wage and salary disparities were due to voluntary choice, by decomposing annual wages into work participation, hours, and hourly wage components.

Methods: The American Community Survey (ACS, 2014) is an ongoing, extensive governmental survey of the population which includes basic demographic information, wages, hours of work, and employment status, with consistently defined variables key to our analysis. A representative sample of about 30,000 registered nurses (RNs) is contained in each year's sample of the ACS. Moreover, these data also contain "difficulties with daily activities" measures, which we employ as our variable of principal interest, used to measure the impact of dressing difficulties, uncorrectable vision or hearing problems, difficulties with physical activities, difficulties with memory, and difficulties with independent living. Our sample, from 2006 to 2014, is limited to those whose occupation is self-identified as a registered nurse (RN) in their current or most recent job, and whose ages are between 25 and 70 years old.

To sort out the effect 'difficulties with daily activities' measures of annual wages, wage rate, and employment probability, we take advantage of the following relationships: since $\log(\text{annual wages}) = \log(\text{hourly wage rate} * \text{number of annual hours}) = \log(\text{hourly wage rate}) + \log(\text{annual hours})$, if we know the regression of $\log(\text{annual wages})$ and $\log(\text{hourly wage rate})$ on our independent variables, then we automatically know the coefficients of the regression of $\log(\text{annual hours})$ on the independent variables (since regressions are linear mathematical operators). For example, if the coefficient of males in the $\log(\text{annual wages})$ regression is .2 (males make 20 percent more than females with similar sociodemographic status), and the coefficient of males in the $\log(\text{hourly wage rate})$ were .05 (the male nurse wage rate is percent higher than the female nurse wage rate), then the male coefficient in the hours regression is .15 (.05 + .15 = .2). Hence, using multiple regressions we examined evidence on annual wages, hourly wages (so we can infer the regression on annual hours), and the likelihood of employment.

Results: As seen in virtually all other studies of the North American labor markets, some groups made more than others: male nurses had higher wages (17 percent more than female nurses), blacks had lower wage rates (black nurses made 5% less than white nurses per hour, but they worked more hours so that total annual wages were not significantly different from white annual earnings), and Hispanic nurses made 7.5 percent less than non-Hispanic whites per hour.

Wage income increased with age (up to about age 55 in the 2013 sample), while employment was highest in the mid-forties. This is consistent with data from the US Census Bureau (2010) who reported that nurses aged 45-54 years replaced those aged 35 to 44 years as the largest age group of RNs in the U.S., reflected by the median RN age in 2000 of 42.4 and 45.4 in 2009 (Juraschek, Zhang, Ranganathan, & Lin, 2012). The effect of educational attainment, given that one is a RN, and of a certain age, shows no particular trend.

As suggested by the regression results, there was relatively little disparity in the hourly wages between the abled and disabled nurses. But there was enormous disparity in the disabled's employment and hours of work opportunities, and hence a moderate amount of disparity in annual wages. For example, a nurse who reported some sort of physical or mental impairment or disability in 2009 made, on average, 33.6 percent less and had nearly 64 percentage lower likelihood of being employed relative to nurses without physical impairments or activity limitations.

Conclusion: Nearly 40% of the RNs currently working in the U.S. are over the age of 50 (Auerbach, Buerhaus, & Staiger, 2015). Baby boomer RNs are continuing to work into their late 50s and 60s, and there are currently more workers in the US over age 55 years of age than ever before (Phillips & Miltner, 2015). This significantly increases the probability that nurses with activity limitations will be a substantial portion of the nursing workforce moving forward. In addition, employment among healthcare practitioner occupations is expected to increase by 21.4% and will result in almost 1.6 million new jobs, driven by an increasing demand for healthcare services. Registered Nurses will account for more than one-third of the growth in this occupational group (Bureau of Labor Statistics, 2010).

Labor market discrimination is an important problem for persons with activity limitations across many occupations. Labor market discrimination for disabled persons, coupled with gender inequality in the U. S. labor market, may pose additional challenges for nurses, who are predominantly female. Whatever the cause, jobs dominated by females pay less on average than jobs dominated by males, and women's occupations pay less than male dominated occupations in many countries (Olson, 2013).

Nurses with a broad range of activity limitations are currently employed in the hospital setting (Wood & Marshall, 2010), although persons with activity limitations have historically been under-represented in the nursing workforce. Approximately 154,000 of the 2.2 million nurses surveyed in 2000 indicated they were employed in positions other than nursing because of disability or illness (Matt, 2008). For those nurses that do work with a disability, significant barriers can exist in getting and keeping jobs (Guillett, Neal-Boyland, & Lathrop, 2007), including acceptance by co-workers, supportive environment, organizational policies related to accommodations, and an understanding of how these physical limitations affect the nurse and the nurses' job performance (Job Accommodation Network, 2011; Guillett et al., 2007; Matt, 2008 & 2011). Given the current data presented here, there is evidence that the issue of practicing nurses with physical or mental impairments or activity limitations will continue to grow in importance to the nursing workforce.

Global implications: As noted by Sherman, Chiang-Hanisko & Koszalinski (2013), the aging nursing workforce is a global challenge. On a recent RN4CAST project funded by the European commission, a nursing shortage of over 600,000 nurses was projected across Europe by 2020 (Sherman et al., 2013). Falling fertility rates and the aging population with increased life expectancies have created a declining ratio of young and working adults to the number of retirees. In fact, the Organization for Economic Co-operation and Development estimated that by 2015, the number of retirees would outnumber those entering the workforce (Warmuth, 2008). Indeed, the aging of the nursing workforce is anticipated to lead to projected nursing shortages in many countries (Buchan, Twigg, Dussault, Duffield, & Stone, 2015).

Because a substantial number of nurses who, as they continue to age, will experience increasing activity difficulties, it is imperative that employers provide job accommodations and resources for nurses developing activity limitations. As examples, employers can promote flexible schedules and alternative work assignments; create environments that foster acceptance and support of disabled nurses (e.g., use of flexible access computer stations with different types of chairs at the nurses' station); and conduct a careful review of job descriptions to ensure essential job functions are accurately reflected and describe the professional nursing role (Guillett et al., 2007; Matt, 2011; Matt et al., 2015). Employers must also ensure all possible resources are being used to provide work accommodations including consultation with the disabled nurse (JAN, 2011), and education of co-workers regarding how to interact with their peers with physical limitations (Matt, 2008). In so doing, the "caring" profession will best care for their own.

References

American Community Survey (2014). US Census Bureau annual files, retrieved at <https://www.census.gov/programs-surveys/acs/>.

Auerbach, D. I., Buerhaus, P. I., & Staiger, D. O. (2015). Will the RN workforce weather the retirement of the baby boomers? *Medical Care*, 52(10), 850-856.

Buchan, J., Twigg, D., Dussault, G., Duffield, C., & Stone, P. W. (2015). Policies to sustain the nursing workforce: An international perspective. *International Nursing Review*, 62(2), 162-170.

Bureau of Labor Statistics (2010). *Occupational employment projections to 2018*. Retrieved on November 9, 2015 @ <http://www.bls.gov/opub/mlr/2009/11/art5full.pdf>

Guillett, S. E., Neal-Boylan, L., & Lathrop, R. (2007). Ready, willing, and disabled. *American Nurse Today*, 2(8), 30-32.

Job Accommodation Network (JAN). (2011). *Nurses with disabilities*. Morgantown, WV: U. S. Department of Labor office of Disability Employment Policy.

Juraschek, S. P., Zhang, X., Ranganathan, V., & Lin, V. W. (2012). United States registered nurse workforce report care and shortage forecast. *American Journal of Medical Quality*, 27(3), 241-249.

Matt, S. B. (2008). Nurses with disabilities: Self-reported experiences as hospital employees. *Qualitative Health Research*, 18(11), 1524-1535.

Matt, S. B. (2011). Nurses with disabilities: A pilot test of the Nurses' Attitudes towards Nurses with Disabilities scale. *Journal of Research in Nursing*, 17(4), 376-392.

Matt, S. B., Fleming, S. E., & Maheady, D. C. (2015). Creating disability inclusive work environments for our aging nursing workforce. *The Journal of Nursing Administration*, 45(6), 325-330.

Olson, J. E. (2013). Human capital models and the gender pay gap. *Sex Roles*, 68(3-4), 186-197.

Phillips, J. A., & Miltner, R. (2015). Work hazards for an aging nursing workforce. *Journal of Nursing Management*, 23(6), 803-812.

Sherman, R. O., Chiang-Hanisko, L., & Koszalinski, R. (2013). The ageing nursing workforce: A global challenge. *Journal of Nursing Management*, 21(7), 899-902.

U.S. Census Bureau and Bureau of Labor Statistics. (2010). *The Current Population Survey*. Table 15 – Employed persons by detailed occupation, sex, and age, annual average, 2001-2010.

Warmuth, M. (2008). *Managing the aging workforce*. Munich, Germany: GRIN Verlag.

Wood, D., & Marshall, E. S. (2010). Nurses with disabilities working in hospital settings: Attitudes, concerns and experiences of nurse leaders. *Journal of Professional Nursing*, 26(3), 182-187.

Wray, J., Aspland, J., Gibson, H., Stimpson, A., & Watson, R. (2009). "A Wealth of knowledge:" A survey of the employment experiences of older nurses and midwives in the NHS. *Nursing Studies*, 46(7), 977-985.

Contact

barbara.wilson@nurs.utah.edu

C 10 - Interprofessional Education in Nursing Programs

Webinars and Weaving: An Innovative Model of Interprofessional Education in an Online DNP Program

Linda A. Lewandowski, PhD, RN, FAAN, USA

Raeann Genevieve LeBlanc, DNP, AGPCNP-BC, CHPN, USA

Pamela Aselton, PhD, FNP-BC, USA

Gabrielle P. Abelard, DNP, MS, BS, RN, PMHNP, PMHCNS- BC, USA

Christine Callahan, MS, RN, USA

Clare Lamontagne, PhD, RN, USA

Abstract

Purpose: Educating future nurse practitioners in meeting the essentials of advanced nursing practice includes advanced competency in the core competencies of interprofessional collaborative practice--IPCP (The National Organization of Nurse Practitioner Faculties, 2012). Teaching in an all-online learning environment in which students are geographically scattered presents some challenges, especially in promoting some concepts such as collaboration. Distance learning technologies can be used to design opportunities that promote collaborative educational learning and advance quality, evidence-based practice. This presentation focuses on two strategies: live interprofessional case-based webinars with course-based facilitated discussions and curriculum “weaving” of IPCP content throughout the NP curriculum.

Methods: The Core Competencies for Interprofessional Collaborative Practice (Interprofessional Education Collaborative Expert Panel, 2012) served as the basis for the didactic content that was woven across the online Doctorate of Nursing Practice Nurse Practitioner curricula. Innovative, live streaming webinars were created and delivered case-based content from interprofessional collaborative practitioners as role models while inviting inter-professional exchanges from participating students. Professionals from different disciplines were identified by a community practice liaison in developing the webinar teams. Webinar topics central to primary care and practice improvement included topics on patient and family centered care, evidence- based practice quality improvement projects (e.g., identifying and managing sepsis), and collaborative biopsychosocial management of complex health problems (e.g. headaches, CHF, PTSD, nutrition in children and adolescents). Online evaluations of the webinars followed each presentation. The cases and interprofessional collaboration exemplars were then followed with a facilitated discussion in relevant clinical courses. In evaluating these curriculum enhancements, students rated their ability level on collaborative practice through completing the 42-item self-assessment, IPEC Competency Self-Assessment Tool – Version 1 (Dow, DiazGranados, Mazmanian & Retchins, 2012; 2014) in a pre-post, repeated measures design (on entry into the program and at designated evaluation points). This measurement tool is based on the competencies defined by the Interprofessional Education Collaborative expert panel (2012). Weaving interprofessional collaborative practice content throughout the program was assessed via a process of curriculum mapping.

Results: Live interprofessional webinars were identified as an effective approach to delivering and role modelling interprofessional collaboration. Active student participation can be promoted via the live question and answer/discussion session following the interprofessional panel and case discussion and course-based facilitated discussions. Specialists in diverse areas of primary care enriched the clinical education of the nurse practitioner students and other health professionals through the webinar series. Evaluating the core competencies of interprofessional collaborative learning in an online program is successfully measurable and reflects the areas of learning needs and competency attainment. Assessment of the development of the core competencies can be better understood when delivered at time series points throughout the Doctorate of Nursing Practice/Nurse Practitioner plan of study. This model can also be applied to other types of online educational programs.

Conclusion: Live case-based webinars that role model the process of inter-professional collaboration combined with facilitated discussions and curriculum weaving of the core competencies of

interprofessional collaboration are effective strategies to teach interprofessional collaboration in an online learning environment.

References

Dow, A. W., DiazGranados, D., Mazmanian, P. E., & Retchin, S. M. (2014). An exploratory study of an assessment tool derived from the competencies of the interprofessional education collaborative. *Journal of interprofessional care*, 28(4), 299-304.

Interprofessional Education Collaborative Expert Panel (2012). *Core competencies for interprofessional collaborative practice: Report of an expert panel*, 2011. Washington, DC, Interprofessional Education Collaborative.

National Organization of Nurse Practitioner Faculties (2012). *Nurse practitioner core competencies*. Retrieved from: <http://www.nonpf.org/?page=14>.

Contact

lewandowski@nursing.umass.edu

C 10 - Interprofessional Education in Nursing Programs

An Interprofessional Collaborative Educational Experience With Nurse Practitioner Students and Community-Based Pharmacists

Judy K. Anderson, PhD, CNE, USA

Abstract

Purpose: Terms such as interprofessional and collaborative education have become a frequent encounter in nursing education literature. The movement for interdisciplinary / team-based education started with the Institute of Medicine's (IOM) report "Educating the Health Team" (1972). Since that time, numerous organizations, both national and international groups focusing on healthcare, education or a specific profession, have published statements advocating the importance of shared education experiences and collaborative relationships in the practice setting. In 2011, representatives from six diverse health-related professional organizations formed the Interprofessional Education Collaboration identifying recommended competencies for interprofessional education. These competency domains included: (a) values /ethics for interprofessional practice, (b) roles / responsibilities, (c) interprofessional communication, and (d) teams and teamwork. Together, competency in these domains through interprofessional education is thought to improve collaborative practice and ultimately result in the "triple arm" identified by the Institute for Healthcare Improvement (2015). These included an (a) improved patient experience, identified both subjectively through satisfaction, and objectively through improved safety; (b) enhanced population health; and (c) improved cost effectiveness and efficiency of the healthcare system.

True interprofessional education (IPE) can be defined as happening when students from two or more disciplines share a learning experience, learning with and about the other (World Health Organization, 2010). However, a challenge exists for smaller or rural schools of nursing that are not affiliated with schools of medicine, pharmacy, or dentistry, where students of two disciplines may be located. Finding opportunities for collaborative education requires creativity and looking outside of the educational institution for these experiences. Writing prescriptions is one aspect of the role of an advanced practice nurse. The collaborative aspect of writing prescriptions also involves a consumer, who will be taking the medication and the pharmacist who will dispense the medication. Nurses in nurse practitioner programs have minimal experience working with pharmacists who fill prescriptions in the community setting. The importance of interprofessional education is well-documented, but there is a paucity of literature detailing experiences of collaborative educational experiences between nurse practitioner students and community-based pharmacists. This study involved one approach to providing a collaborative experience to facilitate development of the interprofessional competencies in a setting individuals from two specific disciplines have the ability to learn about and with each other. The purpose of the study was to identify nurse practitioner student perceptions of an experience focused on a short-term immersion with pharmacists working on "the other side of their prescription."

Methods: After university IRB approval, a convenience sample of second-year students ($n = 26$) taking a pharmacotherapeutics course co-taught with a hospital-based pharmacist and adult nurse practitioner completed an observation experience with a community-based pharmacist. Observations were completed within a three-state area and lasted three to four hours. Students then completed a reflective journal that served as the basis for a qualitative analysis for themes and patterns. The primary research question was: What are the most important insights gained from the collaborative experience with a pharmacist? A second question asked: How did the experience of working with a pharmacist influence their perspectives about the prescribing role on an advanced practice nurse?

Results: Seeing through new lenses was the overarching theme that emerged from the data. Patterns of: Seeing the: (a) rainbow of roles, (b) dark clouds of challenges, (c) winding road of technology, and (d) gears of collaboration were identified.

Conclusion: Correlation to how this activity paralleled the interprofessional education domains are examined along with recommendations for strengthening interprofessional education and further research. Resources for developing interprofessional curricular activities are offered.

References

- Bennett, M.P., Branstetter, L., Howk, C., & Joyce, M. (2012). Nurse practitioner and pharmacist interactions: Implications for patient outcomes. *The Journal for Nurse Practitioners*, 8, 112-116.
- Drummond, N., Abbott, K., Williamson, T., & Somji, B. (2012). Interprofessional primary care in academic family medicine clinics. *Canadian Family Physician*, 88, e450-e458.
- Hawkes, G., Nunney, I., & Lindqvist, S. (2013). Caring for attitudes as a means of caring for patients—improving medical, pharmacy and nursing students' attitudes to each others' professions by engaging them in interprofessional learning. *Medical Teacher*, 35, e1302-e1308. doi: 10.3109/0142159x.2013.770129
- Institute for Healthcare Improvement (IHI). (2015). *IHI Triple Aim Initiative: Better care for individuals, better health for populations, and lower per capita costs*. Retrieved from <http://www.ih.org/Engage/Initiatives/TripleAim/Pages/default.aspx>
- Institute of Medicine. (1972). *Educating for the health team*. Washington, DC: The National Academies Press.
- Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, D.C.: Interprofessional Education Collaborative.
- Koo, L., Layson-Wolf, C., Brandt, N., Hammersla, M., Idzik, S., Rocafort, P.T., . . . Windemuth, B. (2014). Qualitative evaluation of a standardized patient clinical simulation for nurse practitioner and pharmacy students. *Nurse Education in Practice*, 14, 740-746. <http://dx.doi.org/10.1016/j.nepr.2014.10.005>
- Urbine, T.F., Link, D.G., Schneider, P.J., Schmitz, E., & Kistler, K. (2012). Nurse practitioner and pharmacist collaboration in ambulatory care. *The Journal for Nurse Practitioners*, 8, 231-236.
- Vrontos, E.B., Kuhn, C.H., & Brittain, K.L. (2011). Impact of interprofessional activities on health professions students' knowledge of community pharmacists' role and services. *American Journal of Pharmaceutical Education*, 75(Article 152), 1-6.
- Wilbur, K., & Kelly, I. (2015). Interprofessional impressions among nursing and pharmacy students: A qualitative study to inform interprofessional education initiatives. *BioMed Central Medical Education*, 15, 1-8.
- World Health Organization (2010). Framework for action on interprofessional education and collaborative practice. Retrieved from http://apps.who.int/iris/bitstream/10665/70185/1/WHO_HRH_HPN_10.3_eng.pdf

Contact

jkanderson@viterbo.edu

C 11 - Care of Dementia Patients

Resilience and Dementia Caregiving: An Integrative Review

Barbara E. Harrison, PhD, APRN, GNP-BC, FGSA, USA

Abstract

Purpose: To review the literature for evidence related to resilience in family caregivers of person with dementia. Families caring for a person with dementia can experience physical, psychological, emotional, financial, and social burdens. Family caregivers who report resilience have experienced less burden, fewer depressive symptoms, and better health outcomes. Resilience is defined as “positive behavioral patterns and functional competences” (McCubbin & McCubbin, 1996).

Methods: Review of research and non research papers published between 2003 and 2016 that answered the following question “What evidence based factors and practices support resilience in family caregiver of persons with dementia ? ” Databases of Cochrane, Cumulative Index to Nursing and Allied Health literature (CINAHL), PubMed, and PsycInfo were searched for key words of resilience and dementia caregivers. Inclusion criteria were quantitative and qualitative studies published in peer reviewed journals, written in English. Other keywords associated with the literature were “hardiness” and “stress”.

Results: Twenty two unique studies were identified. Samples, representing a global perspective were from Australia, Canada, England, Scotland, South Africa, South Korea, and United States. Caregivers included spouses, children, siblings with age range from 25 to 90 years. Although many samples were primarily Caucasian, others were from ethnically diverse populations. Evidence on descriptive factors and interventions were found for relationships between resilience and the following concepts: appraisal, burden, environment, marital satisfaction, personality, religious coping, resources, stress, and suicide ideation. Resilient caregivers were characterized as those who maintained positive attitudes, continued to learn and adapt as dementia progressed, had positive coping strategies, and utilized social and environmental resources to achieve goals for self and person with dementia. Non – resilience was associated with pre-existing physical and mental health conditions and family conflicts. Interventions that support resilience are usually multi-factorial programs that include dementia education, exercise, and techniques for managing behavioral symptoms.

Conclusion: Dementia prevalence is increasing worldwide and there is a dramatic need for family members to be prepared for the caregiver role. This review synthesizes the evidence on caregiver resilience and its related concepts to supports family caregivers of persons with dementia. Recommendations for practice (assessment and supportive interventions) that enhance resilience are identified. Gaps in the literature and future recommendations are described. The evidence from this review has potential to improve knowledge and practice that advances global health and nursing.

References

- Clarke, C. L., & Bailey, C. (2016). Narrative citizenship, resilience and inclusion with dementia: On the inside or on the outside of physical and social places. *Dementia (14713012)*, 15(3), 434-452. doi:10.1177/1471301216639736
- Deist, M., & Greeff, A. P. (2015). Resilience in families caring for a family member diagnosed with dementia. *Educational Gerontology*, 41(2), 93-105. doi:10.1080/03601277.2014.942146
- Donnellan, W. J., Bennett, K. M., & Soulsby, L. K. (2015). What are the factors that facilitate or hinder resilience in older spousal dementia carers? A qualitative study. *Aging & Mental Health*, 19(10), 932-939. doi:10.1080/13607863.2014.977771
- Matchar, B. G., & Gwyther, L. P. (2014). Resilience in Early-Stage Dementia. *Topics In Geriatric Rehabilitation*, 30(3), 170-175.
- Zauszniewski, J. A., Lekhak, N., Burant, C. J., Underwood, P. W., & Morris, D. L. (2016). Resourcefulness Training for Dementia Caregivers. *Western Journal Of Nursing Research*, 38(12), 1554-1573. doi:10.1177/0193945916655798

Contact

bharrison@wcupa.edu

C 11 - Care of Dementia Patients

Proxy Decision-Making and Dementia Care: Exploring Decision-Makers' Thinking Using Construal Level Theory

Helen M. Convey, MA, RN, United Kingdom

Janet Holt, PhD, RGN, RM, United Kingdom

Barbara Summers, PhD, United Kingdom

Abstract

Purpose: Dementia is a syndrome which affects the individual's ability to make decisions and to undertake everyday activities (ADI, 2015; WHO, 2012). A range of neurodegenerative diseases (including Alzheimer's disease) cause progressive or chronic symptoms which persist until death and these symptoms include loss of; memory and insight, the ability to make judgements, the ability to communicate and the ability to carry out complex tasks. Symptoms also cause changes in behaviour (ADI, 2015; WHO, 2012).

When the person who is living with dementia does not have decisional capacity another person, the proxy decision maker, will need to make the decision. WHO (2012) report that the ethical issues occurring in everyday decision making are often neglected in research and that such issues can occur because of the need to balance an individual's past values and views with current values and views. When the contemporary interests and desires of an individual who is living with dementia conflict with their past interests and desires proxy decision makers must choose which interests and desires take precedence (Stonestreet, 2014; Nys, 2013).

The empirical research outlines the responsibility of decision making. It is challenging (Givens et al., 2012) and the process is difficult (Hummel, 2015). Decision making is an emotional experience (Hummel, 2015; Ducharme et al., 2012; Manthorpe et al., 2012) and Wolfs et al. (2012) find that emotions may influence decisions. Decision makers experience stress (Lopez et al., 2013; Givens et al., 2012; Wolfs et al., 2012), guilt (Caldwell et al., 2014) and uncertainty (Givens et al., 2012; Manthorpe et al., 2012). Nurses and other healthcare professionals may therefore be required to support decision makers.

The aim of this study was to explore the potential for Construal Level Theory to be used as a basis for analysing the conceptual thinking of proxy decision makers when they are making a decision where the past and present interests of the person who is living with dementia are in conflict. Construal Level Theory (Liberman and Trope, 2014 for a review puts forward that individuals can surmise about or remember the past and imagine reactions and make predictions about the future by traversing psychological distance. When individuals think about distant events or objects which are discrete from their direct experiences they have to traverse psychological distance. Dimensions of psychological distance may be in time, in space, in social distance or in considering hypothetical situations. When we think of things beyond our direct experience across psychological distance, we think of them more abstractly. Abstract thinking (high level construal) entails consideration of the central features and the desirability of an event or object; the end result is given importance. When making decisions abstraction gives meaning and allows for the clarification of goals. In contrast, when individuals think concretely (low level construal) details and practical concerns are taken into account; feasibility is considered. Construal Level Theory has been applied in the health domain (Choi et al., 2012) but there is no evidence in the literature of its application to proxy decision making.

Methods: This project focused on individuals' responses to a progressing scenario about a person who could no longer decide for themselves. The aim of the research was to test the applicability of Construal Level Theory.

A qualitative design was selected because the research aimed to explore influences and associations in decision making (Ritchie and Ormston, 2014). Sequences can be identified and theory can be tested (Bryman, 2016). Invitations to participate and information for participants were placed on a Virtual Learning Environment for students and emailed to staff in a department within a large University. Given

the exploratory nature of the work a convenience sample of seven participants was used (Ritchie et al., 2014).

Face to face semi-structured interviews including the presentation of a scenario were used for data collection. Participants gave their informed consent before the interviews commenced and these were audio-recorded and transcribed verbatim. This approach provided structure and encouraged the participant to deliberate and talk aloud. Generating data through a specific interaction provides an opportunity to find out what participants are thinking about (Lewis and McNaughton Nicholls, 2014) and interviews allow for direct exploration and clarification of perspectives (Lewis and McNaughton Nicholls, 2014), therefore they are a useful way to gain understanding (Rowley, 2012). Scenarios provide consistency and a focus for discussion (Arthur et al., 2014). The scenario featured Alan, an individual who is living with dementia. He has expressed a preference to sleep in his wheelchair at night with a blanket over his head, he is a bilateral amputee, but he is no longer competent to make his own decisions and questions regarding putting him into bed at night are asked of participants. The scenario is in three parts, two parts involving progressions from the base scenario, and in each part different information is given relating to the question about putting Alan into bed at night. Progressions were included to explore how participants reacted to new information. Participants were led through each part of the scenario and were asked what they were thinking and feeling about it. "How" and "why" questions were not asked as this can induce abstract thinking which may influence participant responses (Burgoon et al., 2013). A Likert scale was used to measure familiarity and similarity with this type of scenario because this may also influence construal (Burgoon et al., 2013).

All three members of the research team analysed the same two transcripts for themes. Thematic analysis is a flexible way to discover patterns and meaning (Spencer et al., 2014). Analysis was inductive and deductive as themes emerged from knowledge of decision research and from the data itself. The team met to agree on themes and saturation was reached with the seven participants. After this part of the analysis was complete, responses within the themes were analysed for abstractness of language using the Linguistic Category Method. The distinction between low-level and high-level construal can be found in the use of concrete or abstract action verbs and adjectives. Concrete action verbs indicate low-level construal as they describe how an action is performed and its feasibility whereas abstract action verbs and adjectives indicate high-level construal as they describe why an action is performed and its desirability (Liberman and Trope, 2014).

Results: Participants in this study were found to travel across psychological distance to think abstractly about individual in the scenario. Participants also thought concretely when considering pragmatic concerns. We find that Construal Level Theory can be used to analyse the conceptual thinking of proxy decision makers, providing insight into concerns and ways to address them (e.g. by identifying principles for decision making). This understanding can inform the support that nurses and other healthcare professionals give to decision makers.

Conclusion: The next stage of the research is to develop the following projects:

1. Decisions which have real links to an individual who is living with dementia, where there might be emotional and social elements, will be explored using Construal Level Theory
2. A framework with which to reflect on and structure decision making will be developed and evaluated. This could be used by lay people, nurses and other healthcare professionals

References

- ADI. (2015). *World Alzheimer Report 2015*. London: Alzheimer's Disease International.
- Arthur, S., Mitchell, M., Lewis, J. & McNaughton Nicholls, c. (2014). Designing Feildwork. In J. Ritchie et al. (Eds) *Qualitative Research Practice. 2nd Ed.* (pp.148-176). London: Sage.
- Bryman, A. (2016) *Social research methods*. Oxford: Oxford University Press.
- Burgoon, E.M., Henderson, M.D. & Markman, A.B. (2013). There Are Many Ways to See the Forest for the Trees: A Tour Guide for Abstraction. *Perspectives on psychological Science*. 8(5), 501-520.
- Caldwell, L., LOw, L.F. & Brodaty, H. (2014). Caregivers' experience of the decision-making process for placing a person with dementia into a nursing home: Comparing caregivers from Chinese ethnic minority with those from English-speaking backgrounds. *International Psychogeriatrics*. 26(3), 413-424.

- Choi, S.Y., Park, H.S. & Oh, J.Y. (2012). Temporal distance and blood donation intention. *Journal of Health Psychology*. 17(4), 436-599.
- Ducharme, F., Coture, M. & Lamontagne, J. (2012). Decision-Making Process of family Caregivers Regarding Placement of a Cognitively Impaired Elderly Relative. *Home Health Care Services Quarterly*. 31(3), 197-218.
- Givens, J.L., Lopez, R.P., Mazor, K.M. & Mitchell, S.L. (2012). Sources of Stress for family Members of Nursing Home Residents With Advanced Dementia. *Alzheimer Disease & Associated Disorders*. 26(3), 254-259.
- Hummel, M. (2015). *The considerations of informal caregivers in decision-making regarding a person with dementia who lives alone*. MA thesis, Utrecht University.
- Lewis, J. & McNaughton Nicholls, C. (2014). Design Issues. In J. Ritchie et al. (Eds) *Qualitative Research Practice. 2nd Ed.* (pp. 48-76). London: Sage.
- Liberman, N. & Trope, Y. (2014) Traversing psychological distance. *Trends in Cognitive Sciences*. 18(7), 364-369.
- Lopez, R.P., Mazor, K.M., Mitchell, S.L. & Givens, J.L. (2013). What is Family-Centered Care for Nursing Home Residents With Advanced Dementia? *American Journal of Alzheimer's Disease and Other Dementias*. 28(8), 763-768.
- Manthorpe, J., Samsi, K. & Rapaport, J. (2012). When the professional becomes personal: dementia care practitioners as family caregivers. *International Psychogeriatrics*. 24(6), 1-9.
- Nys, T.V. (2013). The Wreckage of Our Flesh: Dementia, Autonomy and Personhood. In Y. Denier et al. (Eds) *Justice, Luck and Responsibility in Health Care* (pp. 189-203). Springer Netherlands.
- Ritchie, J., Lewis, J., Elam, G., Tennant, R. & Rahim, N. (2014). Designing and Selecting Samples. In J. Ritchie et al. (Eds) *Qualitative Research Practice. 2nd Ed.* (pp. 112-145). London: Sage.
- Ritchie, J. & Ormston, R. (2014). The Applications of Qualitative Methods to Social Research. In J. Ritchie et al. (Eds) *Qualitative Research Practice. 2nd Ed.* (pp. 28-46). London: Sage.
- Rowley, J. (2012) Conducting research interviews. *Management Research Review*. 35(3/4), 260.
- Spencer, L., Ritchie, J., Ormston, R., O'Connor, W. & Barnard, M. (2014). Analysis: Principles and Processes. In J. Ritchie et al. (Eds) *Qualitative Research Practice. 2nd Ed.* (pp. 270-293). London: Sage.
- Stonestreet, E.L. (2014). Love as a Regulative Ideal in Surrogate Decision Making. *Journal of Medicine and Philosophy*. 39(5), 523-542.
- WHO. (2012). *Dementia: A Public Health Priority*. Geneva: World Health Organisation.
- Wolfs, C.A.G, de Vugt, M.E., Verkaaik, M., Haufe, M., Verkade, P.J., Verhey, F.R.J. & Stevens, F. (2012). Rational decision-making about treatment and care in dementia: A contradiction in terms? *Patient Education and Counseling*. 87(1), 43-48.

Contact

h.m.convey@leeds.ac.uk

C 12 - Pediatric Safety

Identifying Child Physical Abuse: Who Is Reporting, and How Accurate Are Their Reports?

Grace W. K. Ho, PhD, RN, Hong Kong
Deborah Gross, DNSc, RN, FAAN, USA
Amie Bettencourt, PhD, USA

Abstract

Purpose: Child physical abuse (CPA) is one of the most lethal forms of child maltreatment; being reported for suspected CPA alone substantially heightens the child's risk for sustaining future fatal injuries (Putnam-Hornstein, Cleves, Licht, & Needell, 2013). Therefore, early and accurate identification of CPA is imperative to the protection and timely provision of services to children in need. In the U.S., professionals who are mandated to report suspected child maltreatment initiate the majority of child maltreatment reports (62%; U.S. Department of Health and Human Services, 2015). However, few studies have been conducted to describe the distribution of report source for CPA or how report sources may associate with the outcomes of these reports. Further, these relationships have only been investigated using reports made for children under age five (King, Lawson, & Putnam-Hornstein, 2013). This study addressed these gaps by (1) describing the distribution of report sources for CPA reports investigated by Child Protective Services; (2) examining the likelihood of CPA report substantiation by reporter type (i.e. professionals and nonprofessionals) and report source (i.e. occupation of the professional reporter); and (3) fully investigating the impact of the child's age on the relationships between report outcomes and report source.

Methods: In a national sample of 204,414 children birth to age 17 years who were reported and investigated for suspected CPA in 2013, the distribution of reporter type and report source were described. Multilevel logistic regression was used to predict report outcome (i.e. substantiated or unsubstantiated) based on the reporter type or report source, controlling for child, caregiver, and state-level characteristics. A report source x child age interaction term was added to assess the differential impact of child age on report outcome by source of report. Marginal effects using mean predicted probabilities were calculated to predict the probabilities of report substantiation based on reporter type and occupation.

Results: Approximately 13% of children reported for CPA were later confirmed to be victims of abuse. Professional reporters initiated 84% of all CPA reports, of which 20% were made by a healthcare provider or mental health professional. The odds of report substantiation were 1.6 times higher when initiated by a professional versus a nonprofessional. Compared to nonprofessionals, reports made by healthcare providers and legal/law enforcement personnel have a 2.6 and 3.3 times higher odds of being substantiated, respectively. However, reports made by even the best reporters (i.e. legal/law enforcement) only have a 26% chance of substantiation. Moreover, mental health professionals appeared to be less accurate reporters than nonprofessionals (OR=0.67; 95%CI=0.62, 0.73). Overall, the difference in likelihood of CPA report substantiation among professional and nonprofessional reporters diminish as the age of the reported child increases.

Conclusion: In 2013, fewer than 1 in 7 children reported for CPA were found to be victims of abuse. Although there are many reasons for an unsubstantiated report, reports that cannot be confirmed due to weak or insufficient evidence may add undue stress onto a child protection system that is already stretched thin. Importantly, reports made without sufficient cause may threaten family well-being and further endanger families that are already vulnerable. Because professional reporters initiate the vast majority of CPA reports, strategies that promote accurate reporting among professionals are warranted. Some of these strategies that are pertinent to the nursing profession will be described.

References

King, B., Lawson, J., & Putnam-Hornstein, E. (2013). Examining the evidence: Reporter identity, allegation type, and sociodemographic characteristics as predictors of maltreatment substantiation. *Child Maltreatment*, 18(4), 232-244.

Putnam-Hornstein, E., Cleves, M. A., Licht, R., & Needell, B. (2013). Risk of fatal injury in young children following abuse allegations: Evidence from a prospective, population-based study. *American Journal of Public Health, 103*(10), 39-44.

U.S. Department of Health and Human Services. (2015). Child maltreatment 2013.

Contact

grace.wk.ho@polyu.edu.hk

C 12 - Pediatric Safety

Measuring Harm in Hospitalized Children via a Trigger Tool

Lya Michele Stroupe, DNP, APRN, CPNP, NEA-BC, USA

Abstract

Purpose: To use the Global Assessment of Pediatric Patient Safety (GAPPS) tool to detect adverse events in a pediatric inpatient setting of an academic medical center children's hospital and compare to internal incident reporting methods.

Methods: Nurse reviewers used the GAPPS tool during a retrospective chart review of 100 patients discharged from the children's hospital. Among the total 100 cases, 20 adverse events were discovered with the tool. Adverse events were validated by physician reviewers and the severity of harm and preventability were assigned. The number of adverse events were then compared to internal incident reporting for the same time frame.

Results: The detection rate is 4.87% within 411 patient-days. In contrast, the hospital had only 1.22% incident reports.

Characteristics of patients include medical records from 100 patients discharged from a children's hospital on a general pediatrics floor. Out of the 100 cases reviewed, 20 adverse events were discovered with the GAPPS tool. A total of 45 triggers were identified in the 100 patients. The mean rate of triggers per patient is 0.45. Ten patients had one adverse event and 4 patients had two or three adverse events during their hospitalization period. The detection rate is 4.87% within 411 patient-days. In contrast, the hospital had only 1.22% incident reports (147 cases in 12005 patient-days) in 2014. Patients experienced adverse events had significantly longer average length of stay in hospital and higher mortality rate ($p < 0.01$). In addition, the distribution of hospital service at admission is significantly different in the two groups ($p = 0.05$): patients who had adverse events were less likely to be admitted as general medicine (21.43% vs. 45.35%) but more likely in intensive care (14.29% vs. 4.65%), compared to patients who didn't have adverse events. The distribution of discharge disposition of the patients with adverse events was that 78.57% of them were discharged to home and one of them was deceased.

Characteristics of the adverse events shows that there is a significant difference between the two (triggers by the GAPPS tool and adverse events by hospital incidence reports) ($p < 0.01$): the triggers detected by GAPPS tool were distributed almost evenly in medications/fluids, hospital care environment, hospital acquired infections and hospital transfers/outcomes; while nearly half of the adverse events reported by the hospital were concentrated in medications/fluids, and more than a third of them were not related to the six categories.

Among the 20 adverse events, 9 (45%) of them are not preventable, while 11 (55%) of them are preventable. Because there are 4 patients who had multiple adverse events, a total number of 74 triggers were identified among all adverse events.

Conclusion: This is the first study that compares two methods for detecting adverse events in hospitalized children. The GAPPS tool can detect 4 times more adverse events than the hospital incident reporting system. The results are likely to be replicated for other children's hospitals to increase identification of adverse events and harm to patients. In our study we found 20 AEs (Adverse Events) per 100 patient and 48.66 AEs per 1000 patient-days. This is about 2-3 times higher than some of the trigger tools methods, where an ADE-only trigger tool was used.

Implementing the GAPPS triggers in EHRs will improve the usability and would also help concurrent detection of adverse events and preventing harm occurrences. The GAPPS study developed an automated version of 30 trigger tools. Future research will help in the refinement of the use of triggers in EHRs and to expand their use to include complex triggers to make it more usable and sustainable.

References

- Kirkendall E.S., Kloppenborg E., Papp J., White D., Frese C., Hacker D., Schoettker P., Muething S., Kotagal U.. Measuring Adverse Events and Levels of Harm in Pediatric Inpatients With the Global Trigger Tool. *Pediatrics*. 2012; 130:1-9.
- Landrigan, C. P., Stockwell, D., Toomey, et al. Performance of the Global Assessment of Pediatric Patient Safety (GAPPS) Tool. *Pediatrics*. 2016; 137(6): e20154076
- Matlow A.G., Cronin C.M., Flintoft V., Nijssen-Jordan C., Fleming M., Brady-Fryer B., Hiltz M.A., Orrbine E., Baker G.R. Description of the development and validation of the Canadian Paediatric Trigger Tool. *BMJ Qual Saf*. 2011 May;20(5):416-23.
- Sharek P.J., Parry G., Goldmann D.A., Bones K., Hackbarth A., Resar R., Griffin F.A., Rhoda D., Murphy C., Landrigan C.P. Performance characteristics of a methodology to quantify adverse events over time in hospitalized patients. *Health Serv Res*. 2011; 46(2):654-678.

Contact

lyastroupe@comcast.net

C 13 - Maternal Mental Health

Differentials in Health-Related Quality of Life of Employed and Unemployed Women With Normal Vaginal Delivery

Anthonia U. Chinweuba, PhD, MSC, RN, RM, RPHNE, FWACN, Nigeria

Ijeoma L. Okoronkwo, PhD, MSC, RN, RM, RNE, FWACN, Nigeria

Agnes N. Anarado, PhD, MSC, RN, RM, RNE, FWACN, Nigeria

Noreen E. Agbapuonwu, PhD, MSC, RN, RM, RNE, FWACN, Nigeria

Abstract

Purpose: This study investigated the differences in health-related quality-of-life of employed and unemployed women in Enugu, Nigeria, with normal vaginal delivery at 6, 12 and 18 weeks postpartum in the light of their mother-worker dyad. Childbirth is an important event affecting the health of women. The arrival of new baby to a family in an African society where women do most of the unpaid household tasks and subsistence food production (Team & Doss, 2011) automatically increases the woman's workload. This, in turn, can affect her health-related quality-of-life, that is, self-report of her perceived feeling of comfort, ability to realize her life potentials and satisfaction with life as expressed in her physical, emotional and social functions of life. Extreme situations may result to all-cause morbidity and mortality. Available literatures on health-related quality-of-life such as Plugge, Douglas and Fitzpatrick (2011) and Bhagat, Baviskar, Mudey and Goyal (2014) view health-related quality-of-life as a framework for examining disease and its impact on a patient. There has been a paradigm shift from emphasis on curative to preventive healthcare. However, there is paucity of studies that compared quality-of-life of newly delivered women who have paid job and the unemployed. **Results** from studies like this will provide valid quality-of-life indicators for measuring maternity outcomes and promoting health of women of child bearing age in this era when women's roles have expanded exposing them to more physical, mental and socio-economic health risks (Bar & Jarus, 2015). Sprangers and Schwartz's Response Shift Theory underpinned the study.

Methods: Longitudinal, prospective descriptive design was used for the study. A sample of 234 newly delivered mothers were drawn from an estimated population of 363 women that used six selected hospitals in Enugu, Nigeria, through proportionate stratified and convenience sampling techniques. Subjects were identified through hospital records and self-revelation. Data were collected at 6, 12 and 18 weeks post-delivery by using a researcher-modified form of the standardized Iranian version SF-36v2™ health-related quality-of-life instrument – a generic short form of health-related quality-of-life survey instrument developed by Ware and Sherbourne in 1992 with 36-item self-rated health status profile that measures eight health-related concepts: physical functioning, role limitation due to physical problems, bodily pain, general health perceptions, vitality, social functioning, role limitation due to emotional problems, and perceived mental health – and five personal-profile items as interview guide. Data collection was through personal contacts at the hospital initially, and visits to home/workplace or cell-phone interview at subsequent times. Women were requested to respond to each interview item as applied to them at each of the three post-partum contact periods. Data collection continued until sample size was reached and lasted for six calendar months and seventeen days. Data were analysed descriptively using frequencies, percentages, mean and standard deviations. T-test was used for group comparison of dimensions of health-related quality-of-life of the women while two-way Repeated Measure ANOVA with time/group effects was used to establish statistical significant difference in mean scores on the eight SF-36v2™ subscales over time.

Results: There was significant difference in the women's health-related quality-of-life over time ($F = 4,58$; $Df_n = 2$; $p = 0.0268$). Both groups had better health-related quality-of-life at 6 and 12 weeks. Employed women reported bodily pains ($\bar{x} = 51.0$) and problems with role physical ($\bar{x} = 51.2$) and social functioning ($\bar{x} = 52.9$) more frequently. However, employed women that did not resume work after 18 weeks had better health-related quality-of-life than those who resumed work. Health-related quality-of-life scores of the women increased as their age, educational level and personal income increased ($p < 0.05$). However, working-class women with increased education had higher health-related quality-of-life than the unemployed.

Conclusion: Findings strongly suggest that quality-of-life improves as a woman's level of education and personal income increase. On the other hand, increased responsibility combined with increasing age negatively affect their reported health-related quality-of-life. Based on the findings, researchers recommend that paid six months maternity leave should be adopted by governments of all countries particularly the developing countries. The role of social supports for domestic chores is highly implicated. To this effect, special allowance should be paid to all employed women with under-one year old baby to enable them hire a paid care-giver. Also, paternity leave should be granted to fathers, on request, to have time at home to assist their spouse as may be necessary. Gender sensitive employment opportunities should be created to empowered more women economically

References

- Bar M. A. & Jarus T. (2015). The effect of engagement in everyday occupations, role overload and social support on health and life satisfaction among mothers. International Journal of Environmental Research and Public Health, 12(6): 6045–6065.
- Bhagat V. M, Baviskar S. R, Mudey A. B. & Goyal R. C. (2014). Poor health related quality of life among patients of sickle cell disease. Indian Journal of Palliative Care, 20(2): 107–111
- Plugge E, Douglas N. & Fitzpatrick R. (2011). Changes in health-related quality of life following imprisonment in 92 women in England: A three month follow-up study. International Journal for Equity in Health, 10, 21.
- Team S. & Doss C. (2011). The role of women in agriculture. ESA Working Paper No. 11-02: The Food and Agriculture Organization of the United Nations (Agricultural Development Economics Division).

Contact

anthonia.chinweuba@unn.edu.ng

C 13 - Maternal Mental Health

Factors Influencing the Grief, Depression, and Quality of Life in Taiwanese Women With Perinatal Loss

Ya-Ling Yang, PhD, RN, Taiwan

Abstract

Purpose: Chinese culturally bound taboos against talking about perinatal loss related issues. The experience of pregnancy loss can be devastating and potentially traumatizing for women emotional and psychological health regardless of what kind indications for the perinatal loss and selective termination. However, maternal postpartum care still less concerning provide supportive bereaved care for parents. How to solve this clinical dilemma and to establish an appropriate compassionate bereavement support challenges care-givers in perinatal medicine.

The main purpose of this study were to explore the experience in Taiwanese women with perinatal loss due to non-elective indications (such as IUFD, spontaneous abortion and preterm premature rupture of membrane.) or elective termination due to fetal gene or chromosome defect. Thus, we examined (1) the trend changing in grieving adaptation, emotional depression and quality of life during six months after who had perinatal loss. (2) to compare the difference between the non-elective indication and elective indications two subgroups in grieving adaptation, emotional depression and quality of life. (3) to identify the influencing factors (maternal age, the indication of perinatal loss, gestational age), maternal self-efficacy and self-esteem, are related with the perinatal grieving, depression and quality of life.

Methods: This study is a retrospective with cross-sectional research design. Data were collected at the Outpatient Department of a medical center in North Taiwan by consecutive samplings method. All participations were assessed by a trained interviewer with structure interview using several measurement scales, including (1) Background information form, (2) The perinatal grief scales (3) Becker depression scale (4) Self-esteem scale (5) self-efficacy scale and (6) Short form 12 health survey (SF-12).

Results: Total forty seven participations were recruited and divided into non-elective perinatal loss subgroup (53.2%) and elective termination subgroup (46.8%). Additionally, all participants were divided into three subgroups depended on the time since their experience perinatal loss/termination after hospital discharge with range from 6-8 months (40.4%), 3-4 months (38.3%) and 2 months (21.3%). The results presented that (1) both the time range and the indication in perinatal loss were not significant influencing factors of all of our measuring. But between the non-elective and elective subgroups there were significance differences existed in the perinatal grief subscale and Becker's subscales. (2) The average total scores of mental component (MCN) in SF-12 of the non-elective and elective two subgroups were far below the norm. MCN score had significant positive association with the participant's self-esteem and self-efficacy, but with significant negative association with perinatal grief score and Becker depression score. (3) No matter the participants had held their deceased infants /fetus or not, there were no statistic difference in the measuring tools.

Conclusion: Although its grief reactions over time will gradually calm down, the participant still need medical professional assistance to provide continued support for identification the value of their deceased infants /fetus exist and to obtain export emotions. We anticipate these results will be benefit to construct the clinical educational programme for caregivers and practice care model for bereaved parents. Eventually, to promote the quality of care and to encourage the related health policy making in both gender friendly medical environment.

References

1. Lang, A., Fleischer, A. R., Duhamel, F., Sword, W., Gilbert, K. R., & Corsini-Munt, S. (2011). Perinatal loss and parental grief: The challenge of ambiguity and disenfranchised grief. *OMEGA: Journal of Death and Dying*, 63(2), 183–196. doi:10.2190/OM.63.2.e
2. Lathrop A, VandeVusse L. (2011). Affirming motherhood: Validation and invalidation in women's perinatal hospice narratives. *Birth*, 38(3):256-65.

3. Toffol E, Koponen P, Partonen T. (2013). Miscarriage and mental health: results of two population-based studies. *Psychiatry Research*, 205:151-158.

Contact

ylyang@ntu.edu.tw

C 14 - Promoting Outcomes in the Clinical Setting

Misconceptions About Peripheral Intravenous Catheter Complications Rate Based on Insertion Settings: A Comprehensive Literature Review

Ani Kaziu, USA

Liam Mcneil, CPHT, USA

Laura Lee Robishaw, MA/EMT, ACLS, PALS, BLS, USA

Erica Marie Luke, CST, USA

Elisha Son, BLS, USA

Abstract

Purpose: With more than 300 million IV catheters sold and 60% to 90% of hospitalized patients requiring PIVC access in the United States, this intervention is the most common, invasive, patient procedure performed worldwide (Helm et al., 2015). Current guidelines for PIVC care suggest that complication rates may be increased when access is obtained in pre-hospital or emergency department settings over those placed in the inpatient care units. The 2011 CDC published guidelines state there is no need to replace PIVC more frequently than 72 to 96 hours in order to decrease the risk of complications in adult patients (CDC, 2011). However, the CDC does not offer any further recommendations in regards to the removal and replacement of PIVC's when clinical indications of complications are not present – this is an issue the CDC acknowledges requires further attention (CDC, 2011). Through this literature review, the published original research reports were appraised through studies in order to determine if adult patients in the United States who required PIVC access in the pre-hospital and emergency department settings were at an increased risk for PIVC complications, in comparison to patients who had PIVC's initiated in the inpatient units.

Methods: This literature review was performed through systematic research of professional databases such as Ovid, CINAHL, and PubMed with access from MCPHS University with select keywords. To be eligible for inclusive research, the research needed to be conducted in the United States and include primary data within the last 10 years (2006-2016). The keywords included combinations of "intravenous therapy and equipment," "peripheral intravenous therapy," "infection," "phlebitis," "infiltration," "prehospital," "emergency care" and "peripheral catheterization". The articles utilized in this review are primary quantitative research reports, with the infection and complications of peripheral IV's as the dependent variable.

Results: Results suggest that the area of patient care with the highest incidents of PIVC complication rates are inpatient care units, with the fewest incidents of complications being the emergency department. Peripheral intravenous catheters (PIVC) placement guidelines, particularly those published by the CDC, suggest that the area of patient care in which initial IV access is obtained may be directly correlated to the development of complications from IV access. Studies showed that complication rates are relatively low for PIVC's inserted in the pre-hospital setting, with phlebitis as the most often noted complication. There were less complications correlated with emergency department PIVC insertion in comparison to PIVC's initiated in the pre-hospital setting. While in the inpatient units, patients often have the same PIVC in place for several days. Due to the increase in time with the same PIVC, complications such as phlebitis are common.

Conclusion: The information compiled through this literature review revealed the rates of PIVC complications only varied slightly between all the areas of care evaluated. Clinical manifestations of a complication, patient complaints of pain/discomfort, and nurses' clinical judgment should be considered the determining criteria for removal or replacement of peripheral IV's. Although the CDC based much of their recommendations on dwell time for determining PIVC replacement or removal, there is more evidence that indicates clinical manifestation of a complication should be used to make that determination to fully decrease any risks posed to the patient. The Infusion Nursing Society's 2016 recommendations point to a standard of care for PIVC's and all things pertaining to infusion, which includes standards pertaining to education, implementation, and risk reduction which is based on relevant, recent evidence collected throughout varying patient care settings. If professionals adhered to the INS recommendations

and guidelines and those like it, perhaps many of the complications discussed in this literature review could be decreased further, leading to the improvement of patient care and satisfaction.

References

DeVries, M., Valentine, M., Mancos, P. (2016). Protected Clinical Indication of Peripheral Intravenous Lines: Successful Implementation. *The Journal of the Association for Vascular Access*, 21(2), 89-92. doi: <http://dx.doi.org/10.1016/j.java.2016.03.001>

Helm, R., Klausner, J.D., Klemperer, J.D., Flint, L.M., Huang, E. (2015). Accepted but Unacceptable: Peripheral IV Catheter Failure. *Journal of Infusion Nursing*, 38(3), 189-203.

Helton, J., Hines, A., Best, J. (2016). Peripheral IV Site Rotation Based on Clinical Assessment vs. Length of Time Since Insertion. *Medsurg Nursing*, 25(1), 44-49.

Contact

akazi1@stu.mcphs.edu

C 14 - Promoting Outcomes in the Clinical Setting

A Comparison of EMLA and LMX4 for Managing Pain During Sharp-Wound Debridement

Wendy M. Woith, PhD, RN, FAAN, USA

Jennifer Perry, BSN, CHRN, USA

Jessica Lee, BSN, CHRN, USA

Abstract

Purpose: The purpose of this study was to compare the efficacy of eutectic mixture of local anesthetics (EMLA) cream to 4% liposomal lidocaine cream (LMX4) for managing pain during sharp debridement of wounds.

Sharp debridement involves the use of a scalpel or scissors to assist with removal of infected or necrotic tissue; this method is preferred for deep wounds, when there is a large amount of tissue to be removed, or when significant infection is present with risk of sepsis, and has been found to decrease time to healing over other forms of debridement. However, sharp wound debridement has been associated with pain, and minimizing pain is essential, as undertreated pain causes distress.

Eutectic mixture of local anesthetics (EMLA) is an emulsion of 2.5% lidocaine and 2.5% prilocaine. EMLA is effective in providing dermal anesthesia for IV cannulation in adults and children, lumbar puncture, sharp debridement of leg ulcers and decubitus ulcers, among other wound types. Lidocaine is an effective agent for providing anesthesia in a variety of procedures such as intravenous cannulation procedures of the oral cavity, prostate biopsy, episiotomy, and wound debridement. Lidocaine comes in different preparations and strengths. 4% liposomal lidocaine is a newer lidocaine preparation which facilitates a more rapid onset of anesthesia. Both EMLA and LMX4 have been available for several years, and much of the research on efficacy was conducted as these agents were released.

Few studies were found that compared EMLA to 4% lidocaine or 4% liposomal lidocaine. Of those studies found, EMLA cream was superior to 5%, 4%, and 2% lidocaine in studies of topical anesthesia for oral and nasal mucosa. Other studies found no significant difference between EMLA and 4% lidocaine gel; or between 4% liposomal lidocaine and EMLA when used for laser procedures and skin micro-needling. In addition, EMLA cream was reported to be more expensive than some of the lidocaine preparations. No studies were found comparing EMLA cream to 4% liposomal lidocaine cream for managing pain during sharp debridement.

Methods: This study was a randomized, controlled, double-blinded, cross-over trial of EMLA cream compared to 4% liposomal lidocaine (LMX4) for the management of pain during sharp wound debridement. It was approved by the facility's Institutional Review Board.

Forty patients referred to the wound center for sharp debridement of a venous, arterial, or lymphedemic wound, or pressure ulcer that required more than one debriding were recruited for this study. People with diabetes were included if there was no neuropathy. People who were taking analgesics were considered if they had not used an analgesic in the 24 hours prior to their appointment.

Each participant was randomly assigned to treatment order. An RN applied the anesthetic agent to the wound using the method prescribed by the manufacturer, and covered the site with an occlusive dressing. Lidocaine remained covered for 15 minutes and EMLA for 30 minutes prior to debridement. Debriding was performed according to wound type and location, and the wound was dressed as per standard care.

Participants were asked at both appointments to rate their wound pain using a visual analog scale with a range of 0 to 10 at four points during the procedure: prior to topical anesthetic application, before debridement started, during debridement, and following debridement. They were also assessed for any complications from the cream or the procedure. Following the second debridement, they were asked if the

anesthetic applied at the first debridement (T1) or the second debridement (T2) provided better pain relief.

Results: Thirty-two participants completed the study. Forty-one percent believed LMX4 provided better pain relief than EMLA (28%). Repeated measures MANOVA revealed a significant effect of time ($\lambda = .369$, $F(3,28) = 15.964$, $p = < .001$). Mean pain rating was higher at T1 than at T2 for corresponding assessment points. Pain during debridement at T1 was statistically significantly higher than pain at any other point except during T1 admission and T2 debridement. There was also a significant effect of drug by drug order (LMX4 applied at Time 1 or EMLA applied at Time 1) ($\lambda = .796$, $F(1,30) = 7.677$, $p = .010$); those who had EMLA at T1 reported less pain at T2 with LMX4, but there was no difference for those who had LMX4 at T1.

Conclusion: This was the first known study to compare EMLA to LMX4 for sharp debridement. We found no statistically significant difference between EMLA and LMX4 in managing pain associated with sharp wound debridement. There were, however, significant differences in pain ratings for the four points in time at which pain was assessed for both topical anesthetics, and for the topical anesthetics by the order in which they were given. Participants believed that LMX4 provided better pain relief than EMLA. Five participants experienced burning on application of EMLA, a common complication associated with this agent (Claeys et al., 2010; Evans & Gray, 2005).

An unexpected finding was that participants who received EMLA first reported significantly lower pain during the second treatment when they were given LMX4. One possible explanation is that participants who received EMLA first, as a result of having more intense pain initially, experienced the decrease more acutely. It is also possible that the burning sensation experienced by some of the participants on application of EMLA may explain the difference.

References

- Allen, T. (2013). Liposomal drug delivery systems: From concept to clinical applications. *Advanced Drug Delivery Reviews* 65(1), 36.
- Chiang, Y. Z., Al-Niimi, F., & Madan, V. (2015). Comparative efficacy and patient preference of topical anaesthetics in dermatological laser treatments and skin microneedling. *Journal of Cutaneous and Aesthetic Surgery*, 8(3), 143-146.
- The Wound Healing and Management Node Group. (2011). Surgical and conservative sharp wound debridement for chronic wounds. *Wound Practice and Research*, 19(1), 29-31.

Contact

wlwoith@ilstu.edu

C 15 - Research in Academia

Assessment and Curricular Framework Development of Undergraduate Research in the School of Nursing

Flor A. Culpa-Bondal, PhD, RN, USA

Debbie Greene, PhD, RN, USA

Josie Doss, MSN, RN, USA

Abstract

Purpose: The purpose of this presentation is to discuss assessment results of undergraduate nursing students' evidence-based practice (EBP) competencies and faculty's EBP teaching practices in the undergraduate nursing courses in one southern United States school of nursing (SON). The consequent development of a curricular framework for infusing EBP in an undergraduate BSN program as a result of the assessment will also be presented. The audience will be engaged in discussing the barriers, challenges and opportunities in the development and planned implementation of the model.

Methods: During the 2015-16 academic year, a thorough assessment of the integration of evidence-based practice throughout the undergraduate curriculum was conducted. The assessment included faculty interviews and student surveys. The interviews included what courses in the undergraduate program are using EBP, and what SON resources and capacities are available for EBP integration. The assessment showed several gaps and opportunities for improvement. One issue with the current curriculum is an inability to identify where evidence-based practice (EBP) is introduced to students, despite the identification of EBP as a core concept for the program. According to the current curriculum, introduction of EBP occurs during the third semester research course. However, scattered projects during the first two semesters utilize EBP skills, without focused content on EBP at an introductory level to inform these assignments. The SON also lacks a clear vehicle to mentor and guide faculty in course designs that infuse EBP and to actively engage students in it.

Results: Guided by the AACN accreditation guidelines and evidence-based practice framework by Flood, Gasiewicz and Delpier (2010) that describes progression of evidence-based practice from novice to advanced levels, a curricular framework emerged.

Conclusion: Findings from the assessments and implementation recommendations based on the new framework were presented to SON in March 2016. A multi-phase implementation of revisions to the undergraduate nursing curriculum to improve student outcomes related to undergraduate EBP was proposed and scheduled to commence Fall 2016.

References

- Ruzafa-Martinez, M., Lopez-Iborra, L., Moreno-Casbas, T. & Madrigal-Torres, M. (2013). Development and validation of the competence in evidence based practice questionnaire (EBP-COQ) among nursing students. *BMC Medical Education*, 13:19. Available in: <http://www.biomedcentral.com/1472-6920/13/19>
- Flood, L. S., Gasiewicz, N., & Delpier, T. (2010). Integrating information literacy across a BSN Curriculum. *Journal of Nursing Education*, 49(2), 1001-1-4. Doi 10.39/28/01484834-20091023-01

Contact

flor.culpabondal@gcsu.edu

C 15 - Research in Academia

Research Capacity Development in a Nursing Education Context

Nelouise Geyer, PhD, MCur, BCur, RN, RM, RPsyc, South Africa

Gisela H. Van Rensburg, DLittetPhil, MACur, BACur (Hons), BACur, RN, RM, RCN, RPN, RNE, RNM, RON, South Africa

Susan Jennifer Armstrong, DCur, RN, RM, FANSA, South Africa

Abstract

Purpose: Research capacity development is essential for quality, cost-effective care and well-prepared healthcare professionals. Although various institutions have invested in a number of projects to build the capacity of professionals, research capacity remains fragmented and to a large extent limited to postgraduate research activities. The United Nations Educational Scientific and Cultural Organization (UNESCO) describes capacity building as being focused mainly on skills building that would enable the attainment of development goals through education (Edwards et al., 2016). Research capacity development varies in focus.

Following an annual nursing education conference, the absence of presentations on research done by nurse educators from nursing education institutions (NEIs) not attached to universities was noted with concern. Taking into consideration that nursing programs are migrating to higher education, research and public presentation skills are essential for all nurse educators. To bridge this gap, the novice researcher program was developed. Under the supervision of the authors, the successful applicants undertake a small research project to expose them to the full research process. The research project is written up, presented at the annual nursing education conference and published as an article. The candidates undertake this work in a group thus strengthening their ability to work in a team over a period of nine to twelve months.

The purpose of the presentation is to assess the novice researcher program outcomes against Cooke's integrated framework as described by Edwards et al. (2016).

Methods: An exploratory case study design was used (Crowe et al., 2011; Thomas, 2016) to gain insight into the contributions that a novice researcher program makes towards research capacity development. The case was formed from the annual reports, reflective activities and conference presentations. The 'global' nature of the case was then examined holistically, as described by Polit and Beck (2012). Trustworthiness was ensured by providing a dense description drawn from the case. Credibility was achieved through prolonged engagement over a six-year period. As the case study was constructed from various units of analysis submitted to the executive committee of the professional organization and a research ethics committee, it could be transferable to other contexts. Should the study be repeated, the evidence provided in the study would be similar in that the data analysis was based on a well-researched conceptual framework to evaluate research capacity building in healthcare. Confirmability was assured in the audit trail of the individual sub-units that were used to create the case. The researchers upheld scientific integrity in all phases of the research to prevent or minimize bias. Permission to use data from the novice researcher program was obtained from the Research Ethics Committee, the professional organization who is the custodian of the program as well as the participants. The names of the organization and its chapters are not mentioned to ensure confidentiality and anonymity.

The case was deductively analyzed using the literature on research capacity development as the point of departure. The Cooke's integrated framework for research capacity building in healthcare was used to evaluate the development that took place.

Results: The findings of the analysis are described and discussed according to the eight dimensions of the Cooke's integrated framework indicating that this novice program fulfilled all the dimensions of the framework, namely skills and confidence; research applicability; linkages, partnerships and collaborations; dissemination and knowledge translation; continuity and sustainability; infrastructure; leadership; and empowerment.

Conclusion: The success of the program lies in the skills and confidence gained by the participants and the contribution they could make to address and resolve their education practice problems. In this process, they developed strong partnerships through sharing responsibilities in the execution of the project. Under the leadership of the program leaders, their work delivered results that could be implemented in their workplaces and were shared at conferences and in publications. Continuity and sustainability of the program remain a challenge and was partially promoted by using the premises of the professional organization or university participating in the project, devolving the program to chapter level and partnership with universities.

It could be argued that a Hawthorne effect is possible due to the small number of participants and the researchers reviewing their own program. The authors also recognize that the participants are so grateful for the opportunity to participate in the program that it could affect their views making them extremely positive in their reviews of the program. This was overcome through using different units of analysis, keeping the reflections anonymous and using a framework for analysis of data.

Selection and recruitment should be given careful attention. The confidence of the participants and cohesion of the group improves with interaction, therefore an ice breaker/introductory workshop could assist in getting to know each other and identifying where power differentials lie. Institutions where the research is conducted should be supported through knowledge translation to implement the recommendations of the completed projects. Involvement of more universities would assist sustainability and could serve as preparation for postgraduate studies as well as providing library access for program participants.

Sustainability is further promoted through mentorship of the presenters of the project and fundraising initiatives. Dependent on funding, the program would ideally have a dedicated person to drive this program.

References

- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. & Sheikh, A., 2011, 'The case study approach', *BMC Medical Research Methodology*, 11(1), 100. <http://dx.doi:10.1186/1471-2288-11-100>.
- Edwards, N, Kaseje, D & Kahwa, E. 2016. *Building and evaluating research capacity in healthcare systems: Case studies and innovative models*. Ottawa: UCT Press.
- Pilowsky, DJ, Rojas, G, Price, LN, Appiah-Poku, J, Razzaque, B, Sharma, M, Schneider M, Seedat, S, Bonini, BB, Gureje, O, Kola, L, Lund, C, Sorsdahl, K, Araya, R & Menezes, PR. 2016. Building research capacity across and within low- and middle-income countries: The collaborative hubs for international research on mental health. *Acad Psychiatry*. 2016 Aug; 40(4): 686-91.
- Polit, D.F & Beck, C.T. 2012. *Nursing research. Generating and assessing evidence for nursing practice*. 9th Edition. Wolters Kluwer: Lippincott.
- Rusen ID, Harries AD, Zachariah R and Ramsay A (2015) Capacity building in operational research: more than one way to slice the cake. *Front. Public Health* 3:176. doi: 10.3389/fpubh.2015.00176
- Stewart, R. 2015. Theory of change for capacity building for the use of research evidence by decision makers in southern Africa. *Evidence & Policy* • vol 11 • no 4 • 547–57 • © Policy Press 2015 • #EVPOL
- Thomas, G. 2016. *How to do your case study*. 2nd Edition. Los Angeles: Sage.

Contact

ceo.nea@edunurse.co.za

C 16 - Doctoral Nursing Education

Doctoral Nursing Students' Use of Evidence-Based Knowledge, Skills, and Attitudes of Scholarly Writing

Diane F. Hunker, PhD, MBA, RN, USA
Teresa Shellenbarger, PhD, RN, CNE, ANEF, USA
Elizabeth A. Gazza, PhD, RN, FACCE, LCCE, USA

Abstract

Purpose: Scholarly writing is required for doctoral program graduates who plan to disseminate their work and advance the discipline of nursing. However, nurses enter doctoral programs with varying ability and experience with scholarly writing (Gazza, Shellenbarger, & Hunker, 2013). Further compounding this issue are the curricular differences noted amongst programs. Additionally, there may be differences in students, their educational and experiential backgrounds, and whether they are enrolled in a PhD or a Doctor of Nursing Practice program (AACN, 2014).

Nursing faculty may expect that doctoral students have advanced scholarly writing ability due to the knowledge, skills, and attitudes developed at the baccalaureate and masters level. Doctoral nursing students often face challenges with writing and may struggle to write proficiently at the expected level (Ryan, Walker, Scaia, & Smith, 2014). This causes frustration for both the student and the faculty. Prior studies have suggested that scholarly writing develops throughout nursing education and requires that students learn the requisite knowledge, skills, and attitudes related to writing at each level of nursing education (Gazza, Shellenbarger, & Hunker, 2013). Limited information is available that can guide faculty and students to develop their writing. Most of the information available is not evidence based (Hawks et al, 2015).

The purpose of this study was to assess doctoral nursing students' use of an evidence-based set of knowledge, skills, and attitudes specific for scholarly writing.

Methods: After obtaining IRB approval, an email invitation was sent to nursing program administrators of doctoral programs in the United States that were listed on the Discover Nursing website. Administrators were asked to distribute the email invitation along with an electronic link to a self-assessment to all enrolled doctoral nursing students. Consenting students completed a 35- item tool using a 5- point Likert scale assessing evidence-based knowledge, skills, and attitudes (KSA) of scholarly writing (Hunker, Gazza & Shellenbarger, 2014). Respondents used ratings from 1- Never, 2-Rarely, 3-Sometimes, 4- Usually, to 5-Always. Data was analyzed using descriptive and inferential statistics.

Results: Seventy-three doctoral students enrolled in PhD and DNP programs responded to the self-assessment. Seventeen PhD students from six different states completed the tool. They were primarily female, Caucasian, and enrolled part-time in their doctoral program. PhD respondents had a mean age of 44. PhD program delivery was diverse with traditional, hybrid, and online program represented in the sample. Using Fisher's Exact test, data analysis revealed no associations between self-assessment of KSAs and gender, age, enrollment status, GPA, or mode of delivery. While students responding to the self-assessment were at different points of completion of their PhD program, all were at least half way through their program. Analysis of the mean for each item on the electronic self-assessment revealed that PhD students either "sometimes" or "usually" used all of the KSAs.

Fifty-six DNP students representing 11 states also responded to the self-assessment. They were primarily female, Caucasian, and enrolled full-time in their doctoral program. They had a mean age of 37. Program delivery was primarily a hybrid format. Using Fisher's exact test, there was a positive association between age and item response ($P=.0378$) suggesting that students who were older in age tended to rate the items higher on the self- assessment. The investigators were unable to determine where the DNP students were in terms of program completion.

Analysis of the mean for each item from the electronic self-assessment revealed that DNP students, like PhD students either “sometimes” or “usually” used the KSAs. However, within the DNP student sample, there were two items that had a mean score less than 3, indicating they “rarely” used the KSA. Those items were: “I create abstracts and written summaries of written material that has already been published”, and “I serve as a mentor and role model for undergraduate and master’s students, and colleagues about scholarly writing”. The two items identified are both “skills” typically acquired at the BS level; therefore, it appears that the DNP students have the knowledge and attitudes but lack some of the skills identified at the beginning level.

Conclusion: All of the evidence-based KSAs for the PhD students and all but two of the KSAs for the DNP students were at least “sometimes” used. This suggests that most doctoral students at least recognize scholarly writing KSAs from their earlier programs. Often times student success in a doctoral program hinges on the ability to write well. Strategies are needed for purposeful learning activities that will help to promote scholarly writing development and further enhance student writing. More specifically, recommendations for faculty at the doctoral level include assessing KSAs at the time of entry into the program, and tailoring writing assignments, guidelines and rubrics to help support and develop writing at the doctoral level. Nursing programs should plan to provide general writing support and build curricula that offer sequential writing assignments that work to develop the students’ scholarly writing development over time.

Based on the study results, it can be inferred that DNP students are rarely creating abstracts or written summaries of written material. As expert clinicians, they may need to provide those written summaries to share with others. Nurse educators should be encouraged to consider assignments and learning activities that allow DNP students to develop abstract writing and summarize work. Data also suggests that DNP students are not role modeling scholarly writing for others. As emerging leaders, they may be expected to use those role modeling skills to lead others during writing activities. Nurse educators need to further explore this issue and provide opportunities for DNP students to develop this essential skill.

This small convenience sample of doctoral students provides beginning information about scholarly writing knowledge, skills, and attitudes; however, further study with a larger more diverse sample is needed. By effective development of doctoral student writing, faculty can support and promote the transformation of knowledge and practice to advance global health and nursing.

References

- Gazza, E. A., Shellenbarger, T., & Hunker, D. F. (2013). Developing as a scholarly writer: The experience of students enrolled in a PhD in nursing program in the United States. *Nurse Education Today, 33*, 268-274.
- American Association of Colleges of Nursing (2014). *Key differences between DNP and PhD/DNS programs*. Retrieved from <http://www.aacn.nche.edu/dnp/ContrastGrid.pdf>
- Ryan, M.M, Walker, M., Scaia, M. & Smtih, M. (2013) (un)Disciplining the nurse writer: Doctoral nursing students' perspective on writing capacity. *Nursing Inquiry, 21* (4), 294-300.
- Hawks, S. J., Turner, K. M., Derouin, A. L., Hueckel, R. M., Leonardelli, A. K., & Oermann, M. H. (2015). Writing across the curriculum: Strategies to improve the writing skills of nursing students. *Nursing Forum, 51*(4), 261-267.
- Hunker, D.F., Gazza, E.A., & Shellenbarger, T. (2014). Evidence-based knowledge, skills, and attitudes for scholarly writing development across all levels of nursing education. *Journal of Professional Nursing, 30*(4), 341-346.

Contact

dhunker@chatham.edu

C 16 - Doctoral Nursing Education

Impressions of Uses for Visual Thinking Strategies Among Doctorate of Nursing Practice Leadership Students

Meg Moorman, PhD, RN, WHNP-BC, USA

Desiree Hensel, PhD, RN, PCNS-BC, CNE, USA

Abstract

Purpose: Visual Thinking Strategies (VTS) is a structured art viewing technique that can help students develop aesthetic understanding and critical thinking skills (Housen, 2002). VTS integrates many techniques to build cognition including fact-finding, questioning, speculating, and personal association (Yenawine, 1997). Originally used with children, there is now a growing recognition that VTS holds value in higher education (Moorman, & Hensel, 2016). In the field of Nursing, undergraduate students have reported that VTS helps create a safe learning environment and helps them see things differently. (Moorman, 2015). Other undergraduate students have reported that VTS helped them gain observational, cognitive, interpersonal, and intrapersonal skills (Moorman, Hensel, Decker, & Busby, 2016). Very little is known about how VTS might be used among nurses in leadership and administrative positions. The purpose of this project was to explore perceptions of how nurses enrolled in a Doctorate of Nursing Practice (DNP) program thought they might use VTS in their practice.

Methods: Fourteen DNP students, enrolled in a leadership DNP, participated in a standard VTS session lead by a trained facilitator. The group viewed three works of art and then were asked three open ended questions: 1. *What is going on in this picture?* 2. *What are you seeing that makes you say that?* and 3. *What more can you find?* Following the session the participants provided written feedback to open ended questions: 1. *What was your impression of Visual Thinking Strategies?* and 2. *How might you use Visual Thinking Strategies in your Nursing or leadership?* All participants gave written consent to use de-identified data for research purposes. Data were analyzed using the qualitative descriptive approach described by Sandelowski (2000) with Dedoose Version 7.5 software.

Results: The VTS session was well received as being enjoyable and having applications for practice. Three themes emerged about how participants might use VTS: as a teaching tool (N=13), changing thinking in practice (N=7), and facilitating interpersonal relations (N=14).

Conclusion: Thinking “out of the box” is becoming increasingly important for nurses to deal with complexity in today’s health care environment. This study found DNP students felt VTS could be used as a tool to improve communication and critical thinking in practice and education. Future research should address how skills learned in VTS improve nursing practice.

References

- Housen, A. C. (2002). Aesthetic thought, critical thinking and transfer. *Arts and Learning Research Journal*, 18.1, 99–131. Retrieved from http://educacaoartistica.dge.mec.pt/assets/aesthetic_thought.pdf
- Moorman, M. The meaning of visual thinking strategies for nursing students. *Humanities*. 2015; 4: 748–759. doi:10.3390/h4040748
- Moorman, M., & Hensel, D. (2016). Using visual thinking strategies in nursing education. *Nurse Educator*, 41(1) 5-6. doi: 10.1097/NNE.0000000000000185
- Moorman, M., Hensel, D., Decker, K., & Busby, K. (2016). Learning outcomes with visual thinking strategies in nursing education. *Nurse Education Today*. doi:10.1016/j.nedt.2016.08.020
- Sandelowski, M. (2000). Focus on research methods-whatever happened to qualitative description? *Research in Nursing and Health*, 23 (4), 334–340
- Yenawine, P. (1997). Thoughts on visual literacy. *Handbook of Research on Teaching Literacy through the communicative visual arts*. MacMillan Library Reference.

Contact

mmmoorma@iu.edu

C 17 - Defining the Nurse Faculty Role

An Integrated Model of Learning and Role Development in Nursing Education

Monika Schuler, PhD, RN, CNE, USA

Abstract

Purpose: With a view towards understanding how students develop new knowledge and practices that facilitate role development in the clinical and simulation settings, the purpose of this project was to examine the process by which new knowledge is absorbed and processed leading to perspective transformations and ultimately role development.

In considering how students learn, constructivist pedagogy involves active learning where students have an opportunity to challenge previous thoughts on content and try out different aspects of their future role with guidance (Handwerker, 2012). This active learning helps a student develop metacognition and an ability to transfer knowledge and skills to new situations ultimately resulting in the development of clinical reasoning and a sense of relevance. The clinical and simulation environment is an ideal place for active learning. Recent work by Arreciado Maranon and Ilsa Pera (2015) reinforce the value of clinical education in forming student identities particularly as they are given an opportunity to examine this education in light of what was learned in the classroom. Students often come into clinical experiences with preconceived notions of what they will see and do, though there are numerous occasions when something unexpected occurs (Palese, Petean, & Cerne, 2013). Furthermore, many nursing students experience an incongruity between what they are taught in the classroom and what they experience in the practice settings (Chappy, Jambunathan, & Marnocha, 2010). Understanding how students process, reconcile, and learn from what is studied in the classroom compared to what is experienced in the clinical setting and how this facilitates learning and role development was examined.

Methods: Influenced by Mezirow's (1978) Transformative Learning Theory, Tanner's (2006) Clinical Judgement Model, and Benner, Sutphen, Leonard, and Day's (2010) landmark work on *Educating Nurses* a constructivist approach was adapted in the development of a new model for describing the process of learning and role development in the clinical and simulation setting. This approach involved reviewing the literature, re-analyzing themes, development of multiple schematics, continual review, personal observations of students in the clinical and simulation settings, and feedback from peer educators. The resulting Reflection, Feedback, and Restructuring Model was developed.

Results: The Reflection, Feedback, and Restructuring Model describes an inductive, iterative process strongly influenced by feedback. The first component of the model depicts a new experience encountered by the student. The second component focuses on the student's reflection of the event where an attempt is made to interpret the event in the context of what is known or has been learned in the classroom. Within this reflection component is an inductive response in terms of identification of gaps in knowledge (if any) and formulating a plan for responding should this event occur again. The next step in the process draws on the literature related to the value of formative feedback which has been described as an essential component of student learning and improves performance and skills, motivation, personal development, and confidence (Koharchik, 2016; Motley & Dolansky, 2015; Plakht, Shiyovich, Nusbaum, & Raizer, 2013). The final step in the process of student learning and role development involves restructuring. In this phase, the student responds to the feedback and adopts a new perspective of what is appropriate given what was experienced. The student may recognize he or she may need to restructure preconceived notions or ways of doing things. Finally the student emerges with a new sense of what is normal and expected nursing actions. This new normal serves as foundation for future nursing action and role development.

Conclusion: A key component of nursing education is the integration of knowledge and practice for the development of critical thinking skills that inform subsequent action in the practice setting when providing patient care. For many students, a component of the learning involves reformulating and re-conceptualizing what is learned in the classroom with what is seen and experienced in the clinical setting. The model was used as a conceptual framework to guide the development of reflective questions used by

Schuler (2016) examining professional role conceptions following a shadowing experience. The Reflection, Feedback, and Restructuring conceptual model may be a useful tool to guide nurse educators facilitating the transition from the classroom to the clinical setting and facilitating knowledge and role development for the nursing student.

References

- Arceado Maranon, A., & Isla Pera, M.A., (2015). Theory and practice in the construction of professional identity in nursing students: A qualitative study. *Nurse Education Today*, 35, 859-863.
- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating Nurses: A Call for Radical Transformation*. Stanford, CA: Jossey-Bass.
- Chappy, S., Jambunathan, J., & Marnocha, S. (2010). Evidence-Based Curricular Strategies to Enhance BSN Graduates' Transition into Practice. *Nurse Educator*, 35, 1 20-24.
- Handwerker, S.M. (2012). Transforming Nursing Education: A Review of Current Curricular Practices in Relation to Benner's Latest Work. *International Journal of Nursing Scholarship*, 9(1), 1-16.
- Koharchik, L., & Redding, S.R., (2016). Strategies for Successful Clinical Teaching. *American Journal of Nursing*, 116(7), 62-65.
- Mezirow, J. (1978). Perspective Transformation. *Adult Education*, 28, 100-110.
- Motley, C.L., & Dolansky, M.A. (2015). Five Steps to Providing Effective Feedback in the Clinical Setting: A New Approach to Promote Teamwork and Collaboration. *Journal of Nursing Education*, 54(7), 399-403.
- Palese, A. Petean, M., Cerne, D. (2013). Unexplained death in medical wards during night shifts: a narrative analysis of nursing experiences. *Journal of Clinical Nursing*, 23, 2599-2608.
- Plakht, Y., Shiyovich, A., Nusbaum, L., & Raizer, H. (2013). The association of positive and negative feedback with clinical performance, self-evaluation and practice contribution of nursing students. *Nurse Education Today*, 33, 1264-1268.
- Schuler, M., (2016). Shadowing in Early Baccalaureate Nursing Education and Its Influence on Professional Role Perspectives. *Nurse Educator*, 41(6), 304-308.
- Tanner, C.A. (2006). Thinking Like a Nurse: A Research-Based Model of Clinical Judgment in Nursing. *Journal of Nursing Education*, 45 (6), 204-211.

Contact

mschuler@umassd.edu

C 17 - Defining the Nurse Faculty Role

Description and Meaning of Clinical Competency: Perceptions of Nurse Managers and Baccalaureate Nurse Faculty

Carolyn D. Meehan, PhD, RN, RN, USA

Abstract

Purpose: Clinical competency is a significant concept for nursing as it relates directly to the quality of patient care that nurses provide in the healthcare setting. Despite the vital nature of this concept, in the literature, there is currently no widely accepted understanding of the term between the academic and clinical groups in nursing. Consequently, there is a continuous struggle to set standards to measure clinical competency in undergraduate nursing students. This imprecise understanding of clinical competency widens the gap between education and practice. When acute care nurse managers and prelicensure baccalaureate nurse faculty share expectations of what constitutes clinical competency in nursing students, that gap may be bridged. The focus of this interpretive description study was to describe and gain an understanding of the concept of clinical competency from the perspective of acute care nurse managers and baccalaureate nurse faculty.

Methods: A purposive sample was recruited through the snowballing method. Participants included eight acute care nurse managers and nine prelicensure baccalaureate nurse faculty. Data were collected through semi-structured interviews with the participants, and analyzed through a constant comparative analysis until the data reached saturation.

Results: Four themes emerged from the data of this interpretive description study when acute care managers and baccalaureate nurse faculty described the meaning of clinical competency and what expectations managers have of the new graduate nurse in regards to clinical competency. The themes are *applying metacognitive judgment*, *getting the big picture*, *providing safe care*, and *developing professional nursing behaviors*. This study presents Transitions Theory as a theoretical framework to support its findings, as student nurses transition to the role of the new graduate nurse in the acute care setting. The application of the four themes described in this study to Transitions Theory assists in further understanding the meaning of clinical competency in nursing.

Conclusion: Implications of this study from the perspective of nursing science and research offered for the first time a shared view of the concept of clinical competency from the perception of the managers in practice and the faculty educating undergraduate nursing students in the clinical area. Implications for nursing education included providing faculty a means to structure the clinical experience so that students may be better prepared to practice in the acute care setting as a new graduate nurse. In nursing practice, the benefits for the managers are an understanding of the level of clinical competency and preparation of the new graduate nurse, which enables them to further support their transition to clinical practice. Future research may include a tool for the objective measurement of clinical competency.

References

- Garside, J., & Nhemachena, J. (2013). A concept analysis of competence and its transition in nursing. *Nurse Education Today*, 33, 542-545. <http://dx.doi.org/10.1016/j.nedt.2011.12.007>
- Lejonqvist, G., Eriksson, K., & Meretoja, R. (2011). Evidence of clinical competence. *Scandinavian Journal of Caring Sciences*, 26, 340-348. doi:10.1111/j.1471-6712.2011.00939.x
- Smith, S. A. (2012). Nurse competence: A concept analysis. *International Journal of Nursing Knowledge*, 23, 172-182. <http://dx.doi.org/10.1111/j.2047-3095.2012.01225.x>

Contact

cmeehan@wcupa.edu

D 12 - Nursing Governance

Evaluation and Revision of a Nursing Professional Practice Model Using Focus Group Research Methodology

Susan C. Cobb, PhD, RN-BC, USA

Anne E. Jadwin, MSN, RN, AOCN, NE-BC, USA

Kathleen M. Wolf, MBA, BSN, RN, NEA-BC, USA

Abstract

Purpose: The purpose of this presentation is to describe how focus group methodology can be successfully used to engage nurses in the evaluation and revision of a Nursing Professional Practice Model in a healthcare setting.

A nursing professional practice model (NPPM) is a conceptual representation of nursing within an institution which serves as a framework for nursing practice and interprofessional collaboration. Magnet®-designated organizations must show evidence of on-going evaluation of their nursing professional practice model with involvement of clinical nurses (American Nurses Credentialing Center, 2014).

NPPMs have been evaluated through several approaches including quantitatively via surveys and questionnaires. Since each NPPM is unique to an institution, the validity of using existing instruments to evaluate can be limited. Focus groups are another method to evaluate NPPMs which can provide rich data that can be used to validate the components of the model and inform any need for modifications. Focus groups may also contribute to development of a specific tool (Basol, et al., 2015) or be part of a mixed-methods evaluation approach (Harwood, Downing & Ridley, 2013). Our institution is seeking its fifth Magnet® designation and chose this approach which could be useful to other organizations seeking to evaluate their NPPM utilizing a qualitative research methodology. The purpose of this study was to evaluate nursing staff understanding and perceptions of the NPPM. The aims of the study were to obtain increased knowledge of how the NPPM is understood and used by nurses and how its relevance to current practice can be enhanced.

Methods: The study design was qualitative using focus groups. Participants were Registered Nurses from all levels, settings and shifts. Four focus groups were held and structured interview questions were used by the moderator. Two clinical nurses were sub-investigators on the study and assisted with field notes during the focus groups. Data analysis consisted of review of the audiotapes, transcripts and field notes with identification of major and minor themes to reach saturation. Data and thematic concordance were verified by an experienced qualitative researcher consultant.

Results: Major and minor themes were identified. Major themes included that the NPPM is multifaceted and empowers nurses. Themes and values articulated include caring and compassion, evidence-based practice, quality patient care, education and certification, nursing voice, visible leadership, and holistic and complementary care.

Conclusion: The focus group research approach was effective in evaluation of the NPPM. The NPPM was found to be relevant and reflective of nursing practice. Study participants indicated that the NPPM needs to be more visible throughout the organization and offered several suggestions for this. It was felt that the NPPM needs to be diligently communicated to nurses new to the organization as representative of the nursing culture and expectations. The evaluation revealed that a few minor revisions to the NPPM were indicated. A follow up group was convened and accomplished a minor redesign of the NPPM based on the focus group results.

Use of a focus group research study design is an innovative way for nursing leadership to promote the development of research skills of clinical nurses and to engage them in evaluating NPPMs relevance to current nursing practice and the interprofessional environment.

References

American Nurses Credentialing Center (2014). 2014 Magnet® application manual. Silver Spring, MD: American Nurses Credentialing Center.

Basol, R., Hilleren-Listerud, A. & Chmielewski, L. (2015). Developing, implementing, and evaluating a professional practice model. *JONA*, 45(1), 43-49.

Harwood, L., Downing, L. & Ridley, J. (2013). A renal nursing professional practice model: The next generation. *The CANNNT Journal*, 23(3), 14-19.

Hodge, M. B.; Campbell, P. RN, BSN; Tobar, K. (2016). Engaging nurses in the development and implementation of a professional practice model through nursing salons. *Journal of Nursing Administration*, 46(9), 425–427

Krueger, R. A., & Casey, M. A. (2015). Focus groups: A practical guide for applied research. Thousand Oaks, CA: Sage.

Polit, D. F., & Beck, C. T. (2012). Nursing research: Generating and assessing evidence for nursing practice (9th ed.). Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins.

Contact

slccobb@gmail.com

D 12 - Nursing Governance

Measuring Nurses' Perceptions of Collaborative Governance as a Method of Assessing Transformation of Organizational Culture

Jaynelle Stichler, DNS, MSN, BSN, RN, NEA-BC, EDAC, FACHE, FAAN, USA

Maria del Carmen Colombo, PhD, MBA, RN, NEA-BC, USA

Debra Milbert Poeltler, PhD, MPH, RN, CCRC, USA

Abstract

Purpose: This completed study describes the measurement of nurses' perceptions of collaborative governance (CG) over 5 years after implementation of a CG structure developed to transform culture and empower nurses to be more involved in decision making. The study is important since few evidence-based studies regarding CG exist in the literature.

Transformation leaders inspire others to achieve more than they thought possible for themselves (Porter-O'Grady & Malloch, 2015). The Magnet culture requires transforming the organization culture and facilitating leadership growth and empowerment of all nurses in the organization (Dearmon, 2015). CG is a structure and process used to change organizational culture by empowering and engaging clinical nurses in interprofessional decision-making as compared to the traditional hierarchical decision-making model (Ansell & Gash, 2008; Barden, Griffin, Donahue & Fitzpatrick, 2011; Hood, 2016). Benefits of CG have been described as advancing the scholarly work of clinical nurses, improved patient outcomes, and improvements in clinical nurse job satisfaction (Burkoski & Yoon, 2013; Myers, et al., 2013; Parkosewich, 2013). CG facilitates the transformation of the organization and is a developmental process that can be measured over time (Larkin, Cierpial, Stack, Morrison, Griffith, 2008).

After a review of the literature exploring best practices in collaborative governance (Burkman, 2012; Dearmon, 2015; Franklin, Murphy & Cook, 2014), the nurse leaders and clinical nurses at the study site designed, implemented, and evaluated a CG organizational structure with a conceptual model (Bretschneider, Eckhardt, Glenn-West, Green-Smolenski & Richardson, 2010). This study surveyed clinical nurse perceptions of the CG structure annually to measure growth and enculturation.

Intervention: Recognizing that leadership was the key to transforming organizational culture (Hood, 2016; Slatyer, Coventry, Twigg & Davis, 2016), the first step forming the Magnet Steering Leadership Council (MSLC) comprised of clinical nurses and nurse leaders who began the work of designing the CG structure for the hospital. Once the CG councils were identified (Professional Development Council, Research & Innovation, Healthy Work Environment, Quality & Patient Safety, Professional Practice), clinical nurses were invited to participate on hospital-wide councils and/or unit practice councils (UPCs). The clinical nurse members and nurse leaders developed charters to outline responsibilities, deliverables, and terms of membership complete with annual SMART goals. Communication systems were developed to facilitate information exchange among the UPCs and house-wide councils. Magnet Factoids disseminated electronically familiarized all employees with the work of the councils and Magnet components. Council accomplishments were reported yearly at professional development workshops and featured in the Nursing Annual Report. CG councils were evaluated by clinical nurses and interprofessional participants to identify opportunities for growth.

Methods: After Institutional Review Board approval, the study was conducted in a large metropolitan hospital located in the Southwestern region of the United States. The study used a time series quantitative survey design to test perception changes of CG over 5 years. The hypotheses were: (1) nurses will improve their perceptions of CG over time as a result of their involvement with the CG process in UPCs and hospital-wide councils; and (2) nurses will perceive that CG enhances their professionalism as the CG structure and process matures. The CG Survey was used to measure the nurses' perceptions of CG. The 39-item instrument has a reported Cronbach's alpha of .97 and is rated on a 4-point Likert scale from 4 (strongly agree) to 1 (strongly disagree). The instrument has three subscales – understanding CG; Commitment of the organization to CG; and personal perceptions of CG. Data was collected each May-June since 2012 and analyzed with SPSSv23.

Results: A total of 562 nurses responded over the 5 years (Y) (n = 131, Y1; n = 181, 2; n = 121, Y3; n = 84, Y4; and n = 45, Y5). While mean (M) ages differed slightly over the 5 years, there were no significant differences in mean ages (M = 42 years combined), years employed at the hospital (M = 12 years), work status, ethnicity or highest degree earned. There were significant differences ($p = .000$) in nurses' perceptions for the total CG scale score (Y1 M = 2.82 to Y5 M = 3.96) and the three subscales – perception (Y1 M = 2.91 to Y5 M = 3.86); knowledge (Y1 M = 2.79 to Y5 M = 3.98), and commitment (Y1 M = 2.80 to Y5 M = 3.99) from year to year (only Y1 and Y5 reported here). Nurses reported that CG enhanced the level of professionalism among nurses (M = 3.97) and among all staff (M = 3.8).

Conclusions: Although the generalizability of the study is limited since it is a single site study, the results indicate a CG structure and process does enhance nurses' perceptions of CG over time as the structure matures and contributes to nurses' perceptions of enhanced levels of professionalism. This study provides new knowledge about the importance of measuring the effect of CG structures over time on nurses' perceptions, knowledge and commitment to CG. The study has global implications for nursing, since collaborative structures and processes that facilitate nurses' decision making at the point of care have promise to improve patient outcomes and contribute to job satisfaction and retention among nurses.

References

- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of public administration research and theory, 18*(4), 543-571.
- Barden, A. M., Griffin, M. T. Q., Donahue, M., & Fitzpatrick, J. J. (2011). Shared governance and empowerment in registered nurses working in a hospital setting. *Nursing administration quarterly, 35*(3), 212-218.
- Bretschneider, J., Eckhardt, I., Glenn-West, R., Green-Smolenski, J., & Richardson, C. (2010). Strengthening the voice of the clinical nurse: The design and implementation of a shared governance model. *Nursing Administration Quarterly, 34*(1), 41-48.
- Burkman, K, Sellers, D, Rowder, C, & Batcheller, J. (2012). An integrated system's nursing shared governance model: a system chief nursing officer's synergistic vehicle for leading a complex health care system. *Nursing Administration Quarterly, 36*(4), 353-361.
- Burkoski, V. & Yoon, J. (2013). Continuous quality improvement: a shared governance model that maximizes agent-specific knowledge. *Nursing Leadership Toronto, Ontario, Canada, 26 Special No 2013, 7-16.*
- Dearmon, VA, Riley, BH, Mestas, LG & Buckner, EB (2015). Bridge to shared governance: developing leadership of frontline nurses. *Nursing Administration Quarterly, 39*(1), 69-77.
- Franklin, B, Burphy, M, & Cook, P. (2014). Shared governance in an Army clinic: implementing unit practice councils. *Nurse Manager, 45*(11), 44-49.
- Hood, K. (2016). Shared governance has given us the power of collaboration. *Nursing Times, 112*(1-2), 11.
- Larkin, M., Cierpial, C., Stack, J., Morrison, V., & Griffith, C. (2008). Empowerment theory in action: The wisdom of collaborative governance. *Online Journal of Issues in Nursing, 13*(2), 2-2.
- Myers, M, Parchen, D, Geraci, M, Brenholtz, R, Knisely-Carrigan, D & Hastings, C. (2013). Using a shared governance structure to evaluate the implementation of a new model of care: the shared experience of a performance improvement committee. *Journal of Nursing Administration, 43*(10), 509-516.
- Parkosewich, JA (2013). An infrastructure to advance the scholarly work of staff nurses. *Yale Journal of Biological Medicine, 86*(1), 63-77.
- Porter-O'Grady T, Malloch K. (2015). *Quantum Leadership: Building Better Partnerships for Sustainable Health*. Sudbury, MA: Jones & Bartlett.
- Slatyer, S, Coventry, LL, Twigg, D, & Davis, S. (2016). Professional practice models for nursing: a review of the literature and synthesis of key components. *Journal of Nursing Management, 24*(2), 139-150.

Contact

Jan.stichler@sharp.com

D 12 - Nursing Governance

The Theory of Psychological Ownership: Measurement and Uses in Nurse Work Environment Research

Lori M. Schirle, PhD, CRNA, USA

Abstract

Purpose: Research suggests nurse work environment is a critical component of good nursing care leading to better job satisfaction, lower burnout, less turnover, and improved patient morbidity and mortality (Kutney-Lee et al., 2015). Work structures and processes that increase control, empowerment, autonomy, decision making, good working relations, and supportive leadership are identified as crucial to these outcomes (Aiken et al., 2012). As pervasive as these concepts are in nursing research, recent systematic reviews find inconclusive effects of nurse work environment on both patient and nurse outcomes (Bae, 2011; Dariel, Petit, & Regnaud, 2015; Lu, Barriball, Zhang, & While, 2012). Critical analysis suggests that a bivariate approach to such a complex situation may be too simplistic, and causal mechanisms such as moderators that play a key role in the relationship should be considered (Bae, 2011; Norman, 2013).

Psychological Ownership is a concept that describes how work environment psychologically influences the worker, and may provide a mechanism for this connection. The Theory of Psychological Ownership identifies three routes to the development of feelings of psychological ownership: Control, Intimate Knowledge, and Investment of Self (Pierce & Jussila, 2011). Only one route is needed to develop feelings of ownership for a target. Organizations provide opportunities for job ownership through the way work is structured and the degree to which employees control their work. Psychological ownership links the employee to the organization or job, leading to a heightened sense of responsibility for work outputs. Positive effects of psychological ownership include increased commitment, job satisfaction, organization-based self-esteem, work engagement, lower burnout, and increased intent to stay (Dawkins, Tian, Newman, & Martin, 2015)

Although related concepts have been researched in the context of work environment such as organizational commitment, job satisfaction, and organizational identification, psychological ownership is the *only* construct focused on the sense of ownership (Pierce & Jussila, 2011). Ownership is a primitive concept that may influence behavior and reasoning in many domains (Friedman & Ross, 2011). Employees with heightened psychological ownership exhibit an enhanced sense of responsibility for the target of the ownership (Dawkins et al., 2015). Accordingly, facilitating nurse psychological ownership through work environment manipulation could translate into improved care delivery and a heightened sense of responsibility for patient outcomes, providing the missing link between improved nurse work environments and desired outcomes.

Since its inception in the 1990s, the Theory of Psychological Ownership has been employed to study many types of organizations and their employees. Critical constructs in good nursing work environments and those central to the concept of psychological ownership overlap, yet, only two published nursing studies have utilized a tool based on psychological ownership, (Kaur, Sambasivan, & Kumar, 2013; Yoo, Yoo, & Kim, 2012), and none have applied the Theory of Psychological Ownership. Several tools exist to measure psychological ownership, the most-used a 6-item tool that measures the degree of psychological ownership, but not the three routes (Pierce & Jussila, 2011). Recently, a tool was introduced which expanded the original 6-item tool, adding three subscales to include the routes to psychological ownership (Brown, Pierce, & Crossley, 2013). The purposes of this presentation are to 1) introduce The Theory of Psychological Ownership as a tool for nurse work environment research, and 2) describe the use of the expanded measure in a hospital nursing sample.

Methods: A convenience sample of 542 Florida APRNs from 126 different hospital settings responded to an online survey. APRNs were recruited through a public Board of Nursing database, or through their Chief Nursing Officers. APRNs who self-identified as working in hospitals were eligible for participation. The expanded Psychological Ownership questionnaire was a measure included in the survey. This

measure is composed of 21-items and 4 subscales of Control, Intimate Knowledge, Investment of Self, and Psychological Ownership. Items are scored on a 4-point Likert-type scale (*strongly agree, agree, disagree, and strongly disagree*). Reliability and validity tests were performed, and confirmatory factor analysis (CFA) was employed to ascertain the measures' functionality in this sample.

Results: Analyses reveal good measure and subscale reliability with subscale Cronbach α s ranging from .77-.91. CFA model results reveal good fit of the model to the data ($X^2 [393] = 403.185, p=.351, RMSEA = .007$, and $CFI=.998$). Subscale factor loadings were significant and high, with standardized estimates ranging .65 to .94. Eighty-four percent of APRNs reported favorable responses (*strongly agree or agree*) the psychological ownership subscale indicating a strong sense of psychological ownership. Subscale analyses revealed the highest favorable scores on Intimate Knowledge (94%), and Investment of Self (93%), and the lowest favorable scores on Control (59%).

Conclusion: The expanded psychological ownership measure performed well in an advanced practice nursing population indicating the subscales of the measure functioned as intended. This is not surprising given the overlapping fundamental constructs in psychological ownership and good nursing practice environments. Percentage of favorable responses in the control subscale were low in comparison with other subscales, suggesting that although overall perceptions of psychological ownership are high in this population, it primarily develops through intimate knowledge of and investment of self into one's job, rather than through control. This is in contrast to findings in other professions studied (Pierce & Jussila, 2011). Hospitals are organizations known for bureaucratic, hierarchical power structures with less favorable practice environments for APRNs (Poghosyan et al., 2015). Control, empowerment, and decision making are interwoven organizational structures that impact the development of psychological ownership (Pierce & Jussila, 2011), therefore it is predictable that the route of control may be less consequential to hospital APRNs' overall psychological ownership scores.

The Theory of Psychological Ownership is a contemporary idea with substantive applications for nursing work environment research. Experts recognize the importance of nurse work environment, but are calling for targeted research that can lead to interventions to improve patient and nurse outcomes. Evidence suggests fostering psychological ownership for one's job improves employee/organizational performance and outcomes in other fields. Exploration of Psychological Ownership as a mechanism for improved outcomes, and organizational interventions to increase psychological ownership of nurses has great potential to meet the global goal of improved healthcare quality.

References

- Aiken, L. H., Cimiotti, J. P., Sloane, D. M., Smith, H. L., Flynn, L., & Neff, D. F. (2012). Effects of nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Journal of Nursing Administration, 42* (supplement), S10-S16. doi:10.1097/01.nna.0000420390.87789.67
- Bae, S. H. (2011). Assessing the relationships between nurse working conditions and patient outcomes: A systematic literature review. *Journal of Nursing Management, 19*, 700-713. doi:10.1111/j.1365-2834.2011.01291.x
- Brown, G., Pierce, J. L., & Crossley, C. (2013). Toward an Understanding of the Development of Ownership Feelings. *Journal of Organizational Behavior, 35*(3), 318-338. doi:10.1002/job.1869
- Dariel, D., Petit, O., & Regnaud, J. P. (2015). Do Magnet@-accredited hospitals show improvements in nurse and patient outcomes compared to non-Magnet hospitals: A systematic review. *JBIR Database of Systematic Reviews and Implementation Reports, 13*(6), 168-216. doi:10.11124/01938924-201513060-00014
- Dawkins, S., Tian, A. W., Newman, A., & Martin, A. (2015). Psychological ownership: A review and research agenda. *Journal of Organizational Behavior, .* doi:10.1002/job.2057
- Friedman, O., & Ross, H. (2011). Twenty-one reasons to care about the psychological basis of ownership. *New Dir Child Adolesc Dev, 2011*(132), 1-8. doi:10.1002/cd.292
- Kaur, D., Sambasivan, M., & Kumar, N. (2013). Effect of spiritual intelligence, emotional intelligence, psychological ownership and burnout on caring behaviour of nurses: A cross-sectional study. *J Clin Nurs, 22*(21-22), 3192-3202. doi:10.1111/jocn.12386
- Kutney-Lee, A., Stimpfel, A. W., Sloane, D. M., Cimiotti, J. P., Quinn, L. W., & Aiken, L. H. (2015). Changes in patient and nurse outcomes associated with magnet hospital recognition. *Medical Care, 53*(6), 550-557. doi:10.1097/mlr.0000000000000355
- Lu, H., Barriball, K. L., Zhang, X., & While, A. E. (2012). Job satisfaction among hospital nurses revisited: A systematic review. *Int J Nurs Stud, 49*(8), 1017-1038. doi:10.1016/j.ijnurstu.2011.11.009

Norman, I. (2013). The nursing practice environment. *Int J Nurs Stud*, 50(12), 1577-1579.
doi:10.1016/j.ijnurstu.2013.09.006

Pierce, J. L., & Jussila, I. (2011). *Psychological ownership and the organizational context: Theory, research evidence, and application*: Edward Elgar Publishing.

Poghosyan, L., Shang, J., Liu, J., Poghosyan, H., Liu, N., & Berkowitz, B. (2015). Nurse practitioners as primary care providers: creating favorable practice environments in New York State and Massachusetts. *Health Care Manage Rev*, 40(1), 46-55. doi:10.1097/HMR.0000000000000010

Yoo, M. R., Yoo, J. A., & Kim, Y. M. (2012). Study for professionalism, organizational citizenship behavior, psychological ownership of nurse officers. *Journal of Korean Academy of Nursing Administration*, 18(3), 290-300.
doi:10.11111/jkana.2012.18.3.290

Contact

lori.schirle@vanderbilt.edu

D 14 - Cardiac Disease Health Promotion

Preventing Heart Failure Readmissions By Using a Risk-Stratification Tool

Anna Dermenchyan, MSN, RN, CCRN-K, USA

Abstract

Purpose: To implement strategies to improve care and patients' experience and reduce readmissions for heart failure (HF) patients, Ronald Reagan UCLA Medical Center accepted an invitation from the American College of Cardiology (ACC) to join the Patient Navigator Program (PNP). The goal for the program is for hospitals to establish a patient-centered focus that involves making hospitalization less stressful for patients by providing evidence-based quality improvement strategies. At the initiation of the program (Spring 2014), UCLA utilized a validated risk model, LACE index, to identify patients who are at high risk of readmissions before discharge. This tool has been used to predict the risk of unplanned readmissions as well as mortality within 30 days of hospital discharge in both medical and surgical patients.

Methods: The LACE Index tool is used to identify patients who would benefit from specific interventions. The score is calculated in the electronic health record (EHR) for each patient from 0 to 19 on the basis of all the following parameters: length of stay (L), acuity of admission (A), comorbidity (C), and emergency department visits in the preceding 6 months (E). Based on the LACE criteria, a low (0–6), medium (7–10) or high (≥ 11), each score has an identified bundled intervention for each level of risk (Table 1). For example, a HF patient with a low risk score of 6 would receive medication reconciliation from the pharmacist, an updated medication list from the nurse, and a standardized discharge summary from the discharging physician, as well as a follow-up appointment within 5 days. In contrast, a HF patient with a high risk score of 14 would receive the same interventions plus consultations by a physical therapist, a social worker, a case manager, and a dietician; one-to-one medication teaching by the pharmacist; and a follow-up appointment within 3 days.

Results: The LACE Index score is now calculated in the EHR for all patients. Currently, HF patients receive bundled interventions 80% of the time on the cardiac wards. Since the initiation of the risk score, 30-day unadjusted readmission rates for HF patients at UCLA have decreased from 19% (baseline) to 16.7% (2016, Q2) as compared to the Navigator hospitals 19.2% (baseline) to 17.9% (2016, Q2). In the area of patient experience related to patients' understanding of medications, UCLA is consistently higher than other Navigator hospitals (100% vs. 72.2%) and has identified and shared best practices during the monthly webinars. In addition, UCLA has increased the number of HF patients consistently receiving a follow-up appointment within 7 days after discharge: baseline of 76.6% to 87.5% (2016, Q2).

Conclusion: There are numerous factors that cause hospital readmissions. By using a risk model, UCLA is able to identify patients who would benefit from specific evidence-based interventions. This has improved outcomes in 30-day unadjusted readmission rates and patient experience.

Table 1. LACE Risk Stratification Score and Bundled Interventions at Ronald Reagan UCLA Medical Center

Intervention Needed and Responsible Provider	LACE Risk Stratification Score & Bundled Interventions		
	Low (0–6)	Med (7–10)	High (≥ 11)
Standardized D/C summary (after-visit summary)	X	X	X
Medication reconciliation (MD/pharmacist)	X	X	X
Update medication list (RN)	X	X	X
Physical therapy consultation		X	X
Pharmacy 1:1 teaching		X	X
Social work (psychosocial issues/complex cases)			X

Care coordination: home health, community-based care transition program (case management)				X
Nutrition 1:1 teaching (dietician)				X
Post hospital follow-up visit with physician (Department of Medicine staff)	≤ 5 days	≤ 5 days	≤ 3	days/Home Health RN

Palliative care (PRN)

Abbreviations: D/C, discharge; LACE, length of stay, acuity of admission, comorbid conditions, and emergency department visits; MD, physician; PRN, as needed; RN, registered nurse.

References

1. American College of Cardiology (2014). Patient Navigator Program. Retrieved October 22, 2016, from: http://cvquality.acc.org/Initiatives/Patient-Navigator.aspx?_ga=1.7382962.124192929.1455129164
2. Bradley, E. H., Curry, L., Horwitz, L. I., Sipsma, H. Wang, Y. Walsh, M. N., . . . & Krumholtz, H. M. (2013). Hospital strategies associated with 30-day readmission rates for patients with heart failure. *Circulation Cardiovascular Quality and Outcomes*, 2013, 6(4), 444–450. doi 10.1161/circoutcomes.111.000101.
3. Calvin, J. E., Shanbhag, S., Avery, E., Kane, J., Richardson, D., & Powell, L. (2012). Adherence to evidence-based guidelines for heart failure in physicians and their patients: Lessons from the heart failure adherence retention trial (HART). *Congestive Heart Failure*, 18(2), 73–78.
4. Dharmarajan, K., Hsieh, A. F., Zhenqiu, L., Bueno, H., Ross, J. S., Horwitz, L., Krumholz, H. M. (2013). Diagnoses and timing of 30-day readmissions after hospitalization for heart failure, acute myocardial infarction, or pneumonia. *Journal of American Medical Association*, 309, 4, 355–363. doi: 10.1001/jama.2012.216476.
5. Feltner, C., Jones, C. D., Cené, C. W., Zheng, Z. J., Sueta, C. A., Coker-Schwimmer, E. J. L., Jonas, D. E. (2014). Transitional care interventions to prevent readmissions for persons with heart failure. *Annals of Internal Medicine*, 160(11), 774-784. doi: 10.7326/M14-0083
6. Wang, H., Robinson, R. D., Johnson, C., Zenarosa, N. R., Jayswal, R. D., Keithley, J., & Delaney, K. A. (2014). Using the LACE index to predict hospital readmissions in congestive heart failure patients. *BMC Cardiovascular Disorders*, 14, 97–97.

Contact

adermenchyan@mednet.ucla.edu

D 14 - Cardiac Disease Health Promotion

Demoralization Syndrome Affects Health-Related Quality of Life (HRQOL) in Patients With Heart Failure

Hsing-Mei Chen, PhD, RN, Taiwan

Liang-Miin Tsai, MD, Taiwan

Yun-Han Shie, MSN, RN, Taiwan

Abstract

Purpose: Health-related quality of life (HRQOL) is an important outcome measure for guiding appropriate and effective therapeutic interventions for patients with heart failure (HF). Demoralization syndrome consists of a cluster of emotional symptoms including loss of meaning, dysphoria, disheartenment, helplessness, and sense of failure. Patients with demoralization syndrome may have poor quality of life. To date, information about the relationship between demoralization syndrome and HRQOL in patients with HF, however, is still lacking. Therefore, the purpose of this study was to examine the relationship between demoralization syndrome and HRQOL in patients with HF.

Methods: A cross-sectional correlational research design was employed, and a convenience sample of 120 heart failure participants was recruited from a medical center located in southern Taiwan. Measurements included Demoralization Scale, and Left Ventricular Dysfunction questionnaire. Bivariate analysis and hierarchical multiple regression analysis were carried out to test the relationship between demoralization syndrome and HRQOL.

Results: The mean age was 64.95 (SD 13.67) years with a majority of male (71%), married (80%), unemployed (68%), sufficient financial status (84%), and New York Heart Association (NYHA) Class II (74%). The bivariate analyses showed that HRQOL was significantly associated with age ($r = 0.22, p < 0.05$), education ($F = 3.08, p < 0.05$), employment status ($F=6.08, p<0.001$), NYHA Class ($t = -3.80, p < 0.001$), and all demoralization domains and total score ($r = 0.26, p < 0.01$ to $r = 0.53, p < 0.001$). A two-step hierarchical multiple regression analysis showed that the significant determinants of HRQOL were age ($\beta = 0.24, CI = 0.04-0.22$), financial status ($\beta = -0.29, CI = -8.62- -2.05$), NYHA Class ($0.17, CI = 0.13- 5.44$), demoralization-disheartenment ($\beta = 0.40, CI = 0.33-1.16$), and demoralization-sense of failure ($\beta = 0.21, CI = 0.06-0.41$). The total model explained 40.2% of the variance in HRQOL, with demoralization domains accounting for 12.1% of the variance.

Conclusion: HF participants who were elderly, had poor financial status, identified as NYHA Class III and IV, reported higher disheartenment, and perceived greater sense of failure experienced poor HRQOL. The study suggests demoralization syndrome is common in patients with HF and should be early identified to maintain HRQOL of the patients.

References

Grandi, S., Sirri, L., Tossani, E., & Fava, G. A. (2011). Psychological characterization of demoralization in the setting of heart transplantation. *Journal of Clinical Psychiatry* 72, 648-654. doi: 10.4088/JCP.09m05191blu.

Tecuta, L., Tomba, E., Grandi, S., & Fava, G. A. (2015). Demoralization: A systematic review on its clinical characterization. *Psychological Medicine* 45, 673-91. doi: 10.1017/S0033291714001597.

Contact

hsingmei@ntu.edu.tw

D 14 - Cardiac Disease Health Promotion

Partnering With Community Health Workers and Faith-Based Organizations to Provide Hypertension Management in Haiti

Cynthia G. Cortes, DrPH, MSN, RN, CPNP-PC, COI, USA

Abstract

Purpose: The purpose of the program was for U.S. based healthcare providers to manage Haitian patients' hypertension through bimonthly clinics and community health workers to monitor blood pressures weekly. Approximately 27% of Haitian adults have raised blood pressures; cardiovascular diseases account for 24% of the total deaths in Haiti and stroke is the leading cause of death (WHO,2012). Community health workers (CHW) have been effective globally in multiple education activities. In Haiti, CHW have been instrumental in providing education on cholera prevention and control (CDC, n.d.) as well as education and preventive services to people with HIV.

Methods: Potential health promoters were recruited from churches to receive training in general health promotion and disease prevention, basic anatomy and physiology of the circulatory system, proper techniques for assessing blood pressure, documentation of blood pressure, and when to refer those with elevated blood pressure for additional assessment and hypertension management. Stethoscopes and blood pressure cuffs were provided to the health promoters who passed their blood pressure validation. The education was provided by a nurse practitioner with vast experience in delivering health care in developing countries.

A general medical clinic was conducted in the West Region of Haiti by U.S. healthcare providers and persons with systolic blood pressures over 140 mm/Hg and diastolic blood pressures over 90 mm/Hg were eligible to participate in an ongoing hypertension management clinic. Patients were given a sufficient quantity of medication to last until their scheduled appointment at the hypertension management clinic approximately 2 months from the initial date of service. Guidelines for prescribing anti-hypertensive medication were evidenced based and developed in collaboration with a nephrologist based on drug effectiveness in the Haitian population and not requiring electrolyte monitoring (Roehm, 2010; Weber et al., 2014).

Results: At the general medical clinic 115 patients were started on medication to treat hypertension. At the first follow-up clinic 22 patients returned; 10 of the 22 returned for the second follow-up; and 7 of the 10 patients were also seen at the third follow-up clinic. Amlodipine and hydrochlorothiazide were the primary medications prescribed. Of the 31 patients seen at least twice, blood pressures were controlled for 10 patients.

Conclusion: Additional strategies need to be developed to promote lifestyle modifications to decrease the risk for hypertension, increase adequate blood pressure monitoring, and increase medication adherence in the Haitian population. Nurse practitioners are prepared to provide both training for CHW and hypertension management for patients.

References

- Centers for Disease Control and Prevention. (n.d.). *Community Health Worker Training Materials for Cholera Prevention and Control*. Washington DC: Author.
- Mukherjee, J. S., & Eustache, F. E. (2007). Community health workers as a cornerstone for integrating HIV and primary healthcare. *AIDS Care, 19*, S73-S82.
- Ponsar, F., Tayler-Smith, K., Philips, M., Gerard, S., Van Herp, M., Reid, T., & Zachariah, R. (2011). No cash, no care: How user fees endanger health-lessons learnt regarding financial barriers to healthcare services in Burundi, Sierra Leone, Democratic Republic of Congo, Chad, Haiti, and Mali. *International Health, 3*, 91-100.
- Roehm, E. (n.d.). Treating hypertension in Haiti in the aftermath of the earthquake. Retrieved from <http://www.hypertensionrxhaiti.com/index.html>
- Sanon, M., Mohammed, S. A., & McCullagh, M. C. (2014). Definition and management of hypertension among Haitian immigrants: A qualitative study. *Journal of Health Care for the Poor and Underserved, 25*, 1067-1078.

Weber, M. A., Schiffrin, E. K., White, W. B., Mann, S., Lindholm, L. H., Kenerson, J. G.,...Harrap, S. B. (2014). Clinical practice guidelines for the management of hypertension in the community: A statement by the American Society of Hypertension and the International Society of Hypertension. *The Journal of Clinical Hypertension*, 1, 3-15.

World Health Organization. (2012). Haiti: WHO statistical profile. Retrieved from <http://www.who.int/gho/countries/hti.pdf?ua=1>

Contact

ccortes@samford.edu

D 15 - Clinical Competency Progression Evolution of Expertise Among Critical Care Nurses

Teresa Welch, EdD, NEA-BC, USA

Abstract

Purpose: Nurses are highly skilled educated professionals who are called upon every day to incorporate accurate clinical assessment skills; decisive critical thinking and judgment skills in a dynamic, oftentimes emotionally charged situation to effectively manage multiple patients with complex emotional and medical conditions. The nurses' role is highly complex and demanding as they maintain a constant vigil at the patient's bedside twenty-four hours a day, seven days a week to ensure optimal healthcare outcomes. Through this vigil, those patient outcomes will be directly impacted by the expertise and care of the bedside nurse. According to the literature, development of expertise is directly correlated with three fundamental requirements: a) a tremendous amount of dedicated work, b) time, and c) relevant experience. Experts in most domains attain their highest level of performance after 10,000 hours of dedicated practice (Weiss & Shanteau, 2014). This is equivalent to ten years of dedicated and relevant experience within the expert's respective domain. Within the domain of critical care nursing the skill level of the bedside nurse has been directly correlated with quality patient outcomes, greater reimbursements, and decreased operational costs. This presentation represents a study that was designed to explore the emic perspective of the critical care nurse as it relates to expertise, expert performance and the critical care nurses journey in the achievement of expert performance.

Methods: This study used a grounded theory qualitative methodology. Data was collected through in-depth participant interviews with open-ended questions. Benner's (1982, 2011) seminal model of skill acquisition, Novice to Expert, provided the theoretical structure and framework guiding the development of participant inclusion/ exclusion criteria and data collection. However, as expertise was considered within the dynamic critical care environment, Ericsson and Smith's (1991, 2010) expert performance approach was used to strengthen Benner's Novice to Expert Model providing valuable structure and insight into the concept of expertise (Causar, Barach & Williams, 2014). As themes were identified the expert performance approach provided valuable evaluative strategies to facilitate understanding of expert nuances and processes within critical care practice.

The purpose of this study was to examine and explore the critical care nurse's personal perceptions of expertise, expert performance and the transition from novice to expert in clinical practice. The study addressed the following questions:

- a) How would you define the expert nurse in clinical practice in critical care?
- b) What criteria or characteristics would you use to define expert performance in clinical practice in the critical care unit?
- c) How does one become an expert in critical care?
- d) In your experience what factors have supported or hindered your professional development?

Results: Study findings supported three major themes: a) experience with sub-themes diversity and intensity; b) knowledge with the sub-theme critical reasoning; and c) self-actualization with sub-themes personal presence, and life-long learning. Furthermore, data findings supported the researcher's assertion that "tacit" knowledge is a more appropriate term to represent the requisite knowledge base and diversity of experience demonstrated by nurses in actual clinical practice rather than the term "intuitive grasp" as found in current literature.

Conclusion: The research findings of this study hold significance for nurse educators and professional nurse leaders alike who are in a position to foster professional development and clinical expertise for young nurses entering the nursing profession. Future implications for research would need to focus on understanding and adding to the body of knowledge as it relates to the influence of the individual, personal presence and further refinement of the understanding of the expert and expert thinking on the unconscious or automatic plan.

References

- Benner, P. (1982). From novice to expert. *The American Journal of Nursing*, 82, 3. 402-407. doi: 10.2307/3462928.
- Benner, P., Kyriakidis, P.H., & Stannard, D. (2011). *Clinical Wisdom and Interventions in Acute and Critical Care: A Thinking-in-Action Approach* (2nd ed.). New York, NY: Springer Publishing Company LLC.
- Causser, J., Barach, P., & Williams, A. M. (2014). Expertise in medicine: Using the expert performance approach to improve simulation training. *Medical Education*, 48, 115-123. <http://dx.doi.org/10.1111/medu.12306>.
- Ericsson, K.A., & Smith, J. (1991). Prospects and limits of the empirical study of expertise: An introduction. In K.A. Ericsson & J. Smith (Eds.) *Toward a General Theory of Expertise: Prospects and Limits*. (pp. 1-38). New York, NY: Cambridge University Press.
- Ericsson, K. A., & Towne, T. J. (2010). Expertise. *Cognitive Science*, 1, 404-416. <http://dx.doi.org/10.1002/wcs.47>.
- Weiss, D.J., & Shanteau, J. (2014). Who's the best? A relativistic view of expertise. *Applied Cognitive Psychology*, 28, 447-457. doi:10.1002/acp.3015.

Contact

tdwelch@ua.edu

D 15 - Clinical Competency Progression

State of the Science on Clinical Evaluation of Competence in Nursing Education

Elizabeth Van Horn, PhD, RN, CNE, USA

Lynne Porter Lewallen, PhD, RN, CNE, ANEF, USA

Abstract

Purpose: This presentation will describe the state of the science on clinical evaluation of competence in nursing education and address issues related to instrumentation and methods used in clinical evaluation globally.

Methods: A NLN-funded research synthesis was conducted to identify published research and dissertations on clinical evaluation of nursing students. Cooper's (2010) method of conducting a research synthesis was used to guide the study. Search methods included literature searches of nursing, educational, and health sciences databases; dissertation abstracts; review of table of contents of 7 leading nursing education journals from 2005-2015; and review of the reference lists of 6 review articles on clinical evaluation (e.g. Cant, McKenna, & Cooper, 2013). The full search resulted in 177 articles, of which 77 met the study criteria related to research on clinical evaluation of nursing students. From these, a total of 30 studies focused on clinical evaluation of competence, which was defined as the measurement or evaluation of competence in general or in a specific area. Data analyses included creation of a matrix for comparison of study data and narrative synthesis of study data.

Results: The 30 studies were published between the years 1988-2015 and used quantitative (n = 26), qualitative (n = 1), and mixed methods (n = 3). The studies were conducted in eight different countries including Australia, Finland, Ireland, Sweden, Taiwan, Turkey, the United Kingdom, and the United States, providing information useful for evaluating diverse populations of students in various clinical settings including international venues.

The majority of the studies aimed to measure global competence at the end of a nursing program. Studies frequently measured student progress over time with pre and post-measures administered before and after an entire program, semester, clinical rotation, or specific event, such as a summer precepted experience. Seven studies focused on competence in a specific area including medication calculation (Macdonald, Weeks, & Mosely, 2013), vaccinations (Nikula, Puukka, & Leino-Kilpi, 2012), critical thinking (Pitt, Powis, Levett-Jones, & Hunter, 2015), psychiatric nursing skills (Glass & Ward, 2008), culturally specific care (Jeffreys & Dogan, 2013), and interpersonal communication (Klakovich & Cruz, 2006).

Most of the studies (n = 21) used researcher-developed instruments, and some also conducted psychometric testing of the study instrument (e.g. Hsu & Hsieh, 2013). Data for analyses included student-self reports (Kajander-Unkuri et al., 2014), faculty or preceptor evaluations of student performance (Cassidy et al., 2012). Many studies examined comparisons among these types of evaluations, while others compared either specific exam scores or grades in didactic courses with the clinical measures. A majority of the studies used descriptive, correlational, or comparative methods, and were classified as levels 4 or 6 according to Melnyk and Fineout-Overhalt's (2011) levels of evidence.

Conclusion: Clinical evaluation in nursing education has been an ongoing area of educational research for decades and includes evaluation of competence in specific skills or nursing practice specialty areas, and in general competence. Despite the use of standardized licensing exams for entry into practice in many countries globally, a review of the research literature reveals clinical evaluation of competence lacks standardization of measures or methods, and a lack of replication of studies and instrument testing to build the science of nursing education related to evaluation of clinical competence. The common use of student self-evaluation and researcher-created measures is problematic for determining reliability and validity of instruments and comparison of findings across studies. The use of predominately descriptive research decreases the ability to use the research findings as evidence to guide nursing faculty in clinical evaluation methods. Imperative areas for future research and practice are the need to accurately and efficiently measure competence in the clinical area, the need for reliable and valid instruments, and the

elevation of nursing research rigor in clinical evaluation of competence to include quasi-experimental and experimental research methods.

References

- Cant, R., McKenna, L., & Cooper, S. (2013). Assessing preregistration nursing students' clinical competence: A systematic review of objective measures. *International Journal of Nursing Practice, 19*, 163-76.
- Cassidy, I., Butler, M.P., Quillinan, B., Egan, G., Namara, M.C., Tuohy, D., et al. (2012). Preceptors' views of assessing nursing students using a competency based approach. *Nurse Education in Practice, 12*, 346-51.
- Cooper, H. (2010). *Research synthesis and meta-analysis: A step-by-step approach* (4th ed.). Los Angeles: Sage.
- Glass, N., & Ward, L. (2008). Chapter 8: Advancing clinical nursing education in mental health: student self-assessment of clinical competencies. *Annual Review of Nursing Education, 6*, 151-172.
- Hsu, L. & Hsieh, S. (2013). Development and psychometric evaluation of the competency inventory for nursing students: A learning outcome perspective. *Nurse Education Today, 33*, 492-7.
- Jeffreys, M. R., & Dogan, E. (2013). Evaluating cultural competence in the clinical practicum. *Nursing Education Perspectives, 34*(2), 88-94.
- Kajander-Unkuri, S., Meretoja, R., Katajisto, J., Saarikoski, M., Salminen, L., Suhonen, R., & Leino-Kilpi H. (2014). Self-assessed level of competence of graduating nursing students and factors related to it. *Nurse Education Today, 34*(5), 795-801. doi: 10.1016/j.nedt.2013.08.009
- Klakovich, M. D., & Cruz, F. A. D. (2006). Validating the interpersonal communication assessment scale. *Journal of Professional Nursing, 22*(1), 60-67. doi:10.1016/j.profnurs.2005.12.005
- Macdonald, K., Weeks, K., & Mosely, L. (2013). Safety in numbers 6: Tracking pre-registration students' cognitive and functional competence development in medication dosage calculation problem-solving: The role of authentic learning and diagnostic assessment environments. *Nurse Education in Practice, 13*(2), e66-e77. doi:10.1016/j.nepr.2012.10.015
- Melnyk, B.M. & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice*. Philadelphia: Lippincott, Williams & Wilkins.
- Nikula, A., Puukka, P., & Leino-Kilpi, H. (2012). Vaccination competence of graduating public health nurse students and nurses. *Nurse Education Today, 32*(8), 850-856. doi: 10.1016/j.nedt.2011.10.008
- Pitt, V., Powis, D., Levett-Jones, T., & Hunter, S. (2015). The influence of critical thinking skills on performance and progression in a pre-registration nursing program. *Nurse Education Today, 35*(1), 125-131.

Contact

e_vanhorn@uncg.edu

D 15 - Clinical Competency Progression Rochester Nursing Competence (RNC) Theory

Yu-Ching Chuang, MS, RN, USA
Marie A. Flannery, PhD, RN, AOCN, USA
Mary G. Carey, PhD, RN, FAHA, FAAN, USA

Abstract

Purpose: Nursing competence is a critical factor that is directly related to improved and positive patient outcomes. A major proposition in Benner's from novice to expert model (Benner, 2001), competence is a continuous process of acquiring knowledge, skills, and experience. Although Benner's model has made many significant contributions, it's time to advance the model to a new theory. One major challenge is that nursing competence does not always increase in a linear fashion. Building on the work of Benner, this abstract describes a new theory, Rochester Nursing Competence (RNC) that examines the relationship between nursing competence during the course of a career and patient outcomes.

Methods: The RNC theory, adapted from Raymond Vernon's product life cycle theory (1966), as derived using Walker & Avant's theory derivation strategies. Five steps were followed for the development of theory: 1) To become familiar with the topics related to nursing competence and patient outcome in the nursing literature by critically appraising studies published in the English language between 1980 to 2016; 2) To study widely in nursing and economic disciplines to determine the appropriateness of the derivation; 3) To select the product life cycle theory as a parent theory for derivation and exam similarity, and discrepancy between the parent and new theory, RNC; 4) To identify and modify the structure and statements of parent theory in the development of RNC theory; Finally, 5) to redefine new concepts and statements in forming RNC theory.

Results: RNC theory presents a dynamic trajectory plotting a relationship between the two concepts of nursing competence and patient outcomes. Patient outcomes, on the y-axis ranging from low to high, reflect the effect of clinical nursing care and are driven by nursing competence. A higher level of patient outcomes refers to the patient with a higher quality of care and vice versa. Nursing competence, on the x-axis, refers to an increasing clinical capability over time in coping with various clinical situations by integrating knowledge, skills, and experience. Four stages of nursing competence reflect in a nurse's lifelong career: the beginning, growth, maturation, and declination. Theoretically, increased nursing competence contributes to better patient outcomes in clinical practice and vice versa. In RNC theory, nursing competence, which is varied over the course of an individual's career, enhances over time but may also plateau or decline after reaching the maturation stage. The plateau or decline results in a stagnant or decreasing effect on patient outcomes. RNC includes three proposed strategies, which are at three levels: individual, hospital system, and environment. These three strategies act as moderators to prevent or minimize any decline in nursing competence. In addition, three strategies are layered from inner to outer influencing each other.

Conclusion: Understanding the trajectory of nursing competence is important for examining patient outcomes in clinical care. RNC theory proposes a pragmatic relation between nursing competence and patient outcomes and includes a career-long trajectory of nursing. RNC theory offers a practical framework for future studies of nursing competence as it evolves over time in clinical practice.

References

- Aiken, LH., Sloane, DM., Bruyeel, L., Van den Heede, K., Griffiths, P., Busser, R.,...& Sermeus, W. (2014). Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study. *Lancet*, 383(9931), 1824-1830. doi: 10.1016/S0140-6736(13)62631-8.
- Benner, P. (2001). From novice to expert: Excellence and power in clinical nursing practice (commemorative ed.). New Jersey: Prentice Hall.
- Bissett, K. M., Cvach, M., & White, K. M. (2016). Improving Competence and Confidence With Evidence-Based Practice Among Nurses: Outcomes of a Quality Improvement Project. *J Nurses Prof Dev*, 32(5), 248-255. doi: 10.1097/nnd.0000000000000293

Hutchinson, M., Higson, M., Cleary, M., & Jackson, D. (2016). Nursing expertise: a course of ambiguity and evolution in a concept. *Nurs Inq*, 23(4), 290-304. doi: 10.1111/nin.12142

Notarnicola, I., Petrucci, C., De Jesus Barbosa, M. R., Giorgi, F., Stievano, A., & Lancia, L. (2016). Clinical competence in nursing: A concept analysis. *Prof Inferm*, 69(3), 174-181. doi: 10.7429/pi.2016.693181

Petit, D.D.O, & Regnaud, JP. (2015). Do Magnet®-accredited hospitals show improvements in nurse and patient outcomes compared to non-Magnet hospitals: a systematic review. *JBI Database of Systematic Reviews and Implementation Reports*, 13(6), 168-219. doi: 10.11124/jbisrir-2015-2262.

Vernon, R. (1966). The product life cycle. *Quarterly Journal of Economics*, 66, 121-140.

Contact

yu-ching_chuang@urmc.rochester.edu

E 06 - Factors Influencing Patient Care for the Advanced Practice Registered Nurse

Development Trajectory of a Fall Detection Device Involving Community-Dwelling Older People

Friederike J. S. Thilo, MScN, RN, Switzerland
Jos M. G. A. Schols, PhD, MD, Netherlands
Ruud J. G. Halfens, PhD, Netherlands
Sabine Hahn, PhD, MSNc, RN, CNS, Switzerland

Abstract

Purpose: The aim of the study was to explore and consider the needs, requirements, feasibility and usability aspects of daily life from the perspective of community-dwelling older people, by involving them interactively in the development of a wearable fall detection sensor, including its smartphone application.

Methods: A qualitative descriptive study was chosen. Community-dwelling older people, 75 years and older, were involved in two stages of device development using the theoretical framework of Shah et al. (2009). They were involved in the device design and mock-up evaluation stage and in the real field prototype testing stage of the fall detection device. In the first stage, the needs and requirements of the participants regarding the mock-up (not functional prototype) were explored using focus group interviews. Based on those findings the fall detection prototype was developed. One year later, participants tested its feasibility and usability for nine days in daily life, and participated in a focus group interview. Data was analysed using content analysis with the application of deductive coding.

Results: 22 participants took part in the device design and mock-up evaluation, and 15 participants tested the fall detection prototype for nine days in their daily life. The average age was 80.7 years.

The 24 hour wearing comfort of the lightweight, waterproof, body-worn sensor was high. The automatic alerting process in case of a fall met the needs of the participants. The manual alerting option was useful, as other emergency situations might occur. It was recommended that blinking lights be added in order to locate the sensor more easily. However, the smartphone did not adequately meet the needs of the participants due to: high battery consumption; difficulties using the touch-screen; and limited range between smartphone and sensor of eight to ten meters which was considered as limiting activities in daily life. In general, the smartphone application satisfied the requirements of participants as it was easy to manipulate, false alerts could be manually stopped and the design and acoustics were pleasant.

Having several contact persons in case of an alert was required by the participants. It was emphasized that at least one health professional should be included in order to verify a reply in case of an alert, which would increase the feeling of security. Utilizing relatives, friends or neighbours as contacts may lead to the feeling of being a bother, which may be a barrier for use of a fall detection device. Additionally, the participants highlighted that they would prefer more coaching and training in using this fall detection device.

The added value of user involvement was amongst others that it enabled the focus to remain on the most needed aspects from the perspective of users, instead of focusing solely on the technological aspects. The challenges of user involvement were the establishment of a shared language with engineers and financial and time resources.

Conclusion: The study demonstrated that older people contribute in a «needs-driven» way, to the development of a fall detection device. Involving users is valuable because it enables researchers to go beyond factors related to the technology itself, by identifying barriers and facilitators in the daily use of fall detection devices. It is important that nurses are aware of and familiar with new technologies, since they have a key role in instructing and supporting patients in their use.

References

- Lambert, V. A., & Lambert, C. E. (2012). Qualitative Descriptive Research: An Acceptable Design. *Pacific Rim International Journal of Nursing Research*, 16(4), 255-256.
- Rodeschini, G. (2011). Gerotechnology: a new kind of care for aging? An analysis of the relationship between older people and technology. *Nursing & Health Sciences*, 13(4), 521-528. doi:10.1111/j.1442-2018.2011.00634.x
- Peel, N. M. (2011). Epidemiology of Falls in Older Age. *Canadian Journal on Aging / La Revue canadienne du vieillissement*, 30(1), 7-19. doi:10.1017/S071498081000070X
- Igual, R., Medrano, C., & Plaza, I. (2013). Challenges, issues and trends in fall detection systems. *Biomed Eng Online*, 12, 66. doi:10.1186/1475-925X-12-66
- Saldana, J. (2013). *The Coding Manual for Qualitative Reserachers* (2 ed.). London Thousand Oaks New Delhi Singapore: SAGE.
- Krueger, R. A., & Casey, M. A. (2015). *FOCUS GROUPS A Practical Guide for Applied Research* (5 ed.). Thousand Oaks: SAGE.

Contact

friederike.thilo@bfh.ch

E 07 - Global Health Equity

Half the Sky: Use of Literature to Teach Undergraduate Nursing Students About Global Health Equity

Jane Greene-Ryan, PhD, CNM, USA

Jane Donovan, MSN, USA

Abstract

Purpose: This presentation describes qualitative findings from a global health assignment which we have used with undergraduate maternal child nursing students for the past ten years. We developed this assignment as a way to encourage students to reflect upon literature as well as current evidence when considering the needs of vulnerable populations of migrant women whom they are likely to encounter in their clinical practice. Our university is situated with a distinctly urban setting in the northeastern United States. Our diverse but inherently financially privileged student body is situated within an inner city where many residents live far below the poverty line. Upon graduation our students are expected to be able to provide care which takes into consideration a patient and family's psychosocial needs including how those factors influence health-related decisions. One example is the strong likelihood of encountering migrant women who are being trafficked when they seek care in our local emergency rooms. Thus, this assignment grew out of a desire to expose our students to experiences which are vastly different from those typically experienced in their own lives in a way which was compelling, relevant and safe.

For this assignment students are required to read two chapters from *Half the Sky: Turning Oppression into Opportunity for Women Worldwide* (Kristoff & WuDonn, 2009) and write a two page reflective essay describing what they felt what they learned about maternal child health as well as the assignment. They are asked to identify one compelling aspect of global women's health, review an evidence-based article addressing that health concern and synthesize the reading from *Half the Sky* with current nursing science.

Methods: Qualitative data analysis of ten years of student reflective journals.

Results: Three themes emerged from the students reflective journals:

Overcoming Resistance: Students discussed their reluctance to take the time to read *Half the Sky* which they felt wasn't relevant to this clinical course. They expressed feeling overwhelmed with the requirements of this high-stakes clinical course which they are taking in conjunction with other similarly challenging clinical courses and were thus unsure how this assignment would help them study for and pass their exams. In short, they didn't feel that it was relevant.

Growth of Compassion: Students expressed deep sadness at the situations endured by women in other parts of the world. Realizing that these same women could easily be part of patients for whom they would soon be assuming care was frightening particularly as they came to realize that the women might well be presenting to the emergency rooms with other related symptoms such as sexually transmitted illnesses or symptoms of physical and sexual assault.

Call to Commitment: Being asked to find and review an article describing the current nursing science of care for this vulnerable population reinforced their understanding of the prevalence of this population. They reported feeling a renewed commitment to provide compassionate, evidence-based care when encountering women (and children) who were at increased risk.

Conclusion: Students completing this assignment reported increased understanding of the needs of vulnerable populations of women. Some students expressed interest in working in global health, others told of increased understanding that this population of patients can be encountered wherever care is provided.

References

Capo, B. (2012). Global Feminism from Page to Stage: Teaching *Half the Sky* and *Seven*. *Feminist Teacher*, 23(1), 17-30.

Simpson, V & Richards, E. (2015). Flipping the Classroom to Teach Population Health: Increasing the Relevance. *Nursing Education in Practice*, 15(3), 162-167.

Contact

jg345@drexel.edu

E 07 - Global Health Equity

Human Trafficking: A Call for Inclusion in Nurse Practitioner (NP) Education

Rebecca M. Lutz, MSN, ARNP, FNP-BC, PPCNP-BC, USA

Abstract

Purpose: Human trafficking has increased worldwide. Nurse practitioners practice in a variety of clinical settings and may encounter trafficking victims within their clinical practice. Therefore, it is essential nurse practitioners have the ability to identify and assist trafficking victims. However, human trafficking is not fully integrated into nurse practitioner curriculum. In addition, a lack of evidence exists regarding best practice for curriculum content to increase knowledge of trafficking. This project assessed family and pediatric nurse practitioner knowledge of human trafficking in six primary areas: (1) definitions, (2) laws, (3) prevalence, (4) identification, (5) treatment, and (6) community resources.

Methods: A one-hour educational intervention focused on each of the six primary areas. The intervention was designed for family and pediatric nurse practitioner students enrolled at a large university. The intervention included a lecture driven by the use of power points, videos, and discussion. Measurement of student knowledge of trafficking was assessed through the use of pre- and post-surveys. Each survey consisted of six Likert-style items measured on a 6-24 point scale. Demographic data collected on all participants included age, gender, years of experience, and previous exposure to trafficking education.

Results: Student participants (n=73) completed the demographic and pre-survey. Post-survey tool completion fell slightly (n=69). Demographic data revealed participants included more female students (n=64, 87.7%) compared to male students (n=7, 9.6%). A small number of participants did not identify gender preference (n=2, 2.7%). Participants ranged in age between 20 and 59 years of age. Years of nursing experience ranged between 0 and 25 years. Overwhelmingly, most students reported they had never received formalized education on human trafficking (n=69, 94.5%) or education on the treatment of human trafficking victims (n=73, 100%).

Following the intervention, a t-test analysis provided insight into increases in knowledge. All survey questions demonstrated increases in knowledge with t-test outcomes ranging from 11.85 to 20.78 with $p < .05$. Three survey questions demonstrated the greatest increase in participants' knowledge: (1) knowledge of laws regarding human trafficking; (2) ability to identifying victims of human trafficking; and (3) knowledge of community and social service resources for victims of human trafficking.

Conclusion: A gap was identified in family and pediatric nurse practitioner students' knowledge of human trafficking. An educational intervention increased student's knowledge of human trafficking. Inclusion of trafficking into nurse practitioner curricula increases the number of providers with knowledge to positively impact health outcomes of the victims.

References

- Ahn, R., Alpert, E. J., Purcell, G., Konstantopoulos, W. M., McGahan, A., Cafferty, E.,...Burke, T. F. (2013). Human trafficking: Review of educational resources for health professionals. *American Journal of Preventative Medicine*, 44(3), 283-9. doi: 10.1016/j.amepre.2012.10.025.
- Grace, A. M., Lippert, S., Collins, K., Pineda, N., Tolani, A., Walker, R.,...Horwitz, S. M. (2014). Educating health care professionals on human trafficking. *Pediatric Emergency Care*, 30(12), 856-861. doi: 10.1097/PEC.0000000000000287
- Oram, S., Stockl, H., Busza, J., Howard, L. M., Zimmerman, C. (2012). Prevalence and risk of violence and the physical, mental, and sexual health problems associated with human trafficking: Systematic review. *PLoS Medicine*, 9(5), e1001224. doi: 10.1371/journal.pmed.1001224

Contact

rlutz1@health.usf.edu

E 08 - Cancer Screening Practices

Addressing Breast, Cervical, and Colorectal Cancer Screening-Related Health Disparities and Practices in Asian-Indio Women

Sharon K. Byrne, DrNP, APN, NP-C, AOCNP, CNE, USA
Evelyn Robles-Rodriguez, MSN, RN, APN, AOCN, USA
Yogini Patel, BA, USA

Abstract

Purpose: This retrospective research project reviews outcomes resultant from the delivery of cancer screening services to women living in the U. S. from an Asian-Indio background within a clinic setting.

According to the National Action Plan for Cancer Survivorship, culturally competent patient education and care is a priority (2015). The Cancer Outreach Project at MD Anderson Cancer Center Cooper provides culturally and linguistically appropriate cancer education and screening to underserved Asian-Indio women through the use of a dedicated outreach worker and Nurse Practitioner run clinic. A collaborative relationship was established in 2007 between the Cancer Outreach Project and National Indio Cooperative Enterprises, Inc. (NICE), a non-profit organization dedicated to service of the Indian community in Southern New Jersey, U.S. The Cancer Outreach Project provides health promotion and disease prevention activities that specifically focus on cancer education and screening to women rarely or never before seen for women's healthcare due to their culturally diverse health beliefs and practices. Specifically, within the Asian-Indio population, these beliefs and practices have been influenced by both the Ayurveda medical system and the Hindu religion (Gordon, Bernadett, Evans, Sharpiro and Patel, 2016).

In order to reach women that were not getting screened for cancer, a dedicated clinic within a suburban medical oncology out-patient setting was established. A Nurse Practitioner (NP) and Outreach Worker/Lay Navigator have worked in tandem one day a month in the clinic setting providing screening and follow-up over a 9 year time frame to Asian-Indio women. Clinical breast examination (CBE), screening and or diagnostic mammography based on the result of the CBE, Pap smear and pelvic exam, immunochemical fecal occult blood testing and referral for colonoscopy as per American Cancer Society (ACS) guidelines related to patient age and risk factors are provided (ACS, 2016). Those with abnormal findings were referred for diagnostic services at no cost through grants from the New Jersey Cancer Early Education and Diagnosis Program (NJCEED) or Susan G. Komen for the Cure. The Program also made referrals to the New Jersey Charity Care Program, MD Anderson at Cooper's Comprehensive Breast Center, Cooper's Women's Care Center and/or Department of Gastroenterology.

Methods: IRB approval was obtained to conduct a retrospective chart review so that outcome of the program could be compiled and reviewed. Data analysis consisted of descriptive statistics and regression analysis.

Results: From its inception in 2007 through June 30, 2016, slightly over 750 Indian women with a mean age of 47.5 years have been educated through the programs outreach activities at Temples and through home health parties (Byrne & Robles-Rodriguez, 2009) provided by a dedicated Outreach Worker/Lay Navigator with close ties to the community. Approximately one-third of this population (n= 249) with a median age of 53 years has participated in both initial and continued cancer screening clinics. Outcomes included six cancers have been diagnosed through the program; (1) DCIS, (1) LICIS, (1) Stage I breast cancer, (1) Stage III breast cancer, (1) cervical cancer and (1) endometrial cancer. Further data will be discussed in detail.

Conclusion: Identification of facilitators and barriers related to participation in cancer screening within the Asian Indio female population has implications for practice. Strategies such as identification of and collaboration with key stakeholders in the Asian-Indio community, obtaining funding for a lay navigator and coordination of a dedicated clinic and culturally tailored program are noted to influence initial and on-going early detection behaviors. The sharing of lessons learned from this research may benefit other

healthcare providers interested in developing sustainable cancer screening services for this select population.

References

American Cancer Society (2016). *American Cancer Society guidelines for the early detection of cancer*. Retrieved from <http://www.cancer.org/healthy/findcancerearly/cancerscreeningguidelines/american-cancer>

Byrne, S. & Robles-Rodriguez, E. (2009). Educational Parties as a Strategy to Promote Breast Health Awareness and Screening in the Underserved Female Population, *Oncology Nursing Forum*, 36(2), 145-148. (Leadership and Professional Development Series).

Centers for Disease Control (2015). *National Action Plan for Cancer Survivorship: Advancing public health strategies*. Retrieved from http://www.cdc.gov/cancer/survivorship/what_cdc_is_doing/action_plan.htm

Gordon, S., Bernadett, M., Evans, D., Sharpiro, N. B., & Patel, U. (2016). *Asian Indian culture: Influences and implications on health care*. Retrieved from

http://www.molinalinahealthcare.com/providers/mi/medicaid/reseource/PDF/resource_MI_AsianIndianCulture-InfluencesAndImplicationsFor HealthCare.pdf

Contact

byrnes@tcnj.edu

E 08 - Cancer Screening Practices

Knowledge, Attitude, and Practice of Men Towards Colorectal Cancer (CRC) and Its Prevention in Tobago

Esther Shirley Daniel, PhD, RN, RM, Trinidad and Tobago

Annette Dick, MSc (Nsg), RN, Trinidad and Tobago

Gloria Ramdeen Mootoo, MSc (ClinPsy), RN, RM, Trinidad and Tobago

Abstract

Purpose: In Trinidad and Tobago, colorectal cancer is the second leading cause of death from cancer; therefore attempts must be made to decrease this rate with the use of prevention and screening which is still the best methods according to research done to fight this disease. The purpose of the study was to explore the knowledge, attitudes, and practice of men towards CRC and its prevention in Tobago.

Methods: A descriptive, quantitative and cross-sectional study. Colorectal is a prevalent condition that can be identified and definitively treated during an asymptomatic phase, thereby preventing the morbidity and mortality associated with the unscreened clinical course of the disease (Taha et al; 2015; Rogers et al; 2014; Tam et al; 2011;). Varied literature on colorectal cancer and its effects was reviewed. Limited knowledge about the importance of colorectal screening and the methods used which includes colonoscopy and faecal occult blood test (FOBT) was identified as major issues as it relates to the person accessing CRC screening (Mullira et al; 2016; Ghahramani et al; 2015; Şahin et al; 2015; Andriole et al; 2012; Salimzadeh et al; 2012;) there was no relationship between gender, health insurance status, family history of individuals and their knowledge about CRC (Bidouei et al; 2014; this was a similarity also found in the present study. Fear as it relates to a positive screening test result, failure of physicians to recommend screening, scheduling difficulties, cost, lack of insurance coverage, gaps in knowledge, embarrassment, pain, aversion, lack of symptoms, and perceived low risk was identified as a reason for the limited uptake (Gordon et al; 2015; McClellan et al., (2015), Vrinten et al; 2014; Wong et al; 2013;).

Person perception about the need for screening was also identified the most cited reasons for not having screening tests was "did not have any symptoms or problem" and "did not think it was needed" "never think of the test," "doctor did not recommend the test," (Bidouei et al; 2014; Salimzadeh et al; 2012 ;).

It was found that there is a common thread throughout the literature: that colorectal cancer is a preventable disease and there are screening options, which if accessed, can help to drastically reduce the number of persons affected by this disease (Tsai; 2015; Lasser et al; 2011; Winterich et al; 2011;). Each individual is responsible for his or her health and wellbeing and CRC can be prevented by the modification of one's lifestyle. This includes changes in diet: increase in fibre intake; decrease in consumption of fatty and processed food; cessation of smoking and alcohol use; and early screening for persons who are at increased risk due to family history(Wutayd et al; 2015 ; Wong et al; 2013;)

Education and teaching initiatives developed with the target audience in mind both individual and healthcare professionals, that focuses on educating the public about how to reduce their risk of contracting this non-communicable disease, in my opinion, is the way forward and was also recommended in a study done by (Barros et al; 2014; Souza et al 2012; Ravichandran et al; 2011).

Target Population for the study included men aged between 19-45 years of age, who are residing in Tobago. An estimated sample of 200 men residing in Tobago was the sample size. The subject was chosen by non-random sampling method called convenient sampling or volunteer sampling. The subjects in the convenient sample were volunteers who were readily accessible to the nurse researcher. A cross-sectional study was conducted in Tobago with 200 male participants ranging from ages 19-45 years old, males who visit the mall/ shopping centre and residents of Tobago. Data was collected using an in-depth self-administered KAP questionnaire. Participants' demographic characteristics assessed in Section A.

Section B of the questionnaire consisted of 30 items, which identified the knowledge and practice of colorectal cancer among the respondent. With response option and points given for UNSURE =3 points,

TRUE= 2 points, FALSE = 1 point. This was then divided into four subsection (i) knowledge of colorectal cancer questions, (ii) Colorectal symptoms, (iii) Colorectal risk factors and (iv) Colorectal Screening tests.

Section C had ten statements on attitude towards detection of CRC. It is a 5 point Likert scale ranging from strongly disagree to strongly agree. Strongly agree has a score of 5, agree a score of 4, undecided a score of 3, disagree a score of 2 and strongly disagree a score of 1.

Ethical approval was obtained from UWI Campus Ethics Committee as well as the Public administrative body/ administration of the malls of Tobago to conduct the study and from the study respondents who were willing to participate in the study. Scoring and Interpretation of reliability & validity of the tool was established through test retest method. Data were analyzed using SPSS.

Multivariable statistical methods were applied to identify independent predictors for CRC screening among participants.

Limitations of the study is that it focused on the geographical region of Tobago which may not necessarily be applicable to other Caribbean territories.

Results: Majority of the respondents 185(92.5%) are employed, only 15(7.5%) retired or unemployed. And maximum respondents 179(89.5%) do not have a family history of colorectal cancer. When respondents were asked about whether they participated in any cancer screening in past 2 years, most of them 162(81%) replied that they didn't participated in any such study, only 58(19%) said that they did participated. When they were asked about whether they had colonoscopy in the past, 185(92.5%) said no or they don't know, only 15(7.5%) replied as yes. When respondents were asked about whether they ever done FOBT or bowel cancer screening test, 190(95%) of them responded as no or they don't know, only 10(5%) answered as Yes. When they were asked about whether they know someone in the family has cancer, 135(67.5 %) replied as no and 65(32.5%) replied as yes.

T-values were found significant in the means of knowledge and practice towards colorectal cancer (58.17+26.68) and its symptoms (47.50+26.46) and risk factors (53.50+26.60) and but reinforcement needed on colorectal screening tests, which were much below 50% (21.78+11.57).

Attitude of respondents towards CRC screening among the study respondents revealed the following. When people were asked whether they understand the severity of colorectal cancer, 133(66.5%) said that they understand its severity. Nearly, 128(64%) people replied that they will get themselves tested for colorectal cancer. While 91(45.5 %) said that doctor did not recommended the test for them, while 95(47.5%) respondents thought that the test was not needed for them. Nearly, 116(58%) respondents said that they never thought of the test and 113(56.5%) people think that they do not have any symptoms or problems as of now. Almost half of the respondents 98(49%) have a fear of developing the colorectal cancer. And half of the respondents 61(51.5%) are not sure about the cost of the test. Almost 100(50%) respondents thought if they get colorectal cancer then their career or life will not be over. Majority, 149(74.5%) respondents agreed that screening tests would decrease their chances of dying with colorectal cancer. Hence it can be concluded that respondents had an understand about the severity of colorectal cancer and they had a positive attitude towards the screening test.

Conclusion: Colorectal cancer almost always develops from precancerous polyps (abnormal growths) in the colon or rectum. Screening tests can find precancerous polyps so that they can be removed before they turn into cancer. Screening tests also can find colorectal cancer early, when treatment works best.

As such, the findings of the study are crucial to policy makers and educators, particularly in efforts geared towards holding preventive campaigns highlighting the main cancer risk factors (tobacco, alcohol, diet, physical inactivity, obesity); key socio-demographic factors; and health sector plans, policies and services for cancer. The findings demonstrate that the participants had good attitudes about CRC screening, but their experiences and knowledge regarding CRC screening as it relates to colonoscopy and Faecal occult blood test (FOBT) was inadequate. Culturally sensitive health education messages should be tailored to fulfil the knowledge gap among all population strata.

References

- Bidouei, F., Abdolhosseini, S., Jafarzadeh, N., Izanloo, A., Ghaffarzadehgan, K., Abdolhosseini, A., & Ashraf, H. (2014). Knowledge and Perception toward Colorectal Cancer Screening in East of Iran. *IJHPM-International Journal of Health Policy and Management*, 3(1), 11-15.
- Ghahramani, S., Jahani, P., & Abdollahifard, G. (2015). Comparison of Knowledge, Attitude and Practice about Colorectal Cancer Screening Between University Faculty Members and High School Teachers in Shiraz, Iran. *International Journal of School Health*, 2(2). Retrieved from <http://intjsh.com/25268.fulltext>
- Gordon, N., & Green, B. (2015). Factors associated with use and non-use of the Fecal Immunochemical Test (FIT) kit for Colorectal Cancer Screening in Response to a 2012 outreach screening program: a survey study. *BMC Public Health*, 15(546).
- Mulira, J., D'Souza, M., Ahmed, S., Al-Dhahli, S., & Al-Jahwari, F. (2016). Barriers to Colorectal Cancer Screening in Primary Care Settings: Attitudes and Knowledge of Nurses and Physicians. *Asia-Pacific Journal of Oncology Nursing*, 3(1), 98-107.
- Wutayd, O., Alamri, F., Ali, A., Kassim, K., & Ibrahim, A. (2015). Colorectal Cancer Risk Factors: A Study of Knowledge, Attitude and Practice among Adults in Riyadh, Saudi Arabia. *Cancer Research Journal*, 3(5), 94-99.

Contact

Gloria.Ramdeen-Mootoo@sta.uwi.edu

E 09 - Improving Clinical Outcomes Through Physical Activity Evaluation of an Email-Mediated County Extension-Delivered Walking Intervention

Elizabeth A. Richards, PhD, RN, CHES, USA
Stephanie Woodcox, MPH, CHES, USA

Abstract

Purpose: Even though promotion of physical activity (PA) has been a public health priority for decades, key U.S. public health agencies, such as the Centers for Disease Control and Prevention (CDC), routinely collect data indicating that most Americans are not meeting PA guidelines (Centers for Disease Control and Prevention, 2012a). Physical inactivity is directly related to the prevalence of obesity and the development of many chronic diseases (Centers for Disease Control and Prevention, 2014). Walking is an excellent way for most people to increase their PA and has been declared by the Surgeon General as a powerful public health strategy (U.S. Department of Health and Human Services, 2015). Walking is an easy way to start and maintain a physically active lifestyle because walking is accessible to almost anyone, does not require specific skills or abilities to perform, can be performed alone or with others, and is adaptable (i.e., can be performed at any chosen intensity and is inexpensive) (U.S. Department of Health and Human Services, 2015). Intervention strategies are needed to increase walking across populations.

Internet-mediated PA interventions have the potential to reach a large number of people with lower costs compared to in-person intervention delivery (van den Berg, Schoones, & Vliet Vlieland, 2007). By using e-mail, intervention participants can have flexibility with when and where they choose to interact and receive intervention information (Napolitano & Marcus, 2002). Previous reviews on the effectiveness of internet-mediated PA interventions have indicated e-mail as a promising intervention delivery mode (Marcus, Ciccolo, & Sciamanna, 2009; Marcus, Nigg, Riebe, & Forsyth, 2000; van den Berg et al., 2007).

As one of the nation's largest providers of scientific research-based information and education, the Cooperative Extension System is another established delivery method for health behavior change programs. Traditionally, Extension education programs are offered in group settings. In our region (state?), the current intervention was the first health promotion program to be delivered solely via e-mail. By delivering the intervention through county-based Purdue Extension Educators, it is important to evaluate the program not only in terms of outcomes, but also from the perspective of educators as well as community residents who participated. The purpose of this study is to evaluate the feasibility of delivering this intervention through county-based Extension Educators.

Methods: The Get WalkIN' intervention was primarily based on a previously tested e-mail mediated social cognitive theory-based intervention which demonstrated effectiveness in a small, controlled sample (Richards et al., 2016). Based on this previous success, a team of Extension Educators and the lead researcher tailored the intervention to create Get WalkIN' with the goal of making the intervention suitable for the various populations Extension serves.

In spring 2016, 300 participants were recruited from 12 counties across the state, each of which is served by county-based staff of Purdue Extension. Recruitment methods included newsletters, flyers, and social media. As this is a community-based program, there were no inclusion or exclusion criteria for participation. Intuitional review board approval was granted.

Get WalkIN' consists of a total of 16 e-mails designed to increase walking. Program e-mails to participants by Extension Educators were sent bi-weekly for the first four weeks and then weekly for the next eight weeks. These e-mails targeted principles of self-efficacy, social support, goal-setting, and benefits/barriers to walking.

To assess the perceptions of acceptability of the intervention, participants were asked eight 5-point Likert scale questions (1=strongly disagree; 5=strongly agree). Questions included: the e-mails were easy to

read; the frequency of the e-mails was adequate; and the advice appeared to be credible. Participants were also asked how often he/she read the e-mails and open-ended questions to determine what aspects of the intervention e-mails were helpful, seemed unnecessary, and if they would recommend this intervention to a friend.

The theoretical constructs of self-efficacy and social support were measured using existing measures with demonstrated reliability and validity and adapted to be specific to walking (Sallis, Grossman, Pinski, Patterson, & Nader, 1987; Sallis, Pinski, Grossman, Patterson, & Nader, 1988). Mean scores were computed across all items in each subscale. Self-reported PA was assessed using the Godin Leisure Time PA Questionnaire. Individuals reporting moderate-to-strenuous activity scores ≥ 24 were classified as active and individuals reporting moderate-to-strenuous activity scores ≤ 23 were classified as insufficiently active (Godin & Shephard, 1985).

Descriptive statistics were used to summarize participant characteristics and analyze the feasibility and usability data. Means and standard errors were calculated for continuous variables and frequencies and percentages for categorical variables. Chi-square and two-sample t-tests were used to assess differences between baseline and post-intervention assessments. Data were analyzed using SAS 9.3 (SAS Institute Inc., 2009). Statistical significance was set at $p < 0.05$.

Results: Most participants were non-Hispanic white females with an average age of 54.0 ± 12.7 . On average, participants were classified as obese (average BMI 30.9 ± 8.2) and insufficiently active (52%). Additionally, participants agreed that the intervention e-mails were easy to read (mean=4.3), easy to understand (mean=4.3), frequency of e-mails was adequate (mean=4.3), and that the e-mails helped to increase walking (mean=4.0). Eighty-eight percent of participants reported reading the e-mails quite often or always, while 11% reported sometimes, and 2% reported rarely. While the theoretical constructions of self-efficacy and social support increased post-intervention, mean scores were not significantly different from baseline. Post-intervention, 82% of respondents were classified as sufficiently active compared to 48% pre-intervention ($p < 0.05$).

Conclusion: The novelty of this study is the partnership formed with Purdue Extension for the delivery of this intervention. Leveraging the strong infrastructure that Extension has statewide, it was possible to train county-based Extension Educators for intervention recruitment and delivery. Extension Educators live and work in the counties they serve, thus having strong community relationships, being a familiar face in their county, and trust established. In addition to discussing program evaluation, this presentation will discuss research implications for strengthening ties with and partnering with Cooperative Extension for community-based interventions and health promotion programming.

References

- Centers for Disease Control and Prevention. (2012a). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, GA.
- Physical Activity Guidelines Advisory Committee. (2008). *Physical activity guidelines advisory committee report*. Washington D.C.: Retrieved from <http://www.health.gov/PAGuidelines/Report>.
- Godin, G., & Shephard, R. J. (1985). A simple method to assess exercise behavior in the community. *Can J Appl Sport Sci*, 10(3), 141-146.
- Marcus, B. H., Ciccolo, J. T., & Sciamanna, C. N. (2009). Using electronic/computer interventions to promote physical activity. *Br J Sports Med*, 43(2), 102-105. doi: 10.1136/bjism.2008.053744
- Marcus, B. H., Nigg, C. R., Riebe, D., & Forsyth, L. H. (2000). Interactive communication strategies: implications for population-based physical-activity promotion. *Am J Prev Med*, 19(2), 121-126.
- Napolitano, M. A., & Marcus, B. H. (2002). Targeting and tailoring physical activity information using print and information technologies. *Exerc Sport Sci Rev*, 30(3), 122-128.
- Richards, E., Ogata, N., & Cheng, C. (2016). Randomized, controlled e-mail based walking intervention: Differences between dog owners and non-dog owners. *Clinical Nursing Research*. 65(3), 191-201.
- Sallis, J. F., Grossman, R. M., Pinski, R. B., Patterson, T. L., & Nader, P. R. (1987). The development of scales to measure social support for diet and exercise behaviors. *Prev Med*, 16(6), 825-836.
- Sallis, J. F., Pinski, R. B., Grossman, R. M., Patterson, T. L., & Nader, P. R. (1988). Development of self-efficacy scales for health-related diet and exercise. *Health Education Research*, 3, 283-292.

U.S. Department of Health and Human Services. (2015). Step it Up! The Surgeon General's Call to Action to Promote Walking and Walkable Communities. Washington D.C.: U.S. Department of Health and Human Services, Office of the Surgeon General.

van den Berg, M. H., Schoones, J. W., & Vliet Vlieland, T. P. (2007). Internet-based physical activity interventions: a systematic review of the literature. *J Med Internet Res*, 9(3), e26

Contact

erichards@purdue.edu

E 09 - Improving Clinical Outcomes Through Physical Activity

Improving Clinical Outcomes and Physical Activity in Older Adults With Comorbidity: A Randomized Controlled Trial

Elizabeth A. Schlenk, PhD, RN, USA
Susan M. Sereika, PhD, MPH, USA
Joan Rogers, PhD, OTR/L, FAOTA, USA
G. Kelley Fitzgerald, PhD, PT, FAPTA, USA
C. Kent Kwoh, MD, USA

Abstract

Purpose: Over 9 million Americans have osteoarthritis (OA) of the knee, a chronic disorder associated with frequent knee pain and functional limitations that intrude upon everyday life. About half of those with OA of the knee have hypertension (HBP), one of the most prevalent risk factors for cardiovascular disease (Eymard et al., 2015). Persons with OA of the knee experience reductions in blood pressure (BP) when they participate in regular physical activity. Yet, only 13% of persons with OA of the knee (Wallis et al., 2013) and 28% with HBP (Healthy People 2020) meet recommended guidelines for physical activity. Although physical activity is recommended for OA of the knee (Hochberg et al., 2012) and HBP (Eckel et al., 2014), the knee pain and functional limitations associated with OA hinder physical activity and prevent adoption and maintenance of a regular physical activity program. Physical activity interventions can reduce pain and improve physical function in those with OA of the knee (Fransen et al., 2015), but to date no interventions have been tailored to those with OA of the knee and comorbid HBP. Staying Active with Arthritis (STAR) is a randomized controlled trial of an individually delivered, home-based, 6-month lower extremity exercise and fitness walking intervention based on self-efficacy theory with older adults with OA of the knee and HBP. The purposes were to evaluate the effect of the STAR intervention compared to attention control on knee pain, physical function, participation in fitness walking, performance of lower extremity exercise, and BP at immediate post-intervention and at six months after the end of the intervention.

Methods: The STAR group received usual care; 6 weekly individual face-to-face sessions with the physical therapist for evaluation, graduated therapeutic exercises, and progressive fitness walking; 9 bi-weekly telephone sessions with the nurse for ongoing counseling; and daily physical activity e-diary during intervention for self-monitoring. The attention control group received usual care, and 6 weekly and 9 bi-weekly telephone sessions with the nurse on senior health topics. Knee pain and physical function were measured by the Western Ontario and McMaster Universities (WOMAC) Osteoarthritis Index. Self-reported daily minutes of participation in fitness walking and daily minutes of performance of lower extremity exercise (repetitions \times sets/week) were collected by the e-diary with participation in fitness walking also objectively assessed by daily activity minutes from ActiGraph accelerometers [none to very low (0-99 counts), light (100-2,019 counts), and moderate-to-vigorous (\geq 2,020 counts)] (Dunlop et al., 2011). Systolic and diastolic BP were measured by OMRON BP Monitor. Linear mixed modeling was performed to examine the effect of the STAR intervention vs. attention control on these outcomes over time. Standardized mean differences between the treatment groups (d[*between*]) for the change from baseline to immediate post-intervention and to six months after the end of the intervention were computed to summarize the observed treatment effects. As changes within the attention control group over time were negligible, standardized mean differences within the STAR group (d[*within*]) from baseline to immediate post-intervention and to six months after the end of the STAR intervention were also computed.

Results: Participants ($N= 182$) were on average 65 ($SD= 8$, range 50-90) years old, 73% ($n= 133$) female, and 73% ($n= 133$) white. Significant group by time interactions were found for knee pain ($p= 0.015$; d[*between*]= -0.214 at immediate post-intervention; d[*between*]= -0.183 at six months after the end of the intervention) and physical function ($p= 0.016$; d[*between*]= -0.242 at immediate post-intervention; d[*between*]= -0.208 at six months after the end of the intervention). The STAR group reported having significantly less knee pain and better physical function at immediate post-intervention (d[*within*]= -0.265 for knee pain; d[*within*]= -0.293 for physical function) and six months after the end of the intervention

($d_{\text{within}} = -0.194$ for knee pain; $d_{\text{within}} = -0.309$ for physical function) compared to baseline. Significant group by time interactions were also found by the e-diary for mean daily minutes of fitness walking, mean daily minutes of lower extremity exercise, and mean performance of lower extremity exercise (all $p < .0001$). Compared to the attention control group, the STAR group had significantly greater improvement at immediate post-intervention and at six months after the end of the intervention in mean daily minutes of fitness walking ($d_{\text{between}} = 0.737$ at immediate post-intervention; $d_{\text{between}} = 0.467$ at six months after the end of the intervention), mean daily minutes of lower extremity exercise ($d_{\text{between}} = 1.198$ at immediate post-intervention; $d_{\text{between}} = 0.819$ at six months after the end of the intervention), and mean performance of lower extremity exercise ($d_{\text{between}} = 1.732$ at immediate post-intervention; $d_{\text{between}} = 0.812$ at six months after the end of the intervention). Compared to baseline, the STAR group reported significantly more mean daily minutes of fitness walking ($d_{\text{within}} = 1.030$ at immediate post-intervention; $d_{\text{within}} = 0.621$ at six months after the end of the intervention), mean daily minutes of lower extremity exercises ($d_{\text{within}} = 1.110$ at immediate post-intervention; $d_{\text{within}} = 0.788$ at six months after the end of the intervention), and mean performance of lower extremity exercises ($d_{\text{within}} = 1.592$ at immediate post-intervention; $d_{\text{within}} = 0.746$ at six months after the end of the intervention). No significant group by time interactions were found by ActiGraph for the three intensity levels (none to very low, light, and moderate-to-vigorous). No significant group by time interactions were found for systolic and diastolic BP.

Conclusion: The STAR intervention had small effects on improvements in self-reported knee pain and physical function at immediate post-intervention that were maintained at six months after the end of the intervention. The treatment effects on pain and physical function were lower than those reported by Fransen et al. (2015) at immediate post-intervention, but similar to those reported by Fransen et al. (2015) at six months after the end of the intervention. Further, the STAR intervention had large effects on improvements in self-reported participation in fitness walking and performance of lower extremity exercise at immediate post-intervention with slight declines at six months after the end of the intervention. However, improvements in objectively assessed fitness walking and BP were not found. Lack of significant group differences in intensity levels by ActiGraph may be due to the slight increase from 3 to 12 mean daily minutes of fitness walking in the STAR group. Mean daily minutes of lower extremity exercise increased from 1 to 9 in the STAR group, but is not detectable by ActiGraph. While fitness walking reportedly increased, the mean fell short of the goal of 21 mean daily minutes (150 minutes/week), which may have contributed to lack of difference in BP. Enhancements to the STAR intervention, such as addition of significant other support, may further improve outcomes.

References

- Dunlop, D. D., Song, J., Semanik, P. A., Chang, R. W., Sharma, L., Bathon, J. M.,...Hootman, J. M. (2011). Objective physical activity measurement in the Osteoarthritis Initiative: Are guidelines being met? *Arthritis & Rheumatism*, 63(11), 3372-3382. doi: 10.1002/art.30562
- Eckel, R. H., Jakicic, J. M., Ard, J. D., de Jesus, J. M., Houston Miller, N., Hubbard, V. S.,...Tomaselli, G. F. (2014). 2013 AHA/ACC guideline on lifestyle management to reduce cardiovascular risk: A report of the American College of Cardiology/American Heart Association task force on practice guidelines. *Circulation*, 129(25 Suppl. 2), S76-S99. doi:10.1161/01.cir.0000437740.48606.d1
- Eymard, F., Parsons, C., Edwards, M. H., Petit-Dop, F., Reginster, J.-Y., Bruyere, O.,...Chevalier, X. (2015). Diabetes is a risk factor for knee osteoarthritis progression. *Osteoarthritis and Cartilage*, 23(6), 851-859. doi: 10.1016/j.joca.2015.01.013
- Fransen, M., McConnell, S., Harmer, A. R., Van der Esch, M., Simic, M., & Bennell, K. L. (2015). Exercise for osteoarthritis of the knee: A Cochrane systematic review. *British Journal of Sports Medicine*, 49(24), 1554-1557. doi: 10.1136/bjsports-2015-095424
- Healthy People 2020. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives>.
- Hochberg, M. C., Altman, R. D., April, K. T., Benkhalti, M., Guyatt, G., McGowan J.,...Tugwell, P. (2012). American College of Rheumatology 2012 recommendations for the use of nonpharmacologic and pharmacologic therapies in osteoarthritis of the hand, hip, and knee. *Arthritis Care and Research*, 64(4), 465-474. doi:10.1002/acr.21596
- Wallis, J. A., Webster, K. E., Lvinger, P., & Taylor, N. F. (2013). What proportion of people with hip and knee osteoarthritis meet physical activity guidelines? A systematic review and meta-analysis. *Osteoarthritis and Cartilage*, 21(11), 1648-1659. doi: 10.1016/j.joca.2013.08.003

Contact

els100@pitt.edu

E 10 - Care of Moms and Babies

Suctioning of the Neonate on Nasal Continuous Positive Airway Pressure (NCPAP): Building the Evidence

Esther M. Chipps, PhD, MS, BSN, NEA-BC, USA

Michele Ann Sweet, MS, RN, CNS-Neo, USA

Debra Lanton Armbruster, PhD, RN, NNP-BC, CPNP-BC, USA

Alai Tan, PhD, MS, MD, USA

Abstract

Background: Nasal continuous positive airway pressure (NCPAP) has become a first line treatment for infants with respiratory distress in the Neonatal Intensive Care Unit (NICU) (Gupta & Donn, 2016). Nasal continuous positive airway pressure (NCPAP) was first introduced as a modality to improve oxygenation in neonates in 1971 (Gregory, 1971). Since its development, different NCPAP systems have become available with Bubble NCPAP reported to be the most widely used system (Mann, Sweet, Knupp, Buck, & Chipps, 2013). NCPAP has gained support as an alternative method of respiratory support in selected neonates and has been demonstrated to reduce the need for intubation and the incidence of bronchopulmonary dysplasia. However, the successful use of NCPAP is not without risks including nasal injury, and nasal breakdown. Similar risks to endotracheal suctioning are evident as well, including increased risk of infection, bradycardia, laryngospasms, cardiac dysthymias and even cardiac arrest. Registered Nurses (RNs) and Respiratory Therapists (RTs) who care for these neonates require extensive knowledge about the equipment set-up, maintenance and operation of the system.

Guidelines for endotracheal suctioning in neonates requiring mechanical ventilation (MV) are published in the literature but lack strong empirical support. No evidence-based guidelines for safe suctioning in neonates while on NCPAP have been published. Preliminary research shows that nurses' decision-making regarding the frequency of and techniques for suctioning of neonates is quite variable (Mann et al., 2013), and is concerning because practice variation is often associated with less favorable outcomes.

Suctioning while on NCPAP is a very frequent nursing practice in NICUs across the world. This study represents the next steps toward the development of an evidence-based practice guideline for this nursing practice.

1. **Purpose:** To describe the clinical/behavioral responses of neonates on Bubble NCPAP in a Level III NICU following routine suctioning.
2. To characterize variability in suctioning response among neonates by gestational age and birth age.

Methods: This pilot study has a one sample within-subject repeated measures design in which neonates served as their own control. This study took place at a level III-49 bed NICU in a large academic medical center in the Midwestern USA.

A convenience sample (n=16) neonates who met the inclusion criteria was recruited from the NICU. We included neonates who were (1) on Bubble NCPAP (Respiroinics Bubble NCPAP™) (2) 27-32 weeks gestation, (3) older than 3 days of life but less than 7 days of life; (4.) have a legally authorized representative; and (5) are clinically stable as defined by the NICU healthcare team. Exclusion criteria included: (1) any facial/cranial deformities, (2) chromosomal/genetic abnormalities, (3) congenital heart disease, (4) chest tube placement, (5) persistent pulmonary hypertension, (6) receipt of any medications that alter responses to pain such as paralytics, narcotics or other sedatives.

The suctioning procedure tested was based on the expert opinion from a focus group of our clinical experts of our NICU since no empirically based guidelines exist. Two experienced RNs served as the study RNs and they established interrater reliability on the suctioning procedure prior to data collection. Data on an infant's physiological and behavior measures (heart rate, respiratory rate, O2 saturation, and Premature Infant Pain Profile (PIPP score)) were collected repeatedly: 5 minutes prior to suctioning

(baseline), during suctioning (right nare, left nare, mouth), immediately upon completion of suctioning sequence and 10 minutes after suctioning OR the return to within 10% of baseline physiological parameters.

Results: A total of 16 neonates were enrolled with mean gestation age of 29.76 weeks (SD=1.49) and an average day of life of 3.4 (SD=1.15). Overall, the infants' heart rates did not differ significantly ($p=.51$) across the suctioning sequence. Eight neonates required a second pass of either the nares or mouth and 2 neonates required a third pass of pass of the mouth. The average heart rate across the suctioning sequence ranged from 155 to 167 on the first pass. The largest change in heart rate occurred between after the second and third suctioning passes of the mouth. Respiratory rate dropped but only slightly during the suctioning sequence ($p=.79$). Oxygen saturation demonstrated a noted drop between baseline and the first pass of suctioning in the right nares as well a considerable drop from the first pass to second pass of the right nares in one infant ($p=.0001$). PIPP scores clearly demonstrated a precipitous increase in pain during the first suctioning pass and remained high throughout the procedure. ($p=.0001$). When controlling for gestational age and days of life, oxygen saturation had significant reduction of 3.0-4.4% ($\leq .01$) and pain (PIPP) scores had significant increase of 3.0-3.7 points ($\leq .001$) across the first passes of the entire suctioning sequence.

Conclusion: Our results suggest that the procedure tested is tolerated by infants and no adverse events were observed; however the neonates did experience a mild to moderate amount of pain. Oxygen saturation remained within acceptable ranges and no clinically significant concerns were raised with respiration, and heart rate. Neonatal response to suctioning while on NCPAP was not highly sensitive to days of life or gestational age. Repeating this study and evaluating the use of "oral suckers" during suctioning and other pain management strategies will further support an evidence-based guideline for this frequent procedure.

References

- Cardosa, J.M., Kusahara D.M., Guinsburg, R., & Pedreira M.L. (2015). Randomized crossover trial of endotracheal tube suctioning systems in newborn. *Nurs Crit Care*, 40, 1-8.
- Casey H., Newberry, D., Jnah, A. (2016). Early bubble continuous positive airway pressure: investigating interprofessional best practices for the NICU team. *Adv Neon Netw*, 35(3), 125-133.
- Cone, S. (2013). Endotracheal suctioning in preterm infants using four-handed versus routine care. *J Obstet Gynecol Neonatal Nurs*, 42(1), 92-104.
- Mann, B., Sweet, M., Knupp, A., Buck, J., & Chipps, E. (2013). Nasal continuous positive airway pressure: a multisite study of suctioning practices within NICUs. *Adv Neonatal Care* 13(2), E1-9.
- Moretti, C., Gizzi, C., Montecchia, F., Barbara, C., Midulla, F., Sanchez-Luna, M., & Papoff, P. (2016). Synchronized nasal intermittent positive pressure ventilation in the newborn and clinical results. *Neonatology* 109(4), 359-65.
- Taheri, P., Asgari, N., Mohammadzadeh, M., & Golchin, M. (2012). The effect of open and closed endotracheal tube suctioning on respiratory parameters of infants undergoing mechanical ventilation. *Iran J Nurse Midwifery Res* 17(10), 26-9.

Contact

esther.chipps@osumc.edu

E 11 - Nursing Student Interprofessional Collaboration

Preparing Students for Interprofessional Collaboration: A Grounded Theory Study

Monica Bianchi, PhD, EMBA, MSc, RN, Italy
Annamaria Bagnasco, PhD, MSN, RN, Italy
Giuseppe Aleo, PhD, Italy
Loredana Sasso, MSc, RN, FAAN, Italy

Abstract

Purpose: Explore and understand the process of preparation to the IPC put in place by clinical tutors and students, of the various professions involved in experiences of IPE, in order to encourage the recruitment of the professional role and to become a member of a team.

Methods: To answer to the question "What processes are used by students and clinical mentors to develop interprofessional collaboration?" it has been used a constructivist grounded theory approach.. This approach has enabled the researcher to enter into the research setting, to observe it from the inside, to collect the data that were analyzed to define a theoretical explanation of the process studied.

In a university of applied sciences and arts of outhern Switzerland, ten students of the bachelors in nursing, physiotherapy, occupational therapy and the clinical tutors who followed them in the last stage of the bachelor course (sixth semester) were involved in the study. In the participants' selection, we have respected the criteria of theoretical sampling. This, in proceeding, allowed us to develop and confirm the characteristics of the emerging categories. The data collection process took place in a first step through semi- structured interviews with participants and university documentation consultation; in the second phase through focused interviews, participant observations and consultation of documentation produced by the participants. The total number of interviews, initially estimated in a total of 21, was 17 in the first phase and 6 in the second (total 23); the two additional interviews have been inserted in order to reach the theoretical saturation. The participating observations conducted were 3 for a total of 13 hours. The analysis was conducted through a coding process: initial, focused and theoretical (Charmaz 2014). Data were analyzed and coded using constant comparative analysis and the software Nvivo 10 In the initial coding 35 nodes were derived; During focused analysis they were grouped in 15 categories and 55 sub-categories; in the theoretical analysis they were defined 8 categories.

Results: A substantive theory "Practicing contextual models of interprofessional care" was generated. It explains how the whole process is played, the interaction between tutor and student and how they proceed together to the creation of models of interprofessional care, linked to the context in which they find themselves in, and to patients / families who are part of it. These models of care will be applied at the end of the whole process by the new professional (who was a student at the beginning of the path). The theory has been described as a journey: to think of this process as a journey and as students and tutor as companions of this trip helps to understand the intensity of relationships, communication and exchanges that the two travellers live through and build together. The relationship between student and tutor is the innovative aspect of this theory. This relationship, which develops between student and tutor and that consolidates and transforms, is structured differently from dyad to dyad but has constant support through the different types of communication (verbal and nonverbal) and through different modes of structuring (individualized) is the core around which it develops and is expressed throughout the process.

Conclusion: This theory allows us to understand the complex process engaged by students and tutors in order to build the student's professional identity and to prepare him for the collaboration with other professionals. The fundamental concepts that derived concern: the way in which the professional identity is built and the role of the student in the team, the relationship that, throughout the process, develops and consolidates between student and tutor, the relationship with patients and families as well as with other professionals; all concepts that are integrated for building models of interprofessional care in that specific context.

References

- Charmaz K. (2014). *Constructing grounded theory 2nd ed.* Thousand Oaks, CA: Sage.
- Arenson, C. U. (2015). The health mentors program: three years experience with longitudinal, patient-centered interprofessional education. *Journal of Interprofessional Care*, 29, 138–143.
- Barnsteiner J. H., D. J. (2014). *Person and Family Centered Care*. Indianapolis, IN: Sigma Theta Tau International.
- Benner P. (2012). Educating nurses: a call for radical transformation-how far have we come? *Journal of Nursing Education*, 51(4), 183-4 doi:10.3928/01484834-20120402-01.
- Brandt B, L. M. (2014). A scoping review of interprofessional collaborative practice and education using the lens of the Triple Aim. . *Journal of Interprofessional Care*, Published online 7 April 2014.doi: 10.3109/13561820.20.
- Dale B., L. A. (2013). What Factors Facilitate Good Learning Experiences in Clinical Studies in Nursing: Bachelor Students' Perceptions. *ISRN Nursing*, <http://dx.doi.org/10.1155/2013/628679>.

Contact

monica.bianchi@supsi.ch

E 12 - Postpartum Health

Social Determinants of Rural Hispanic Women at Risk for Postpartum Depression

Younglee Kim, PhD, RN, PHN, USA
Vivien Dee, PhD, RN, NEA-BC, FAAN, USA

Abstract

Purpose: Postpartum depression is generally accepted as one of the common phenomena among childbearing women regardless of countries or culture. It is a critical and major problem for rural health. The Hispanic population is the largest and fastest growing minority in the United States. The growth of the Hispanic population is a profound factor to maintain and improve public health. Guided by the Orem's Self-Care Deficit Theory as a theoretical framework, the purpose of this study was to identify the social determinants of rural Hispanic women at risk for postpartum depression. The specific aims for this study were twofold: (1) examine the relationships between the social factors (maternal age, infant gender, marital status, education, annual household income, job, delivery type, number of children, and religion) and women at risk for postpartum depression, and (2) determine which of the social factors were predictors that contribute to increased risk for postpartum depression in Hispanic women in the rural areas.

Methods: This study was a descriptive cross-sectional design. The sample for the study included Hispanic women who lived in Mecca, Thermal, and North Shore in Southern California. The women were in their postpartum period beginning right after childbirth and extending to 12 months post-delivery. A convenience sample of 223 Hispanic women ranging in age from 18 to 47 years old without medical diagnosis or treatments for mental health issues participated. They spoke either English or Spanish during the data collection. An interview-survey was utilized to collect the data. Based on the results of the Edinburgh Postnatal Depression Scale (EPDS) the study participants were divided into two groups: (1) women not at risk for postpartum depression ($n = 128$) and (2) women at risk for postpartum depression ($n = 95$). Descriptive statistics were used to describe the basic features of the data in this study. Chi-square was used to determine the relationships between the social factors (maternal age, infant gender, marital status, education, annual household income, job, delivery type, number of children, and religion) and the EPDS scores. Multiple logistic regression was also performed to determine the significant predictors for postpartum depression among the rural Hispanic women.

Results: The prevalence for Postpartum Depression (PPD) in this sample was about 43%. The average age of the 223 Hispanic women was 28.49 (SD = 6.01). Chi-square statistical test reported the significance in EPDS scores among social characteristics such as education level, delivery type, job condition, and number of children, $p < .05$. Multiple logistic regression analysis also indicated that four of the predictors were significantly related to the likelihood of having postpartum depression: delivery type (OR = 0.513, 95% CI = .290 - .905, $p = .021$); number of children (OR = .417, 95% CI = .203 - .858, $p = .017$); education levels (OR = 2.38, 95% CI = 1.023 - 5.570, $p = .044$), and job condition (OR = 1.86, 95% CI = 1.017 - 3.432, $p = .044$).

Conclusion: The study findings provided the empirical data for determining the associations among the social determinants for postpartum depression among Hispanic women in rural communities. These findings can provide health care professionals with a better knowledge and understanding in the development of tailored preventive health care interventions or education for rural Hispanic women with postpartum depression, including approaches for self-care. Furthermore, these findings also provide the essential evidence to assist in the development of health policy for rural Hispanic women to enhance public health

References

Evagorou, O., Arvaniti, A., & Samakouri, M. (2016). Cross-cultural approach of postpartum depression: Manifestation, practices applied, risk factors and therapeutic interventions. *Psychiatric Quarterly*, 87(1), 129-154. doi:10.1007/s11126-015-9367-1

Villegas, L., McKay, K., Dennis, C., & Ross, L. E. (2011). Postpartum depression among rural women from developed and developing countries: A systematic review. *Journal of Rural Health, 27*(3), 278-288.

Contact

kyl0229@hotmail.com

E 12 - Postpartum Health

A Randomized Trial Evaluating Connective Tissue Massage on Pain in Post-Cesarean Section Primiparous Women

Mary Colleen Simonelli, PhD, RN, USA

Louise T. Doyle, BSN, RNC-OB, HNB-BC, LMT, USA

Abstract

Purpose: Pain creates physiological responses that can prolong the body's recovery after surgery including cesarean surgery which may impact a woman's ability to establish a maternal-newborn bond and effective breastfeeding. In the United States 77% of current heroin users claim to have used opioid pain medications prior to their heroin initiation (Jones, 2013). With today's opioid crisis, it is imperative that nurses find alternative strategies to the current administration of opioids to manage postoperative pain. The purpose of this study was to evaluate the efficacy of connective tissue massage on reducing postoperative pain in primiparous patients on their first postoperative day after cesarean section.

Methods: In this research sixty women were randomized into three groups; Massage, Standard Care and Birth Story. The study sample was comprised of primiparous women aged 17-44 who underwent an unplanned cesarean birth in the previous 24-48-hour time period. A retrospective chart review was conducted to gather data on pain score, opioid and NSAID use for entire postoperative hospitalization.

Results: Data were analyzed using analysis of variance and post hoc Tukey tests. One-way ANOVA revealed a significant difference between groups for Pain, Stress and Relaxation scores at time 2 ($p=.017$, $.004$, $.000$ respectively). Additionally, opioid and NSAID use day 2 were significantly different ($p=.032$, $.022$ respectively). Post hoc Tukey's evaluating the interaction between Massage and Standard Care groups were approaching significance for Total opioid use/BMI and Total NSAID use/BMI during the hospitalization ($p=.09$, $.06$ respectively).

Conclusion: Using massage therapy during postoperative hospitalization decreased pain, stress and improved relaxation and had the potential to decrease overall pain medication use in this sample of childbearing women. Nurses using massage therapy for post-surgical patients can decrease the pain, stress, and increase relaxation associated with unplanned cesarean birth and impact their overall opioid use. Further research is needed to determine the "dose" of alternative therapies that would sustain this impact.

References

- Dion, L., Pidgers, N., Cutshall, S., Cordes, M., Bauer, B., Cassivi, S., & Cha, S. (2011). Effect of massage on pain management for thoracic surgery patients. *International Journal of Therapeutic Massage & Bodywork*, 4(June), 2-2-6.
- Jones, C. M. (2013). Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers—United States, 2002-2004 and 2008-2010. *Drug and Alcohol Dependence*.
- Lin, S. Lee, J. Yand, C. Meei, L. (2011). Factors related to milk supply in women who underwent cesarean birth. *Journal of Nursing Research*, 19(2), 94-101.
- Liu TT, Raju A. Besel T. Cya Tan SG. (2013). Chronic pain after caesarean delivery: Australian cohort [Abstract]. *Anesthesia and Intensive Care*, 41(4) 496-500.

Contact

mary.simonelli@bc.edu

E 13 - Declining Functional Status in the Aging Adult

Association Between Age-Related Hearing Loss and Disability in Older Adults: A Systematic Review

Tzu-Chia Lin, MS, Taiwan

Miaofen Yen, PhD, RN, FAAN, Taiwan

Abstract

Purpose: Age-related hearing loss (ARHL) is the loss of hearing or proportional to the degree of hearing impairment that gradually occurs as we grow older. ARHL management also consumes an increasing portion of healthcare expenditures given the rising mean age of people. Previous studies have investigated the association of ARHL and disability in older adults, but the results are inconsistent. However, identifying potentially modifiable risk factors such as hearing loss would provide a substantial public health benefit. Therefore, the aim of the study was to comprehensively evaluate the evidence connecting ARHL to disability in older adults.

Methods: Studies were identified through systematic searches of the electronic databases of Medline, Pubmed, CINAHL, Cochrane library, Airiti library. Bibliographic of retrieved articles were also searched. The following Mesh subject terms and keywords were used: hearing impairment, hearing loss, presbycusis, hearing handicap, deafness, disability, activities of daily living, older adults, elderly, aged, aging, senior. Two reviewers independently reviewed the abstract and selected studies that met the inclusion and exclusion criteria. Inclusion criteria were: (1) the study population involved individuals with age-related hearing loss/hearing impairment/presbycusis; (2) there was a predetermined definition of hearing loss/hearing impairment/presbycusis and reported disability outcome assessment; (3) cohort study. Exclusion criteria were: (1) non-English nor Chinese publication; (2) not primary research; (3) outcome not of interest. Retrieved articles were independently assessed by two raters for reporting quality using Newcastle Ottawa quality assessment scale (NOS).

Results: Ten eligible studies were identified. Only one of the 10 studies used gold-standard audiometric testing (inability to hear a tone of 40 dB or greater at 2,000 Hz frequency in the better ear is regarded as having ARHL) to evaluate hearing loss, whereas the other nine studies relied on self-report hearing problems with various questionnaires. The ARHL prevalence was from 15.7% to 28.0%. 8.6% to 57.1% participants with ARHL at baseline became disability. Compare to those without ARHL at baseline, the percentage of becoming disability is higher in participants with ARHL. The odds of disability were 0.80-7.93 times greater among older adults with hearing loss than older adults with normal hearing. However, most studies reveals that ARHL was not associated with increased odds of disability among participants with ARHL at baseline, after adjusting the covariates.

Conclusion: In the published literature, ARHL was not associated with a significantly increased odds of disability in older adults. However, HL is a gradual condition, and the limit between normal and not normal must be defined along a continuous scale.

References

- 1.Chen, D. S., Genter, D.J., Betz, J., & Lin, F.R. (2014). Association between hearing impairment and self-reported difficulty in physical functioning. *Journal of the American geriatrics society*, 62(5), 850-856. doi: 10.1111/jgs.12800
- 2.Kiely, K. M., Mitchell, P., Gopinath, B., Luszcz, M.A., Jagger, C., & Anstey, K. J. (2016). Estimating the years lived with and without age-related sensory impairment. *Journal of Gerontology: Medical Sciences*, 71(5), 637-642. doi:10.1093/gerona/glv198
- 3.Yamada, M., Nishiwaki, Y., Mishikawa, T., & Takebayashi, T. (2011). Impact of hearing difficulty on dependence in activities of daily living (ADL) and mortality: a 3-year cohort study of community-dwelling Japanese older adults. *Archives of gerontology and geriatrics*, 52, 245-249. doi:10.1016/j.archger.2010.04.023

Contact

zichia1982@hotmail.com

E 13 - Declining Functional Status in the Aging Adult

Hospital-Associated Functional Status Decline in Older Adults With Chronic Obstructive Pulmonary Disease (COPD)

Amy C. Shay, MS, RN, CNS, USA

Janet S. Fulton, PhD, RN, ACNS-BC, ANEF, FAAN, USA

Abstract

Purpose: The purpose of this study was to identify activity factors that contribute to hospital associated functional status decline in older adults with chronic obstructive pulmonary disease (COPD) by promoting functioning during hospitalization.

Background/Significance: COPD is a significant worldwide cause of chronic illness and mortality. The World Health Organization predicts that COPD will become the fourth leading cause of death globally and rank seventh in burden of disease by the year 2030 (Cruz, et al., 2007). COPD is one of the most common admitting diagnoses in the United States, carrying a fifty billion dollar economic burden with the majority of expenses related to hospitalization (HCUP, 2011).

Persons with COPD are at increased risk for deconditioning during hospitalization, which can lead to decreased functional status at discharge (Boltz, et al., 2012). Despite the prevalence of COPD, there are very few studies examining this population for whom mobility is uniquely problematic (Reid et al., 2012). Older adults with COPD are most vulnerable to hospital associated functional status decline (Greening et al., 2014; Liao et al., 2015; Nguyen et al., 2015). To help alleviate the secondary effects of immobility, a clinical nurse specialist-led mobility protocol was developed; however, specific elements of the protocol have not been examined for associated outcomes.

Methods: *Design:* This predictive correlational study is a secondary analysis of a pre-existing dataset. The parent study arose from a hospital unit quality improvement initiative for physical activity and patient outcomes. The parent study measured correlations between an Activity Progression Protocol and hospital length of stay, discharge disposition, falls, pressure ulcer prevalence, oxygen requirements, perceived dyspnea, and maximum activity level. The current study analysis explored the number, type, and timing of activity events in relation to the selected functional status outcomes of discharge disposition, length of hospital stay, and 30 day readmission rates for hospitalized older adults with COPD.

Ethics: This study was approved by the authors' university's human subject review board.

Sample/Setting: For the parent study, data were collected over a ten month period from patients on a pulmonary unit in a large, tertiary care hospital. The parent study sample included 358 patients admitted during the peak winter months of COPD exacerbation for the northern hemisphere (Donaldson & Wedzicha, 2014). For this secondary analysis, 137 patients with COPD diagnoses were pulled from the larger sample for comparison with non-COPD patients. The subjects with COPD were patients admitted to a pulmonary unit and received a care intervention protocol designed to address mobility barriers related to COPD and hospitalization.

Procedure: The activity protocol was a unit based protocol enacted for all patients admitted to the study unit (Nurse-Administered Pulmonary Protocol Increases Out-of-Bed Activity, Shortens Length of Stay, and Reduces Readmissions, 2009). Mobility was initiated per protocol during the first 24 hours of admission once hemodynamic, neurological, and respiratory stability were achieved. The protocol included screening for readiness, progressive levels of activity, oxygen titration, and use of a rollator for walking support. The nurse-driven protocol for early mobilization was based upon principles of cardiac and pulmonary rehabilitation (Spruit, et al., 2013) and prior study of hospitalized community acquired pneumonia patients (Mundy, et al., 2003).

Analysis: Logistic regression analysis was used to assess the relationship between the number of out of bed activity events, and timing of first out of bed activity and the dichotomous dependent variables of

discharge disposition to home versus ECF, and 30 day readmission status. The out of bed activity event data were combined by category as weight bearing (bathroom, up in room, ambulation) and non-weight bearing (bedside commode, dangle, chair) for analysis. Multiple regression was used to assess the relationship between the number, type, and timing of individual out of bed activity events and hospital length of stay. Chi square and ANOVA analyses were used to compare the COPD related diagnoses patient group and patients with non-COPD related diagnoses.

Results: Preliminary results show weight bearing activities (ambulation, up to bathroom, up in room) have a significant effect on discharge disposition to home ($p=0.012$). The probability of discharge to home increases for each additional weight bearing activity per day ($p<0.001$). Activities with the greatest effect upon discharge to home are ambulation ($p=0.0003$), up to the bathroom ($p=0.021$), and bedside commode ($p=0.031$), in that order. Getting up to the bathroom, however, is nearly seven times more likely to affect discharge to home than bedside commode activity. For each additional weight bearing activity (bathroom, up in room, ambulation) per day, we expect to see the length of stay decrease by 1.69 days. For each additional ambulation per day, we expect to see the length of stay decrease by 3.8 days. For each additional day to the first out of bed activity, we expect the length of stay to increase by 1.07 days. For each additional day to first out of bed activity, we expect the odds of discharge to home to decrease by 14 to 36.2 percent on average.

No activities were found to have a significant effect on 30 day readmission (individually or categorized). The number of days to first out of bed activity was not significant for 30 day readmission.

Preliminary results of group differences in outcomes show COPD patients are less likely to be readmitted within 30 days as compared to non-COPD patients and more likely to be discharged to home as compared to non-COPD patients in this sample. Advancing age affects non-COPD patients to a greater degree than COPD patients with regard to effect upon likelihood of discharge to home. Group differences with regard to specific activities, time to first out of bed activity, and comorbidity influence are still being analysed and results may shed light upon the differences in outcomes of these two groups.

Conclusion: The preliminary findings of this study demonstrated that out of bed physical activities are associated with shortened hospital length of stay and improved patients' likelihood of discharge to home for older adults with COPD.

Implications for Practice: Nurses should place emphasis on and direct resources toward *daily* weight bearing activities (ambulation, up to bathroom) to improve outcomes and preserve functional status during hospitalization. Nurses are in a unique position to drive efforts to prevent such decline given their continual presence at the bedside and primary responsibility for physical activity while the patient is hospitalized.

References

- Boltz, M., Resnick, B., Capezuti, E., Shuluk, J., & Secic, M. (2012). Functional Decline in Hospitalized Older Adults: Can Nursing Make a Difference? *Geriatric Nursing*, 33(4), 272-279. doi:10.1016/j.gerinurse.2012.01.008
- Cruz, A. A., Bousquet, J., & Khaltayev, N. (2007). *Global surveillance, prevention and control of chronic respiratory diseases: a comprehensive approach*. World Health Organization.
- Eaton, T., Kolbe, J., Young, P., Fergusson, W., Moodie, L., Zeng, I., . . . Poole, P. (2009). Does early pulmonary rehabilitation reduce acute health-care utilization in COPD patients admitted with an exacerbation? A randomized controlled study. *Respirology*, 14(2), 230-238. doi:10.1111/j.1440-1843.2008.01418.x
- Greening, N. J., Singh, S. J., Steiner, M. C., Williams, J. E. A., Hussain, S. F., Harvey-Dunstan, T. C., . . . Morgan, M. D. (2014). An early rehabilitation intervention to enhance recovery during hospital admission for an exacerbation of chronic respiratory disease: randomised controlled trial. *British Medical Journal*, 349(5), g4315. doi:10.1136/bmj.g4315
- Healthcare Cost and Utilization Project. (2011). Retrieved from <https://www.hcup-us.ahrq.gov/reports/statbriefs/sb106.jsp>
- Healthcare Cost and Utilization Project (HCUP). (2011). Retrieved from <http://hcupnet.ahrq.gov/HCUPnet.jsp?Id=FEA5924B0FA108C1&Form=DispTab&GoTo=MAINSEL&JS=Y>
- Liao, L. Y., Chen, K. M., Chung, W. S., & Chien, J. Y. (2015). Efficacy of a respiratory rehabilitation exercise training package in hospitalized elderly patients with acute exacerbation of COPD: a randomized control trial. *International journal of chronic obstructive pulmonary disease*, 10(1), 1703-1709. doi:10.2147/COPD.S90673

Mundy, L. M., Leet, T. L., Darst, K., Schnitzler, M. A., & Dunagan, W. C. (2003). Early mobilization of patients hospitalized with community-acquired pneumonia. *CHEST Journal*, *124*(3), 883-889.

Nguyen, H. Q., Rondinelli, J., Harrington, A., Desai, S., Liu, I. L. A., Lee, J. S., & Gould, M. K. (2015). Functional status at discharge and 30-day readmission risk in COPD. *Respiratory medicine*, *109*(2), 238-246.
doi:10.1016/j.rmed.2014.12.004

Nurse-Administered Pulmonary Protocol Increases Out-of-Bed Activity, Shortens Length of Stay, and Reduces Readmissions. (2009). Retrieved from <http://www.innovations.ahrq.gov/content.aspx?id=2425>

Reid, W. D., Camp, P. G., Yamabayashi, C., Goodridge, D., Chung, F., Hunt, M. A., . . . Hoens, A. M. (2012). Exercise prescription for hospitalized people with chronic obstructive pulmonary disease and comorbidities: a synthesis of systematic reviews. *International journal of chronic obstructive pulmonary disease*, *7*, 297-320.
doi:10.2147/COPD.S29750

Spruit, M. A., Man, W. D. C., Pitta, F., Sewell, L., Raskin, J., Bourbeau, J., . . . Rehabilitation, A. E. T. F. o. P. (2013). An official American Thoracic Society/European Respiratory Society statement: key concepts and advances in pulmonary rehabilitation. *American Journal of Respiratory and Critical Care Medicine*, *188*(8), e13-E64.
doi:10.1164/rccm.201309-1634ST

Contact

ashay90847@aol.com

E 14 - Promoting Outcomes in the Infectious Patient

A Collaborative, Systemwide Approach to Reducing Healthcare Onset Clostridium Difficile (HOC-diff)

Renecha Abrams, MSN, BSN, RN, APRN, ACCNS-AG, CCRN, USA
Angeleta Zipporah Robinson, MSN, CNL, GBLSS, USA

Abstract

Purpose: Healthcare Onset Clostridium Difficile (HOC-diff) is one of the most common healthcare associated infections (HAIs), within the United States. It has a negative impact on patients by increasing their hospital length of stay by 2.7 days, has an associated mortality rate of 10%, and negatively impacts the citizens in our community (Dubberke et al., 2014). Healthcare onset C-diff also increases the cost to the organization by \$15,000 per episode (Dubberke et al., 2014).

In reviewing our processes and knowledge base across the system, a team of subject matter experts (SMEs) identified several areas for improvement. Variations within clinical practice and lack of evidence-based policies and procedures were found to be top contributors to the increase in HOC-diff rates within the system. A review of antibiotic usage revealed the need to implement antimicrobial stewardship programs at each facility. Major differences in practices were identified in the cleaning of the environment and equipment between facilities by environmental services (EVS). A knowledge deficit, a lack of standardized tools and workflow across the system, and communication between nursing staff and EVS regarding daily cleaning were also discovered. A lack of standardization in EVS cleaning, compliance in cleaning between c-diff patients, and insufficient validation of hand hygiene compliance among the clinical staff was revealed in the outpatient setting.

The hospital system failed to meet its fiscal year 2016 C-diff goal rate of 6.89 per 10,000 patient days, ending with a rate of 8.86. This unachieved outcome prompted a new goal of reducing the HOC-diff rates for FY17 by 20%, with a target rate of 7.09. The purpose of this multidisciplinary team approach was to standardize our clinical practices across the system, implement evidence-based policies and procedures related to c-diff, identify and correct practices that contribute to HOC-diff cases. All actions were aimed at decreasing the rate of HOC-diff cases, decreasing patient's length of stay, decreasing organizational expenses associated with HOC-diff, reducing mortality, and decreasing the impact on our community.

Methods: The Health System consists of 5 legacy hospitals and 6 new facilities as of April 1, 2016. The C-diff taskforce consisted of multidisciplinary teams brought together to reduce HOC-diff. The teams were antimicrobial stewardship, education, EVS, Clinical Inpatient, Clinical Ambulatory, Clinical Community, Information Technology (IT), and Communication/Marketing. A project manager, executive sponsors, operational leaders, and executive leaders led the taskforce and helped to facilitate the removal of barriers by creating a more cohesive group with clear cut goals.

The Antimicrobial Stewardship (AMS) team conducted a retrospective review of HOC-diff cases that revealed an overuse of agents shown to be associated with HOC-diff and delays in microbiological identification of pathogen, which caused prolonged empiric antimicrobial therapy. The team worked with IT to implement best practice advisories (BPAs) for additional diarrhea-inducing medication and these target agents which prompted providers to consider other antibiotics.

The Education team stratified a teaching plan based upon the needs of each employee type to address infection prevention and isolation precautions. A computer based learning module and competency check off was created and finalized to validate competency amongst new and current employees.

EVS discovered there was a lack of standardization in cleaning of the environment and equipment. Standardized competencies were developed and reviewed by EVS leads with the support of Infection Prevention (IP) and organizational learning. The result was standardized education and simulation lab for all new and existing team members. An equipment cleaning policy was developed and piloted at one of the legacy facilities, in an effort to formulate a plan for system implementation.

The Clinical Inpatient team finalized a system wide c-diff nurse driven protocol. They collaborated with the Professional Practice department and/or leaders at each facility and Organizational Learning to roll out education on the Nurse Driven Protocol and strategies to prevent the spread of infections, respectively. Several tools were implemented as job aides to assist in hardwiring the process changes. Communication tools were also implemented to provide clarification on proper high touch cleaning and accessing reports that would provide needed information when evaluating whether or not to test.

The Clinical Ambulatory team reviewed their practices and identified patients' risks of transmitting c-diff through surface areas within the examine rooms to their staff, patients, and vendors. They also discovered multiple EVS contracts in place at various locations, along with an unclear knowledge of their cleaning practices or insight of healthcare cleaning protocols.

The Clinical Community team focused their attention on the skilled nursing facilities, home health agencies, retail pharmacies, clinics and affiliated detention center as patients are routinely received and transferred to and from these areas, creating a high risk for transmission. Their goal was to create a communication tool to utilize during patient transitioning, therefore, allowing them to share information in a timely manner.

The information technology team found opportunities to enhance the electronic medical record to support communication between the RN and care partners (CPs) by providing CPs with the ability to document stool consistency as well. They also improved the ease of documenting when labs and/or specimens had been collected and sent to lab.

The Communication and Marketing team identified a lack of infection prevention education and communication for the staff when interacting with families and patients. This included c-diff and the basic isolation policy, all of which are crucial in preventing the spread of infections. The teams worked to develop scripting for hospital staff when interacting with compliant and noncompliant visitors of patients in isolation. They created new color-coded infection prevention "contact precaution" room signage to differentiate between c-diff contact and all other contact isolations. They also created system communications, developed PPE educational brochures, and standardized the check-in process for visitors on isolation patients.

The six new facilities reported their contributing factors to HOC-diff cases as a lack of hand hygiene, a lack of compliance with the c-diff Nurse Driven Protocol, lack of understanding regarding terminal cleaning, timing and collection of stool specimens for c-diff orders, lack of antimicrobial stewardship, and poor compliance with PPE in contact precaution rooms. The countermeasures included establishing a transdisciplinary c-diff team, adopting, education, and implementing the nurse driven protocol, educating the staff on stool samples, implementing secret shoppers to observe contact precaution compliance, training on terminal cleaning for the EVS staff, and educating the providers.

Results: The FY17 YTD rate for the legacy facilities is 6.97, so far achieving our target rate of 7.09 per 10,000 patient days.

AMS was unable to meet their initial goal reduction with the identified target agents. However, the number of interventions submitted doubled when compared to data from the previous year. Meanwhile, AMS continues to monitor antibiotic consumption, HOC-diff rates, along with implementing new BPAs.

The Education and Clinical inpatient teams successfully completed the education roll out of all new initiatives. However, after the initial roll out, it was discovered not all employees were captured. A second education roll out plan was initiated with better success. Through staff interviews, a better understanding of the appropriateness of when and how to test was discovered.

The EVS team has completed the system policies and procedures roll out for legacy and newly added facilities. A three day training and simulation lab was instituted and completed for new hires and existing employees. Leader orientation was implemented, along with the use of Oxycide in all clinical areas. The

team has had 100% completion of environmental services training and simulations with 3 out of the 5 legacy facilities and 50-100% completion in 3 out of 6 of the new facilities.

Standardized cleaning between patients was implemented at all facilities. C-diff CBL training and the process of handling c-diff patients within the outpatient clinical setting was not extended to employees of the newer facilities. However, current and new employees at all facilities receive this training during new hire orientation. Hand hygiene observations are currently in the works in the legacy practices. Plans for the newer practices are still in the decision phase. AMS will be incorporated at both legacy and newly acquired outpatient practices. EVS standardization still needs to be assessed at the newer practices.

Conclusion: An evaluation of our c-diff initiatives was conducted using a lean value stream methodology. Several of the positive tests were found to be that of carriers or previously positive patients who were retested, instead of new HOC-diff cases. The double check process yielded significant lower rates in September 2016, verifying staff competency and compliance to the protocol. The taskforce meets biweekly to evaluate their progress and develop action plans to address new or current issues. They continue to conduct root-cause analyses on all positive tests, evaluate compliance with the testing protocol, monitor cleaning, and hand hygiene compliance. Antimicrobial stewardship continues to aim at decreasing the excessive use of broad-spectrum antibiotics and will transition consumption monitoring to days of therapy to benchmark with other organizations. The taskforce is evaluating the best utilization of adjunct cleaning technology, piloting the use of probiotics, improve hand hygiene compliance, and fully incorporate the newer facilities into the system wide strategic plan to reducing HOC-diff.

References

- Centers for Disease Control and Prevention (CDC). (2012, March 9). Vital signs: preventing Clostridium difficile infections. - PubMed - NCBI. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/22398844>
- Dubberke, E. R., Carling, P., Carrico, R., Donskey, C. J., Loo, V. G., McDonald, L. C., ... Gerding, D. N. (2014). Strategies to Prevent Clostridium difficile Infections in Acute Care Hospitals: 2014 Update. *Infection Control & Hospital Epidemiology*, 35(06), 628-645. doi:10.1086/522262
- Dubberke, E. R., & Olsen, M. A. (2012). Burden of Clostridium difficile on the Healthcare System. *Clinical Infectious Diseases*, 55(suppl 2), S88-S92. doi:10.1093/cid/cis335
- Kwon, J. H., Olsen, M. A., & Dubberke, E. R. (2015). The Morbidity, Mortality, and Costs Associated with Clostridium difficile Infection. *Infectious Disease Clinics of North America*, 29(1), 123-134. doi:10.1016/j.idc.2014.11.003

Contact

Renecha.Abrams@wellstar.org

E 14 - Promoting Outcomes in the Infectious Patient

Predictors of Survival for Patients With a Diagnosis of Sepsis

Kim Reina Failla, PhD, RN, NE-BC, USA
Cynthia D. Connelly, PhD, RN, FAAN, USA

Abstract

Purpose: Sepsis is a major public health priority. Sepsis-related diagnoses are life-threatening global health care conditions that may lead to organ failure, shock, and death. The rate of associated hospitalizations doubled from 2000 through 2008; sepsis was the leading cause of death in the United States in 2010 and was noted to be the single most expensive condition treated in hospitals in 2011 (Walkey, Lagu, & Lindenauer, 2015). Despite advances in the recognition and treatment of sepsis, mortality remains at 30%. By 2020, an estimated additional one million cases annually are projected to occur due to the aging population, increased invasive procedures, and comorbidities (Leedahl, Personett, Gajic, Kashyap, & Schramm, 2014). Predictors of survival for those with sepsis are inconclusive. Notably, clinical sepsis studies evaluating the influence of gender on survival are not clear (Jacobson, Liedgren, Johnsson, Ferm, & Winso, 2012; Madsen et al., 2014; Nachtigall et al., 2011). Contributors to disparities have been attributed to differences in clinical presentation and health care delivery (Soto et al., 2013). The purpose of this completed study was to identify factors including gender that affect survival for patients with a diagnosis of severe sepsis or septic shock.

Methods: After Institutional Review Board approval, the study was conducted in a large metropolitan, non-profit, Magnet recognized, acute care hospital located in the Southwestern region of the United States. This study used a retrospective, descriptive correlational design. A sample of patients, 18 years or older presenting to the emergency department and who subsequently met the criteria for a discharge diagnosis of severe sepsis or septic shock as defined by the Surviving Sepsis Campaign provided data for this study (Society of Critical Care Medicine, 2015). Data on patient characteristics, clinical variables, care management processes, and outcomes were extracted from the electronic medical record and analyzed. Descriptive and inferential statistical analyses were performed using International Business Machines Statistical Package for the Social Sciences for Windows, Version 23.0.

Results: Data were reviewed for all patients with a diagnosis of severe sepsis or septic shock and 482 patients met inclusion criteria: Males (248, 51.5%); Females (234, 48.5%). Exclusion criteria included patients who had previously selected end-of-life or palliative care measures upon admission. The mean age for all patients was 67.9 years (SD 16.5). The majority of patients were White (51%), with 16.6% Hispanic, 14.9% Asian, 5.8% Black, and 11.6% other. The majority of the patients were diagnosed with septic shock (62.2%) compared to severe sepsis (37.8%).

Logistic regression with eight independent variables included: (1) discharge diagnosis, (2) age, (3) comorbidities, (4) length of hospital stay, (5) source of infection, (6) first lactate level, (7) recommended fluids administered, and (8) gender. All independent variables reliably predicted which patients would survive $\chi^2(12, 423) = 118.39, p < .001$ and correctly classified 77.3% of cases. All independent variables significantly contributed to the model, but the model revealed females had a higher likelihood of hospital mortality than males (OR = 1.68; 95% CI, 1.01-2.79; $p < .05$). Limitations of the study included potential selection bias since the study was observational and lacked a random sample of patients with severe sepsis or septic shock. Additionally, because all data were extracted from the electronic medical record, providers' undocumented impressions of diagnosis, source of infection, and/or severity of illness may have affected care processes.

Conclusion: The Surviving Sepsis Campaign has provided a clear path for patients with sepsis-related diagnoses including the need for early recognition and treatment interventions (Society of Critical Care Medicine, 2015). Previous studies have identified more rapid identification of patients at risk for sepsis through electronic medical record enhancements, sepsis response teams, and interprofessional education and simulation (Palleschi, Sirianni, O'Connor, Dunn, & Hasenau, 2014; Schramm, Kashyap, Mullan, Ognjen, & Afessa, 2011). Therapeutic strategies are needed to address gender differences and

there are opportunities to address decision-making with regard to potential bias. New or revised policies may be established to safeguard against disparity between genders and educational efforts may be employed to build awareness surrounding the different illness presentations exhibited by females versus males. Aggressive applications of evidence-based interventions may result in better patient outcomes. The study findings have global implications for future studies in addressing if gender disparities exist in the use of validated sepsis therapies.

References

- Jacobson, S., Liedgren, E., Johansson, G., Ferm, M., & Winso, O. (2012). Sequential organ failure assessment (SOFA) scores differ between genders in a sepsis cohort: Cause or effect? *Uppsala Journal of Medical Sciences*, 117, 415-425. doi: 10.3109/03009734.2012.703255
- Leedahl, D.D., Personett, H.A., Gajic, O., Kashyap, R., & Schramm, E. (2014). Predictors of mortality. *BMC Anesthesiology*, 14(21), 14-21. doi: 10.1186/1471-2253-14-21
- Madsen, T., Simmons, J., Choo, E., Portelli, D., McGregor, A., & Napoli, A. (2014). The DISPARITY study: Do gender differences exist in the Surviving Sepsis Campaign resuscitation bundle completion, completion of individual elements, or sepsis mortality? *Journal of Critical Care*, 29, 473.e7-473.e11. doi: org/10.1016/j.jcrc.2014.01.002
- Nachtigall, I., Tafelski, S., Rothbart, A., Kaufner, L., Schmidt, M., Tamarkin, A.,... & Spies, C. (2011). Gender-related outcome difference is related to course of sepsis on mixed ICUs: A prospective, observational clinical study. *Critical Care*, 15(3), R151. doi:10.1186/cc10277
- Palleschi, M.T., Sirianni, S., O'Connor, N., Dunn, D., & Hasenau, S.M. (2014). An interprofessional process to improve early identification and treatment for sepsis. *Journal of Healthcare Quality*, 36(4):23-31. doi: 10.1111/jhq.12006
- Schramm, G.E., Kashyap, R., Mullon, J.J., Ognjen, G., & Afessa, B. (2011). Septic shock: A multidisciplinary response team and weekly feedback to clinicians improve the process of care and mortality. *Critical Care Medicine*, 39(2):1-6. doi:10.1097/CCM.0b013e3181ffde08
- Society of Critical Care Medicine. (2015). *Surviving Sepsis Campaign: Updated bundles in response to new evidence*. Retrieved from: http://www.survivingsepsis.org/SiteCollectionDocuments/SSC_Bundle.pdf
- Soto, G.J., Martin, G.S., & Gong, M.N. (2013). Healthcare disparities in critical illness. *Critical Care Medicine*, 41(12), 2784-2793. doi: 10.1097/CCM.0b013e3182a84a43
- Walkey, A., Lagu, T., & Lindenauer, P.K. (2015). Trends in sepsis and infection sources in the United States: A population-based study. *Annals of the American Thoracic Society*, 12,(2), 216-220. doi: 10.1513/AnnalsATS.201411-498BC

Contact

Kim.Failla@sharp.com

E 15 - Retention Strategies for Entry-Level Nurses

Next Steps Program: Utilization of Multifaceted Retention Strategies to Retain American Indian Student Nurses

Loretta Heuer, PhD, RN, FAAN, USA

Abstract

Purpose: To gain a deeper knowledge of staff, mentors and student nurses' perceptions and experiences with multifaceted support services and retention strategies and to contribute to the scant literature on retention of American Indian student nurses.

Background: The growing shortage in healthcare professionals across the nation has been an increasing problem which is attributed to an aging workforce as well as an aging population with increased health needs.¹ This issue is compounded in rural communities because of the limited resources. Smaller populations of rural areas do not typically attract healthcare professionals and the loss of these individuals in rural communities can greatly impact the surrounding area; especially where people travel greater distances for healthcare.^{2,3} Although there is a shortage of healthcare professionals throughout the entire country, North Dakota (ND) has an uneven distribution in cultural diversity of health professionals, which can be a shortfall when caring for patients in Tribal communities or surrounding rural areas. In 2015, there were 13,933 employed licensed nurses, including all ethnicities. Of this population, there were 195 or 1% employed self-reported American Indian nurses.⁴ Per the Institute of Medicine Report, a culturally diverse nursing workforce is essential to meeting the health care needs of the nation and reducing the health disparities that exist with minority populations.⁵ In recognition of the severe underrepresentation of American Indians in the health care workforce,

Cankdeska Cikana Community College partnered with the Recruitment and Retention of American Indians in Nursing (RAIN) Program, University of North Dakota to implement the "Next Steps Program." This program provided opportunities for American Indians to access an "educational pathway" leading to careers in the nursing profession. Services provided to students enrolled in the Next Steps Program include financial support for tuition fees and books for participation in healthcare education and training, support services to meet childcare and transportation needs and intensive mentoring services.

Methods: A qualitative descriptive design was used to obtain detailed descriptions of the program, services provided and impact on the students' success.⁶ Participants involved with the Next Steps Program were recruited by purposeful sampling (N=27). The data were collected through a semi structured interviews from November – March 2014. Validity and reliability was confirmed when recurrent themes were identified by researchers through independent coding. All interviews were analyzed using qualitative inductive content analysis to identify key themes.

Results: The Next Steps staff and mentors were enrolled members of a North Dakota Tribal Nation. One of the two Next Steps staff and three of the four mentors were female. Three mentors were 50-59 years old while one was in the 30-39 age group. Educational level of the mentors included one with a Bachelor's degree, two with master degrees and one doctoral prepared. Sixteen students were enrolled in one of the North Dakota Tribal Nations. Three resided in North Dakota but were enrolled members of Tribal Nations in other states. The student nurses were all female, older than average students and the majority were single with children. Thirteen were enrolled practical nursing programs in one of the three North Dakota Tribal Colleges while one attended a State College. Four were enrolled in university Baccalaureate Programs. The perceptions and experiences of the twenty-seven participants were classified into six major themes: 1) Next Steps Support Services, 2) Mentoring Experiences, 3) Challenges in higher education, and 4) Future educational and/or employment plans. These four main themes occurred repeatedly and affected the life experience of the participants.

Conclusion: The Next Steps Program staff and mentors provided support and services to older than average Native American students with children. These services allowed them to obtain their dream of

becoming nurses. While personal commitment is an important factor, the Next Steps staff, mentors, and peers played an important role in the success of the student nurses. All the student nurses clearly valued the financial assistance for living expenses including child care, tuition, and gas cards so they could travel to their clinical sites. The majority of the nursing students believed that without the support and services of the Next Steps Program, they would not have been successful in the enrollment process or completion of their nursing programs.

References

1. U.S. Department of Health and Human Services. A 21st century health care workforce for the nation. 2014 Feb.
2. Goodell, Sarah, Dower, Catherine, O'Neil, Edward. Primary care workforce in the United States- Policy brief no. 22. The Synthesis Project RWJ Foundation. 2011 July.
3. Burrows, Elizabeth, Suh, Ryung, Hamann, Danielle. Health care workforce distribution and shortage issues in rural America, National Rural Health Association Policy Brief. 2012 Jan.
4. Heuer, L.J., Moulton, P., & Wamono, A.W. North Dakota Nursing Demographic Mapping Study. 2015. (In process).
5. Institute of Medicine (IOM). The future of nursing: Leading change, advancing health. National Academy Press: Washington, D.C. 2010.
6. Sandelowski, M. Focus on Research Methods Whatever Happened to Qualitative Description? Research in Nursing & Health, 2000, 23, 234-340.

Contact

loretta.heuer@yahoo.com

E 15 - Retention Strategies for Entry-Level Nurses

Measuring the Effect of a Nurse Residency Program on Person-Organizational Enculturation

Laurie Ecoff, PhD, RN, NEA-BC, USA

Kim Reina Failla, PhD, RN, NE-BC, USA

Jaynelle Stichler, DNS, MSN, BSN, RN, NEA-BC, EDAC, FACHE, FAAN, USA

Abstract

Purpose: This completed study describes the effects of a structured Nurse Residency Program featuring reflective learning on nurses' organizational enculturation from Year 1 (Y1) to Year 2 (Y2).

It has been reported that 6% of new graduate nurses leave the profession within their first year of practice because of job dissatisfaction, poor transition from the student role to the work environment, poor social integration within the work unit, concerns about their competency levels, and poor coping and self-efficacy (Kramer, Halfer, Maguire & Schmalenberg, 2012). Nurse Residency Programs (NRPs) have been viewed as an effective way to prepare and new nurse graduates for work in the complex healthcare environment (Al-Dossary, Kitsantas & Maddox, 2016; Bratt, 2013; Bratt & Felzer, 2012; Green, Warren, & Perkins, 2016). While NRPs are discussed in the literature, specific attributes of NRPs facilitating nurses' integration into the organization and the work unit have not actually been measured for their effectiveness in facilitating the enculturation and retention of the new graduate nurse. The NRP in this study uses an evidence-based curriculum (Anderson, Hair & Todero, 2012) with Knowles adult learning theory (Knowles, Holton & Swanson, 2015) and Kirkpatrick's Four Stage Model of Evaluation (Kirkpatrick & Kirkpatrick, 2006) and features a dedicated Nurse Manager (NM) for oversight of the program, reflective learning where the nurse residents (NRs) discuss their feelings in a structured group experience related to clinical interactions and experiences and looping where the NRs are rotated through specific clinical and support departments exposing them to care delivery in different settings. The study measured changes in nurse residents' perceptions of person-organizational enculturation defined by **person-organizational fit (POF)**, **social support (SS)**, **coping self-efficacy (CSE)**, **knowledge and skills (K&S)**, **organizational commitment (Org Com)**, **organizational citizenship behaviors (OCB)**, **civility norms (CIV)**, **occupational commitment (Occ Com)**, and **burnout (BO)** over a two-year period. These variables were used to measure the effectiveness of the NRP featuring the reflective learning component.

Methods: After Institutional Review Board approval, the study was conducted in a large metropolitan hospital located in the Southwestern region of the United States. New graduate nurses were interviewed by the NRP Nurse Manager and hired directly into the NRP rather than an assigned clinical area. All NRs were invited to participate in the study and their completion of study surveys at Y1 and Y2 indicated their consent to participate. The questionnaire consisted of 82 items with a 5-point response set (5 = strongly agree to 1 = strongly disagree) measuring the variables of interest. Eleven demographic items were used to describe the samples in Y1 and 2, and an additional 14 items provided more information about the NRs at Year 2. **Sample:** There were 105 respondents in Y1 and 24 respondents in Y2 from a population of 129 new graduate nurses for a response rate of 82% in Y1 and 19% in Y2. There were 16 nurses whose responses could be matched from Y1 to Y2. The data was analyzed using SPSS v 23 to analyze the data for the matched pairs sample ($n = 16$) and independent samples ($n = 105, 24$) for differences in study variables from Y1 and 2. The entire sample was analyzed to determine correlations among variables in Y1 and 2.

Results: All of the scales in the questionnaire had reliabilities greater than $\alpha = .70$ in both Y1 and Y2 with the exception of the **Org Com** scale ($\alpha = .67$) in Y2. The total survey with all items had a reliability of Cronbach's α of $.80$. The matched pairs sample included 81% female and 19% male. The majority of the respondents were White (66%), with 14% Asian, 10% Hispanic/Latino, 4% Black, 4% Pacific Islander, and 2% other. NRs reported their job titles as 70% Associate Nurse and Clinical Nurse 30% in Y1 and 18% Associate Nurse and 73% Clinical Nurse in Y2. This change occurred because the progression in job title from Associate Nurse to Clinical Nurse is expected from Y1 to Y2. The majority of the matched

NRs had Baccalaureate degrees (64%), Master's degrees (16%), and only 11% reporting Associate Degrees. Some of the NRs had prior employment with the organization (39%), but 61% did not. Significance level was set at $p < .10$ because of the small sample size nested within the larger non-matched sample. There were no significant differences in the following variables from Y1 to Y2: **Org Com**, **OCB**, **CIV**, **Occ Com**, and **BO**. Significant improvements in mean scores were noted between Y1 to Y2 in NRs' perceptions of **CSE** ($M1 = 3.60, M2 = 3.87; p < .015$) and **K&S** ($M1 = 3.13, M2 = 3.30; p < .060$), but significant declines in mean scores were noted in **POF** ($M1 = 4.31, M2 = 4.02; p < .038$) and **SS** ($M1 = 3.31, M2 = 3.09; p < .041$).

With the data analyzed as two independent samples in Y1 ($n = 105$) and Y2 ($n = 24$), there were no significant differences in age, gender, job title (Associate Nurse or Clinical Nurse), nursing degree, or assigned shift. With the significance level set at $.05$, three significant differences were noted in the study variables between Y1 and Y2 (assuming unequal variances related to unequal group sizes). The mean scores for **Org Com** decreased from Y1 ($M = 4.45$) to Y2 ($M = 4.10, p = .003$); **POF** (Y1, $M = 4.44$; Y2, $M = 4.15, p = .05$); and **SS** (Y1, $M = 3.45$; Y2, $M = 3.23, p = .04$). Associate nurses rated **CIV** significantly higher ($M = 4.18$) than clinical nurses ($M = 3.89$) at Y1 ($p < .05$), but that difference was not observed in Y2. NRs working the day shift reported higher **SS** ($M = 3.57$) than those working evenings/nights ($M = 4.36$) at Y1 ($p < .01$), but that difference was also not observed in Y2. NRs who had prior experience at the employing hospital reported higher **Org Com** ($M = 4.71$) than those who did not have prior employment ($M = 4.39$) at Y1 ($p < .05$), but that difference was not observed in Y2. Similarly, NRs with prior experience at the employing hospital reported higher perceived **POF** ($M = 4.67$) at Y1 as compared to those who did not have prior experience ($M = 4.34, p < .05$), but that difference was not observed in Y2.

For the independent samples, significant correlations were noted between **Org Com** and **Occ Com** (Y1, $r = .632, p < .01$ and Y2, $r = .632, p < .01$); **POF** and **Org Com** (Y1, $r = .613, p < .01$ but not significant in Y2); **SS** and **Org Com** (Y1, $r = .487, p < .01$; Y2, $r = .766, p < .01$); and **SS** and **CSE** (Y1, $r = .236, p < .01$; Y2, $r = .50, p < .01$). Negative correlations between **SS** and **BO** were noted in Y1 ($r = -.345, p < .01$) and Y2 ($r = -.602, p < .01$). All of the correlations between **SS** and the other study variables were higher in Y2 as compared to Y1 with the exception of the correlation between **SS** and **POF** which was not significant in Y2.

A regression analysis was done using **Org Com** as the dependent variable and all other variables as IVs, and the model was significant ($R^2 = .587, p = .000$) with **Occ Com** ($B = .315, p = .000$) and **POF** ($B = .394, p = .000$) as the strongest predictors of **Org Com**.

Conclusions: The results indicate the NRP with the reflective learning was effective in improving matched NRs' perceptions of **CSE** and **K&S** in Year 2, but unfortunately, mean scores declined for **POF** and **SS** in Year 2, which is a critical time when nurse residents decide to continue employment at the organization or leave the organization and/or profession. The strong, significant correlations between **SS**, **CSE**, and **Org Com** indicate the importance of reflective learning in a NRP as a means of providing structured social support for the NRs. The negative relationship between **SS** and **BO** indicate the strong need for program elements like reflective learning to enhance social support, diminish burnout and the potential to leave the organization. The strong relationship between **Org Com** and **Occ Com** reinforce the importance of reflective learning with discussion of professionalism in nursing (occupational commitment) and other forms of social support to prevent new graduate nurses from leaving the professional all together. This notion is supported by **Occ Com** and **POF** significant predictors of **Org Com**. This study supports findings from other studies on the effect of nurse residency programs on retention and enculturation into the organization (Rosenfeld & Glassman, 2016).

This study provides new knowledge about attributes of a successful NRP featuring reflective learning and the effectiveness of the program in enhancing **CSE** and **K&S** from Year 1 and Year 2. The study has global implications since the transition of new nurses into practice and the retention of nurses are important issues to nursing.

References

1. Al-Dossary, RN, Kitsantas, P, & Maddox, PJ (2016). Residency programs and clinical leadership skills among new Saudi graduate nurses. *Journal of Professional Nursing*, 32(2), 152-158.
2. Anderson, G., Hair, C. & Toderro, C. (2012). Nurse residency programs: An evidence-based review of the theory, process and outcomes. *Journal of Professional Nursing*, 28(4), 203 – 212.
3. Bratt, M.M. (2013). Nurse residency programs: Best practices for optimizing organizational success. *Journal for Nurses in Staff Development*, 29 (3), 102-110.
4. Bratt, M.M. & Felzer, H.M. (2012). Predictors of new graduate nurses' organizational commitment during a nurse residency program. *Journal for Nurses in Staff Development*, 28(3), 109-119.
5. Greene, MA, Warren, JI, Perkins, S (2016). Transforming nursing organizations through implementation of nurse residency programs. *Journal of Nurses Professional Development*, 32(5), 267-268.
6. Kirkpatrick, DL & Kirkpatrick, JD (2006). *Evaluating training programs*. San Francisco, CA: Berrett-Koehler Publishers, Inc.
7. Knowles, MS, Holton, EF & Swanson, RA (2015). *The adult learner*. New York, NY: Routledge.
8. Kramer, M., Halfer, D., Maguire, P. & Schmalenberg, C. (2012). Impact of healthy work environments and multi-stage nurse residency programs on retention of newly licensed RNs. *Journal of Nursing Administration*, 42(3), 148-159.
9. Rosenfeld, P. & Glassman, K. (2016). The long-term effect of a nurse residency program, 2005-2012: Analysis of former nurse residents. *Journal of Nursing Administration*, 46(6), 336-344.

Contact

Laurie.Ecoff@sharp.com

E 16 - Student Nurse Success Strategies

Evaluation of Students' Perceptions Compared With Baccalaureate Program Objectives of a Peer-Tutoring Program

Catherine S. Thomas, DNP, MSN, RN, CNE, USA
Nancy E. Peer, PhD, RN, CNE, USA

Abstract

Purpose: The purpose of this research was to compare and contrast any differences between students' perception of and actual performance related to program objectives of a pilot peer tutoring program in an undergraduate nursing program. This pilot peer tutoring program was implemented based on both ongoing program assessment and a program needs survey in which students identified the need for additional academic services and resources. This pilot program was implemented to improve student performance on standardized assessments, student self-confidence, and student understanding of nursing content and concepts through the use of newly available resources and peer to peer learning.

Methods: This quantitative research study compared and contrasted students' perception, as measured by a Likert scale online survey, that focused on student experiences and their satisfaction with various aspects of the tutoring program and resources. Those results were compared with student performance on a standardized assessment that they completed twice during the academic semester (HESI Exit Exam 1 and 2). The peer tutors were selected by faculty, based on their previous performance on both standardized assessments and faculty generated assessments. Their acceptance of the compensated position was voluntary, and they completed an orientation to their role, and were given a job description and program guidelines. The faculty coordinators interacted with the peer tutors frequently, both in person and via email to provide oversight and guidance. The students were referred to the tutoring program, based on their performance on previous standardized assessments and faculty generated assessments, as well as any presence of test anxiety and need for improvement in understanding nursing content and concepts. The students were expected to attend the tutoring program regularly throughout the semester, and their hours and use of resources were tracked.

Results: Students' perceptions of the peer tutoring program did not match the achievement of program objectives. The students rated their perception of the program as marginally positive. However, their rating of the newly available resources was high. Their perception of the experience may have been influenced by the peer tutoring room, as it was not a dedicated space. While it was located in the same building as the nursing department and lab, as well as one of their nursing classes for the semester, it had limited seating around a small table, the temperature of the room was frequently unpredictable, and the space was occasionally shared with graduate student workers who were completing data entry for another university program. Several times the tutors and students took advantage of seating located in the hallway. Student performance on the standardized assessment increased an overall net of thirty-two percent, which had not been demonstrated by previous senior classes in the program. Limitations for the study included a small sample size, lack of demographic data collection with the survey, the use of a non-voluntary referral process, and the inability to have a control group.

Conclusion: This study contributes to the limited body of evidence on academic focused peer tutoring in nursing education. Students' perceptions and achievement of program objectives did not match. The various resources available were rated high and the assigned space was not perceived as meeting their needs. The relevance to nursing education is the evaluation of this pilot program as a cost-effective pilot program that addressed and supported the learning needs of diverse learners through the availability of resources and peer tutors. This study may provide guidance and knowledge for nursing faculty and programs that may be considering implementing peer tutoring to support student success.

References

Blowers, S., Ramsey, P., Merriman, C., Grooms, J. (2003). Patterns of peer tutoring in nursing. *Journal of Nursing Education*, 42 (5), 204-211.

Brannagan, K.B., Dellinger, A., Thomas, J., Mitchell, D., Lewis-Trabeaux, S., Dupre, S. (2013). Impact of peer teaching on nursing students: Perceptions of learning environment, self-efficacy, and knowledge. *Nurse Education Today*, 33,1440-1447.

Bryer, J. (2012). Peer tutoring program for academic success of returning students. *Journal of the New York State Nurses Association*, 43(1), 20-22.

McKenna, L., French, J. (2011). A step ahead: Teaching undergraduate students to be peer teachers. *Nurse Education Today*, 11, 141-145.

Yuen Loke, A.J.T., Chow, F.L.W. (2007). Learning partnership - the experience of peer tutoring among nursing students: A qualitative study. *International Journal of Nursing Education*, 44, 237-244.

Contact

csthomas@ccsu.edu

E 16 - Student Nurse Success Strategies

Nursing Students' Evaluation of Support Offered by Preceptors

Lizemari Hugo, MSocSc (Nsg), RN, PHC, NE, South Africa

Abstract

Purpose: Nursing students are being placed in a complex and challenging clinical environment as part of their educational training program. During their placement they are expected to integrate theory with practice in order to become competent nurse practitioners. Students need support to develop cognitively and professionally in order to become part of a sustainable workforce that are able to address the healthcare needs of the population of South Africa. Preceptors are the perfect entity to provide the necessary support and maximize transfer of learning. Good working relationships between the preceptor and clinical staff contribute to a positive clinical learning environment that is conducive for transfer of learning. The types of support that preceptors should provide to students include system, tangible, cognitive and emotional support. Nursing education institutions should ensure that preceptors provide comprehensive support to students enrolled in their program.

The purpose of this study is to describe the support offered by preceptors to undergraduate nursing students at a school of nursing in South Africa.

Methods: A quantitative survey was done. Second to fourth year undergraduate nursing students completed the questionnaire. Respondents had to indicate on a four-point Likert scale whether they strongly agree to strongly disagree with the latter having the lowest score. Students completed the questionnaire at the end of their clinical placement over two consecutive months. Descriptive statistical analysis was done.

Results: Results showed that preceptors provided students with the four types of support. Students rated emotional support as the highest type of support offered by preceptors. The mean value of each type of support varied between 3.21519 and 2.01321 and showed that there is still a lot of room for improvement on the support that preceptors offer to students.

Conclusion: The use of this instrument can provide nursing education institutions with a clear indication on the quality of support that the preceptors provide to their students.

References

- Botma, Y., Hunter, S. & Kotze, R., 2012. Responsibilities of nursing schools with regard to peer mentoring. *Nurse Education Today*, 33(8), pp.808-813.
- Chang, M.J., Chang, Y.J., Kuo, S.H., Yang, Y.H. & Chou, F.H., 2011. Relationships between critical thinking ability and nursing competence in clinical nurses. *Journal of Clinical Nursing*, 20(21-22), pp.3224-3232.
- Cooper, L., Orrel, J. and Bowden, M. 2010. *Work Integrated Learning: A guide to effective practice*, Routledge: New York.
- Nielsen, A.E., Noone, J., Voss, J. and Mathews, L. R., 2013. Preparing nursing students for the future: An innovative approach to clinical education. *Nurse Education in Practice*, 13(4), pp.301-309.
- Van Graan, A.C., Williams, M.J.S. & Koen, M.P., 2016. Clinical judgement within the South African clinical nursing environment: A concept analysis. *Health SA Gesondheid*, 21(1), pp.33-45
- Williamson, G., Gallagher, L., Whittlesea, E. & Heath, V., 2010. Improving student support using placement development teams: Staff and student perceptions. *Journal of Clinical Nursing*, 20(5), pp.828-836.

Contact

hugol1@ufs.ac.za

E 17 - Use of Antibiotics

Reducing Antibiotic Use in the Management of Upper Respiratory Infections in the Urgent Care Setting

Melissa Jones Holley, DNP, MSN, BSN, APRN, FNP-c, USA

Abstract

Purpose: Upper Respiratory Infections (URIs) are the most common presenting complaint to urgent care centers across the United States. Regardless of etiology or provider specialty, antibiotics are prescribed 60% of the time for the treatment of URIs, contributing to drug resistant respiratory organisms which often provide clinical management challenges for patients and their providers. These practices impact patient outcomes, quality of care, antimicrobial resistance, and economics in community and hospital settings. Chart reviews at a local urgent care company revealed similar practices among providers. Differences in provider type, knowledge base, confidence, practice experiences, and the lack of company adopted treatment guidelines were noted to be probable contributors. As a result, a quality improvement project was implemented to promote quality, evidenced based care in the management of patients with upper respiratory infections.

Methods: A multimodal intervention combining provider consensus meetings, clinical guideline review and development, use of clinical pathways, prescriber feedback and audit, and patient education was implemented at two urgent care centers to reduce the rate of antibiotic prescribing for URIs. Antibiotic prescribing rates for the baseline and intervention periods were obtained through the review of 273 patient charts with diagnoses of URI, nasopharyngitis, bronchitis, and sinusitis for each respective period and compared. Clinical guideline adherence rates were also captured and analyzed for this intervention.

Results: Evaluation of 273 patient encounters with diagnoses of URI, sinusitis and bronchitis during the intervention period demonstrated a 56.8% reduction in the prescribing rate of antibiotics (CI 95%, $p < 0.00$) and an 87.2% rate of compliance with the adopted clinical guidelines (CI 95%, $p < 0.00$).

Conclusion: Antibiotic prescribing for common URI diagnoses was significantly reduced at two urgent care centers through the implementation of multimodal strategies targeting providers and patients. Such an approach could enhance compliance with URI evidence-based practice guidelines in the outpatient setting resulting in the judicious use of antibiotics.

References

1. Zoorob, R., Sidani, M. A., Fremont, R. D., & Kihlberg, C., Antibiotic use in acute upper respiratory tract infections. *American Family Physician*, 2012. 86(9): p. 817-822.
2. Infectious Disease Society of America (IDSA)., Antibiotics drastically overprescribed for sore throats, bronchitis. *Science Daily* 2013 October 4, 2013; Available from: www.sciencedaily.com/releases/2013/10/131004105256.htm
3. Gerber, J.S., Prasad, P. A., Fiks, A. G., Localio, A. R., Grundmeier, R. W., Bell, L. M., et al. , Effect of an outpatient antimicrobial stewardship intervention on broad-spectrum antibiotic prescribing by primary care pediatricians: A randomized trial. *The Journal of the American Medical Association*, 2013. 309(22): p. 2345-2352.

Contact

mjonesh1@jhu.edu

E 17 - Use of Antibiotics

Advance Practice Registered Nurses' (APRNs') Clinical Practice Strategies to Deter Antibiotic Overuse

Pamela Willson, PhD, APRN, FNP-BC, CNE, FAANP, USA

Susan K. Lee, PhD, RN, USA

Marcia Poole, EdD, APRN, FNP-C, USA

Abstract

Purpose: Despite evidence that unnecessary antibiotic therapy for acute respiratory tract infections (ARTIs) increases risk of adverse drug events, increases antibiotic-resistant bacteria and healthcare costs, while not providing clinical improvement, prescription use is common. While there are reports of physician clinical practice strategies to deter antibiotic overuse, no studies specific to Advanced Practice Nurses' (APNs) practice behaviors were found. The provider's communication of positive and negative treatment recommendations leans to support for deterring antibiotic misuse. The primary aim of this study was to describe APNs clinical strategies to reduce antibiotic overuse for ARTIs in pediatric patients.

Methods: The conceptual model of evidence-based guideline adherence framed the Case Scenario Questionnaire. A random sample (N=3,000) of Family and Pediatric APN members of the Texas Nurse Practitioner professional organization were invited to participate. Two hundred and sixty-eight (N=268) APNs responded to the electronic 35-item survey and free-text Case Scenario Questionnaire. The Case Scenario Questionnaire was developed and field-tested prior to the project and contained a color image of the case study patient's oropharynx. The questionnaire content addressed: 1) recognition of ARTI guidelines, 2) use of point-of-care testing, 3) identification of communication strategies, and 4) determination of clinical practice comfort care alternative and complementary management recommendations.

Thirteen participants were not currently practicing and, therefore, did not meet inclusion criteria. Most respondents' specialty practice was primary care [i.e., family (n=155, 62%), adult/gerontology (n= 26, 10%), pediatrics (n=19, 8%)], followed by 16 (6%) in acute care. Neonatal, woman's health, psych/mental health, and emergency room APNs comprised the remaining 34 (14%) respondents. Most APNs practiced in urban areas (n=189, 75%) for 1 to 37 years.

Results: Point of care rapid strep testing was performed by 60% (n=135) of the APNs, 35% (n=78) of clinics did not have testing, and 6% reported the test unnecessary to diagnose ARTI. Of those who use rapid tests, a negative result lead to 43% (n=56) proceeding to throat culture prior to prescribing antibiotic. Fifteen percent (n=19) did not prescribe an antibiotic, but educated the patient and family on home remedies for symptom management. Antibiotic contingency plans were utilized by 71% (n=151) APNs and primarily consisted of calling the patient in 48-72 hours to verify the patient's condition. If no improvement was reported, antibiotics were prescribed. Fifty-nine percent (n=112) of patients'/parents' expectations to receive antibiotics affected the decision to prescribe antibiotics. The most common reason for not prescribing antibiotics was that the illness was viral. Recommended symptomatic care strategies included: fluids and rest (n=147, 82%) and over-the-counter acetaminophen, decongestants, or cough medicine (n=113, 63%). Alternative therapies recommended were: saline nasal irrigation twice a day (n=72, 40%), Vitamin C 500 to 1000 mg three times a day for first 3-4 days (n=38, 21%) and zinc gluconate or acetate every 2 hours while awake (n=33, 19%). Comparison rates for guideline adherence, as well as types and rates of comfort care strategies used, were reported.

Conclusion: Patient/parents expect antibiotics for symptoms that are of viral etiology. Texas APNs must stay abreast of national guidelines of care for ARTIs and are implementing patient/parent education and clinical strategies to decrease the overuse of antibiotics for patients. Since contingency plans and patient-centered education are methods to avoid antibiotic overuse, challenges exist to address system approaches for APNs' unique practice settings.

References

Fredericks, I., Hollingworth, S., Pudmenzky, A., Rossato, L., Syed, S., Kairuz, T., & Kairuz, T. (2015). Consumer knowledge and perceptions about antibiotics and upper respiratory tract infections in a community pharmacy. *International Journal Of Clinical Pharmacy*, 37(6), 1213-1221. doi:10.1007/s11096-015-0188-y

Hemkens, L. G., Saccilotto, R., Reyes, S. L., Glinz, D., Zumbrunn, T., Grolimund, O., & ... Bucher, H. C. (2016). Personalized prescription feedback to reduce antibiotic overuse in primary care: rationale and design of a nationwide pragmatic randomized trial. *BMC Infectious Diseases*, 16421. doi:10.1186/s12879-016-1739-0

Munoz-Plaza, C. E., Parry, C., Hahn, E. E., Tania, T., Nguyen, H. Q., Gould, M. K., & ... Sharp, A. L. (2016). Integrating qualitative research methods into care improvement efforts within a learning health system: addressing antibiotic overuse. *Health Research Policy & Systems*, 141-10. doi:10.1186/s12961-016-0122-3

Contact

pcwillson@mac.com

F 13 - Promoting Outcomes in Obese Patients

Effectiveness of Weight Control Program on Nutritional Status and Knee Pain in Overweight Older Adults

Noppawan Piaseu, PhD, RN, APN/NP, Thailand
Pawena Narasri, BNS, RN, Thailand

Abstract

Purpose: A common health problem in older adults is knee pain, particularly those with overweight. Weight control is an appropriate approach for overweight older adults suffering from knee pain. This study aimed to examine the effects of weight control program using community and group support on nutritional status and knee pain in overweight older adults with knee pain. The specific research purposes were to: 1) compare mean scores of nutritional status (body mass index and waist circumference) and knee pain in the experimental group before and after the program, and 2) compare mean differences of nutritional status (body mass index and waist circumference) and knee pain between the experimental and the control groups.

Methods: This study employed quasi-experimental research with 2-group pre-post design. Through convenience sampling with inclusion criteria, the sample included 60 overweight older adults with knee pain who lived in two communities in Bangkok, Thailand. The 30 subjects in the experimental group in a community participated in the 12-week weight control program including four stages: Raising community awareness, Aiming at target health outcome, Mobilizing change, and Assuring synergy through group activities. The program consisted of 14 activities addressing food exchange and behavioral modification for food consumption, arm swing exercise, knee exercise, modification of postures in daily living and arrangement of the surrounding environment in the community as well as monitor of body mass index and waist circumference. The control group received only leaflets and booklets. Data were analyzed using descriptive and inferential statistics including Chi-square test, Paired t-test, Independent t-test, and Wilcoxon Signed Ranks test.

Results: Results revealed that the mean age of the subjects was 70.8 (SD 5.8) years, ranging from 60-84 years. There were no significant differences in demographic characteristics between the control and the experimental groups. At baseline, the mean body mass index, waist circumference, and knee pain in the control group were 27.2 kg/m² (SD 3.5), 94.6 cm (SD 9.5), 5.4 (SD 1.6), respectively and those in the experimental group were 27.9 kg/m² (SD 3.5), 95.3 cm (SD 8.8), 6.7 (SD 1.9), respectively. There were no significant differences in body mass index and waist circumference between the control and the experimental groups at baseline, except for knee pain. After the program, the experimental group had body mass index (27.2: SD 3.1), waist circumference (93.6: SD 8.7) and knee pain (4.4: SD 1.9) less than before the program with statistical significance ($t = 2.128, p = .042$; $t = 6.599, p < .001$; $Z = -4.745, p < .001$, respectively). Mean differences in body mass index (-.69), waist circumference (-1.74), and knee pain (-2.4) in the experimental group were more than differences in body mass index (.01), waist circumference (.44), and knee pain (.13) in the control group with statistical significance ($t = 2.124, p = .038$; $t = 7.209, p < .001$; $t = 7.447, p < .001$, respectively).

Conclusion: The weight control program was effective. The results suggested approaches to behavioral modification on food consumption behaviors and group support for arm swing exercise and knee exercise as appropriate for the overweight older adults with knee pain.

References

1. Messier, S. P., Mihalko, S.L., Legault, C. (2013). Effects of Intensive Diet and Exercise on Knee Joint Loads, Inflammation, and Clinical Outcomes Among Overweight and Obese Adults With Knee Osteoarthritis. *JAMA*, 310(12), 1263-1273.
2. Muthuri, S.G., Hui, M., Doherty, M., Zhang, W. (2011). What if we prevent Obesity? Risk reduction in Knee osteoarthritis estimated through a meta-analysis of observational studies. *Arthritis Care Res*, 63(7), 982-990.

3. Phonyiam, R., Terathongkum, S., Thungsarn, S., Arj-Ong Vallipakorn, S. (2015). Effect of Lifestyle Modification Program with Arm Swing Exercise on Health Behavior, Nutritional Status and Capillary Blood Sugar of Persons with Pre-diabetes in the Community. *The Bangkok Medical Journal*, 10, 16-21.
4. [Foster-Schubert](#), K.E., [Alfano](#), C.M., [Duggan](#), C.R., [Xiao](#), L., [Campbell](#), K.L., [Kong](#), A. Et al. (2012). Effect of diet and exercise, alone or combined, on weight and body composition in overweight-to-obese post-menopausal women. *Obesity*, 20(8), 1628-1638.
5. Messier, S.P., Loeser, R.F., Miller, G.D., Morgan, T.M., Rejeski, W.J., et al. (2004). Exercise and Dietary Weight Loss in Overweight and Obese Older Adults With Knee Osteoarthritis: The Arthritis, Diet, and Activity Promotion Trial. *Arthritis & Rheumatism*, 50(5), 1501-1510.
6. Noh, J.W., Kim, H.J., Lee, C., Oh, I.H. Kwon, Y.D. (2016). Social Activities, Socioeconomic Factors, and Overweight Status Among Middle-Aged and Older Korean Adults: A Cross-Sectional Study. *Asia Pacific Journal of Public Health*, 28(2),157-166.

Contact

noppawan.pia@mahidol.edu

F 13 - Promoting Outcomes in Obese Patients

Evaluating Nursing Home Resident Monitoring Technology Use in Pressure Ulcer Prevention: A Mixed-Methods Approach

Tracey L. Yap, PhD, RN, WCC, CNE, FAAN, USA

Jill Flanagan, MS, BS, USA

Kao Ly, MSN, RN, USA

Susan M. Kennerly, PhD, RN, WCC, CNE, USA

Abstract

Purpose: Standard practice for pressure ulcer (PrU) prevention care in U.S. nursing homes (NH) is to reposition residents every 2 hours to minimize pressure exposure; however, on-time repositioning compliance is low (~30%). This study examined the adaptive and technical challenges nursing staff face in using new technology to facilitate on-time repositioning of NH residents.

Methods: A 21-day trial with a convergent mixed methods pre/post-test design compared resident and staff outcomes at a southeastern U.S. NH. The Leaf Patient Monitoring System is a wireless movement tracking system that monitors resident position and movement 24-hours a day, cues staff when repositioning is required; captures position and repositioning frequency, and enables calculation of the percentage of on-time compliance. Web-based surveys completed by staff (RNs, LPNs, CNAs) pre/post intervention were the Nursing Culture Assessment Tool (NCAT), Perceived Organizational Support (POS), and Affective Organizational Commitment (AOC). During post-intervention staff focus groups (2, n=13), perspectives of adaptive and technical challenges were gathered via semi-structured questions. Quantitative analyses were performed for NH staff data and Leaf monitoring data. Qualitative analyses using transcribed focus group sessions identified core concepts, applied satisfaction-based apriori codes, and allowed emergence of new themes.

Results: Staff on-time repositioning compliance improved from 59.8 to 77.3%. Staff responded positively to repositioning cues and described an enhanced sense of teamwork in order to achieve on-time repositioning, believing that usual care was provided faster. Adaptive and technical challenges focused on accessibility to system monitors, difficulties repositioning residents in reclining chairs, and uniformity in using system pause functions. Nursing culture's normative ranking percentage increased and communication, satisfaction, and professional commitment item scores positively corresponded with focus groups. Also, POS and AOC scale scores improved.

Conclusions: Triangulated findings support the effectiveness of nursing staff strategies for managing the adaptive and technical challenges experienced in using new technology. Clinical and research insights will be discussed in relation to implications for adaptive leadership to aid translation of findings to PrU prevention practice.

References

1. Kennerly, S.; Boss, L.; Yap, T.L.; Batchelor-Murphy, M.; Horn, S. D.; Barrett, R.; Bergstrom, N. (2015, September). Utility of Braden Scale nutrition subscale ratings as an indicator of dietary intake and weight outcomes among nursing home residents at risk for pressure ulcers. *Healthcare*, 3(3), 637-647. doi:10.3390/healthcare3030637. Open access: <http://www.mdpi.com/2227-9032/3/3/637>
2. Yap TL; Kennerly, S. M.; Bergstrom, N.; Hudak, S. L.; Horn, S. D. (2016). An evidence-based cue-selection guide and logic model to improve pressure ulcer prevention in long-term care. *Journal of Nursing Care Quality*, 31(1), 75-83. PMID: [26066791](https://pubmed.ncbi.nlm.nih.gov/26066791/)
3. Yap, T. L.; Kennerly, S.; Flint, E. P. (2014). Nursing Culture Assessment Tool (NCAT): Empirical validation for use in long-term care. *International Journal of Nursing Sciences*, 1(3), 241-249. Open access at: <http://www.sciencedirect.com/science/article/pii/S2352013214000817>

Contact

tracey.yap@duke.edu

F 13 - Promoting Outcomes in Obese Patients

Comparison of Braden Nutritional Risk Screening to Dietary and Weight Outcomes: Clinical and Research Insights

Susan M. Kennerly, PhD, RN, WCC, CNE, USA
Tracey L. Yap, PhD, RN, WCC, CNE, FAAN, USA
Melissa K. Batchelor-Murphy, PhD, RN-BC, FNP-BC, USA
Lisa Boss, PhD, MSN, BSN, RN, CEN, USA
Susan D. Horn, PhD, MS, USA
Ryan Barrett, MS, BS, USA
Nancy Bergstrom, PhD, RN, FAAN, USA

Abstract

Purpose: The Braden Scale for Pressure Sore Risk[®] is a screening tool used to determine overall risk of pressure ulcer (PrU) development and estimate severity of individual resident risk factors, such as nutrition. Nurses often use the Braden nutrition subscale to screen nursing home (NH) residents for nutritional risk, and recommend a complete nutritional assessment as needed. Clinical and research insights gained in comparing initial Braden Nutrition subscale (hereafter nutrition subscale) scores to dietary intake and resident outcomes (e.g., BMI and body weight change) will be highlighted and a researcher-developed nutritional risk evaluation and PrU prevention care planning framework introduced.

Methods: Secondary data from the TURN study's investigation of U.S. and Canadian NH residents (n= 690) who scored at moderate or high PrU risk were used to evaluate the nutrition subscale's utility for identifying nutritional intake risk factors. Associations were studied between the nutrition subscale screening score, dietary intake (mean percent meal intake and by meal type, mean number of protein servings, and type of protein source(s), and percent intake of supplements and snacks), weight outcomes, and new PrU incidence.

Results: The majority (61.9%) of residents who were at moderate risk for PrU development and 59.2% of those at high risk consumed a mean meal intake of <75%. Less than 18% of residents consumed <50% of meals or refused meals. No significant differences were observed in body weight variances by nutrition subscale risk or in mean number protein servings/meal [1.4 (+ SD=0.58) versus 1.3 (+ SD=0.53)] for moderate versus high risk residents. Nutrition subscale estimates approximated subsequent estimated dietary intake.

Conclusion: Nutrition subscale scores can offer insight into meal intake patterns for those at PrU risk. Findings support use of the Braden Scale's nutrition subscale as a preliminary screening method to identify focused areas for potential intervention. Dietary intake monitoring in conjunction with weight loss or gain as indicators of dietary adequacy helped further document connections between nutrition risk category, intake, and weight sustainability. Clinical and research insights will be discussed in relation to nutritional risk evaluation and care planning framework to aid translation of findings to PrU prevention practice.

References

- Kennerly, S.; Boss, L.; Yap, T.L.; Batchelor-Murphy, M.; Horn, S. D.; Barrett, R.; Bergstrom, N. (2015, September). Utility of Braden Scale nutrition subscale ratings as an indicator of dietary intake and weight outcomes among nursing home residents at risk for pressure ulcers. *Healthcare*, 3(3), 637-647. doi:10.3390/healthcare3030637. Open access: <http://www.mdpi.com/2227-9032/3/3/637>
- Yap TL; Kennerly, S. M., Bergstrom, N.; Hudak, S. L., Horn, S. D. (2016). An evidence-based cue-selection guide and logic model to improve pressure ulcer prevention in long-term care. *Journal of Nursing Care Quality*, 31(1), 75-83. PMID: [26066791](https://pubmed.ncbi.nlm.nih.gov/26066791/)
- Yap, T. L.; Rapp, M. P.; Kennerly, S.; Cron, S. G.; Bergstrom, N. (2015, Sep.-Oct.). Comparison study of Braden Scale and time-to-erythema measures in long-term care. *Journal of Wound, Ostomy and Continence Nursing*, 42(5), 461-467. PMID: [26336042](https://pubmed.ncbi.nlm.nih.gov/26336042/)

Contact

kennerlys16@ecu.edu

H 05 - Transitions in Care of the Older Adult

Effects of Care Arrangements on Chinese Older Adults' Relocation to Long-Term Care Facilities

Jing Wang, MSN, USA

Bei Wu, PhD, FGSA, FAGHE, USA

Wei Pan, PhD, USA

Qing Yang, PhD, USA

Abstract

Purpose: By the end of 2013, the number of China's older adults aged 60 and above reached 202 million, accounting for 14.8% of its total population (Chinese Academy of Social Sciences, 2014). It is estimated that more than 100 million older adults are diagnosed with one or more chronic diseases and 37.5 million of them are living with functional disabilities. Although the rate of institutionalization of Chinese older adults in long-term care (LTC) facilities has increased rapidly from 0.86% to 1.51% between 2005 and 2012 (Ministry of Civil Affairs of the People's Republic of China, 2013), China's long-term care facilities are in a preliminary developmental stage (Peng & Wu, 2015). Placing older parents in LTC facilities is still stigmatized by Chinese society to some extent (Gu, Dupre, & Liu, 2007).

Most Chinese older adults still rely primarily on family support, particularly after they become functionally dependent (Wang, Zheng, Kurosawa, Inaba, & Kato, 2009). However, the traditional familial care for older adults has been decreased by fewer children, smaller family size, out-migration of adult children from rural to urban areas for employment opportunities, and increased women employment. Older adults in empty nest families surpassed 50 million by the end of 2013 (Chinese Academy of Social Sciences, 2014). Under this circumstance, elder care in China has become a public concern.

As a developing country with widened urban and rural divide and limited social and economic resources, early and unnecessary institutionalization of older adults can be a heavy burden on the country and taxpayers. It is crucial to understand factors impacting on institutionalization of older adults in China. In a study based on national survey data, Gu et al. (2007) identified poor health status at baseline (ADL disability, cognitive impairment, and having one or more chronic diseases), as risk factors for institutionalization. However, no study so far in China investigated the effects of different care arrangements on institutionalization of older adults although care arrangement is a key point to understand China's elder care development.

The objective of this study was to examine care arrangement in China and to explore effects of care arrangements on Chinese older adults' age to relocate to long-term care facilities (institutionalization) after taking their ability to perform activities of daily living, self-rated health, residence, and other demographic variables into account. We hypothesized that different types of care arrangements will have significant impacts on older adults' age to institutionalization.

Methods: This study is a secondary data analysis using a true longitudinal dataset of Chinese Longitudinal Healthy Longevity Survey (CLHLS). Data collection was cosponsored by the US National Institute on Aging, the United Nations Fund for Population Activities, and the China National Foundation for Social Sciences. Its study sample was randomly selected from half of the counties and cities in the 22 provinces of China, representing 85% of the total population of the country.

The 2002-2011 longitudinal dataset composed of 15475 older adults who were surveyed in 2002 and then followed up in 2005, 2008 and 2011. Event is coded as 1 or 0. Event =1 is defined as "residing in nursing home (institutionalization)" at the time of follow-up interview and event=0 is defined as "living alone in the community" or "living with household members in the community" till 2011. The missing data of the included variables of our samples is less than 5%. After deleting missing data, I have a sample of 2628 older adults with 233 of them moving to nursing home in 2005, 2008, or 2011 (event=1) and 2395 of them still live in the community in 2011(event=0). In China, those who reside in nursing home have less than 0.2% chance of going back to the community (Gu, Dupre, & Liu, 2007), so that we regard

institutionalization as a fixed event that will not change once happened. The time variable in the current study is defined as older adults' age when they were first institutionalized in the study.

Eight different care arrangements for older adults are independent variables included in this study: spouses, son and daughter-in-law, daughter and son-in-law, son and daughter, grandchildren and their spouses, other informal caregivers, domestic helpers, and nobody. Covariates in this analysis included gender, place of current residency, self-rated health, ability of performing activities of daily living, financial independence. Except gender as a fixed variable, other four covariates are time-varying variables. Thus, in the current study, we only use participants' report of the other four covariates at the time of the follow-up interview when they moved to nursing homes.

The significance level was set at 0.01. Multivariate cox regression model was applied to investigate how different caregiving arrangements impact on community-dwelling older adults' age to move to nursing homes in China after controlling for covariates included in this study. We also plotted adjusted Kaplan-Meier survival curves, which allows the comparison of curves of different caregiving arrangements that are balanced for other variables in the model. SAS9.3 was used to data analyses.

Results: The total rate of institutionalization between the 2002 and 2005 waves was 0.5%, compared with a rate of 0.8% between the 2005 and 2008, and 1.2% between the 2008 to 2011 waves. Nearly half (47.87%) of the older participants are still primarily cared for by son and daughter-in-laws. Spouses also play important roles in taking care of older adults included in this study (23.78%). Hiring domestic helpers as primary caregivers for older adults is more common in the city (4.16%) compared to rural areas (1.17%).

Care arrangements are a predictor of older adults' age of institutionalization after adjusting for covariates included in this study. In terms of the covariates, current place of residence and their needs for ADL assistance were found to have a significant impact on the outcome variable. The hazard rate of different care arrangements from low to high are son and daughter-in-law, grandchildren, spouses, daughter and son-in-law, son and daughter, other informal caregivers, domestic helpers, and cared for by nobody. Compared to older adults primarily cared for by their spouses, those who are taken care of by both sons and daughters tend to have a 91% increase (Hazard Ratio=2.49, $P=0.002$) in the hazard rate; those who are cared for by other informal caregivers (relatives and friends) and domestic helpers tend to have 2.39 times (Hazard Ratio = 4.03, $P<0.0001$) and 2.53 times (Hazard Ratio = 4.64, $P<0.0001$) the hazard rate of those cared for by spouses respectively. Those who have nobody to take care of them tend to have a 172% increase in the hazard rate (Hazard Ratio = 5.59, $P<0.0001$) compared to those who are cared for by their spouses. Those who need ADL help tend to have a 67% decrease in hazard rate (Hazard Ratio = 0.50, $P<0.0001$) compared to their counterparts who do not need ADL assistance (See table 2).

Conclusion: Nearly half of the older participants are still primarily cared for by son and daughter-in-laws. This is in line with the Confucian concept of filial piety or "xiao" in Chinese has long been valued in China. The notion of filial piety covers a broad spectrum of attributes. It encompasses "Children's respect, obedience, loyalty, material provision, and physical care to older parents" (Zhan, Feng, & Luo, 2008, p.545).

It is interesting to see that compared to older adults primarily cared for by their spouses, those who are taken care of by both sons and daughters tend to have a higher hazard rate. This can be reflected from increasing reports of family disputes on elder care and older adults' right protection in recent years. When elder care responsibilities are shared by sons and daughters, there are more possibilities that none of them would like to take the leading roles of caring for their older parents. Instead, they are more likely to avoid or shift elder care responsibilities to their siblings.

In contrary to the status in Hong Kong, China, hiring domestic helpers as older adults' primary caregivers in Mainland China increases their hazard rate of institutionalization in the current study. Significant differences between Chinese domestic helpers and foreign domestic helpers in Hong Kong concerning their age, educational background, income level, training, and access to social welfare can be potential reasons for this difference. By and large, Hong Kong has long been attracting thousands of foreign

domestic helpers with its preferential policies and legal protection and support. For Chinese domestic helpers in mainland China, low income, lack of protective regulation, and ineffective supervision and law enforcement all contribute to the serious shortage of competent and qualified elder care workers and their high turnover.

It is interesting that those with no need of ADL assistance have significantly higher hazard ratio compared to those with ADL assistance needs. This is related to the status quo of China's formal long-term care development. Unlike most developed countries, where the predominant objective of nursing homes is to provide care for persons who are physically or cognitively impaired, most elder care institutions in China tend to preferentially accept younger, healthier, or non-disabled older adults.

References

- Chen, L., & Ye, M. (2013). The role of children's support in elders' decisions to live in a yanglaoyuan (residential long-term care). *Journal of Cross-Cultural Gerontology*, 28, 75-87.
- Chen, Y.-M., & Berkowitz, B. (2014). Older adults' home- and community-based care service use and residential transitions: A longitudinal study. *BMC Geriatrics*, 12(1), Article 44.
- Cheng, Y., Rosenberg, M. W., Wang, W., Yang, L., & Li, H. (2012). Access to residential care in Beijing, China: Making the decision to relocate to a residential care facility. *Ageing & Society*, 32, 1277-1299.
- Chinese Academy of Social Sciences. (2014). China aging development report. From <http://baike.baidu.com/view/10180645.htm>

Contact

jing.wang@duke.edu

H 05 - Transitions in Care of the Older Adult

Participatory Approach to Build Capacity: Nurse-Led Research to Overcome Insufficient Mobility in Hospitalized Older Adults

Gordana Dermody, PhD, RN, CNL, USA
Ruth A. Bryant, PhD, RN, CWOCN, USA

Abstract

Purpose: The objectives of this presentation are to: 1) Describe the participatory approach used to involve bedside nurses, and other disciplines in the conduct of nurse-led research to overcome insufficient older adult mobilization. 2) Discuss how this participatory approach served as a spring-board to build capacity for additional nurse-led research at the bedside.

Background: It is well-known that hospitalized older adults do not receive the mobility they need (Barber et al., 2015; Fisher, Graham, Ottenbacher, Deer, & Ostir, 2016). Due to musculoskeletal changes that accompany aging, this population is at increased risk for accelerated muscle loss and weakness which contributes to functional decline, and other adverse health outcomes (Cruz-Jentoft et al., 2010). Studies conducted in a variety of developed countries, including Australia, Canada, England, Ireland, Israel and the United States, show that concerns about the insufficient promotion of mobility in hospitalized older adults exist on an international scale. The urgency to address the mobility needs of older adults is heightened by the demographic shift that is occurring due to our aging population. A recent international research study reported that the growth of older adults 65 years and older is accelerating in multiple developed as well as developing nations (He, Goodkind, & Kowal, 2016).

Busy inpatient units have been described as chaotic settings (Catchpole, 2013). In addition, within this environment, nurses encounter a variety of barriers to promoting mobility in older adults (Hoyer, Brotman, Chan, & Needham, 2015). The literature suggests that there is a convergence of knowledge, attitude and external barriers that contributes to the vexing problem of insufficient mobility (Hoyer et al., 2015). While the incongruence between mobility needed and the mobility promoted in hospitalized older adults has been studied for decades—and literature has pointed a critical finger at nurses for failing to promote mobility—little is known about whether the barriers that nurses encounter could explain nurses' mobility-promoting behavior. The accelerated rise in the number of older adults necessitates that clinical and academic nurses work collaboratively to take the lead to overcome potential barriers to nurse-promoted mobility for this vulnerable population by becoming involved in the design and conduct clinical research.

Two key principles to participatory research are to engage partners in all phases of research and to build on existing goals of the clinical setting (Schmittiel, Brumbach & Selby, 2010). The initial project stemmed from a staff identified need, which was substantiated by the Nurse Manager as a priority and then the study was designed and conducted by the nurse researcher with the participation of bedside nurses. Subsequent projects were based on findings from the initial study and designed collaboratively with the staff and the nurse researcher.

Methods: A participatory approach was used to engage nursing staff in the research process. A team of hospital nurses were involved in discussions addressing all phases of research including data collection methods. To recruit nurse participants for the initial study, informational group discussion sessions were conducted which served to foster an awareness and enthusiasm among the nursing staff. Several additional strategies were employed to nurture and sustain engagement of the nursing staff (Roll et al, 2013). Regular communications were maintained with the nursing staff through informal (i.e., being present on the unit) and formal methods (i.e., unit-based newsletter or email, unit-based council meetings). Study procedures were integrated into daily patient care such as using the informational patient "white board" for communicating mobility goal setting. Nursing staff co-investigators were encouraged and supported to submit abstracts at local, regional and national professional meetings to disseminate findings.

Results: Numerous research-based activities have been generated stemming from the original study purpose to identify and then minimize barriers, and increase nurse-led patient mobilization. Between June 2015 and December of 2016 three research projects were conducted, and two other studies are currently in progress. In addition, 3 manuscripts are under review. Furthermore, findings have been disseminated through posters and podium presentations in a variety of venues including hospital-based symposia, national research conferences and professional nursing organizations. Contributing authors of these research activities are interdisciplinary and include bedside nurses, nurse managers, physical therapists, volunteers, nurse-researchers, and data analysts. Using a participatory approach is useful to build capacity for nurses and other disciplines to collaboratively address clinical issues and to facilitate nurse-led research at the bedside. In addition, using this approach has stimulated an ongoing dialogue about research findings and has fostered a curiosity about next steps. This has served as a springboard for future nurse-led research to overcome insufficient older adult mobilization.

Conclusion: A participatory approach to clinical research capitalizes on the strengths and knowledge of the bedside nurse and the researcher to design and conduct clinically relevant research. This partnership fosters a culture of curiosity and serves as a springboard to generate additional researchable clinical questions. In addition, this approach provides numerous opportunities for the nursing staff to develop their presentation skills.

References

- Barber, E. A., Everard, T., Holland, A. E., Tipping, C., Bradley, S. J., & Hodgson, C. L. (2015). Barriers and facilitators to early mobilisation in Intensive Care: a qualitative study. *Aust Crit Care*, 28(4), 177-182; quiz 183. doi:10.1016/j.aucc.2014.11.001
- Catchpole, K. (2013). Spreading human factors expertise in healthcare: untangling the knots in people and systems. *BMJ Qual Saf*, 22(10), 793-797. doi:10.1136/bmjqs-2013-002036
- Cruz-Jentoft, A. J., Baeyens, J. P., Bauer, J. M., Boirie, Y., Cederholm, T., Landi, F., . . . Zamboni, M. (2010). Sarcopenia: European consensus on definition and diagnosis: Report of the European Working Group on Sarcopenia in Older People. *Age Ageing*, 39(4), 412-423. doi:10.1093/ageing/afq034
- Fisher, S. R., Graham, J. E., Ottenbacher, K. J., Deer, R., & Ostir, G. V. (2016). Inpatient Walking Activity to Predict Readmission in Older Adults. *Arch Phys Med Rehabil*, 97(9 Suppl), S226-231. doi:10.1016/j.apmr.2015.09.029
- He, W., Goodkind, D., & Kowal, P. (2016). *An Aging World: 2015*. Retrieved from Washington, DC: <https://www.census.gov/content/dam/Census/library/publications/2016/demo/p95-16-1.pdf>
- Hoyer, E. H., Brotman, D. J., Chan, K. S., & Needham, D. M. (2015). Barriers to early mobility of hospitalized general medicine patients: survey development and results. *Am J Phys Med Rehabil*, 94(4), 304-312. doi:10.1097/phm.000000000000185
- Roll, L., Stegenga, K., Hendricks-Ferguson, V., Barnes, Y., J., Cherven, B., Docherty, S. L., Robb, S. L. & Haase, J. E. (2013). Engaging nurses in research for a randomized clinical trial of a behavioral health intervention. *Nursing Research and Practice*, vol. 2013, Article ID 183984, 6 pages, 2013. doi:10.1155/2013/183984
- Schmittiel, J. A., Grumbach, K., & Selby, J. V. (2010). System-based participatory research in health care: An approach for sustainable translational research and quality improvement. *Annals of Family Medicine* 8(3):256-259. doi:10.1370/afm.1117

Contact

gordana.dermody@wsu.edu

H 06 - Chronic Illness Management

American Lymphedema Framework Project: An Overview of 8 Years in Moving the Lymphedema Field Forward

Jane Armer, PhD, RN, CLT, FAAN, USA

Nathan C. Armer, MEd, USA

Joseph L. Feldman, MD, CLT-LANA, USA

Abstract

Purpose: To inform nurses and other health professionals in the U.S. and around the world about the founding of the American Lymphedema Framework Project (ALFP) in 2008 as the first invited national framework of the International Lymphoedema Framework (ILF) and the ALFP progress in achieving its mission to improve the management of lymphedema and related disorders in the United States, while contributing to global international advancement.

Methods: In 2008, lymphedema clinical experts, researchers, educators, patients, advocates, and other stakeholders began the process of developing the American Lymphedema Framework Project (ALFP) at the invitation of the ILF. At the American Cancer Society-sponsored Stakeholders Conference in 2009, the collaboration of healthcare providers, researchers, patients, educators, advocates, third-party payers, and industry representatives established the mission and initial goals of the ALFP. Using the 'open-space meeting' approach, consisting of 'self-managed work groups where leadership is shared, diversity is encouraged and personal empowerment is achieved,' the initial group of 72 experts explored the issues involved in the management of lymphedema and lymphatic system disorders in the United States. To ensure that the work of the ALFP remained current, subsequent 'open-space meetings' were held in 2011 (Columbus, OH) and 2014 (Columbia, MO, and Atlanta, GA). In 2015, the first international 'open space' stakeholder meeting was held in Cape Town, Republic of South Africa, in support of the formation of the Lymphedema Association of South Africa (LAOSA), modeled after the ALFP.

Results: Seven major issues in the management of lymphedema were identified at the first stakeholder meeting: (1) Establish the credibility of the ALFP; (2) Create awareness of lymphedema and related lymphatic system disorders; (3) Develop research to refine diagnostic standards and provide evidence for effective treatments; (4) Enhance patient education, support, and self-management; (5) Establish criteria for health provider education; (6) Promote evidence-based practice for lymphedema management; and (7) Improve reimbursement. The stakeholder meetings in 2011 and 2014 confirmed the same issues as a priority, with awareness/education as the highest priority. International issues in a lower-resource country (2015) mirror those in a higher resource country, such as the U.S.

Two of the established goals of the ALFP are to: (1) Define best practices of lymphedema management; and (2) Develop a minimum data set to support research to improve lymphedema outcomes. Progress in meeting these goals is summarized here.

As part of working toward promotion of evidence-based best practices, teams comprised of ALFP steering committee members and other lymphedema experts conducted systematic reviews of the current literature on management of lymphedema (N=10). A research librarian assisted with searches of 11 major medical databases. From almost 6000 screened articles, articles were selected based on defined eligibility criteria for final review (n=1303) and categorization (n=659) by topic experts. The following reviews have been completed and published in peer-reviewed journals, with complete references and links available at the ALFP website (ALFP.org):

1. The surgical treatment of lymphedema: A systematic review of the contemporary literature (2004-2010)
2. Exercise in patients with lymphedema: A systematic review of the contemporary literature
3. A systematic review of the evidence for complete decongestive therapy in the treatment of lymphedema from 2004 to 2011
4. Psychosocial impact of lymphedema: A systematic review of literature from 2004-2011

5. Complementary, alternative, and other non-complete decongestive therapy treatment methods in the management of lymphedema: A systematic search and review
6. Palliative care for cancer-related lymphedema: A systematic review
7. Intermittent pneumatic compression therapy: A systematic review
8. Self-management of lymphedema: A systematic review of the literature from 2004-2011
9. Exploring the usefulness of botanicals as an adjunctive treatment for lymphedema: A systematic search and review.
10. A systematic review of care delivery models and economic analyses in lymphedema: Health policy impact (2004-2011)

Another resource developed to promote best practices in lymphedema management is the ALFP Therapist Directory. Look4LE is a mobile app developed by the ALFP to help find therapists trained to assess and treat lymphedema. Look4LE is a searchable online database with demographic information (geographical location, telephone, email, and geospatial linkages) of certified lymphedema therapists. The app currently features almost 1,200 Lymphology Association of North America (LANA)-certified therapists, with plans to steadily add 135-hour-trained therapists worldwide. Therapists may be found by using the directory, or by accessing the app's built-in map feature to search by location name, zip code, or current location. Each therapist has a contact page where phone, street, web, and email addresses can be found; a map viewed; directions obtained; and the therapist contact information added to system contacts. An individual (health care professional or patient) seeking a therapist can search by geographical location or discipline with assurance that the therapist is certified as a lymphedema therapist with the required 135 hours of specialized study. There are also a number of resources listed in the app with links to webpages and organizations relevant to lymphedema.

Working toward achievement of the second goal, the lymphedema minimum data set (MDS) has been created by the ALFP to collect and analyze clinical and self-reported data related to lymphedema. The data set contains longitudinal visit information, volume measurements, symptoms, and treatment data. The MDS currently contains approximately 1300 patients across over 8000 clinical visits. The MDS has been tested to ensure the elimination of data duplicates and inconsistency. Each site's data export into the MDS has been developed and tested. A suite of data mining tools has been developed to identify clinically significant patterns and to support more sophisticated analytic approaches to understanding lymphedema risk, emergence, diagnosis, treatment, management, and long-term impact. The ALFP team has collaborated with experts in engineering to develop a 3D mobile imaging platform for remote measurement of limb volume to be transferred to the MDS for surveillance and clinical management.

Conclusion: Through a continued partnership of patients, healthcare professionals, researchers, industry representatives, third-party payers, and advocates, the ALFP has established a leadership role in risk reduction, treatment, education, and research of lymphedema management. Based on the systematic reviews, it is evident that there is a paucity of rigorously-conducted research studies. There is a critical need for well-designed, randomized trials to examine the available range of treatment modalities to determine which ones may be the best for managing LE. It is imperative that we design and test strategies using relevant patient-reported outcomes and bring the scientific findings to the understanding of and application by therapists, clinicians, patients, families and others involved in the management of lymphedema. Aggregation of clinical and research data through informatics infrastructures such as the ALFP minimum data set support development of practice-based evidence to guide best practices for lymphedema. Innovations such as development and refinement of mobile devices for limb volume measurement and resource retrieval promise to improve management for persons with and at risk of lymphedema. The American Lymphedema Framework Project has made a major contribution toward addressing the prioritized issues identified by stakeholders in 2008 and moving the field forward.

References

- Cormier, J., Rourke, L., Crosby, M., Chang, D., & Armer, J. (2012). The surgical treatment of lymphedema: A systematic review of the contemporary literature (2004-2010). *Annals of Surgical Oncology*, 19(2), 642-651.
- Kwan, M., Cohn, J., Armer, J., Stewart, B., & Cormier, J. (2011). Exercise in patients with lymphedema: A systematic review of the contemporary literature. *Journal of Cancer Survivorship*, 5(4) 320-336.

Beck, M., Wanchai, A., Stewart, B.R., Cormier, J.N., & Armer, J.M. (2012). Palliative care for cancer-related lymphedema: A systematic review. *Journal of Palliative Medicine*, 15(7), 821-7.

Feldman, J. L., Stout, N. L., Wanchai, A., Stewart, B. R., Cormier, J. N., & Armer, J.M. (2012). Intermittent pneumatic compression therapy: A systematic review. *Lymphology*, 45(1), 13-25.

Ridner, S. H., Fu, M.R., Wanchai, A., Stewart, B. R., Armer, J.M., & Cormier, J.N. (2012). Self-management of lymphedema: A systematic review of the literature from 2004 to 2011. *Nursing Research*, 61(4), 291-299.

Lasinski, B. B., Thrift, K. M., Squire, D., Austin, M. K., Wanchai, A., Green, J. M., Stewart, B. R., Cormier, J.N. , & Armer, J.M. (2012). A systematic review of the evidence for complete decongestive therapy in the treatment of lymphedema from 2004 to 2011. *PM&R*, 4(8), 580-601.

Fu, M.R., Ridner, S., Hu, S., Stewart, B.R., Cormier, J.N., & Armer, J. (2013). Psychosocial impact of lymphedema: A systematic review of literature from 2004 to 2011. *Psycho-Oncology*, 22(7), 1466-84.

Stout, N.L., Weiss, R., Feldman, J.L., Stewart, B.R., Armer, J.M., Cormier, J.N., Shih, Y.-C.T. (2013). A Systematic Review of Care Delivery Models and Economic Analyses in Lymphedema: Health Policy Impact (2004-2011). *Lymphology*, 46(1), 27-41.

Rodrick, J.R., Poage, E., Wanchai, A., Stewart, B. R., Cormier, J.N., & Armer, J.M. (2014). Complementary, Alternative, and Other Non-CDT Treatment Methods in the Management of Lymphedema: A Systematic Search and Review. *PM&R*, 6(3), 250-74.

Poage, E.G., Rodrick, J., Wanchai, A., Stewart, B., Cormier, J., Armer, J.M. (2014). Exploring the usefulness of botanicals as adjunctive treatment for lymphedema: A systematic search and review. *PM&R*. DOI: 10.1016/j.pmrj.2014.09.019

Armer, J.M., Hulett, J. M., Bernas, M., Ostby, P., Stewart, B. R., & Cormier, J. N. (2013). Best-Practice Guidelines in Assessment, Risk Reduction, Management, and Surveillance for Post-Breast Cancer Lymphedema. *Current Breast Cancer Reports*, 5(2), 134-144.

Ostby, P.L., Armer, J.M., Dale, P.S., Van Loo, M.J., Wilbanks, C.L., & Stewart, B.R. (2014). Surveillance Recommendations in Reducing Risk of and Optimally Managing Breast Cancer-Related Lymphedema. *Journal of Personalized Medicine*, 4(3):424-447.

*Lu, G., Han, K., DeSouza, G., Armer, J., Shyu, CR. (2014). A new algorithm for 3D registration and its application in self-monitoring and early detection of lymphedema. *Journal of Innovation and Research in BioMedical Engineering*, 35(6). 370-384. doi:10.1016/j.irbm.2014.10.003.

Ostby, P. & Armer, J. (2015). Complexities of adherence and post-cancer lymphedema management. *Journal of Personalized Medicine*, 5(4): 370-388.

*Chance-Hetzler, J., Armer, J., Van Loo, M., Anderson, B., Harris, R., Ewing, R., & Stewart, B. (2015). Prospective lymphedema surveillance in a clinic setting. *Journal of Personalized Medicine*, 5(3): 311-325.

Armer, J.M., Feldman, J. L., Ostby, P. L., Thrift, K. M., Lasinski, B. B., Beck, M. S., . . . Stewart, B. R. (2016). Simplifying evidence-based management of breast cancer-related lymphedema. *Expert Review of Quality of Life in Cancer Care*. Advance online publication. doi: 10.1080/23809000.2016.1230019

Contact

armer@missouri.edu

H 06 - Chronic Illness Management

Insomnia and Health-Related Quality of Life in Adults With Type 2 Diabetes

Susan Sereika, PhD, USA

Eileen R. Chasens, PhD, RN, FAAN, USA

Letitia Y. Graves, MSN, RN-BC, USA

Abstract

Purpose: Previous research that suggests that obstructive sleep apnea (OSA) is associated with an increased risk for T2DM (Aronsohn, Whitmore, Van Cauter, & Tasali, 2010) as well as decreased health-related quality of life (HRQoL) in persons with diabetes (Chasens, Sereika, Burke, Strollo, & Korytkowski, 2014). Diabetes increases the risk for another sleep disorder, insomnia, in a dose-related fashion (Budhiraja, Roth, Hudgel, Budhiraja, P. & Drake, 2011). The purpose of this study is to evaluate if insomnia is associated with worse HRQoL in adults with T2DM.

Methods: This study is a secondary analysis of baseline data from participants in a randomized clinical trial (1R01DK096028). The parent study evaluates if persons with treatment of OSA + diabetes education have better glucose control and self-management behavior compared to those on a sham (placebo) device + diabetes education. Inclusion criteria for the baseline assessment include age > 18 years; self-report of T2DM, CPAP naïve, and willing to be randomized to CPAP if found to have OSA (apnea + hypopnea index [AHI] ≥ 10). Measures included demographics (sex, age, race, education), sleep quality (Pittsburgh Sleep Quality Index [PSQI] Buysse, Reynolds, Monk, Berman, Kupfer, 1989), (scores > 5 = poor sleep quality), insomnia (Insomnia Severity Index [ISI] Morin, Belleville, Belanger, Ivers, 2011); scores 0-14 = "no insomnia" to "mild insomnia" and scores ≥ 15 = "moderate insomnia" to "severe insomnia", diabetes related distress (Problem Areas in Diabetes [PAID], Welch, Jacobson, Polonsky, 1997) with higher scores = more distress, and mental and physical HRQoL component scores (SF-12v2 MCS, PCS, Ware, Kosinski, Keller, Ware, Kosinski, Keller, 1996.) with higher scores = better mental or physical HRQoL. The clinical evaluation included A1C for glycemic control; height and weight were measured to calculate BMI. Descriptive statistics include mean (SD) for continuous variables and percent and frequency for categorical variables. Inferential statistics included independent Students t-tests, and Pearson correlations. Linear multiple regression models were conducted to see if age, race, college education, BMI, diabetes related distress, or insomnia predicted mental and physical HRQoL (MCS, PCS). The level of statistical significance was set at $p < .05$.

Results: The sample ($N=194$) was primarily middle age (mean age = 56.8 years ± 10.7 [range 26-88 years], overweight (mean BMI = 34.7 ± 6.8), had suboptimal glucose control (mean A1c = 7.9% ± 1.8), and moderate-to-severe insomnia (41%). Participants were well distributed by sex (male 46%; $n=90$), race (white 54%, $n=105$), and college graduate (31%, $n=60$). No differences were observed in mental or physical HRQoL (MCS, PCS) by sex, race, marital status; participants with a college education had significantly ($p < .01$) increased physical HRQoL. Age was significantly associated with improved mental HRQoL ($r = .25$, $p < .01$). Participants with moderate-severe insomnia had significantly worse diabetes related distress [PAID], lower mental and physical HRQoL (MCS, PCS) than those who reported no insomnia/mild insomnia (all p values < 0.5). Using the enter method it was found that age, BMI, diabetes related distress and insomnia explain a significant amount of the variance in mental HRQoL ($F = 12.564$, $p < .001$, $R^2 = .296$, R^2 adjusted = .273). The regression model for physical HRQoL found that age, college graduate, BMI, and insomnia explained a significant amount ($F = 7.575$, $p < .001$, $R^2 = .202$, R^2 adjusted = .176). Limitations to this study include the cross-sectional sample, secondary analysis design, relatively modest sample size, and that the sample might not be reflective of all persons with T2DM.

Conclusions: Insomnia was highly prevalent in the recruited sample; insomnia was found to have significant negative impact on mental and physical HRQoL after controlling for age, race, education, BMI and diabetes-related distress. Future research is needed to determine if insomnia is associated with worse glucose control or diabetes self-management behavior.

References

1. Aronsohn, R. S., Whitmore, H., Van Cauter, E., Tasali, E. (2010). Impact of untreated obstructive sleep apnea on glucose control in type 2 diabetes. *American Journal of Respiratory and Critical Care Medicine*;181:507- 513.
2. Chasens, E. R., Sereika, S. M., Burke, L. E., Stollo, P. J., Korytkowski, M. (2014). Sleep, health-related quality of life, and functional outcomes in adults with diabetes. *Applied Nursing Research*; 27: 237-241.
3. Budhiraja, R., Roth, T., Hudgel, D. W., Budhiraja, P., Drake, C. L. (2011). Prevalence and polysomnographic correlates of insomnia comorbid with medical disorders. *Sleep*; 34: 859-67.
4. Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*; 28: 193-213.
5. Morin, C. M., Belleville, G., Belanger, L., Ivers, H. (2011). The Insomnia Severity Index: Psychometric indicators to detect insomnia cases and evaluate treatment response. *Sleep*; 34:601-8.
6. Welch, G. W., Jacobson, A. M., Polonsky, W. H. (1997) The Problem Areas in Diabetes Scale. An evaluation of its clinical utility. *Diabetes Care*; 20:760-6.
7. Ware, J., Kosinski, M., Keller, S. D., Ware, J., Jr., Kosinski, M., Keller, S. D. (1996). 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*; 34: 220-33.

Contact

chasense@pitt.edu

H 08 - Children in the Intensive Care Unit

Newly Licensed Nurses' Experiences With End-of-Life in the Pediatric Intensive Care Unit (PICU)

Maureen Hillier, DNP, RN, CCRN, USA

Abstract

Purpose: Nursing education has identified gaps in student knowledge and has admitted to a sub-optimal amount of student education on death and dying education in current curriculums (Beck, 1997; Delaney, 2003; Rush, Adamack, Gordon, Janke, & Ghement, 2013; Thompson, Austin, & Pomfretto-McGrath, 2010). There is a paucity of information on the newly licensed nurses' experience with death and dying in critical care and minimal information for this phenomenon when it occurs in the pediatric critical care setting. Therefore a gap existed in nursing knowledge on how to best understand the death and dying experiences of the newly licensed nurse in pediatric critical care. The purpose of this qualitative descriptive research study was to explore the newly licensed nurse's experience with death and dying in the Pediatric Intensive care Unit (PICU) setting.

Those in the discipline of nursing spend more time with dying patients than any other profession and this is particularly true in the field of critical care where mortality rates are the highest (Bloomer & O'Connor, 2012). In one study, thirty-seven percent of graduate nurses described feelings of discomfort when caring for patients who are dying (Casey, Fink, Krugman & Probst, 2004). Research has demonstrated that newly licensed nurses have reported feelings of being scared and stressed; others have mistakenly believed their fear and guilt somehow contributed to a child's death (Vanderspank-Wright, Fothergill-Bourbonnais, Malone-Tucker, Silvar, 2011). Current research supports the need for additional coping strategies for pediatric nurses such as colleague support and institutional resources when caring for a child who is dying (Cook, et. al., 2012). Job dissatisfaction with new graduate nurses has been examined and as many as 17.5% of new nurses will leave their first job within one year (Kovner, Brewer, Fatehhi & Jun, 2014). Nurse turnover continues to be an international concern and has been studied throughout the world (Chen, Chu, Wang, & Lin, 2008; Josephson, Lindberg, Voss, Alfredsson, & Vingard, 2008; Camerino, et al., 2008; Morrell, 2005; O'Brien-Pallas, et al., 2006).

Methods: A qualitative study design was selected to best inform the identified gap in the literature and to describe death and dying from the perspective of the newly licensed nurse in the PICU. An expedited IRB approval was obtained from a free standing quaternary care children's hospital in the northeastern United States. Newly licensed nurses were asked to privately share their experiences with death and dying in the PICU. Inclusion criteria was less than 3 years of experience as a nurse, employed in a PICU, and one who had cared for a child who was dying or had died. Thirty-five nurses met inclusion criteria and received an email invitation to participate in an audio-recorded 45-60 minute 1:1 interview about their experience. The interviewer was the instrument and the interview was the tool. The interviewer was a hospital based nurse scientist with expertise in qualitative research methodologies who had no supervisory or evaluative responsibility. Participants were not identified, and interviews were transcribed verbatim with all identifiers removed. All data was reported in aggregate. The data analysis followed Colaizzi's 7-step method (1979) to assure credibility, trustworthiness, reliability and potential replication.

Results: Expressive and poignant perspectives of the nurses were gained through in-depth interviews. The participants reflected on the first experiences of caring for a child who died. The participants were the experts and were asked to share their thoughts and remembrances which led to rich data. During data immersion, multiple impressive statements were extracted and contributed to the emergence of two central themes which were *The Journey* and *Recommendations*. The subthemes that supported the theme *The Journey* were *Doesn't Seem Real until You're There*, *Technology: A Blessing or a Curse*, *Response to Death*, *Timing of Death*, *Empathic Presence* and *Tasking Care of Self*. The subthemes that grew out of *Recommendations* were *Support* and *Additional Education*.

There still remains a paucity of research specific to newly licensed nurses' experiences with death and dying in the PICU. The participants reflected on what had become their journey upon the sea of life and

death. Life they understood and felt confident about with their skill set. Death however, was filled with dread and uncertainty. Experiences prior to employment were few and exposure and information to their role was minimal. They all agreed that the experience was one that doesn't seem real until you're there. Participants discussed technology as both a blessing and a curse and were not sure which was more significant and at times which was preferred. The timing of death influenced how they responded to the death. They were challenged about how to respond to various kinds of deaths, while simultaneously juggling the need to provide empathic presence to family members at all times. Taking care of self then emerged as an important realization after participating in many encounters of such overwhelming experiences. Ultimately, recommendations that included more support and additional education were provided by participants in an effort to make it better for themselves and the next generation of newly licensed PICU nurses.

Nursing practice is dynamic and does not hold one worldview for all. Our results helped us to understand what newly licensed nurses perceived to be helpful during the death and dying process in the PICU. To date, the nursing research literature has not addressed this unique topic. It is hoped that a better understanding of this phenomenon will guide curriculum changes at the undergraduate level as well as provide information for the new graduate staff nurse orientation class. Limitations include the sample which was small and purposive which may not be transferable to all newly licensed nurses outside of one institution and specialty.

Conclusion: This qualitative research study served to enlighten our understanding of the experiences of the newly licensed nurses with death and dying in the PICU. The final results from this study are critical as many newly licensed nurses now seek to start their career in the PICU setting. In addition, many newly licensed nurses are being given preference in employment as they are less expensive for an institution to hire than an experienced nurse. This research will help academic and clinical educators to understand the newly licensed nurses' experiences with end-of-life in the PICU. It may also transform how the discipline teaches and prepares nurses to work in this environment. Future implications for practice may include additional teaching, support and self-care for the newly licensed nurse. It has been stated that the ability to provide high quality end-of life care for the child and the family is the most intimate act of nursing care (Ronaldson, 2006). This research identifies the need for PICU nurses to be better prepared to provide high quality end-of-life care for the dying child while also honoring and supporting the family. The findings of this research study are just the beginning of a body of knowledge that aims to address the ongoing needs of the newly licensed nurses employed in pediatric critical care.

References

- Baldwin, A., Bentley, K., Langtree, T., & Mills, J. (2014). Achieving graduate outcomes in undergraduate nursing education: Following the Yellow Brick Road. *Nurse Education in Practice*, 14,9-11.
- Beck, C. T. (1997). Nursing students' experiences caring for dying patients. *Journal of Nursing Education*, 36(9), 48-415.
- Benner, P. (1984). *From novice to expert: Excellence and power in clinical nursing practice*. Menlo Park: CA Addison-Wesley Publishing.
- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2009). *Educating nurses: A call for radical transformation*. San Francisco: Jossey Bass.
- Bloomer, M., & O'Connor, M. (2012). Providing end-of-life care in the intensive care unit: Issues that impact on nurse professionalism. *Singapore Nursing Journal*, 39(3), 25-30.
- Bluebond-Langner, M. (1978). *The private worlds of dying children*. Princeton NJ: Princeton University Press.
- Casey, K., Fink, R., Krugman, M., & Propst, J. (2004). The graduate nurse experience. *Journal of Nursing Administration*, 34(6), 303-311.
- Casey, K., Fink, R., Jaynes, C., Campbell, L., Cook, P., & Wilson, V. (2011). Readiness for Practice: The senior practicum experience. *Journal of Nursing Education*, 50(11), 646-652.
- Chen, H., Chu, C., Wang, Y., & Lin, L. (2008). Turnover factors revisited: A longitudinal study of Taiwan-based staff nurses. *International Journal of Nursing Studies*, (45)2, 277-248.
- Colaizzi, P. F. (1979). Psychological Research as the phenomenologist views it. In A. Editor, B. Editor, & C. Editor (Eds.). *Existential-phenomological alternatives for psychology*, (pp.48-71). Location: Publisher.
- Camerino, D., Conway, P., van der Heijden, B., Estryn-Behar, M., Costa, G., & Hasselhorn, H. (2008). Age – dependent relationships between work ability, thinking of quitting the job, and actual leaving among Italian nurses: A longitudinal study. *International Journal of Nursing Studies*, 45(11), 1645-1659.

- Cook, K. A., Mott, S., Lawrence, P., Jablonski, J., Grady, M. R., Norton, D., Liner, K. P., Cioffi, J., Hickey, P., Reidy, S., & Connor, J. A. (2012). Coping while caring for the dying child: Nurses' experiences in an acute care setting. *Journal of Pediatric Nursing, (27)4*, e11-e21.
- Commission on Collegiate Nursing Education (2014). doi: <http://www.aacn.nche.edu/el nec/publications/peaceful-death>.
- Cook, K. A., Mott, S., Lawrence, P., Jablonski, J., Grady, M. R., Norton, D., Liner, K. P., Cioffi, J., Hickey, P., Reidy, S., & Connor, J. A. (2012). Coping while caring for the dying child: Nurses' experiences in an acute care setting. *Journal of Pediatric Nursing, (27)4*, e11-e21.
- Curley, M. A. Q., Meyer, E. C., Scopettuolo, L. A., McGann, E. A., Trainor, B. P., Rachwal, C. M., & Hickey, P. A. (2012). Parent presence during invasive procedures and resuscitation: Evaluating a clinical practice change. *American Journal of Respiratory and Critical Care Medicine, (186)*, 1133-1139.
- Delaney, C. (2003). Walking a fine line: Graduate Nurses' transition experiences during orientation. *Journal of Nursing Education, 42(10)*, 437-443.
- Josephson, M., Lindberg, P., Voss, M., Alfredsson, L., & Vingard, E. (2008). The same factors influence job turnover and long spells of sick leave-a 3 year follow-up of Swedish nurses. *The European Journal of Public Health, 18(4)*, 380-385.
- Kovner, C.T., Brewer, C. S., Fatehi, F., & Jun, J. (2014). What does nurse turnover rate mean and what is the rate? *Policy, Politics, & Nursing Practice*. doi: 10.1177/1527154414547953
- Fink, M., Linnard-Palmer, L., Ganley, B., Catolico, O., & Phillips, W. (2014). Evaluating the use of standardized patients in teaching spiritual care at the end of life. *Clinical Simulation in Nursing, 10(11)*, 559-566. <http://dx.doi.org/19.1016/j.ecns.2014.09.003>.
- Morrell, K. (2005). Towards a typology of nursing turnover: The role of shocks in nurses' decisions to leave. *Nursing and Health Care Management and Policy, 49(3)*, 315-322.
- O'Brien-Pallas, L., Griffin, P., Shamian, J., Buchan, J., Duffield, C., Hughes, F., Laschinger, H. K., North, N., & Stone, P.W. (2006). The impact of nurse turnover on patient, nurse, and system outcomes: A pilot study and focus for a multicenter international study. *Policy, Politics & Nursing Practice, 7(3)*, 169-179.
- Puia, D. M., Lewis, L. & Beck, C. T. (2013). Experiences of obstetric nurses who are present for a perinatal loss". *The Journal of Obstetric Gynecology and Neonatal Nursing, 42*, 321-331. Doi:10.1111/1552-6909.12040.
- Rashotte, J. (2005). Dwelling with stories that haunt us: Building a meaningful nursing practice. *Nursing Inquiry, 12(1)*, 34-42.
- Ronaldson, S. (2006). Exploring the role of spiritual care in post-death nursing. *International Journal of Palliative Nursing, (12)4*, 180-182.
- Rush, K. L., Adamack, M., Gordon, J., Janke, R., & Ghement, I.R. (2013). Orientation and transition programme component predictors of new graduate workplace integration. *Journal of Nursing Management, 1-13*. doi: 10.1111/jonm.12106
- Sandelowski, M., & Barroso, J. (2002). Finding the findings in qualitative studies. *Journal of Nursing Scholarship, 34(3)*, 213-219.
- Thompson, G., Austin, W., & Profetto-McGrath, J. (2010). Novice nurses' first death in critical care. *Dynamics, (21)4*, 26-6.

Contact

maureenhillier@uri.edu

H 08 - Children in the Intensive Care Unit

Factors Affecting Time Nurses Spend With Fathers in the Neonatal Intensive Care Unit (NICU)

Gina Clarkson, PhD, ARNP, NNP-BC, USA

Mary Jo Gilmer, PhD, MBA, RN, USA

Abstract

Purpose: The aim of this exploratory study was to describe factors affecting the amount of time neonatal intensive care unit (NICU) nurses spend with fathers. Background and Rationale. Family-centered care (FCC) is considered an important standard of practice in NICUs worldwide and research has been conducted in many countries such as Japan, Sweden, Canada, Germany, Iran, United Kingdom, Czech Republic, Taiwan and Australia (Asai, 2011; Blomqvist, Rubertsson, Kylberg, Jöreskog, & Nyqvist, 2012; Feeley, Waitzer, Sherrard, Boisvert, & Zelkowitz, 2013; Garten, Nazary, Metze, & Bühner, 2013; Hadian Shirazi, Sharif, Rakhshan, Pishva, & Jahanpour, 2015; Hugill, 2014; Jakšová, Sikorová, & Hladík, 2016; Lee, Wang, Lin, & Kao, 2013; Trajkovski, Schmied, Vickers, & Jackson, 2012). Family-centered care has been shown to be important to outcomes of infants and families (Maria & Dasgupta, 2016; Williams, 2016). Although nursing practice related to FCC has been studied with both parents (Asai, 2011; Trajkovski et al., 2012), NICU nurses have not previously been asked about how they spend time specifically with fathers. Fathers report NICU staff to be a great source of support (Feeley et al., 2013; Garten et al., 2013) but evidence suggests paternal visitation declines over the length of hospital stay (Clarkson, 2016; Garten, Maass, Schmalisch, & Bühner, 2011) making less time available for nurses to provide FCC to fathers. Fathers desire to be involved and report increased comfort with their infants with increased involvement (Blomqvist et al., 2012) but also report reluctance to be involved without support (Feeley et al., 2013). Therefore, it is important to evaluate factors which affect the amount of time nurses are able to spend with fathers during their visits.

Methods: This study used a descriptive design and an investigator-designed survey with open-answered questions. The setting was a NICU in a large urban teaching facility at a children's hospital in the southeast United States which employed 274 nurses. **Results** presented here were part of a larger survey. A formal IRB exemption was obtained prior to data collection. Neonatal nurse practitioners (NNPs) were excluded due to their provider role. The data was collected anonymously using an online survey. Invitations to participate were sent to all the nurses via emails by the unit assistant manager.

Results: Overall, 94 nurses participated (34% response rate). Demographic information showed most were bedside nurses (N=75, 79.8%) who worked full-time (N= 84, 90.3%) day shift (N= 53, 57%). Most were Caucasian (94.5%) women (98.9%) with bachelor's degrees (63.8%) who were married (65.9%). Median years worked in a NICU were 8 (range of <1 to 40). Median years of nursing experience were 10 (range of < 1 to 52). Age ranged from 23 to 72 years (M=39.6, SD=12.89). Out of the 94 participants, 65% (N=61) provided data for qualitative analysis. Content analysis of the data was conducted by two researchers with expertise in FCC and care of neonates and demonstrated 91.7% overall interrater reliability. Theme categories included nurse factors, father factors, mother factors and infant factors. Subthemes for nurse factors included work flow, equal educator, focus on mother, focus on father, promotion of family bonding and nurse as gatekeeper. Subthemes for father factors included confidence, motivation, level of competence, beliefs, attitudes and availability. Subthemes for mother factors included culture and maternal gatekeeping and subthemes for infant factors were level of illness and tolerance to activity.

Conclusion: Results show that although nurses indicate spending time with fathers in the NICU is important, many factors reduce the quantity and quality of that time. These results help to identify factors which may be modified or moderated by nurses or administration and can be used to help improve nursing knowledge and practice of family-centered care in NICUs worldwide.

References

Asai, H. (2011). Predictors of nurses' family-centered care practises in the neonatal intensive care unit. *Japan Journal of Nursing Science*, 8(1), 57–65. doi:10.1111/j.1742-7924.2010.00159.x

Blomqvist, Y. T., Rubertsson, C., Kylberg, E., Jöreskog, K., & Nyqvist, K. H. (2012). Kangaroo mother care helps fathers of preterm infants gain confidence in the paternal role. *Journal of Advanced Nursing*, 68(9), 1988–1996. doi:10.1111/j.1365-2648.2011.05886.x

Clarkson, G. (2016). *Factors influencing paternal involvement in the neonatal intensive care unit*. Vanderbilt University. Retrieved from <http://etd.library.vanderbilt.edu/available/etd-12102015-163939/unrestricted/Clarkson.pdf>

Feeley, N., Waitzer, E., Sherrard, K., Boisvert, L., & Zelkowitz, P. (2013). Fathers' perceptions of the barriers and facilitators to their involvement with their newborn hospitalised in the neonatal intensive care unit. *Journal of Clinical Nursing*, 22(3/4), 521–530. doi:10.1111/j.1365-2702.2012.04231.x

Garten, L., Maass, E., Schmalisch, G., & Bühner, C. (2011). O Father, where art thou?: Parental NICU visiting patterns during the first 28 days of life of very low-birth-weight infants. *The Journal of Perinatal & Neonatal Nursing*, 25(4), 342–348. doi:10.1097/JPN.0b013e318233b8c3

Garten, L., Nazary, L., Metze, B., & Bühner, C. (2013). Pilot study of experiences and needs of 111 fathers of very low birth weight infants in a neonatal intensive care unit. *Journal of Perinatology*, 33(1), 65–69. doi:10.1038/jp.2012.32

Hadian Shirazi, Z., Sharif, F., Rakhshan, M., Pishva, N., & Jahanpour, F. (2015). The obstacles against nurse-family communication in family-centered care in neonatal intensive care unit: A qualitative study. *Journal of Caring Sciences*, 4(3), 207–216. doi:10.15171/jcs.2015.021

Hugill, K. (2014). Father-staff relationships in a neonatal unit: Being judged and judging. *Infant*, 10(4), 128–131.

Jakšová, K., Sikorová, L., & Hladík, M. (2016). The nurses' role in promoting relations between parents and premature newborns in the concept of family-centered care. *CEJNM Central European Journal of Nursing and Midwifery*, 7(1), 396–401. doi:10.15452/CEJNM.2016.07.0006

Lee, T., Wang, M., Lin, K., & Kao, C. (2013). The effectiveness of early intervention on paternal stress for fathers of premature infants admitted to a neonatal intensive care unit. *Journal of Advanced Nursing*, 69(5), 1085–1095. doi:10.1111/j.1365-2648.2012.06097.x

Maria, A., & Dasgupta, R. (2016). Family-centered care for sick newborns: A thumbnail view. *Indian Journal of Community Medicine*, 41(1), 11. doi:10.4103/0970-0218.170957

Trajkovski, S., Schmied, V., Vickers, M., & Jackson, D. (2012). Neonatal nurses' perspectives of family-centered care: A qualitative study. *Journal of Clinical Nursing*, 21(17-18), 2477–2487. doi:10.1111/j.1365-2702.2012.04138.x

Williams, L. (2016). Impact of family-centered care on pediatric and neonatal intensive care outcomes. *AACN Advanced Critical Care*, 27(2), 158–161. doi:10.4037/aacnacc2016579

Contact

clargina@isu.edu

H 09 - Clinical Practice Initiatives

Advance Care Planning (ACP) Training: Your Role as a Nursing Leader

Jessica Tully, MSN, RN-BC, CMSRN, CNML, USA

Carol Boswell, EdD, RN, CNE, ANEF, FAAN, USA

Abstract

In today's society, people are living longer. Despite aging and health issues, many American adults do not have Advance Directives (ADs). Statistics show that only 18%-36% of the U.S. population has completed an AD (Pecanac, Repenshek, Tennenbaum, & Hammes, 2014). Although a growing need for advance care planning (ACP) is noted, it is found that healthcare teams lack the education needed to provide teaching on ACP and ADs (Kroning, 2014). It is imperative that healthcare teams stress the value of ACP in order to clarify patients' wishes for future care, ideally before hospitalization (Ke, Huang, O'Connor, & Lee, 2015). Kroning (2014) states that research indicates a critical need for education related to ACP. Education and training assists with instilling confidence to effectively educate and advocate for patients' end of life wishes (Kroning, 2014). Providing healthcare teams education about ACP has potential to increase the number of individuals with completed ADs. While the research is based in the U.S., the lack of ACP training has a global impact related to providing patients healthcare according to their wishes. Providing staff training can potentially impact other important aspects in regards to patient outcomes and healthcare costs.

A pilot study was done in a community hospital. IRB approval was deemed not required by the facilities IRB council. An instructor with training in ACP and ADs provided training sessions. The sessions were open to all healthcare team members to voluntarily attend. Classes were capped out at 15-20 attendees to allow for dialogue and questions. A performed power analysis showed that an N of at least 60 was needed to reach statistical significance.

Three different tools were used for evaluation of the program. The tools were a pretest, posttest, and an evaluation form. All instruments used also provided space for optional feedback and comments from attendees. The pretest and posttest went through an approval process from a panel of experts. The experts conducted a content validity index (CVI) and provided feedback for improvement. The panel included an ACP expert, research expert, and an adult education expert.

The pretest had a total of 6 questions. Two of the questions included Likert scale ratings on self perceived knowledge and comfort regarding ACP and ADs. The pretest also had three yes and no questions asking about previous training, if they had an AD, and if they could describe the difference between ACP and AD. The last question asked how often the individual encountered someone needing assistance with an AD. The answer choices for this question were daily, weekly, monthly, yearly, and rarely.

The posttest had a total of 4 questions. The attendee completed the posttest immediately after the training session. Questions on the posttest included: two different questions using Likert scale ratings of self perceived knowledge and comfort regarding ACP and ADs post training, a yes or no question regarding if they did not have a completed AD before the training session, did they plan on getting one, and the final question was yes or no if they could describe the difference between ACP and AD.

The evaluation tool was completed to provide feedback regarding the effectiveness of the teaching session. Questions asked on the evaluation tool were about effectiveness of the presenter, the tools, and meeting the objectives. Answers were given using a Likert scale. The final two questions on the evaluation asked yes or no if the attendee planned on making changes to their practice and a narrative format of how they planned on using the information to impact their practice. Each healthcare team member provided their pre test and posttest by putting the last 4 digits of their phone numbers in order to remain anonymous. Once completed, the instructor submitted the tools to the project manager for analysis. Answers from attendees were compared per participant to measure the change in knowledge and comfort level regarding ACP. Data is currently in the analysis process with a statistician. Data will be reported during the presentation.

This session will provide an overview of the process used to develop the ACP Training Program. Participants will be able to discuss strategies that leaders should use to ensure the healthcare team has the training needed to confidently perform ACP with patients and families. This session will offer ideas for the participants to engage with other leaders in their own settings regarding the importance of ACP training. Recommendations for assessing the environment will be provided. The presenters will provide suggestions to be used to develop a program in other settings.

References

- Buthorne, L. (2013). Advocating for advance directives: A review of literature in end-of-life decision-making. *Med-Surg Matters*, 22(2), p. 20-22.
- Garrido, M. M., Balboni, T. A., Maciejewski, P. K., Bao, Y., & Prigerson, H. G. (2015). Quality of life and cost of care at the end of life: The role of advance directives. *Journal of Pain & Symptom Management*, 49(5), p. 828-835. doi:10.1016/j.jpainsymman.2014.09.015
- Hall, N. A., & Grant, M. (2014). Completing advance directives as a learning activity. *Journal of Hospice & Palliative Nursing*, 16(3), p. 150-157. doi:10.1097/NJH.0000000000000031
- Hinderer, K. A., & Mei Ching, L. (2014). Assessing a nurse-led advance directive and advance care planning seminar. *Applied Nursing Research*, 27 (1), p. 84-86. doi:10.1016/j.apnr.2013.10.004
- Ke, L., Huang, X., O'Connor, M., & Lee, S. (2015). Nurses' views regarding implementing advance care planning for older people: A systematic review and synthesis of qualitative studies. *Journal of Clinical Nursing*, 24(1), p. 2057-2073. doi:10.1111/jocn.12853
- Kroning, M. (2014). Advance directives education: A critical need. *Journal of Christian Nursing*, 31(4), p. 220-227. doi:10.1097/CNJ.0000000000000113
- Pecanac, K., Repenshek, M., Tennenbaum, D., & Hammes, B. (2014). Respecting choices © and advance directives in a diverse community. *Journal of Palliative Medicine*, 17(3), p. 282-287. Doi:10.1089/jpm.2013.0047
- Rao, J. K., Anderson, L. A., Lin, F., & Laux, J. P. (2014). Completion of advance directives among U.S. consumers. *American Journal of Preventive Medicine*, 46(1), p. 65-70 6. doi:10.1016/j.amepre.2013.09.008

Contact

jessica.tully@midland-memorial.com

H 10 - Culturally Diverse HIV Health Education

Sex Education in the Mosque: An Abstinence-Based Approach to Prevent HIV, STDs, and Pregnancy

Shaakira Lateefa Abdul Razzaq, DNP, RN, USA

Suzanne Willard, PhD, RN, APN-C, ANCC, FAAN, USA

Prudence Arthur, DNP, RN, USA

Radhika Patel, DNP, RN, USA

Abstract

Purpose: Premarital sex among adolescents is very common in today's society throughout the globe. Adolescents often lack the maturity and mental capacity to navigate through the potential physical, psychological, and emotional consequences of sex. In order to reduce teenage pregnancy rates and the spread of sexually transmitted disease, it is important to focus on adolescent sexual education. The Centers for Disease Control and Prevention (CDC) found that "about 1 in 4 (26%) of all new HIV infections occur among American youth ages 13 to 24 years" (CDC, 2013, p 1). There is unique and particular need for education in the adolescent Muslim community that is reflective of their faith.

Islamic teachings are heavily focused on the virtue of chastity and there are many in this community that consider even the word sex to be "dirty." Despite the stigma and taboo nature of sex, two thirds of Muslim youth residing in the US and Canada reported having sex before marriage. In the developing nation of Malaysia, a strong Islamic country, 75.2% out of 238 female Muslims aged 16 to 18 reported premarital sex (Ghani, Abdullah, Akil, & Nordin, 2014). Prior research attributes such sexual behaviors to Muslim youth having weakened Islamic identities related to current societal norms conflicting with Islamic beliefs and ongoing criticism against the Islamic religion (Ghani et al, 2014).

Muslim youth also reported that their greatest source of sexual education is from the media which is often unreliable. Muslim youth lack effective sexual education that coincides with their religious beliefs and thus are unaware of the risks of unintended pregnancy and STDs. (Ghani, Abdullah, Akil, & Nordin, 2014). This project aimed to understand the link between Islamic religiosity and sexual behavior.

Methods: The research project was adapted from Dr. Loretta S. Jemmott's evidenced based curriculum titled *Making a Difference* which utilizes social and behavior theories to educate participants about their sexuality, STDs, and HIV, while instilling high self-esteem and confidence in them to abstain from sex before marriage (Jemmott, Jemmott III, & Fong, 1998). The curriculum was adapted with input from Islamic scholars to incorporate Islamic beliefs to reinforce the importance of having a strong Islamic identity in order to further strengthen Muslim adolescents' sense of confidence allowing them to delay sex until marriage.

Twenty five single, female Muslim adolescents between the ages of 13-19 years old participated in this project. This teaching based intervention was held in a mosque located in Northern New Jersey, USA.

Initial support for this work was minimal from elders in the Muslim community, however the Islamic leaders, scholars, and adolescents strongly supported it and the overall community followed this lead.

Results: The results demonstrated an increase in mean scores on the "HIV/STD/Pregnancy knowledge items" which proved the project enhanced participant knowledge of such topics. There was also an increase in positive attitudes and intentions to abstain from sex before marriage in the posttests. Overall, there was an increase in subjects who did not have sex within three months post intervention which provides further proof of its effectiveness.

Conclusion: The authors were unable to find any evidence based curriculum that addressed sexual education in the Muslim community. This project has laid the groundwork for tailoring an effective curriculum that can address the unique needs of this population. Nurses and other health care professionals must be prepared to acknowledge diverse religious teachings and their impact on sexual

health education. This is most important in the maintenance of the safety of Muslim youth while upholding their religious principles and cultural values.

References

Centers for Disease Control and Prevention (CDC). (2013). HIV among youth in the US. Retrieved from <http://www.cdc.gov/vitalsigns/HIVAmongYouth/index.html>.

Ghani, S. A., Abdullah, S., Akil, S. M. S., & Nordin, N. (2014). Muslim adolescent moral values and coping strategies among muslim female adolescents involved in premarital sex. *Procedia Social and Behavioral Sciences*, 114 (1), 637-643.

Jemmott, J.B., Jemmott III, L.S. & Fong, G. (1998). Abstinence and Safer Sex HIV risk-reduction interventions for African-American adolescents: A randomized control trial. *Journal of American Medical Association (JAMA)*, 279, 1529-1536.

Contact

bnsocute@yahoo.com

H 10 - Culturally Diverse HIV Health Education Knowledge of HIV/AIDS Among Women in Rural Ugandan Villages

Linda Johanson, EdD, MS(n), RN, CCNE, USA

Abstract

Purpose: Rates of HIV have been decreasing in Uganda, however these rates, attributed to behavior change through education, have slowed in recent years (Hearst, Kajubi, Hedges, Maganda, and Green, 2012). It is unclear how much education about this issue reaches remote rural villages in the country of Uganda, and how the condition is understood by the people who live there. Women in sub-Saharan Africa have a disproportionate risk for HIV infection (Harrison, 2014). Basic correct understanding of the transmission, risk, symptoms, and treatment for HIV/AIDS will impact prevention behaviors for women in this country. Ultimately control of HIV/AIDS impacts global health. Assessment of knowledge is the first step for health care professionals to implement strategies that might impact beliefs and behaviors.

Methods: Using a convenience sample of household women in two rural villages in Uganda, focus groups were assembled and interviewed. In Rutooma, a mountain village in the western mountains of Uganda, the focus group consisted of 25 women ranging in age from 20-58. The second focus group was assembled in the village of Nampungwe, which is located in the Central Region of Uganda. The group there consisted of 33 women ranging in age from 18-65. The women were asked through an interpreter about their perceptions of the risk factors for HIV/AIDS, the difference in HIV and AIDS, the symptoms, prevention, and treatment. Discussions were translated, recorded, and analyzed for the scope and accuracy of responses.

Results: Respondents were overall gregarious and seemed eager to participate in the focus groups. Both sessions lasted approximately 90 minutes, and most of the participants provided input to the discussion. The group appeared to concur with one another on most of the information shared. There were three overall themes extracted from the focus groups:

1. The women of these two rural villages had mostly accurate, but basic knowledge about HIV/AIDS. They were most aware of transmission and prevention, and had obtained this knowledge by word of mouth. They were less clear on the difference between HIV infection and AIDS and the exact nature of treatments.
2. The main concern expressed about HIV/AIDS was access to treatment (anti-retroviral therapies), testing, and prevention. They were aware of common strategies for prevention, however cultural barriers interfered with implementation. Their partners, for example, refused to wear condoms, and unfaithfulness of partners was a shared concern. Abstinence was not seen as an option.
3. More than the concern about HIV/AIDS was the concern for access to reliable and effective contraception, which they called "family planning". This theme infiltrated almost every effort to discover their knowledge about HIV/AIDS, and there were many questions and request for help surrounding this concern.

Conclusion: These results are important for HIV/AIDS prevention strategies in rural Uganda. Knowledge appears to be accurate, however limited access to treatment and testing as well as a cultural impediment to behaviors that would control transmission present challenges.

References

- Chib, A., Wilkin, H., Hoefman, B. (2013). Vulnerabilities in mHealth implementation: a Ugandan HIV/AIDS SMS campaign. *Global Health Promotion, 20*(1Suppl), 26-32.
- Haile, Z., Teweldebaerhan, A., Chertok, I. (2016). Correlates of women's knowledge of mother-to-child transmission of HIV and its prevention in Tanzania: a population-based study. *AIDS Care, 28*(1), doi: 10.1080/09540121.2015.1062465.
- Harrison, A. (2014). HIV prevention and research considerations for women in sub-Saharan Africa: moving toward biobehavioral prevention strategies. *African Journal of Reproductive Health, 18*(3), 17-24.

Hearst, N., Kajubi, P., Huges, E., Maganda, A., Green, E. (2012). Prevention messages and AIDS risk behavior in Kampala, Uganda. *AIDS Care*, 24(1), 87-90.

Kim, L., Arinaaitwe, E., Nzarubara, B., Kamya, M., Clark, T., Okong, P., Charlebois, E., Havlir, D., Cohan, D. (2014). Acceptability and feasibility of serial HIV antibody testing during pregnancy/postpartum and male partner testing in Tororo, Uganda. *AIDS Care*, 26(3), 360-6.

Lubega, M., Nakyaanio, N., Nansubuga, S., Hiire, E., Nakigozi, G., Lutalo, T., Nalugoda, F., Serwadda, D., Gray, R., Wawer, M., Kennedy, C., Reynolds, S. (2015). Understanding the socio-structural context of high HIV transmission in Kasensero fishing community, South Western Uganda. *PLoS One*, 10(8), e0132740. doi: 10.1371/journal.pone.0132740.

Montgomery, E., van der Straten, A., Hartmann, M., Magazi, B., Mathebula, F., Laborde, N., Soto-Torres, L. (2015). Male Partner Influence on Women's HIV Prevention Trial Participation and Use of Pre-exposure Prophylaxis: the Importance of "Understanding". *AIDS Behavior*, 19(5), 784-93.

Ononge, S., Karamagi, C., Nakabiito, C., Wandabwa, J., Mirembe, F., Rukundo, G., Jennings, L. (2014). Predictors of unknown HIV serostatus at the time of labor and delivery in Kampala, Uganda. *International Journal of Gynaecology and Obstetrics*, 124(3), 235-9.

Contact

johansonls@appstate.edu

H 12 - Fall Prevention in the Aging Adult

Perceived Quality of Life Following Falls: Voices of Community-Dwelling Older Adults

Anthony A. Adeniran, DNP, MSN, RN, PCA,, USA

Abstract

Background: Physiological age-related changes affect the function of everybody system, resulting in many quality of life challenges for older adults (Makizako et al., 2010). One of the resultant effects of age-related changes for older adults is higher incident and prevalence of falls and fall-related injuries. Fall is as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level (Morgan, McDonald, & McGinley, 2015). Low-level falls are considered innocent in the young, but have lasting consequence for older adults. In general, 33% of older adults in the United States fall annually. Particularly, community-dwelling older adults have higher risks for falls, as up to 50% of community-dwelling older adults fall annually (Soriano, DeCherrie, & Thomas, 2007). The consequences of falls for community-dwelling older adults are grave, with far-reaching implications on their quality of life, including possible loss of independence. Community-dwelling older adults who have fallen tend to avoid activities that they are capable of performing due to fear of falling (Schepens, Sen, Painter, & Murphy, 2012; Trujillo, Painter, & R, 2014).

Purpose : The purpose of the study was to document the voices of community-dwelling older adults' perceived quality of life following the experience of falls.

Methods: This qualitative study utilized semi-structured questionnaires with probes to explore the perceived quality of life of five community-dwelling older adults who have experienced a fall within the previous 12 months of the study. Braun and Clarkes (2006) six-phase process of thematic analysis (TA) was used to guide the data generation and analysis.

Results: Analysis yielded 13 codes that were collated into four themes described participants' perceived quality of life following their fall experiences. The four themes are: 1) Perceived threat to individual autonomy and personal dignity 2) Amplified limitations of inevitable philological decline from normal aging process 3) Heightened awareness of environmental hazards as additional source and constant reminder of fear of falling and 4) Psychological scar from a previous fall experience affected their self-confidence and interfered with their self-worth.

Conclusion: The study echoed the voices of participant's about fear of falling as a limiting factor that affected their perceived quality of life. Study participant's described how their fall experiences influenced their thought processes, compelling them to avoid certain activities that they used to enjoy, and a need to adjust their way of living to mitigate their fall risks.

Significance and Implications: The findings of this study underscored the impact and consequences of falling for community-dwelling older adults, a phenomenon discussed in the literature. Study findings echoed the unique voices of community-dwelling older adults perceived quality of life following a fall experience. It highlights community-dwelling older adults' views of perceived quality of life following the experience of fall.

Strength and Limitations: This study contributed to knowledge of the consequence and implications of the experience of falls for community-dwelling older adults. It accentuates the unique voices of community-dwelling older adult's perceived quality of life following fall experiences. The findings should be interpreted in light of the relative small sample size. Larger sample is necessary to amplify the results of this study and to gain deeper understanding of community-dwelling older adults' perceived quality of life following fall experiences.

References

Avin, K. G., Hanke, T. A., Kirk-Sanche, N., McDonough, C. M., Shubert, T. E., Hardage, J., & Hartley, G. (2015). Management of Falls in Community- Dwelling Older Adults: Clinical Guidance Statement From the Academy of Geriatric Physical Therapy of the American Physical Therapy Association. *Physical Therapy*, 95(6), 815-834.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. doi:10.1191/1478088706qp063oa

Clancy, A., Balteskard, B., Perander, B., & Mahler, M. (2015). Older persons' narrations on falls and falling—Stories of courage and endurance. *International Journal of Qualitative Studies on Health and Well-being*, 10, 10.3402/qhw.v3410.26123. doi:10.3402/qhw.v10.26123

Davis, J. C., Best, J. R., Bryan, S., Li, L. C., Hsu, C. L., Gomez, C., . . . Liu-Ambrose, T. (2015). Mobility Is a Key Predictor of Change in Well-Being Among Older Adults Who Experience Falls: Evidence From the Vancouver Falls Prevention Clinic Cohort. *Archives of Physical Medicine & Rehabilitation*, 96(9), 1634-1640. doi:10.1016/j.apmr.2015.02.033

Jiam, N. T.-L., Li, C., & Agrawal, Y. (2016). Hearing loss and falls: A systematic review and meta-analysis (Vol. 126, pp. 2587-2596). Malden, Massachusetts: Wiley-Blackwell.

Makizako, H., Furuna, T., Shimada, H., Ihira, H., Kimura, M., Oddsson, L. I. E., & Suzuki, T. (2010). Age-Related Changes in Attentional Capacity and the Ability to Multi-Task as a Predictor for Falls in Adults Aged 75 Years and Older. *Journal of Physical Therapy Science*, 22(3), 323-329. doi:10.1589/jpts.22.323

Morgan, P., McDonald, R., & McGinley, J. (2015). Perceived Cause, Environmental Factors, and Consequences of Falls in Adults with Cerebral Palsy: A Preliminary Mixed Methods Study. *Rehabilitation Research and Practice*, 2015, 196395. doi:10.1155/2015/196395

Schepens, S., Sen, A., Painter, J. A., & Murphy, S. L. (2012). Relationship Between Fall-Related Efficacy and Activity Engagement in Community-Dwelling Older Adults: A Meta-Analytic Review. *American Journal of Occupational Therapy*, 66(2), 137-148. doi:10.5014/ajot.2012.001156

Soriano, T. A., DeCherrie, L. V., & Thomas, D. C. (2007). Falls in the community-dwelling older adult: A review for primary-care providers. *Clinical Interventions in Aging*, 2(4), 545-553.

Trujillo, L. G., Painter, J. A., & R, B. C. (2014). The Culture of Falls and Fear of Falling: A Phenomenological Study. *Journal of Women's Health Care*, 2(5), 1-6. doi:doi:10.4172/2167-0420.1000178

Contact

anthony.adeniran@health1stcares.com

H 13 - Global Influences on Cancer Screening

Understanding Patient-Level Variables That Influence Lung Cancer-Screening Behavior and the Nurse's Role

Lisa Carter-Harris, PhD, RN, ANP-C, USA
Susan M. Rawl, PhD, RN, FAAHB, FAAN, USA

Abstract

Purpose: Lung cancer kills more people in the U.S. than breast, colorectal, pancreatic, and prostate cancers combined (American Cancer Society, 2016). Most die because they are diagnosed at an advanced stage with limited treatment options and a 1% five-year relative survival rate (American Cancer Society, 2016). Until recently, an effective screening test to identify lung cancer at an earlier stage did not exist. However, lung cancer screening with low-dose computed tomography is a recent U.S. Preventive Services Task Force Grade B recommendation for long-term smokers (Aberle et al., 2011; USPSTF 2014). Understanding variables that may or may not influence screening participation at the individual level is essential (Carpenter, 2010; Jonnalagadda et al., 2012). However, lung cancer screening also has potential harms which must be balanced against its benefits and may be weighed differently by different individuals. Shared decision-making is particularly important within contexts where one best solution does not exist (Makoul & Clayman, 2006). This is the case in lung cancer screening – where benefits are present, but risk and uncertainty exists and is patient specific. Nursing is uniquely poised to foster shared decision-making in lung cancer screening decisions through patient education, but we must first understand knowledge, risk perception, and health beliefs in the screening-eligible patient population in order to develop effective patient-level interventions that enhance shared decision-making in lung cancer screening, and subsequent screening behavior, in those at greatest risk. Therefore, the **purposes** of this study were to: (1) describe long-term smokers' knowledge and perceptions of lung cancer, risk, and screening; and (2) examine relationships between individual health beliefs (risk, benefits, barriers, self-efficacy) and screening behavior.

Methods: Descriptive, cross-sectional two-phase design using qualitative and quantitative data. Phase I: 4 focus groups (N=26) were recruited; 2 groups who recently completed lung cancer screening (n=12) and 2 groups who had never been screened (n=14). Data was collected via audio recordings and analyzed using thematic content analysis. Phase II: Guided by the Conceptual Model on Lung Cancer Screening Participation (Carter-Harris, Davis, & Rawl, 2016), a national convenience sample of screening-eligible individuals was recruited to collect data using survey methods (N=497). Data measured multiple variables including sociodemographic, health status characteristics and individual health beliefs.

Results: Phase I revealed low knowledge levels and confusion about risk factors and screening, and variables such as risk, benefits, barriers, self-efficacy, stigma, mistrust, fatalism, fear, and worry may be uniquely relevant in lung cancer screening. Using logistic regression in Phase II, we found perceived benefits ($p<.001$; OR=1.08, 95%CI (1.04, 1.14) and self-efficacy ($p=.001$; OR=1.06, 95%CI (1.02, 1.09) statistically significant, while perceived barriers was moderately significant ($p=.054$; OR=0.98, 95% CI (0.96, 1.00) with lung cancer screening behavior. Perceived benefits ($p<.001$) and self-efficacy ($p=.019$) maintained statistical significance with similar odds ratios, and barriers remained borderline significant ($p=.081$) when adjusted for other variables using multivariable logistic regression.

Conclusion: Results from this study indicate individual health beliefs and other individual-level variables may be important in understanding lung cancer screening behavior in long-term smokers. Nursing is an integral component in the patient education process related to cancer screening and primary and secondary prevention. Nursing-delivered interventions tailored on salient variables and integrated into the primary care visit to support patient-provider discussions about, and decisions related to, lung cancer screening are needed to advance the science of this new screening option to support early detection of the world's deadliest cancer.

References

1. American Cancer Society. *Cancer Facts and Figures 2016*. Retrieved from: <http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-044552.pdf>.
2. Aberle, D. R., Adams, A. M, Berg, C. D., Black, W. C., Clapp, J. D., Fagerstrom, R.M.,...Sicks, J. D. (2011). Reduced lung-cancer mortality with low-dose computed tomographic screening. *New England Journal of Medicine*, 365, 395-409.
3. United States Preventive Services Task Force. *Final recommendation statement: Lung cancer screening: 2014*; Retrieved from: <http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/lung-cancer-screening>.
4. Carpenter, C. J. (2010). A meta-analysis of the effectiveness of health belief model variables in predicting behavior. *Health Communication*, 25, 661-669.
5. Jonnalagadda, S., Bergamo, C., Lin, J. J., Lurshurchachai, L., Diefenbach, M., Smith, C.,...Wisnivesky, J. P. (2012). Beliefs and attitudes about lung cancer screening among smokers. *Lung Cancer*, 77(3), 526-531.
6. Makoul, G., & Clayman, M. L. (2006). An integrative model of shared decision making in medical encounters. *Patient Education & Counseling*, 60(3), 301–312.
7. Carter-Harris, L., Davis, L. L., & Rawl, S. M. (2016). Lung cancer screening participation: Developing a conceptual model to guide research. *Research and Theory for Nursing Practice: An International Journal*, 30(4), 1-21.

Contact

Icharris@iu.edu

H 14 - Promoting Physical Activity in Women

Physical Activity in U.S. Asian Indian Women: Comparison of Acculturation Level and Immigrant Status

Nitha Mathew Joseph, PhD, RN, USA

Sandra K. Hanneman, PhD, RN, FAAN, USA

Sheryl L. Bishop, PhD, USA

Abstract

Purpose: Asian Indian women generally have low levels of physical activity, which may increase their risk for chronic diseases compared with Whites and other immigrant groups in the U.S. (Daniel, Wilber, Marquez & Farran, 2013; Mathew Joseph & Bishop, 2014). Acculturation has also been associated with an increased risk for obesity, metabolic syndrome, type 2 diabetes, and coronary artery disease among Asian Indians (Khan, Jackson & Momen, 2016; Venkatesh, Weatherspoon, Kaplowitz & Song, 2013). Additionally, acculturation and immigrant status have been implicated as contributors to low physical activity levels (Walker, Caperchione, Mummery & Chau, 2015). The purpose of the study was to determine differences in three different domains of physical activity (occupational physical activity, household physical activity, leisure time physical activity) and sedentary behavior by acculturation level and immigrant status in U.S. Asian Indian women. Moreover, physical functioning was assessed as a possible explanation of differences in physical activity, independent of acculturation and immigrant status.

Methods: A cross-sectional, descriptive, comparative design was used with a convenience sample of 261 immigrant and nonimmigrant Asian Indian women living in Houston, Texas, who completed the International Physical Activity Questionnaire long form, the Modified Suinn-Lew Asian Self-Identity Acculturation Scale, and the Physical Functioning subscale from the RAND 36-Item Health Survey. Based on the distribution of the data, chi-square, one-way analysis of variance, or the Kruskal-Wallis test was used to compare study variables among acculturation-immigrant groups. Because the study premise was that activity is affected by acculturation and immigrant status, participants were categorized into four groups according to their acculturation level and immigrant status: low acculturation-immigrant, high acculturation-immigrant, low acculturation-nonimmigrant, and high acculturation-nonimmigrant.

Results: The low acculturation-immigrant women had the highest metabolic equivalent of task (MET) scores for occupational (59.8 MET hrs/wk) and total physical activity (102.6 MET hrs/wk), even though they were older and had lower physical functioning scores (both, $p < .001$). The high acculturation-nonimmigrant group had the highest leisure physical activity (21.9 MET hrs/wk) and sedentary behavior (47.2 MET hrs/wk) scores. The two high-accultured groups (immigrant and nonimmigrant) did not differ significantly in occupational and total physical activity MET scores, suggesting that these two physical activity domains are more closely associated with acculturation level than with immigrant status. The high acculturation-nonimmigrant group had the highest leisure physical activity (21.9 MET hrs/wk) and sedentary (47.2 MET hrs/wk) scores. However, the high-acculturation groups had greater proportions of students than the low-accultured women ($X^2 = 23.55$, $df = 4$, $p = .0001$), and this may partly explain group differences in sedentary behavior.

Conclusion: Acculturation is inversely related to occupational and total physical activity and may have a direct relation to leisure physical activity and sedentary behavior, the latter of which may be confounded by employment versus student roles. The findings suggest that acculturation of Asian Indian women to the United States is associated with less physical activity, which may increase the risk for chronic diseases. This study is a significant first step on a continuum of research toward the development of effective public health nursing interventions to promote physically active lifestyles. Nurses and other health professionals can consider acculturation levels when developing community- and work-based interventions to promote physically active lifestyles in Asian Indian women.

References

Daniel, M., Wilbur, J., Marquez, D., & Farran, C. (2013). Lifestyle physical activity behavior among South Asian Indian immigrants. *Journal of Immigrant and Minority Health, 15*, 1082-1089. doi: 10.1007/s10903-013-9842-4

- Khan, S. A., Jackson, R. T., & Momen, B. (2016). Impact of acculturation and its factors on metabolic syndrome in south Asian American adults from two community health centers. *Journal of Public Health*, 24(4), 307-315. doi:10.1007/s10389-016-0726-7
- Mathew Joseph, N., & Bishop, S. L. (2014). Self-Reported physical activity, sedentary behavior and body mass index among U.S. Asian Indian women. *Journal of Medical Research and Practice*, 3(3), 63-70.
- Venkatesh, S., Weatherspoon, L. J., Kaplowitz, S. A., & Song, W. O. (2013). Acculturation and glycemic control of Asian Indian adults with type 2 diabetes. *Journal of Community Health*, 38(1), 78-85. doi:10.1007/s10900-012-9584-6
- Walker, G. J., Caperchione, C. M., Mummery, W. K., & Chau, S. (2015). Examining the role of acculturation in the leisure-time physical activity of south Asians living in Canada. *Journal of Science and Medicine in Sport / Sports Medicine Australia*, 18(2), 156-160. doi:10.1016/j.jsams.2014.02.010

Contact

nitha.mathew@uth.tmc.edu

H 14 - Promoting Physical Activity in Women

Midlife African American Women's Maintenance of Lifestyle Physical Activity

JoEllen Wilbur, PhD, RN, FAAN, USA
Lynne Braun, PhD, APN, FAAN, USA
Susan Buchholz, PhD, RN, ANP-BC, FAANP, USA
Arlene Miller, PhD, RN, FAAN, USA

Abstract

Purpose: Group interventions combining guidance, self-management, and ongoing support effectively increase physical activity in African-American women, but little is known about long-term maintenance. Maintenance of physical activity is commonly defined as participant achievement of a pre-prescribed level of physical activity at 2 points of time often at the end of the intervention and 6 months later (Kahlert, 2015). Examination of 14 physical activity interventions with African American women revealed only three examined maintenance after cessation of the intervention with all reporting a return toward baseline or low retention. The 48-week Women's Lifestyle Physical Activity program designed to increase adherence to physical activity included six nurse led group meetings guided by Social Cognitive Theory (Wilbur et al., 2016). They were held every five weeks at six community healthcare facilities. In addition, there were three accompanying telephone conditions delivered between group meetings (group meeting + 11 motivation interviewing calls, group meeting + 11 motivational automated calls, group meeting only). Personal calls were brief motivational interviews and automated calls provided motivation tips. Findings showed high retention during the intervention phase (90%) with significant improvement in physical activity measured at 48 weeks. These effects did not differ by condition. The purpose of this study is to determine midlife African American women's maintenance of physical activity one to three years after completion of the Women's Lifestyle Physical Activity program and to determine if maintenance differed by telephone condition.

Methods: A longitudinal design was used. During the 48-week intervention phase the three telephone conditions were delivered in groups of 13-17 midlife women (total 18 groups). Assessment of long-term maintenance of adherence to physical activity began 1 year after the first group completed the intervention. Over the following six months long-term assessment was completed for each group in the order in which each group completed the intervention. By doing this data were systematically collected with most women participating in long-term assessment from one to three years after completing the intervention. All 288 women who began the intervention received a follow-up survey that included the self-report Community Healthy Activity Model Program for Seniors (CHAMPS) questionnaire covering minutes per week of reported moderate-vigorous (MV) physical activity, M-V leisure time physical activity and walking. The survey was conducted by mail, phone or in person.

Results: 254 women (88.2%) completed the follow-up survey. Linear growth analyses showed that increases in self-reported physical activity were sustained at follow-up across all three measures: total moderate-vigorous physical activity (MV physical activity; $p < .001$), leisure MV physical activity ($p < .001$), and walking ($p < .001$). After a sharp increase between baseline and 24 weeks, level of physical activity remained stable through the remainder of the 48-week intervention as well as during long-term maintenance. Minutes of physical activity changed by less than ± 2 minutes per month during long-term maintenance. None of the effects varied by intervention condition.

Conclusion: Group meetings are a powerful component of physical activity interventions that have sustained physical activity into an extended maintenance phase. Although increases in physical activity during the intervention were confirmed by objective accelerometer measures, long-term follow outcomes were limited by reliance on self-report measures of physical activity. Future studies should verify these results using objective measures of physical activity.

References

Kahlert, D. (2015). Maintenance of physical activity: Do we know what we are talking about? *Preventive Medicine Reports*, 2, 178-180.

Wilbur, J., Miller, A. M., Fogg, L., McDevitt, J., Castro, C. M., Schoeny, M. E., et al. (2016). Randomized clinical trial of the women's lifestyle physical activity program for African-American women: 24- and 48-week outcomes. *American Journal of Health Promotion: AJHP*, 30(5), 335-345.

Contact

joellen_wilbur@rush.edu

H 15 - Use of Big Data to Influence Nursing Care Data Acquisition Collaboration for Nursing-Cost Study Using

Peggy A. Jenkins, PhD, RN, USA

Esther M. Chipps, PhD, MS, BSN, NEA-BC, USA

Abstract

Purpose: Use of big data to generate nursing science is sparking much discussion among nursing scholars (Harper & Parkerson, 2015; Clancy & Gelinias, 2016). Defining the value of nursing through analysis of big data is a contemporary area of focus (Pruinelli, Delaney, Garcia, Caspers, & Westra, 2016). Big data is a term coined by the media to describe vast amounts of data now available in huge electronic repositories of healthcare data (Clancy, 2016). Most nurses are novice at understanding the potential use of big data. The science of “big data” provides a great enhancement and new methodological approaches to understand the complex question of nursing costs associated with patient care and patient outcomes. The purpose of the primary study was to explore variability of nursing cost per acute care episode for patients with similar DRGs using patient level data and to investigate the relationships among nurse characteristics and patient characteristics on nursing cost. Some results of the primary original study have been previously reported (Jenkins & Welton, 2014). The purpose of this presentation is to provide an overview of the complexities of data acquisition/management and outline the extensive collaborations among multiple stakeholders.

Methods: The sources of data included three large databases; 1) patient assignment software, 2) medical management system, 3) human resources. The software company staff wrote a query so data could be extracted including multiple variables required for the study. Hospital information technology staff de-identified the data. Forty-nine total variables were extracted or constructed including patient characteristics such as DRG, length of stay, age; plus, nurse characteristics such as years in organization, actual wage, education level. Nursing intensity by shift was a key variable extracted from patient assignment software. The data acquisition process required multiple iterations between the PI, the hospital based nurse scientist and the software company.

A four step data management model was used (Long, 2009); 1) planning, 2) organizing, 3) computing, 4) documentation. A systematic plan was organized using Stata do-files to record all code written for data management and analysis, so the study is replicable. Seven excel spreadsheets were merged using a patient and nurse common identifier. The sample included 3111 patients and 150 nurses in 44,771 total shift observations. Stata v.12 software was used for data analysis (Cameron & Trivedi, 2010). Shift level nursing intensity multiplied by actual nursing wage was summed for all nurses caring for a given patient resulting in direct nursing cost per shift. Shift level data was aggregated to construct nursing cost per day and acute care episode (defined as admission to discharge on the study unit).

Results: The nursing cost model generated using secondary data from big data sources provided direct nursing cost per patient shift, day, and acute care episode (i.e. DRG 192, nursing cost per day range \$4.87-322.66, nursing cost per acute care episode range \$54-1570). Direct nursing cost per patient data is not available or viewed by nursing leaders today.

Conclusion: Data is available in current big data sources that can be extracted through collaborations between interprofessional healthcare and software company staff and used in scientific inquiry to answer patient level research questions and advance the science of nursing. Managing large amounts of data is a research skill nursing scientists can learn and use to generate knowledge to better understand nursing cost as well as quality patient outcomes. Big data acquisition and management is an exciting vista and the possibilities for evolving nursing science are vast.

References

- Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics using Stata*. College Station, TX: StataCorp LP.
- Clancy, T. R., & Gelinias, L. (2016). Knowledge discovery and data mining: Implications for nurse leaders. *Journal of Nursing Administration*, 46(9), 422-424.

Clancy, T. R., & Reed, L. (2016). Big data, big challenges: Implications for chief nurse executives. *Journal of Nursing Administration, 46*(3), 113-115.

Harper, E. M., & Parkerson, S. (2015). Powering big data for nursing through partnership. *Nursing Administration Quarterly, 39*(4), 319-324.

Jenkins, P., & Welton, J. (2014). Measuring direct nursing cost per patient in the acute care setting. *Journal of Nursing Administration, 44*(5), 257-262.

Long, J. S. (2009). *The workflow of data analysis using stata*. College Station, TX: StataCorp.

Pruinelli, L., Delaney, C. W., Garcia, A., Caspers, B., Westra, B. L. (2016). Nursing management minimum data set: Cost-effective tool to demonstrate the value of nursing staffing in the big data science era. *Nursing Economics, 34*(2), 66-71, 89.

Contact

peggy.jenkins@ucdenver.edu

H 15 - Use of Big Data to Influence Nursing Care

Analytical Challenges in the Era of Big Data

Alvin D. Jeffery, PhD, RN-BC, CCRN-K, FNP-BC, USA

Abstract

Purpose: The popularity of “big data” along with an increasing capacity for real-time predictive analytics holds significant promise for nurses and other clinicians to gain new insights and develop novel decision support tools from our large clinical datasets. Unfortunately, these large datasets are not the panacea that some big data proponents would taut. For nurses with vast subject matter expertise in a clinical area who desire to leverage big data for solving practical problems, road blocks quickly surface in the form of acquisition and management of data, missing data, meeting assumptions of statistical models, and model evaluation for statistical and clinical performance. This talk will engage the audience in addressing these issues using an exemplar of the development of a prediction model for in-hospital cardiopulmonary arrest.

Methods: The following 4 topics will be addressed:

Data Acquisition and Management: From ethics approval to ensuring individual patient privacy to preventing undesired user access, collecting and storing “big data” is no simple task. The presenter will provide: (a) an overview of key concepts, (b) an exemplar for constructing a data acquisition and management team, and (c) several resources for learning more independently.

Missing Data: Almost all large datasets contain some amount of missing data. Regardless of the amount, finding the cause of missingness is of paramount importance. Approaches to determining a cause will be introduced, and disadvantages of complete case analysis will be described. Advantages and disadvantages of median imputation, multiple imputation, and machine learning imputation will be compared.

Statistical Model Assumptions: There are a variety of statistical models available, and with recent advances in machine learning methods, more approaches to retrieve information from the data are available to a wide array of users. An overview of the purpose and requirements of traditional modeling (e.g., logistic and linear regression) and machine learning approaches (e.g., random forests and cluster analyses) will be provided.

Model Evaluation: Determining how well a model performs on the current data and how well it is expected to perform on future data is essential in determining whether or not the model is helpful for clinical care. Internal (e.g., bootstrapping and cross-validation) versus external validation (e.g., split sample and chronological validation) techniques will be presented along with their respective advantages and disadvantages.

Results: Our in-hospital cardiopulmonary arrest prediction model required a team-based approach to solving the aforementioned challenges, and the audience will hear not only how we chose to solve the problems but also other approaches we considered. From the perspective of data acquisition/management, we found the best approach to be the inclusion of database and informatics specialists who used structured query language to extract the relevant data and then store it on a secure, organizational server. Following a simulation study, we discovered the missing data problem was best resolved by creating a multiple imputation model that included the outcome variable. Statistical model assumptions were best met by not assuming linearity while not permitting too many spline knots. Model evaluation comprised internal bootstrap validation for the regression models and split-sample validation for the machine learning methods.

Conclusion: Arriving at clinically meaningful insights contained within large datasets requires multifaceted expertise and teamwork. Nurses and other clinicians are the best members of the team to identify a problem that “big data” can help solve. To ensure a clinically meaningful solution surfaces from big data efforts, nurses should be aware of common challenges in big data research. As nurses become

more knowledgeable, they position themselves to be leaders in these research teams and advocates for implementation of novel findings.

References

Bates, D. W., Saria, S., Ohno-Machado, L., Shah, A., & Escobar, G. (2014). Big data in health care: Using analytics to identify and manage high-risk and high-cost patients. *Health Affairs*, 33(7), 1123-1131. doi: 10.1377/hlthaff.2014.0041

Dinov, I. D. (2016). Methodological challenges and analytic opportunities for modeling and interpreting big healthcare data. *Gigascience*, 5, 12. doi: 10.1186/s13742-016-0117-6

Harrell, F. (2015). *Regression modeling strategies: With applications to linear models, logistic and ordinal regression, and survival analysis* (2nd ed.). New York, NY: Springer.

The routledge international handbook of advanced quantitative methods in nursing research. (2016). (S. J. Henly Ed.). New York, NY: Routledge, Taylor & Francis Group.

Steyerberg, E. W. (2009). *Clinical prediction models: A practical approach to development, validation, and updating*. New York, NY: Springer.

van der Heijden, G. J., Donders, A. R., Stijnen, T., & Moons, K. G. (2006). Imputation of missing values is superior to complete case analysis and the missing-indicator method in multivariable diagnostic research: A clinical example. *Journal of Clinical Epidemiology*, 59(10), 1102-1109. doi: 10.1016/j.jclinepi.2006.01.015

Contact

alvinjeffery@gmail.com

H 16 - Socioeconomic Effects in Pediatrics

Association Between Household Resources and Child Mortality: Ghana as a Case Study

Jerry John Nutor, MSN, BSN, RN, USA

Jaime C. Slaughter-Acey, PhD, MPH, USA

Janice F. Bell, PhD, MN, MPH, RN, USA

Abstract

Purpose: Child mortality, defined as death of infants and children under age of five years (United Nations, 2010) is an important measure of child health as well as an indicator of the overall health status of a country or region (Avogo & Agadjanian, 2010). Child mortality is often used as one of the strongest indicators of a country's wellbeing, as it reflects social, economic and environmental conditions, as well as access to health care (Alderman & Behrman, 2004). Children are more vulnerable to all kinds of hazards than adults as they are dependent on parents or other care takers to provide what they need in order to survive. Furthermore, a child's chances of survival are greatly dependent on adequate nutrition, immunization and environmental hygiene (Andoh, Umezaki, Nakamura, Kizuki, & Takano, 2007; Skolnik, 2008). Several research studies conducted recently on the impact of social determinants of health and household resources on child mortality have found that economic status of the household defined by possession of certain assets such as electricity, toilet facilities, source of drinking water, type of fuel for cooking, roofing and flooring materials, were found to influence child mortality (Godson & Nnamdi, 2012; Gyimah, 2006; Kabubo-Mariara, Karienyeh, & Mwangi, 2010). In a study conducted by Rutaremwa to examine child mortality differentials in the capital cities of East Africa and to establish whether there are substantial differences in infant and child mortality estimates in Nairobi, Dares-Salaam and Kampala, the incidence was highest among children of mothers residing in households with no toilet facility compared to those with flush toilets; furthermore, pipe-borne water was associated with lower odds of child mortality compared to well water. From this study it is clear that more proximal social determinants than rural versus urban residence have important roles to play in child survival (Rutaremwa, 2013). The current study therefore examined associations between household resources and child mortality in Ghana. The study answered the following research questions: (1) What household resources are associated with child mortality in Ghana? (2) Does the availability of household resources contribute to child mortality over and above the influence of other measures of socioeconomic status?

Methods: This cross-sectional descriptive study analyzed the 2007 Ghana Maternal Health Survey (GMHS), the first and the only maternal health survey conducted in Ghana (Ghana Statistical Service, 2009). The primary data were collected in two-phases of fieldwork. In phase I, a nationally representative sample of 240,000 households was selected from the 10 administrative regions of Ghana across rural and urban areas, out of which 226,209 completed the household questionnaire. We analyzed the data using STATA version 13 (College Station, TX). Descriptive inferential statistics were used to summarize the means of continuous variables and proportions of categorical variables and to cross-tabulate each variable, including the household resources, by maternal report of child death in the full sample and in the sample stratified by rurality of residence. Means were compared statistically with t-tests and proportions with chi-square tests. We examined the household resources and other variables for their intra-class correlations and assessed whether variable reduction strategies (i.e. factor analysis) were required. Logistic regression analysis was used to examine the association between household resources and child mortality, controlling for the covariates. In all of the analyses, survey weights were applied to account for the complex survey design.

Results: Women who resided in the urban area were more likely to report access to all the household resources measured than those in rural area, except kerosene lantern for which more rural women reported possession. In unadjusted comparisons, a significantly lower proportion of women who reported possession of each of the household resources reported child mortality with one exception. There was no significant difference in the proportion of women reporting child mortality by the reported number of sleeping rooms. Women who had primary, middle school and secondary or tertiary education had lower odds of reporting child mortality as compared to those who had no education. The odds ratios ranged

from 0.78 [95% CI: 0.65, 0.94] for primary school to 0.55 [95% CI: 0.38, 0.78] for those who had secondary or tertiary education. In the model restricted to women living in rural areas, none of the household resources were associated with child mortality. In contrast, in the model restricted to women living in urban areas and towns, having refrigerator at the time of interview was associated with lower odds of reporting child mortality 0.63 [95% CI: 0.48, 0.83]; whereas, having a kerosene lantern [AOR=1.40; 95% CI: 1.06, 1.85] or flush toilet [AOR=1.84; 95% CI: 1.23, 2.75] was associated with higher odds of reporting child mortality.

Conclusion: Possession of a refrigerator may play a role in child mortality, particularly in urban areas. This finding may reflect unmeasured SES or the importance of access to refrigeration in preventing diarrheal disease or other proximal causes of child mortality in sub-Saharan Africa. Further studies should focus on understanding the association of household resources and child mortality in rural areas and the contribution of community socio-economic attributes to child mortality.

References

- Alderman, H., & Behrman, J. R. (2004). Estimated economic benefits of reducing low birth weight in low-income countries. *Health, Nutrition and Population. World Bank, Washington, DC., 1*(1).
- Andoh, S. Y., Umezaki, M., Nakamura, K., Kizuki, M., & Takano, T. (2007). Association of household demographic variables with child mortality in Cote d'Ivoire. *Journal of Biosocial Science, 39*(02), 257-265.
- Avogo, W. A., & Agadjanian, V. (2010). Forced migration and child health and mortality in Angola. *Social Science & Medicine, 70*(1), 53-60.
- Godson, M. C., & Nnamdi, M. J. (2012). Environmental determinants of child mortality in Nigeria. *Journal of Sustainable Development, 5*(1), p65.
- Gyimah, S. O. (2006). Cultural background and infant survival in Ghana. *Ethnicity and Health, 11*(02), 101-120.
- Kabubo-Mariara, J., Karienyeh, M. M., & Mwangi, F. K. (2010). Multidimensional Poverty, Survival and Inequality Among Kenyan Children *Child Welfare in Developing Countries* (pp. 13-59): Springer.
- Rutaremwya, G. (2013). Under-five mortality differentials in urban East Africa: a study of three capital cities. *African Population Studies, 26*(1).
- Skolnik, R. (2008). *Essentials of global health*: Jones & Bartlett Publishers.
- United Nations. (2010). The Millennium development goals report 2010. *Pre-publication history The pre-publication history for this paper can be accessed here: <http://www.biomedcentral.com/1472-698X/10/30/prepub> <http://www.biomedcentral.com/1472-698X/10/30>.*

Contact

jjnutor@drexel.edu

H 16 - Socioeconomic Effects in Pediatrics

Parenting Bedtime Behaviors and Sleep Among Toddlers Living With Socioeconomic Adversity

Monica Roosa Ordway, PhD, APRN, IBCLC, USA

Nancy Redeker, PhD, RN, FAHA, FAAN, USA

Craig Canapari, MD, USA

Sangchoon Jeon, PhD, USA

Lois Sadler, PhD, PNP-BC, FAAN, USA

Abstract

Purpose: Sleep problems are very prevalent during the first year of life with 20-30% of infants reported to have a sleep problem. Families most commonly seek support from pediatric health care clinicians regarding their infant and toddler's bedtime resistance and frequent and prolonged night waking. While much has been published describing sleep patterns and sleep interventions to assist parents in helping their children initiate and maintain sleep, the majority of this literature included children living with middle to high incomes. Consistent with other health disparities, sleep disparities occur in children living in socioeconomically disadvantaged homes and emerging literature suggests that this disparity begins at 12 months. Hence, there is a need to develop interventions to support families living with socioeconomic adversity. The first step, however, is to determine if the significant associations between parenting bedtime interactions and sleep patterns of infants and toddlers commonly reported among families living in families of middle to high incomes is also observed among families living with socioeconomic disadvantage. This presentation will report findings of a study conducted with toddlers (12-15 months old) and their parents living in socioeconomically disadvantaged homes. Because one of the most commonly reported sleep problems among toddlers is night waking, the focus of our presentation will be the relationships between parenting interactive bedtime behaviors and disrupted sleep and night waking.

Methods: The sample includes 33 healthy toddlers and a parent who live with socioeconomic adversity. Data was collected during two data collection visits. Demographic information collected from the caregiver included their own gender, age, race/ethnicity, marital status, family housing, family income, education level, federal and state assistance, and number and age of children. Data was also collected on the toddler's race/ethnicity, age, gender, birth and medical history. Data on sleep characteristics included subjective and objective measures of sleep duration and efficiency, obtained with questionnaires, diaries, and nine days/nights of actigraphy. In addition to caregiver education collected with the demographics, income to needs ratio was collected as a measure of adversity. Income-to-needs ratio is a standard measure of a family's economic situation. The self-report Parental Interactive Bedtime Behavior Scale (PIBBS) is a 19-item Likert-type parent questionnaire that measures the interactive behaviors caregivers use with their children at bedtime. Five subscales and a total score are calculated: 1. Active physical comforting, 2. Encourage autonomy, 3. Settle by movement, 4. Passive physical comforting, 5. Social comforting. Associations of parenting bedtime interactions and sleep characteristics were examined using Spearman correlation coefficient.

Results: Sleep duration among the toddlers was just over 8 hours – much below the 10-13 hours of sleep recommended for this age group by the United States based National Sleep Foundation. Disrupted sleep (sleep fragmentation) and waking after sleep onset (WASO) between the toddlers were not associated with any of the parenting bedtime interactive bedtime behavior. However, there were significant associations between total parenting interactive behaviors and passive physical comforting and WASO ($r=.37$, $p=.05$ and $r=.52$, $p=.002$, respectively) within toddlers over the course of their week-long monitored sleep. Similarly, a significant association was found between total parenting interactions and sleep disruption within toddlers ($r=.36$, $p=.05$).

Conclusion: As described in the extant literature, the findings of this study support the connection between parenting interactions and toddler sleep patterns based on the variability of sleep disruption and night waking within the toddlers week-long monitored sleep. While active physical comforting (e.g. rocking to sleep, patting or rubbing child's back, etc.) is most commonly associated with sleep patterns in

infancy and toddlerhood, findings from this study suggest that passive physical comforting (presence of the parent in the room to fall asleep) was the strongest association with individual variability of the toddler's disrupted sleep and night waking. Future directions for this work include adding biomarkers of stress response to determine how characteristics of sleep in toddlers are associated with their stress response system as well as additional parenting variables to identify the characteristics of parenting linked to toddler sleep patterns in this populations. These results will then be used to inform the development of future health promotion interventions focused on improving sleep early in life.

References

- El-Sheikh M, Bagley EJ, Keiley M, Elmore-Staton L, Chen E, Buckhalt JA. Economic adversity and children's sleep problems: Multiple indicators and moderation of effects. *Health Psychology*. 2013;32(8):849-859.
- Magee CA, Gordon R, Caputi P. Distinct developmental trends in sleep duration during early childhood. *Pediatrics*. 2014;133(6):e1561-1567.
- Gellis LA. Children's Sleep in the Context of Socioeconomic Status, Race, and Ethnicity. In: El-Sheikh M, ed. *Sleep and Development: Sleep and Development: Familial and Socio-Cultural Considerations* Oxford Scholarship Online; 2011:219-244.
- Caldwell BA, Redeker NS. Maternal stress and psychological status and sleep in minority preschool children. *Public health nursing (Boston, Mass.)*. 2015;32(2):101-111.

Contact

monica.ordway@yale.edu

I 03 - Culturally Diverse Geriatric Health Practices

The Experiences of Elderly Immigrants of Mexican Origin With Life-Limiting Illness: A Critical Ethnography

Sandra Scott Lee, PhD, RN, CNE, USA

Abstract

Purpose: Although limited studies have explored the health care needs of elderly immigrants of Mexican origin, Mexican immigrants account for the largest immigrant group in the United States. As of 2014, 28% of the total immigrant population is of Mexican origin, with 8% of Mexican immigrants being age 65 years and older (Zong & Batalova, 2016). Furthermore, studies to-date do not make recommendations for nursing practice. The purpose of this qualitative study was to describe and explain the health care experiences of elderly immigrants of Mexican origin who face life-limiting illness in the United States. The study aimed to answer the following research question: What are the perceptions of elderly immigrants of Mexican origin with life-limiting illness about their experiences with the U.S. health care system?

Methods: The study was approved by the University of Texas Medical Branch Institutional Review Board (IRB), protocol 13-0427. Participants were recruited at churches, community centers, and clinics, places where IRB-approved flyers were posted. Sites were selected that primarily service the Hispanic community. Recruitment also occurred by word-of-mouth. A purposive, non-random sample of 13 participants was enrolled. Eligible participants were self-identified as first or second generation immigrants of Mexican origin; aged 65 years or older; with a diagnosis of heart disease, diabetes, cancer, respiratory disease, or previous stroke; and English speaking. Participants were interviewed face-to-face by the investigator in a private area of their choosing and convenience. Interview protocol followed a semi-structured technique. The researcher also asked demographic questions of participants and recorded the responses on an investigator-developed demographic form. Interviews were digitally recorded. The research employed a critical ethnography design to answer the research question (Carspecken, 2012, 2016). The semi-structured, audio-taped interviews were analyzed using Carspecken's five stages of critical qualitative research.

Results: Low and high level coding techniques identified the three large categories of *REACTING* to the diagnosis, *RESPONDING* to the illness, and *RELATING* to health care providers.

Large Category--*REACTING* to the Diagnosis, with sub-categories Feelings, and Family Experiences. The category *REACTING* to the diagnosis emerged from the data as participants described what it was like when they learned that they had one of the diagnoses and then how they felt as they adjusted to the news. *REACTING* also included previous observations and experiences with family members who had the same diagnosis, and how that shaped the participants' own reaction. The lower level categories of (a) feelings and (b) family experiences organized into the high level code of *REACTING* to the diagnosis. *REACTING* to the diagnosis encompassed feelings, the depth of emotions that individuals experienced when diagnosed with diabetes, stroke, heart disease, lung disease, or cancer. Participants who had diabetes were particularly descriptive about the feelings of devastation, fear, and uncertainty. Several participants described how they had watched or lived through the negative health experiences of close family members, and how they feared that for themselves. Based on experiences they had observed with family members, participants were afraid they would face the same kinds of health outcomes.

Large Category--*RESPONDING* to the Illness, with sub-categories Self-management, Self-advocacy, and Community Interaction.

RESPONDING to the illness related to the adjustments and life changes participants made for the new diagnosis. *RESPONDING* included lower level categories of (a) actions to self-manage the disease; (b) efforts at self-advocacy; and (c) interaction with the community in order to help other people. Participants discussed commitment and efforts to comply with physicians' instructions and what they called "the rules" to manage their conditions. Inherent in participants' self-management plans were their efforts to advocate for themselves. When participants felt like the communication from health care providers was poor or

dissatisfactory, participants decided to find another provider; some even requested they be discharged from the hospital. Participants described unique ways of reaching out to the community to share their own experiences and to help others with the same diagnosis, including suggestions for how they could be optimally supported.

Large Category--*RELATING* to the Health Care Providers, with a sub-category of Experiences with Physicians and Nurses.

RELATING to Health Care Providers encompassed the range of both positive and negative communications and experiences that participants had with their health care providers, which in turn affected participants' understanding of their condition and their experiences with health care. *RELATING* to the Health Care Providers had lower level categories of (a) communication with doctors and (b) communication with nurses. Participants were particularly sensitive to perceived lack of communication from their providers. This lack of attention and communication did not support their cultural norms, *simpatía* or *personalismo*, nor did the hurriedness align with their time orientation. Participants had varied and unpredictable experiences with nurses. Some described nurses in positive ways, but unfortunately most participants described negative experiences with nurses. *RELATING* to Health Care Providers meant the communications and experiences that participants had with their health care providers, specifically their doctors and nurses, which in turn affected participants' understanding of their condition and their experiences with health care.

Conclusion: The purpose of this qualitative study was to describe and explain the health care experiences of elderly immigrants of Mexican origin who face life-limiting illness in the United States. This critical ethnography, philosophically informed by Jürgen Habermas's critical social theory and guided by Bronfenbrenner's ecological model, answered the research question "What are the perceptions of elderly immigrants of Mexican origin with life-limiting illness about their experiences with the health care system in the United States?" Low and high level coding techniques identified high level categories of *REACTING* to the diagnosis, *RESPONDING* to the illness, and *RELATIONSHIPS* with health care providers. This qualitative, critically-oriented study of the life-limiting illness experiences of elderly immigrants to the United States offers increased understanding about elderly immigrants of Mexican origin and their health care needs to ultimately achieve cultural understanding, and health care and policy change. The research is important to nursing because of the likelihood that many nurses will care for elderly immigrants in a variety of different care settings. Nurses are on the front line of patient care in a health care system affected by a political, social, and economic environment that is often emotionally charged with the issue of immigration controversies. Thus, studies that give voice to the stories of elderly immigrant participants who are experiencing life limiting illnesses may guide recommendations that will improve the health of elderly immigrants of Mexican origin. Realities of disparities in health care, which have been well supported by the literature, confront everyday nursing practice. The project contribution is significant because it informs nursing practice, nursing education, and public policy through its consideration of the multiple influences of community, social, and political factors on delivery of care to elderly immigrants of Mexican origin from a critically-oriented perspective. Although the sample size limits generalizability, findings suggest more research is needed to improve health care delivery to this population. In particular, the immediate emotional needs when diagnosed, appropriate assistance while learning to self-manage, and the paramount role of physicians and nurses in the elders' health care decisions merit further inquiry.

References

- Administration on Aging [AOA]. (2015). *Profile of older Americans: 2015*. Retrieved from http://www.aoa.gov/Aging_Statistics/Profile/2015/7.aspx
- Afable-Munsuz, A., Mayeda, E.R., Perez-Stable, E.J., & Haan, M.N. (2013). Immigrant generation and diabetes risk among Mexican Americans: The Sacramento area Latino study on aging. *American Journal of Public Health, 103*, e45-e52. doi: 10.2105/AJPH.2012.300969
- Agency for Healthcare Research and Quality [AHRQ]. (2013). *Clinical community relationships measures (CCRM) atlas*. Washington, DC: U.S. Department of Health and Human Services. Retrieved from <http://www.ahrq.gov/professionals/prevention-chronic-care/resources/clinical-community-relationships-measures-atlas/ccrm-atlas3.html>

Carspecken P.F. (2012). Basic concepts in critical methodological theory: Action, structure and system within a communicative pragmatics framework. In S.R. Steinberg & G.S. Cannella (Eds.), *Critical qualitative research reader* (pp. 43-66). New York, NY: Peter Lang.

Carspecken, P.F. (2016). Limits to knowledge and being human: What is "critical" in critical social research and theory? In P.H. Hinchey (Ed.), *A critical action research reader* (pp. 65-91). New York, NY: Peter Lang.

Centers for Disease Control and Prevention [CDC]. (2012). *Hispanic health: CDC vital signs*. Retrieved from <http://www.cdc.gov/vitalsigns/hispanic-health/>

Centers for Disease Control and Prevention [CDC]. (2013). *Hispanic or Latino populations*. Retrieved from <http://www.cdc.gov/minorityhealth/populations/REMP/hispanic.html#CHDIR>

Centers for Disease Control and Prevention [CDC]. (2015). The social-ecological model: A framework for prevention. Retrieved from <http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html>

Colby, S.L., & Ortman, J.M. (2015). *Projections of the size and composition of the U.S. population: 2014-2060 (Report No. P25-1143)*. Washington, DC: United States Census Bureau. Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf>

Gonzalez-Barrera, A., & Lopez, M.H. (2013). *A demographic portrait of Mexican-origin Hispanics in the U.S.* Washington, DC: Pew Research Center. Retrieved from <http://www.pewhispanic.org/2013/05/01/a-demographic-portrait-of-mexican-origin-hispanics-in-the-united-states/>

Jaramillo, S., & Hui, D. (2016). End-of-life care for undocumented immigrants with advanced cancer: Documenting the undocumented. *Journal of Pain and Symptom Management*, 51, 784-788. doi: 10.1016/j.jpainsymman.2015.11.009

Massey, D.S., & Pren, K.A. (2012). Origins of the new Latino underclass. *Race and Social Problems*, 4, 5-17. doi: 10.1007/s12552-012-9066-6

Medicaid.gov. (2015). *Immigrants*. Retrieved from <https://www.medicaid.gov/medicaid-50th-anniversary/immigrants/immigrants.html>

Pew Research Center. (2013). *Second generation Americans: A portrait of the adult children of immigrants*. Retrieved from http://www.pewsocialtrends.org/files/2013/02/FINAL_immigrant_generations_report_2-7-13.pdf

Taylor, P., Lopez, M.H., Martínez, J., & Velasco, G. (2012). When labels don't fit: Hispanics and their views of identity. Washington, DC: Pew Research Center. Retrieved from <http://www.pewhispanic.org/2012/04/04/when-labels-dont-fit-hispanics-and-their-views-of-identity/U.S>. Census Bureau. (n.d.). *Immigration data*. Retrieved from <http://www.census.gov/population/www/socdemo/immigration.html>

Vargas, C., & Bishop, M. (2015). *The invention of Hispanics*. Retrieved from <http://latinousa.org/2015/05/22/the-invention-of-hispanics/>

Villa, V.M., Wallace, S.P., Bagdasaryan, S., & Aranda, M.P. (2012). Hispanic baby boomers: health inequalities likely to persist in old age. *Gerontologist*, 52, 166-176. doi: 10.1093/geront/gns002

Weigel, M.M., Armijos, R.X., & Beltran, O. (2013). Musculoskeletal injury, functional disability, and health-related quality of life in aging Mexican immigrant farmworkers. *Journal of Immigrant and Minority Health*, 16, 904-913. doi: 10.1007/s10903-013-9819-3

World Health Organization (2013). *Definition of an older person*. Retrieved from <http://www.who.int/healthinfo/survey/ageingdefnolder/en/>

Yeo, Y. (2016). Healthcare inequality issues among immigrant elders after neoliberal welfare reform: Empirical findings from the United States. *European Journal of Healthcare Economics*, June, 1-19. doi: 10.1007/s10198-016-0809-y

Zong, J., & Batalova, J. (2016). *Mexican immigrants in the United States*. Retrieved from <http://www.migrationpolicy.org/article/mexican-immigrants-united-states>

Contact

sandylee@uh.edu

I 03 - Culturally Diverse Geriatric Health Practices

"I Should Have Come Sooner": A Qualitative Study Describing Care Preferences of Elders with HF

Victoria Vaughan Dickson, PhD, MSN, BSN, RN, CRNP, USA

Saul Blecker, MD, MHS, USA

Corita Grudzen, MD, FACEP, USA

Stuart Katz, MD, MPH, USA

Billy A. Caceres, MSN, RN, AGPCNP-BC, AHNP, USA

Melissa Martelly, MSN, RN, USA

Tina Sadarangani, MSN, RN, USA

Caroline Blaum, MD, MS, USA

Abstract

Purpose: Heart failure (HF) remains the leading cause of hospitalization among adults over the age of 65. The majority of these hospitalizations originate in the emergency department (ED). Hospitalized HF patients are more likely to experience negative health outcomes than outpatients with HF. Experts have suggested that many patients with HF may be safely given treatment in the ED with discharge home and close follow up. Therefore, the purpose of this study was to describe the reasons that elder HF patients present to the ED and explore care preferences including barriers and facilitators to home discharge.

Methods: In this qualitative descriptive study, 13 clinically-stable elders with HF (≥ 65 years) were enrolled during an ED visit and participated in in-depth interviews about their reason for ED visit, including symptom experience and self-care at home, and HF care preferences. Qualitative data were analyzed using content thematic analysis.

Results: In this sample (70% male, 77% White, Mean age 81 ± 8 ; range 67-93 years), the most common reasons for ED visits were dyspnea and leg swelling. All reported ≥ 1 ED visits for similar symptoms in prior 6 months. Most ($n=12$) described symptoms that had been present or worsening for ≥ 2 days; all were admitted. Poor symptom awareness, inadequate resources and fragmented care contributed to delays in seeking treatment. In general, self-care at home was poor including medication nonadherence "*I stopped that pill because it gave me <pain>*" and failed symptom monitoring "*they used to monitor me <at home> and I did ok...but that stopped.*" Some ($n=4$) preferred home discharge from the ED "*just get the fluid out...let me go home*"; but most believed hospitalization was necessary for symptom management "*they have to fix it...change the medication or something*" and to improve functional status "*...help get strength back.*" Barriers to home discharge centered around lack of tangible support "*I need help with everything*" and general physical deconditioning.

Conclusion: Many elders with HF struggle with recognizing HF symptom and inadequate support that may delay treatment and lead to emergency situations. Interventions to address recurrent ED admissions in elders should focus on addressing their unique social support and care-coordination needs as well as deficits in self-care.

References

- Dickson, V., McCarthy, M., Howe, A., Schipper, J., & Katz, S. (2013). Socio-cultural influences on heart failure self-care among an ethnic minority black population *Journal of Cardiovascular Nursing*, 28(2), 111-118
- Mozaffarian, D., Benjamin, E. J., Go, A. S., Arnett, D. K., Blaha, M. J., Cushman, M., . . . Turner, M. B. (2016). Heart Disease and Stroke Statistics-2016 Update: A Report From the American Heart Association. *Circulation*, 133(4), e38-e360. doi: 10.1161/cir.0000000000000350
- Riegel, B., Dickson, VV, & Faulkner, KM. (2016). The Situation-Specific Theory of Heart Failure Self-Care: Revised and Updated. *J Cardiovasc Nurs*, 31(3), 226-235. doi: 10.1097/jcn.0000000000000244

Contact

vdickson@nyu.edu

I 04 - Closing the Theory-Practice Gap

Using Competency Testing to Close the Practice Gap With Undergraduate Baccalaureate Nursing Students

Patricia A. Sharpnack, DNP, RN, CNE, NEA-BC, ANEF, USA

Kimberly Dillon-Bleich, MSN, RN, USA

Lauren Patton, MSN, RN, CCRN, CHSE, USA

Abstract

Background: Nurse educators are continually exploring innovative methods to evaluate transfer of course content to clinical application and competence. Assessment of clinical competence is a critical requisite of nursing professional education, yet research has shown that new graduates are not prepared for transition to practice. Systematic use of competency testing throughout the curriculum can facilitate clinical decision making skill development in undergraduate BSN students (Salem, Ramadan, El-Guenidy & Gaifer, 2012). Attempts to unify the definition of competency and link competency testing to safe practice have been initiated in Canada, the United Kingdom, and Australia; however, evidence of this work has not been broadly presented in the United States (McWilliam & Botwinski, 2012). The OSCE is defined as “an approach to the assessment of clinical competence in which the components of competence are assessed in a well-planned or structured way with attention being paid to objectivity” (Najja, Docherty & Miehl, 2016). An OSCE requires that each student demonstrate particular skills and behaviors in a simulated situation or with standardized patients.

Purpose: To explore the use of competency testing through objective structured clinical examinations (OSCE) in facilitating the transition to professional nursing practice.

Conceptual Framework: Ericsson’s Theory of Deliberate Practice was used to frame the study. The design demonstrates alignment with the statewide nurse competency model (USA).

Method: Exploratory study. Nurse educators designed a series of OSCE’s as a final semester summative assessment for students in a baccalaureate nursing program. Clinical practice partners provided input and guidance on station design and evaluated testing criteria and processes. Station design was aligned with the state action coalition’s nurse competency model designed by nurse leaders in education and practice. Clinical scenarios that provided students an opportunity to demonstrate competency at patient management skills and identification of quality and safety concerns were included. Students were required to make clinical judgments based on assessments, initiate interventions, and demonstrate a professional, therapeutic relationship with the patient and/or family. Faculty evaluated each student on achievement of competencies using an objective evaluation tool; inter-rater reliability was maintained through consistent trained evaluators and the use of Panopto technology to record all stations. Student demographics and data from competency scores, participant feedback and NCLEX –RN results from more than 65 students was obtained.

Results: A chi-square test was performed to assess the relationship between competency testing stations, the ATI Pharmacology standardized assessment and NCLEX passage. The results for the ATI standardized assessment (1, N=65, = 6.08, $p < .05$), the clinical decision making competency station (1, N=65, = 4.4, $p < .05$), and the quality and safety station (1, N=65, = 4.69, $p < .05$), were significant. No significance was found with the delegation, patient assessment, or medication administration stations. Student and faculty feedback indicate that the OSCE effectively and fairly evaluated clinical competencies and judgement skills. Students suggested that the use of OSCE’s be integrated early in the curriculum to reduce stress level and promote improved accountability for best practice and maintenance of clinical competency. The lack of a reliable and valid tool for competency assessment was a limitation of the project.

Conclusion: The association between preparedness for practice and competency development has implications for nursing. Including competency testing throughout the curriculum, specifically testing that requires clinical decision-making is vital for safe transition to practice. The use of OSCE’s at key points in

the educational process can assist in evaluating student performance, identifying the need for remediation opportunities prior to graduation, and preparing students for the transition to practice. The use of Panopto video recordings of student testing provided opportunity for student reflection and self-assessment. Evidenced-based strategies that promote the use of competency testing and the integration of technology are essential for transference of knowledge into professional practice. Further research to evaluate student outcomes and develop a valid and reliable tool is essential in this process.

References

- Katowa-Mukwato, P., Mwape, L., Kabinga-Makukula, M., Mweemba, P., Maimbolwa, M. (2013) Implementation of objective structured clinical examinations for assessing nursing students' competencies: Lessons and Implications. *Creative Education*, 4(10A), 48-53.
- McWilliam, P., Botwinski, C. (2012). Identifying strengths and weaknesses of utilization of OSCE in a nursing program. *Nursing Education Perspectives*. 33(1), 35-39.
- Mok, H. T., So, C. F., & Chung, J. W. Y. (2016, October). Effectiveness of high-fidelity patient simulation in teaching clinical reasoning skills. *Clinical Simulation in Nursing*. 12(10) 453-467.
- Najja, R., Docherty, A., Miehl, N. (2016). Psychometric properties of an Objective Structured Assessment Tool. *Clinical Simulation in Nursing*. 2(3), 88-95.
- Saliman, H., Mohammed sheble, A., Shrief, W. (2014). Effectiveness of Simulation training on clinical Nursing Education and competence: Randomized Controlled Trial. *International Journal of Advanced Nursing Research*. 2(4), 387-393.
- Salem, A., Ramadan, F., El-Guenidy, M., Gaifer, M. (2012). Using Objective Structured Clinical Examination (OSCE) in undergraduate psychiatric nursing education: Is it reliable and valid? *Nursing Education Today*. 32(3), 283–288.

Contact

psharpnack@ursuline.edu

I 05 - Enhancing the Inpatient Hospital Experience

Perception and Acceptance of Hospital Meals Among Inpatients in a Tertiary Hospital in Nigeria

Funmilola Adenike Faremi, MSc (Nsg), BNSc, RN, RM, RPHN, Nigeria

Omowumi R. Salau, MSc (Nsg), BNSc, RN, RM, RPHN, Nigeria

Adeyinka T. Ajayi, BNSc, RN, RM, Nigeria

Abstract

Purpose: Hospital food and nutrition services play an important role in patient recovery and well-being. It can also influence patients' satisfaction with their overall hospital experience. Previous studies showed that hospital food services remain to be a widespread problem all over the world. With literature search, there is dearth of studies on patients' satisfaction with food services in health care facilities in the country, hence the need to assess patients' perception and acceptance of hospital meals in order to provide insights on areas of focus for the achievement of quality improvement in hospital food and catering services from the perspective of the consumers, thus promoting their health.

Methods: A descriptive cross-sectional study was adopted for the study. A multistage sampling technique was employed to select 220 adult in-patients across five (5) sections or service areas in the hospital. Children and patients below the age of 18 years were excluded from the study. Also, due to the unstable nature and peculiarity of patients, the Adult and Children Accident and Emergency Units and the Mental Health ward were also excluded from this research study. A self-administered questionnaire pilot tested to ensure validity and reliability (Cronbach Alpha = 0.798) was used to collect data. Data was analyzed using percentages, mean, standard deviation, multiple regression and chi square using SPSS version 20

Results: There was 70.6% females and 29.4% males in the study with a mean age of 45±15.6. Majority of the patients (90.5%) had spent between 1-15 days on current admission. More than half, (56.2%) were on special diet while 73.1% relied only on hospital food since admission. Overall, 55.7% had good perception of hospital meal, while 8.5% had poor perception. However, only 4% had high-level acceptance of hospital meal while 59.7% had low level-acceptance. No significant relationship was observed between selected socio-demographic factors (age, gender, educational level and average monthly income) and their perception of hospital meals ($p = 0.301$). However, significant association was found between the types of diet and their level of acceptance of hospital meals ($p = 0.005$).

Conclusion: Patients on hospital admission have high expectations of the meals supplied from the hospital kitchen, hence the need for nurses to act as adequate advocates in this matter thus aiding patient quick recovery.

References

- Abdelhafez A.M., Al Qurashi L., Al Ziyadi R., Kuwair A., Shobki M. & Mograbi H. (2012). Analysis of Factors Affecting the Satisfaction Levels of Patients Toward Food Services at General Hospitals in Makkah, Saudi Arabia. *American Journal of Medicine and Medical Sciences*, 2(6): 123-130 DOI: 10.5923/j.ajmms.20120206.03
- Department of Health (2014). The Hospital Food Standards Panel's report on standards for food and drink in NHS hospitals. Age UK
- Hartwell H.J., Edwards J.S.A. and Beavis J. (2008). Food service in hospital: an indicative model for patient satisfaction. The Worshipful Company of Cooks Research Centre, Bournemouth University, Talbot Campus, Poole, Dorset

Contact

moromoke04@gmail.com

I 05 - Enhancing the Inpatient Hospital Experience Nurse-Led Mobilization Activities in Intensive Care Unit (ICU) Settings

Deonni P. Stollendorf, PhD, RN, USA

Mary S. Dietrich, PhD, USA

Cathy A. Maxwell, PhD, MSN, RN, USA

Abstract

Purpose: Descriptions of ICU mobility practices are predominantly reported from single or multi-site quality improvement (QI) projects (Campbell, Fisher, Anderson, & Kreppel, 2015; Dammeyer et al., 2013; Timmerman, 2007; Hopkins & Spuhler, 2009; Engel, Needham, Morris, & Gropper, 2013; Hopkins, Spuhler, & Thomsen, 2007; Needham & Korupolu, 2010) or review articles (Hodgson et al., 2013; Hopkins et al., 2009), both considered to be less rigorous than research studies. Bakhru et al., (2015), reported mobilization practices employed by a sample of U.S. hospitals, but lacked in-depth descriptions of the specific nurse-led mobilization. The views of direct care ICU nurses are also underrepresented in studies related to mobilization of ICU patients. For example, Bakhru et al. (2015) surveyed ICU nurse managers or clinical nurse specialists whilst Brotman et al. (2015) sampled nurses in non-ICU settings (Brotman et al., 2015). The **purpose** of this presentation is to describe nurse-led mobilization practices in two community hospital ICUs and to report practice differences between the two settings. This study contributes to the body of knowledge by providing an in-depth description of nurse-specific mobilization practices in the ICU, independent of interdisciplinary collaboration. To describe the frequency and variability in nurse-led mobilization activities in Intensive Care Units (ICUs) after controlling for patient characteristics.

Methods: Design: A cross-sectional exploratory study was conducted. The population studied was critical care nurses and their patients from two medical-surgical ICUs in two Southeastern cities. The sample consisted of a convenience sample of nurses (N=18) employed in a critical care units of two hospitals caring for a total of 124 patients (Hospital A: N=12 nurses making 60 reports; Hospital B: N=6 nurses making 117 reports). Measurement: Nurses self-reported mobilization practices for one month using the Mobilization Initiatives & Levels of Exercise (MOBILE) tracking tool specifically developed and tested (face validity) for the study. The MOBILE tool includes: **patient characteristics** (age, gender, admitting diagnosis, comorbidities, temporal measures (date, ICU admit/discharge dates, intubation date, extubation date), **nurse mobilization practices** (high-flowers, semi-fowlers, beach/cardiac chair, dangle, transfer to chair, stood, ambulate, and range of motion (ROM) active versus passive, and turning), including frequency per shift, and **patient acuity score** derived from the Simplified Therapeutic Intervention Scoring System (TISS-28). The TISS-28 assesses severity of illness (Muehler et al., 2010) based on 28 indicators (interventions) with point values ranging from 1 to 5 (maximum score: 85). Data analysis included descriptive statistics (median, IQR, N, %), Mann-Whitney tests, Chi-square tests of independence and general linear modeling adjusting the standard errors for data arriving from the same nurse and in many cases the same patient (e.g., the same patient reported on by the same nurse multiple times).

Results: Patients (N=124) were a median 66 years of age (IQR: 57-74) with a median Charlson Comorbidity Index (CCI) of 4 (IQR: 3-7) and were approximately equally represented by gender (female: 52%; male: 48%). Considerably higher TISS scores were reported for patients on ICU "A" than for those on ICU "B" [median=26.5 (IQR: 18-33) vs. 17.5 (IQR: 10-17), $p < 0.001$]. The nurses reported that approximately 30% of the patients received more than one intervention during their shift. The most commonly reported types of interventions were mechanical ventilation (41%), tube care (39%), enteral feeding (29%), and fluid replacement (27%). The units varied in the number and types of interventions that the patients required during the nurses' respective shifts. Specific interventions required by a higher proportion of the patients on ICU "A" included: mechanical ventilation (56% vs. 31%, $p=0.006$), tube care (50% vs. 31%, $p=0.034$), enteral feeds (42% vs. 20%, $p=0.009$), and arterial line (14% vs. 4%, $p=0.046$).

Mobilization activities for the patients during each shift in the two ICUs were also analyzed. The most commonly reported mobilization activities conducted per patient per shift were turning of the patient at

least 6 times (82%) and placing the patient in semi-fowlers position (68%). After controlling for patient age, CCI, and TISS, patients in ICU "B" were more likely to be placed in semi-fowlers (88% vs. 30%, $p < .001$) whereas patients in ICU "A" were more likely to be placed in a beach/cardiac chair (33% vs. 3%, $p = 0.015$), be transferred to a chair (35% vs. 16%, $p < .001$), and be ambulated (30% vs. 22%, $p < .001$).

Conclusion: Differences in patient characteristics and nurse-led mobilization activities were observed between ICUs. After controlling for patient characteristics, we found statistically significant differences in nurse-led mobilization activities between the two units. These findings suggest that factors other than patient characteristics may explain differences in nurse-led mobilization activities. Our findings are consistent with other studies indicating that non-patient factors such as safety concerns and workload served as barriers to mobilization in ICU settings. The findings also support prior studies linking nurse-led mobilization to non-patient factors. Further research is needed to investigate specific factors associated with nurse-led mobilization practices, including unit and staff characteristics, nursing workload, and knowledge, skills, and attitude of ICU staff members. The findings of the study hold policy implications for research, practice and policy. Differences in mobilization practices based on patient-related factors reaffirm the need to risk adjust for patient acuity for assessment of mobilization practices. Differences in practices between hospitals (ICUs) highlights the need to explore organizational-level factors (e.g., policies, protocols) that influence early mobilization. National and local policies are also needed to allocate resources to investigate and address non-patient factors. Finally, policies that promote establishment of ICU mobility teams and ensure the purchase of equipment are needed to facilitate patient mobilization.

References

- Amidei, C., & Sole, M. L. (2013). Physiological responses to passive exercise in adults receiving mechanical ventilation. *American Journal of Critical Care*, 22(4), 337-348. doi: 10.4037/ajcc2013284
- Bakhr, R.N., Wiebe, D.J., McWilliams, D.J., Spuhler, V.J., & Schweickert, W.D. (2015). An environmental scan for early mobilization practices in U.S. ICUs. *Critical Care Medicine*, 43(11), 2360-2369. Doi: 10.1097/CCM.0000000000001262
- Campbell, M. R., Fisher, J., Anderson, L., & Kreppel, E. (2015). Implementation of Early Exercise and Progressive Mobility: Steps to Success. *Critical Care Nurse*, 35(1), 82-88. doi: 10.4037/ccn2015701
- Dammeyer, J., Dickinson, S., Packard, D., Baldwin, N., & Ricklemann, C. (2013). Building a protocol to guide mobility in the ICU. *Critical Care Nursing Quarterly*, 36(1), 37-49. doi: 10.1097/CNQ.0b013e3182750acd
- Dammeyer, J. A., Baldwin, N., Packard, D., Harrington, S., Christofferson, B., Christopher, J., . . . Iwashyna, J. (2013). Mobilizing outcomes: implementation of a nurse-led multidisciplinary mobility program. *Critical Care Nursing Quarterly*, 36(1), 109-119. doi: 10.1097/CNQ.0b013e31827535db
- Engel, H. J., Needham, D. M., Morris, P. E., & Gropper, M. A. (2013). ICU early mobilization: from recommendation to implementation at three medical centers. *Crit Care Med*, 41(9 Suppl 1), S69-80. doi: 10.1097/CCM.0b013e3182a240d5
- Garzon-Serrano, J., Ryan, C., Waak, K., & et al. (2011). Early mobilization in critically ill patients: patients' mobilization level depends on health care provider's profession. *PM R*, 3, 307-313.
- Jolley, S. E., Dale, C. R., & Hough, C. L. (2015). Hospital-level factors associated with report of physical activity in patients on mechanical ventilation across Washington State. *Annals of the American Thoracic Society*, 12(2), 209-215. doi: 10.1513/AnnalsATS.201410-480OC
- Morris, P. E., Goad, A., Thompson, C., & et al. (2008). Early intensive care unit mobility therapy in the treatment of acute respiratory failure. *Crit Care Med*, 36, 2238-2243.
- Morris, P. E., Goad, A., Thompson, C., Taylor, K., Harry, B., Passmore, L., . . . Haponik, E. (2008). Early intensive care unit mobility therapy in the treatment of acute respiratory failure. *Crit Care Med*, 36(8), 2238-2243. doi: 10.1097/CCM.0b013e318180b90e
- Needham, D. M., Korupolu, R., Zanni, J. M., Pradhan, P., Colantuoni, E., Palmer, J. B., . . . Fan, E. (2010). Early physical medicine and rehabilitation for patients with acute respiratory failure: a quality improvement project. *Archives of Physical Medicine and Rehabilitation*, 91(4), 536-542. doi: 10.1016/j.apmr.2010.01.002
- Nydahl, P., Ruhl, A. P., Bartoszek, G., Dubb, R., Filipovic, S., Flohr, H. J., . . . Needham, D. M. (2014). Early mobilization of mechanically ventilated patients: a 1-day point-prevalence study in Germany. *Critical Care Medicine*, 42(5), 1178-1186. doi: 10.1097/ccm.000000000000149
- Schweickert, W. D., & Hall, J. (2007). ICU-acquired weakness. *Chest*, 131, 1541-1549.
- Schweickert, W. D., Pohlman, M. C., Pohlman, A. S., & et al. (2009). Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomised controlled trial. *Lancet*, 373, 1874-1882.
- Timmerman, R. A. (2007). A mobility protocol for critically ill adults. *Dimensions of Critical Care Nursing*, 26(5), 175-179.
- Vasilevskis, E. E., Ely, E. W., Speroff, T., Pun, B. T., Boehm, L., & Dittus, R. S. (2010). Reducing iatrogenic risks: ICU-acquired delirium and weakness -- crossing the quality chasm. *Chest*, 138, 1224-1233.
- Vasilevskis, E. E., Ely, E. W., Speroff, T., Pun, B. T., Boehm, L., & Dittus, R. S. (2010). Reducing iatrogenic risks: ICU-acquired delirium and weakness--crossing the quality chasm. *Chest*, 138(5), 1224-1233. doi: 10.1378/chest.10-0466

Contact

deonni.stolldorf@vanderbilt.edu

I 06 - Functional Status of Oncology Patients

The Power Over Pain Coaching Intervention Improves Functional Status in African Americans With Cancer Pain

April Vallerand, PhD, RN, FAAN, USA
Susan M. Hasenau, PhD, RN, NNP, CTN-A, USA
Thomas Templin, PhD, USA

Abstract

Purpose: Functional status, or the ability to carry out meaningful activities, is affected by pain intensity and the patient's belief that they can control the pain to an extent that allows them to participate in those activities¹. African Americans have been found to have higher levels of pain, more pain-related distress, and lower functional status than their Caucasian non-ethnic cohorts^{2,3,4}. Pain-related distress has been shown to mediate the relationship between pain and function^{5,6}. Although pain-related distress is important and should be assessed in all patients with pain, designing interventions to decrease distress is challenging due to the affective nature of the concept. The factors that lead to pain-related distress are more amenable to intervention strategies. Certainly decreasing pain may lead to decreasing distress, however, there may be other factors affecting distress. Perceived control over pain, a factor that had not been previously taken into account, was found to have a direct effect on pain-related distress and mediated the effect of beliefs about pain and pain level on distress in ambulatory patients with cancer-related pain¹. In a previous study, perceived control over pain was found to partially mediate the relationship between pain and functional status in adults with low income attending a primary care clinic⁷. The purpose of this longitudinal randomized control trial was to test the 3-component Power Over Pain – Coaching (POP-C) intervention with 236 African American patients recruited from an urban comprehensive cancer center.

Methods: Participants were 63% (196) female, mean age was 56.28 years ($SD = 11.49$). Average pain in past 24 hours from the Brief Pain Inventory (BPI) composite was 5.81 ($SD = 2.40$) on a 0-10 scale. The components of Medication Management, Pain Advocacy, and Living with Pain were tailored to African Americans, individualized to the patient, and delivered over 5 weeks. Components were measured by existing and investigator-developed instruments. Perceived control over pain, measured by cognitive, pharmacologic, and emotional control, and feelings of control, was a mediator of the outcomes of pain, pain-related distress, and functional status. The primary outcomes of pain, pain-related distress, and functional status were measured weekly. Intermediate outcomes of perceived control over pain and measure of the intervention components were measured at baseline, week 7 (evaluation of intervention), and week 12 (durability).

Results: There were no baseline differences in gender, marital status, education, metastasis, perceived control over pain, pain, pain-related distress, and functional status. As typical with behavioral intervention trials, a monotone pattern of missing data was observed due to death (5%), illness (10%), and lost to follow-up (9%). The total complete case sample was 236 (24% incomplete cases). Including baseline characteristics in the models did not make any difference in the estimation of treatment effects. Linear mixed model analyses of the primary outcomes of pain, pain-related distress, and functional status, showed significant linear decreases in each of the outcome measures over the 7 weeks over the 7 weeks between baseline and intervention evaluation ($p < .01$). Intervention effects were tested by comparing linear trends across groups. Intent-to-treat (ITT) and complete-case analyses gave similar results for pain-related distress and functional status; in both, differences in linear trend were significant as predicted ($p < .01$). The difference in linear trend for pain was not significant in the ITT ($p = .065$) but significant in complete case analysis ($p = .041$).

Conclusion: This study demonstrated improving perceived control over pain decreases pain-related distress and improves functional status in African Americans with cancer-related pain. Results from a previous study supported the need for nurses to incorporate perceived control over pain as part of the assessment process and to intervene using the potential methods for increasing perception of control over pain as discussed⁸. Potential nursing interventions for increasing control over pain include: educating

patients about pain management modalities; individualizing therapy to meet patient's needs including acceptable modifications of pharmacological regimen; providing options for patients to manage episodes of breakthrough pain; teaching patients how to use nonpharmacological modalities; and educating patients about when to call the clinician if pain is not controlled^{5,9}. The stronger effects observed for pain-related distress and functional status were anticipated because the POP-C intervention was expected to reduce distress and increase functional status irrespective of pain. Perceived control over pain was strongly associated with pain-related distress and is more amenable to the development of nursing interventions that can improve functional status. These results support the POP-C intervention and, validate the effects of the POP-C intervention for African Americans with cancer pain. Transforming these findings into practice, use of the components of the POP-C intervention when caring for African American patients with cancer pain will allow nurses to increase patient's perceived control over pain, leading to improved functional status.

References

1. Vallerand, A.H., Templin, T., Hasenau, S.M., & Riley-Doucet, C. (2007). Factors that affect functional status in patients with cancer-related pain. *Pain*,132:82-90.
2. Vallerand, A.H., Hasenau, S., Templin, T., & Collins-Bohler, D. (2005). The effect of perception of control over pain on racial disparities in the outpatient cancer population. *Pain Medicine*, 6(3), 242-250.
3. Walker JL, Thorpe RJ Jr, Harrison TC, Baker TA, Cary M, Szanton SL, Allaire JC, Whitfield KE. (2016). The relationship between pain, disability, and sex in African Americans. *Pain Management Nursing*.17(5):294-301.
4. Schaller, A., Larsson, B., Lindblad, M., & Liedberg, G.M. (2015). Experiences of pain: A longitudinal, qualitative study of patients with head and neck cancer recently treated with radiotherapy. *Pain Management Nursing*,16:336-345.
5. Wells, N.L. & Sandlin, V. (2012). Expectations of pain and accompanying symptoms during cancer treatment. *Current Pain and Headache Reports* 16, 292-299.
6. Leung, J., Pachana, N.A., & McLaughlin, D. (2014). Social support and health-related quality of life in women with breast cancer: a longitudinal study. *Psychooncology* 23:1014-1020.
7. Vallerand, A.H., Pieper, B., Crawley, J., Nordstrom, C., & DiNardo, E. (2013). The effects of pain and its association with psychosocial factors for indigent adults enrolled in a primary care clinic. *Clinical Journal of Pain*. 29(10), 917-923.
8. Vallerand, A.H., Saunders, M.M., & Anthony, M. (2007). Cancer patients' and caregivers' perceived control over cancer pain. *Pain Management Nursing*, 8(2), 55-63.
9. Vallerand, A.H., Musto, S., & Polomano, R.C. (2011). Nursin's role in cancer pain management. *Current Pain and Headache Reports*,15, 250-262.

Contact

April.Vallerand@wayne.edu

I 06 - Functional Status of Oncology Patients

Effect of Exercise Training on Vascular Function in Cancer Survivors: A Meta-Analysis

Rhys I. Beaudry, MSc, USA

Yuanyuan Liang, PhD, USA

Steven T. Boyton, BS, GSR, USA

Wesley Tucker, PhD, RD, USA

R. Matthew Brothers, PhD, USA

Kathryn M. Daniel, PhD, RN, ANP-BC, GNP-BC, USA

Mark Haykowsky, PhD, USA

Abstract

Purpose: Cancer survivors are at increased risk for cardiovascular disease (CVD)–related morbidity and mortality as a result of underlying CVD risk factors combined with the direct effects of anti-cancer therapy (e.g. cardiomyocyte damage, myocardial and vascular ischemia) and effects of an unhealthy lifestyle (e.g. decreased physical activity) (1). Recent research has demonstrated that cancer survivors have reduced peak VO_2 (1). The mechanism(s) responsible for the reduced peak VO_2 are not well known, however it may be due to impaired peripheral vascular endothelial function, as measured by FMD in response to cuff ischemia, an endothelial dependent stimulus. Moreover, endothelial impairment precedes cardiovascular disease progression, therefore, FMD is a relevant clinical measure for evaluating cardiovascular risk profiles (2,3).

Exercise training is an effective therapy to increase peak VO_2 in cancer patients and survivors (4,5). The underlying physiological mechanisms responsible for increased exercise capacity in patients with cancer are unknown, however it may be due to improved peripheral vascular endothelial function.

Methods: We performed a systematic review and meta-analysis of all randomized trials that examined the effects of exercise training on vascular function and exercise capacity in cancer survivors (including pre, during and post-treatment). Studies were identified via systematic searches of PubMed (1975 to June 2016), EMBASE CINAHL (1937 to June 2016), OVID MEDLINE (1948 to June 2016) and Cochrane Central Registry of Controlled Trials (1991 to June 2016) using the following subject headings: vascular function, endothelial function, reactive hyperemia, flow-mediated dilation, arterial stiffness, cancer and exercise, and related terms.

Results: After screening 189 potentially relevant publications, we identified 4 eligible studies, including 82 survivors allocated to exercise training and 81 to non-exercise training controls (6-9). Three studies measured vascular endothelial function via brachial artery FMD and one measured endothelial function via EndoPat; while 3 studies measured peak VO_2 and one measured treadmill walking time for assessment of exercise capacity. The four studies included in the final analysis included prostate (n=2) and breast cancer survivors (n=2).

Meta-analysis of 4 studies showed that vascular function was significantly improved across exercise training groups relative to the non-exercise training controls (standard mean difference [95% confidence interval (CI)]=0.65 [0.33, 0.96]) and the heterogeneity/inconsistency across studies was minimal ($I^2 = 0\%$). Among the three studies that reported FMD, flow-mediated dilation was increased by approximately 1.28% (weighted mean difference (WMD) [95% CI]=[0.22 2.34]; $I^2 = 23.2\%$) in exercise-trained subjects relative to non-exercise controls. Peak VO_2 was improved in all three included studies relative to non-exercise training controls (WMD [95% CI]=2.22 [0.83, 3.61] ml/kg/min) with minimal heterogeneity ($I^2 = 0\%$).

Conclusion: Exercise training improved vascular function and peak VO_2 in breast and prostate cancer survivors. Improvements in exercise capacity and vascular function have been correlated with decreases in cardiovascular risk and mortality. Specifically, a 3.5 ml/kg/min increase in peak VO_2 is associated with a 12% and 17% decrease in mortality in men and women, respectively (10,11). Moreover, improving FMD by 1% is associated with an 8-13% decrease in cardiovascular risk (3,12). Accordingly, the improved

exercise capacity and vascular function may be associated with reduced CVD-morbidity and mortality in cancer survivors.

Exercise training improves vascular function and peak VO₂ in breast and prostate cancer survivors. Further research is required to elucidate the relationship between improved vascular function and exercise capacity, and if this improvement is associated with decreased CVD-related mortality, across a broader spectrum of cancer survivors.

References

- 1) Haykowsky M, Pituskin E, Paterson I. Physical Health and Exercise in Cancer. <http://www.acc.org>. Aug. 31, 2016.
- 2) Tashakkor, A.Y., Tashakkor, A., Moghaddamjou, A., Chen, L., and Cheung, W. (2013). Predicting the risk of cardiovascular comorbidities in adult cancer survivors. *Curr. Oncol. Tor.* 20, E360–E370.
- 3) Vanhoutte, P. (2009). Endothelial Dysfunction - The First Step Toward Coronary Arteriosclerosis. *Circ. J.* 73, 595–601.
- 4) Beaudry, R., Kruger, C., Liang, Y.Y., Parliament, M., Haykowsky, M., McNeely, M.L. (2015) Effect of supervised exercise on aerobic capacity in cancer survivors: Adherence and workload predict variance in effect. *World J Meta-Anal.* 3(1): 43-53
- 5) Jones, L. W., Liang, Y., Pituskin, E. N., Battaglini, C. L., Scott, J. M., Hornsby, W. E., & Haykowsky, M. (2011). Effect of exercise training on peak oxygen consumption in patients with cancer: A meta-analysis. *The Oncologist*, 16(1), 112-120.
- 6) Jones, L., Fels, D., West, M., Allen, J., Broadwater, G., Barry, W., . . . Dewhirst, M. (2013). Modulation of circulating angiogenic factors and tumor biology by aerobic training in breast cancer patients receiving neoadjuvant chemotherapy. *Cancer Prevention Research*, 6(9), 925-937.
- 7) Jones, L., Hornsby, W., Freedland, S., Lane, A., West, M., Moul, J., . . . Eves, N. (2014). Effects of nonlinear aerobic training on erectile dysfunction and cardiovascular function following radical prostatectomy for clinically localized prostate cancer. *European Urology*, 65(5), 852-855.
- 8) Giallauria, F., Vitelli, A., Maresca, L., Santucci De Magistris, M., Chiodini, P., Mattiello, A., . . . Vigorito, C. (2016). Exercise training improves cardiopulmonary and endothelial function in women with breast cancer: Findings from the diana-5 dietary intervention study. *Internal and Emergency Medicine*, 11(2), 183-189.
- 9) Gilbert, S., Tew, G., Fairhurst, C., Bourke, L., Saxton, J., Winter, E., & Rosario, D. (2016). Effects of a lifestyle intervention on endothelial function in men on long-term androgen deprivation therapy for prostate cancer. *British Journal of Cancer*, 114(4), 401-408.
- 10) Gulati, M., Pandey, D.K., Arnsdorf, M.F., Lauderdale, D.S., Thisted, R.A., Wicklund, R.H., Al-Hani, A.J., and Black, H.R. (2003). Exercise capacity and the risk of death in women: the St James Women Take Heart Project. *Circulation* 108, 1554–1559.
- 11) Myers, J., Prakash, M., Froelicher, V., Do, D., Partington, S., and Atwood, J.E. (2002). Exercise Capacity and Mortality among Men Referred for Exercise Testing. *N. Engl. J. Med.* 346, 793–801.
- 12) Zock, P.L., Ras, R.T., Ijzerman, R., and Streppel, M.T. (2013). Flow-mediated dilation and cardiovascular risk prediction: a systematic review with meta-analysis. *Int. J. Cardiol.* 168, 344–351.

Contact

rhyisaac.beaudry@uta.edu

I 07 - Global Perspectives on HIV Prevention

Predictors of Internet Use for HIV Prevention Among Hispanic Women in South Florida

Natalia Villegas, PhD, MSN, RN, IBCLC, USA
Rosina Cianelli, PhD, MPH, RN, FAAN, IBCLC, USA
Lila de Tantillo, BSN, RN, PhDc, USA
Nilda (Nena) Peragallo Montano, DrPH, RN, FAAN, USA
Brian E. McCabe, PhD, USA
Giovanna De Oliveira, PhD, ARNP, ANP-C, PMHNP-BC, USA
Lilian Ferrer, PhD, MSN, RN, FAAN, Chile

Abstract

Purpose: Hispanics have a high HIV incidence rate in the US, nearly three times that of whites. There is potential to decrease prominent HIV risk factors and increase preventive outcomes through the use of platforms such as the internet or mobile applications through hardware devices (e.g. computers, phones). These technologies can provide access to the appropriate information and/or HIV prevention interventions. Among Hispanic women, some internet interventions have shown that can reduce barriers to accessing preventive interventions and increase STI and HIV preventive behaviors. In the last decades, the use of technologies has increased among Hispanics for example, mobile technologies such as mobile apps or tablets are being used increasingly by many hispanics. However, little is know about the technology access and use, and factors that influence the use of technology among Hispanic women. The purpose of this study if to describe the use of technology and technology preferences to learn about HIV, and assess predictors of the use of internet for HIV prevention among Hispanic women in south Florida.

Methods: This is a secondary analysis study that uses baseline data from SEPA III: The Effectiveness Trial. SEPA stands for Salud/Health, Educacion/Education, Prevencion/Prevention y/and Autocuidado/Self-Care (2P60MD002266-06, NIH/NIMHD). The sample is 320 Hispanic women recruited in Miami, Florida. Recruitment occurred in 2 health care centers and public places that Hispanic women visit frequently. Female bilingual assessors interviewed women in their preferred language (Spanish or English) using a structured interview. We used SPSS version 22.0 to analyze sociodemographic information and descriptive information about women's use of technology. Logistic regression (LR) was used to predict the use of technology to learn about HIV prevention. In terms of regression analysis, the independent variables living with a partner and years living in the U.S. were dichotomized. The other independent variables education, age, and time since the last visit to the health care provider were listed as continuous.

Results: The majority of the women were living with their spouse or partner (219, 68%) and had less than 5 years living in the U.S. (60%). The average length of time in the U.S. was 8.50 ($SD = 8.25$) years. Average age of the women was 34.79 ($SD = 9.23$) years, and average education was 13.73 ($SD = 3.34$) years. The majority ($n = 300$, 94%) of women said the preferred Spanish, with ($n = 14$, 4%) preferring English, and ($n = 6$, 2%) both Spanish and English. The average time (months) since they las saw the doctor or health care provider was 9.4 ± 14.6 months. Participants reported Internet as the highest used technology (93.8%), followed by smartphones (90.6%), and email (88.1%). The majority of the participants (71.3%) reported to use internet to learn about HIV. In the LR analysis, results showed that participants who use the internet to learn about HIV, had a higher probability of reporting lower levels of education ($OR=1.113$, $CI=95\%$), and more time since the last visit to a health care provider ($OR=1.017$, $CI=95\%$) after controlling for age, living with the partner, and years living in the U.S.

Conclusion: The findings from this investigation contribute substantially to our understanding regarding the use of technology among Hispanic women and how it may be implemented as a facet of HIV/STI prevention. The results indicate that members of this population appear to have a high level of access to and comfort with various means of technology and electronic dissemination of health-related information. Another important observation encountered in this investigation is the association between length of time between visit to the doctor and the use of the internet to learn about STI and HIV prevention, as well as

that between education and the use of the internet learn about STI and HIV prevention. These relationships underscore the potential for vulnerable populations experiencing barriers to access to care to turn to Web or other electronic media as a substitute for medical care. While the high levels of electronic literacy among participants in the study can be regarded as positive, Web-based health information may be of varying quality. It is imperative to ensure that women not rely on technology as a substitute for adequate health care. Moreover, health care educators active in HIV/STI prevention efforts should continue work to expand outreach among women possessing fewer years of education and vigilant to combatting misinformation found on the internet.

References

Campos-Castillo, C. (2015). Revisiting the First-Level Digital Divide in the United States: Gender and Race/Ethnicity Patterns, 2007-2012. *Social Science Computer Review*, 33(4), 423-439.

De Jesus, M., & Xiao, C. (2012). Predicting Internet Use as a Source of Health Information: A "Language Divide" Among the Hispanic Population in the United States. *Policy & Internet*, 4(2), Policy & Internet, 2012, Vol.4(2).

Ginossar, T., & Nelson, S. (2010). Reducing the Health and Digital Divides: A Model for Using Community-Based Participatory Research Approach to E-Health Interventions in Low-Income Hispanic Communities. *Journal of Computer-Mediated Communication*, 15(4), 530-551.

Villegas, N., Santisteban, D., Cianelli, R., Ferrer, L., Ambrosia, T., Peragallo, N., & Lara, L. (2015). Pilot testing an internet based STI and HIV prevention intervention with Chilean women. *Journal of Nursing Scholarship*, 47(2), 106-116. doi: 10.1111/jnu.12114 PMID: PMC4535713.

Contact

nvillegasr@miami.edu

I 08 - Health Promotion for Patients with Kidney Disease

Novel Barriers to Exercise for Patients With Chronic Kidney Disease

Mary F. Hannan, MSN, APN, AGACNP-BC, USA
Ulf G. Bronas, PhD, ATC, FSVM, FAHA, USA

Abstract

Purpose: Chronic kidney disease (CKD) is a common chronic condition, with an estimated prevalence of 11-13% worldwide (Hill et al., 2016). Despite medical treatment advances, CKD remains a debilitating condition that contributes to a myriad of clinical consequences (Avramovic & Stefanovic, 2012). Exercise is known to promote health and possibly delay certain comorbidities in patients with CKD (Momeni, Nematollahi, & Nasr, 2014; Smart, McFarlane, & Cornelissen, 2013). Despite the potential benefits of regular exercise training, patients throughout the world with CKD are not exercising and 45% have been found to be sedentary and 19% low active (Avesani et al., 2012), as compared to 23% of the world population that is thought to be insufficiently active (World Health Organization, 2015). Nurses have the opportunity to be on the front-line to help initiate healthy lifestyle changes such as regular exercise and daily physical activity. However, for nurses to provide optimal and effective interventions to empower patients to initiate an exercise regimen on their own, a clear understanding of the major reasons patients with CKD do not exercise is needed. Unfortunately, minimal exploration has been completed investigating patient reported barriers to exercise. The aim of this integrative review is to investigate the barriers that adult patients with CKD throughout the world report that prevent them from regularly exercising. Identification of these barriers will enable nurses and nurse researchers to address barriers to promote regular exercise and increases in daily physical activity for patients with CKD.

Methods: Seven electronic databases were searched to locate studies for an integrative review on patient reported barriers to exercise: Medline via PubMed, Medline via Ovid, CINAHL via EBSCO, PsychInfo via EBSCO, Embase, ProQuest Dissertations and Theses, and Scopus. The following key words were utilized, depending on database preference language: barriers; contraindications; hurdles; compliance; patient compliance; adherence; concordance; guideline adherence; self-perception; self-concept; treatment refusal; motivation; health knowledge, attitudes, and practice; exercise; physical activity; motor activity; and versions of phrases for CKD and end stage renal disease (ESRD.) The inclusion criteria were articles that included a) patients 18 years and older b) patients with CKD Stage 3-5 or ESRD requiring hemodialysis or peritoneal dialysis c) patient reported barriers to regular exercise d) and were available in English. Studies were excluded if they a) only discussed associations of exercise limitations and exercise frequency b) listed reasons for not participating in or withdrawing from an exercise intervention study c) or included post-kidney transplant recipients. The final search date was September 30, 2016.

Results: The results of this integrative review had an initial search yield of 384 publications which, after the application of the inclusion and exclusion criteria, were reduced to 14 publications. The included articles were published between 2001-2015. The studies took place in eight different countries. Descriptive quantitative design via survey was utilized in eight of the 14 studies to evaluate patient identified barriers to exercise. Four studies applied a qualitative method, utilizing interviews and focus groups. Two studies utilized mixed methods. Fatigue or lack of energy was the most frequently reported barrier, being found in twelve of the fourteen studies. Self-report of comorbid health problems was the second most commonly reported barrier and was noted in eight of the 14 studies.

Conclusion: The barriers patients with CKD report that prevent them from regularly exercising are complex and diverse. Twenty-four distinct barriers were elucidated through the results of this integrative review of literature from around the world (see Table 1). Fatigue and low energy levels were the most frequently reported barriers noted in the literature. This is not consistent with barriers that have previously been identified in healthy individuals or other chronic diseases. More importantly, this is an area that needs to be addressed in research to improve exercise and physical activity habits for patients with CKD. In previous studies, the barrier to exercise described by healthcare providers of patients with CKD has primarily been reported to be disinterest (Young et al., 2015). In addition, much of the current exercise

intervention research has focused on making exercise convenient (Heiwe & Jacobson, 2011). Fatigue was a common and important barrier to exercise in this integrative review. Fatigue is a devastating syndrome in patients with CKD (Artom, Moss-Morris, Caskey, & Chilcot, 2014). It is clear that more research is needed into methods to treat, prevent, and overcome fatigue in patients with CKD, so they can participate in self-care activities like exercise and increased levels of habitual daily physical activity.

The most important implication for nursing practice from this integrative review is the importance of assessing each patient's barriers to exercise. It appears that the barriers identified by healthcare providers are not the most frequently reported barriers by patients (Young et al., 2015), which emphasizes the need for an individualized approach to address each patient's barriers to exercise and daily physical activity. Nephrology nurses have an important role in the assessment and care planning of patients with CKD who suffer from fatigue. With assessment and collaborative care planning with a multidisciplinary team, nurses can help improve this debilitating barrier that prevents patients from exercising and participating in healthy behaviors. In addition to assessment and care planning, patient education is a critical component of the nurse's role in encouraging exercise interventions and helping patients overcome barriers to exercise (Davies, 2011).

This is the first integrative review to explore barriers to exercise for patients with chronic kidney disease. The most commonly reported barrier to exercise elucidated in this review was fatigue and low energy. The identification of these barriers helps nurses tailor their assessment and educational practices to address the unique barriers that prevent patients with CKD from exercising. With the appropriate assessment and education on barriers to exercise, patients with CKD may be empowered to begin exercise and receive the health promoting benefits of exercise.

Table 1- Patient Reported Barriers

Reported Barrier	Number of Times Found in the Literature
Fatigue	12
Co-morbid Health Conditions	8
Lack of Time or Access	7
Fear of Falling	6
Pain	5
Depression	3
Lack of Motivation	3
Being Incapable of Exercise	2
Environmental Limitations (weather, air quality, etc.)	2
"Renal disease" (CKD or HD)	2
"Being out of shape"	1
Concern or Complications	1
Dislike of Exercise	1
Employment	1
Exercise Is Tiring	1
Healthcare Provider Guidance	1
Lack of Company	1
Lack of Interest	1
Lack of Money	1
Lack of Understanding	1
Shortness of Breath	1
Stress	1
Vascular Access	1
Weakness	1

References

- Artom, M., Moss-Morris, R., Caskey, F., & Chilcot, J. (2014). Fatigue in advanced kidney disease. *Kidney international*, 86(3), 497-505.
- Avesani, C. M., Trolonge, S., Deléaval, P., Baria, F., Mafra, D., Faxén-Irving, G., . . . Fouque, D. (2012). Physical activity and energy expenditure in haemodialysis patients: An international survey. *Nephrology Dialysis Transplantation*, 27(6), 2430-2434.
- Avramovic, M., & Stefanovic, V. (2012). Health-Related Quality of Life in Different Stages of Renal Failure. *Artificial Organs*, 36(7), 581-589.
- Davies, N. (2011). Healthier lifestyles: behaviour change (Vol. 107, pp. 20-23). England: Macmillan Publishing Ltd.
- Heiwe, S., & Jacobson, S. H. (2011). Exercise training for adults with chronic kidney disease. *Cochrane Database of Systematic Reviews*, 10.
- Hill, N. R., Fatoba, S. T., Oke, J. L., Hirst, J. A., O'Callaghan, C. A., Lasserson, D. S., & Hobbs, F. D. R. (2016). Global Prevalence of Chronic Kidney Disease - A Systematic Review and Meta-Analysis. *PLoS One*, 11(7), e0158765.
- Momeni, A., Nematollahi, A., & Nasr, M. (2014). Effect of intradialytic exercise on echocardiographic findings in hemodialysis patients. *Iran J Kidney Dis*, 8(3), 207-211.
- Smart, N., McFarlane, J., & Cornelissen, V. (2013). The Effect of Exercise Therapy on Physical Function, Biochemistry and Dialysis Adequacy in Haemodialysis Patients: A Systematic Review and Meta-Analysis. *Open J Nephrol*, 03(01), 25.
- World Health Organization. (2015). Global Health Observatory data repository- Prevalence of insufficient physical activity among adults. Retrieved from <http://apps.who.int/gho/data/view.main.2482?lang=en> on December 5, 2016.
- Young, H. M., Hudson, N., Clarke, A. L., Dungey, M., Feehally, J., Burton, J. O., & Smith, A. C. (2015). Patient and Staff Perceptions of Intradialytic Exercise before and after Implementation: A Qualitative Study. *PLoS One*, 10(6), e0128995.

Contact

mhanna22@uic.edu

I 08 - Health Promotion for Patients with Kidney Disease

Causation and Confounding Factors for 30-Day Readmission of Kidney Transplant Patients: A Descriptive Study

Jean Dowling Dols, PhD, RN, NEA-BC, FACHE, USA
Katie A. Chargualaf, PhD, RN, CMSRN, USA

Abstract

Purpose: According to a recent study analyzing six years of national kidney transplant data, 31% of patients hospitalized for a kidney transplant required hospital readmission within 30 days of discharge (6). This study analyzed data of 32,000 patients for the years 2000-2005 finding 30-day kidney transplant readmission varying by facility from 18% to 51% (6). Some of the risk factors associated with early hospital readmission included age, race, body mass index (BMI), diabetes, heart disease, and length of stay (6). Additional studies identified level of education (8), time on dialysis (2), donor type (3,4), and a lack of understanding of post-transplant medications (2) as significant risk factors contributing to early readmissions. Specific populations found to have a higher rate of readmission include African Americans (11% higher), obese patients (15% higher), and diabetic women (29% higher) (6). Indications for readmission to the hospital are varied. More commonly reported causes include infection (1,2,3,4,5), surgical complications (1,2,3,4,5), and acute rejection (3,4).

The Centers for Medicare and Medicaid Services use readmissions as a proxy measure of hospital quality. While there are an expected number of 30-day readmissions, CMS currently tracks hospital readmissions and reduces Inpatient Prospective Payment System (IPPS) payments for specific conditions, but doesn't currently include transplants in these payment reductions (7). Re-hospitalization increases the cost of care for patients, providers, and payers. It often reflects incidents that may have been preventable and have the potential to increase patient mortality.

The researchers responsible for the national study of kidney transplant data emphasize that better outpatient management systems may reduce the number of rehospitalizations (6). However, the researchers of this study are unsure if that solution is the appropriate one for the kidney transplant population served by our hospital and others in the southern region of the U.S. with a high diversity factor, extensive travel to receive an organ, and the incredibly rapid growth of the kidney transplant population.

Identifying the risk factors and causes for kidney transplant 30-day readmission may enable healthcare facilities to structure care processes to reduce the influence of this population's particular risk factors and the causes of readmission. As readmission may reflect opportunities to improve inpatient care, care transition to another care setting, and outpatient care, a comprehensive analysis of the factors that may place patients at risk and the causes for readmission is essential to assure appropriate selection and effective implementation of interventions to reduce readmissions.

The purpose of this study is to identify the risk factors, causes, and confounding factors for 30-day readmissions in kidney transplant patients in the Southern region of the United States.

Methods: A descriptive, retrospective study was undertaken. The medical records of patients 18 years of age and older hospitalized in a southern region transplant center for kidney transplant surgery December 2015 to June 2016 who were re-admitted to the hospital within 30 days were analyzed. Each patient's hospital and clinic records were reviewed for readmission causes and risk factors identified through the literature and experience of experts in the care of kidney transplant patients and their readmissions using a data collection tool developed by the researchers. Data was analyzed using IBM® SPSS® Version 21.

Results: Findings at the Southern U.S. Region transplant center were uniquely different from the U.S. in the areas of risk factors and causes of readmission. The transplant center has experienced a rapid escalation of kidney transplants increasing over the last 10 years from 152 (62 deceased donor transplants/90 live donor transplants) in 2006 to 313 (140 deceased donor transplants/173 live donor transplants) in 2015. Unlike the predominant U.S. kidney transplant patients who are white, male, and the

recipient of a deceased donor transplant; the patients receiving transplants at this regional transplant center are Hispanic, female, and the recipient of a living donor transplant.

Patients in the study were more likely to be readmitted if they were a recipient of a deceased donor transplant in comparison to the recipient of a live donor transplant, as is the U.S. population of kidney transplant patients. Also similar to the U.S. population, the kidney transplant patients in the study experienced higher 30-day readmissions if they had a deceased donor transplant with a prior history of diabetes mellitus.

Differences in the study population from the U.S. transplant population were that patients 50+ years old were more likely to be readmitted than any other age group whether they were the recipient of a living or deceased donor. Education less than college was associated with increased readmission, as were body mass index 26+, prior history of diabetes mellitus, being a woman, and being Hispanic. 30-day readmissions were more likely to occur within 14 days of discharge. Patients at the transplant center traveled up to 339 miles to receive their transplant and readmission was more likely if the patient traveled more than 20 miles from their home to the hospital.

The cause of readmission reported in the literature varies widely. To improve consistency and allow for comparisons, the causes for the readmissions in this study were grouped into previously reported categories (1,2,3,4,5). Similar to readmission causes for U.S. kidney transplant patients, the most common etiologies included allograft dysfunction (including rejection and Acute Kidney Injury) (46%), infection (18%), and surgical complications (13%). Yet 30-day readmissions for the transplant center were higher than the U.S. kidney transplant population in the areas of symptom management and fluid/electrolyte imbalances related to post-transplant including nausea and vomiting (18%), volume overload/depletion (15%), electrolyte imbalances (13%), and cardiovascular events (hypotension/hypertension) (10%).

Conclusion: Risk factors for 30-day readmission in this sample of patients in the Southern region are significantly different than the U.S. population, as are the characteristics of the Southern population. The causes for 30-day readmission in this Southern U.S. sample also are different in the areas of post-transplant symptom management and fluid/electrolyte imbalance. The results of this study are informing future research studies and intervention plans aimed at reducing the readmissions of kidney transplant patients unique to this region. Recommendations for study include investigation of the clarity of communication and education for Spanish-speaking patients, patients with a lower level of education, and patients by age group. In relation to the causes for readmission, additional understanding and potential interventions are needed regarding the transplant patient's medication knowledge and adherence and their methods of seeking healthcare assistance post-transplant for symptom management and fluid/electrolyte imbalance. Future studies planned include interventional studies that will impact transplant patient readmissions for women, patients who have a Body Mass Index greater than 25, and patients with a prior history of Diabetes Mellitus Type II.

References

1. Boubaker, K., Harzallah, A., Ounissi, M., Becha, M., Guergueh, T., Hedri, H., ... Khedar, A. (2011). Rehospitalization after kidney transplantation during the first year: Length, causes, and relationship with long-term patient and graft survival. *Transplantation Proceedings*, 43, 1742 – 1746. doi: 10.1016/j.transproceed.2011.01.178
2. Covert, K., Fleming, J., Staino, C., Casale, J., Boyle, K., Pilch, N., ... Taber, D. (2016). Predicting and preventing readmissions in kidney transplant recipients. *Clinical Transplantation*. Advance online publication. doi: 10.1111/ctr.12748
3. Harhay, M., Lin, E., Pai, A., Harhay, M.O., Huverserian, A., Mussell, A., ... Reese, P. (2013). Early rehospitalization after kidney transplantation: Assessing preventability and prognosis. *American Journal of Transplantation*, 13, 3164 – 3172. doi: 10.1111/ajt.12513
4. Luan, F., Barrantes, F., Roth, R., & Samaniego, M. (2014). Early hospital readmission post-kidney transplantation are associated with inferior clinical outcomes. *Clinical Transplantation*, 28, 487 – 493. doi: 10.1111/ctr.12347

5. Lubetzky, M., Yaffe, H., Chen, C., Ali, H., & Kaylor, L. (2016). Early readmission after kidney transplantation: Examination of discharge-level factors. *Transplantation*, *100*, 1079 – 1085. doi: 10.1097/TP.0000000000001089
6. McAdams-DeMarco, M. A., Grams, M. E., Hall, E. C., Coresh, J., & Segev, D. L. (2012). Early Hospital Readmission After Kidney Transplantation: Patient and Center-Level Associations. *American Journal of Transplantation*, *12*(12), 3283-3288.
7. Quality Net (2016) accessed at:
<https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228772412458>
8. Taber, D., Palanisamy, A., Srinivas, T., Gebregziabher, M., Odeghe, J., Chavin, K., ... Baliga, P. (2015). Inclusion of dynamic clinical data improves the predictive performance of a 30-day readmission risk model in kidney transplantation. *Transplantation*, *99*, 324 – 330. doi: 10.1097/TP.0000000000000565

Contact

Dols@uiwtx.edu

I 09 - Improving Education Through Simulation

Measuring Nurse Tutor Simulation Education Confidence and Competence Following a Collaborative Nursing Education Certificate Program

Mary E. Mckay, DNP, ARNP, CNE, USA

Deborah Salani, DNP, PMHNP-BC, ARNP, NE-BC, USA

Jill Steiner Sanko, PhD, BA, BSN, RN, ARNP-BC, CHSE-A, USA

Abstract

Purpose: The purpose of this presentation is to discuss the impact of a hybrid nursing education certificate program on Guyanese nurse tutor self - reported confidence and competence related to the use of simulation in nursing education. In response to a dire nursing shortage the Guyanese government increased the enrollment capacity for the Guyana Schools of Nursing. Guyanese nursing schools are experiencing decreased student retention and successful completion of the national licensure exam in part due to an inadequate number of experienced tutors(educators). In an effort to address these concerns an agreement with Guyana's Ministry of Health and the Pan American Health Organization (PAHO) Regional Office in Guyana, and the School of Nursing was made to offer a Nursing Education Certificate Program. This initiative supports the objective to educate and develop human resources in nursing. The goal for the nursing education certificate program is to provide nursing tutors with the critical knowledge and skills to provide high quality nursing education. Simulation is an educational strategy utilized extensively in nursing programs in the United States (Aebersold & Tschannen, 2013). A multi-site longitudinal study by the National Council of the State Boards of Nursing (NCSBN) (Alexander et al., 2015) found that up to 50% of clinical time could be substituted with high quality simulation with similar student learning outcomes. There is evidence, promoting the utility of simulation to enhance critical thinking, medication-administration skills, promotion of inter professional communication (Liaw, Si, Zhou, W., Lau, T., Siau, C., & Chan, S., 2013, Pauly-O'Neill & Prion, 2013, Shin, H., Ma, H., Park, I., Ji, E., & Kim., D., 2015). The research aim was to evaluate the effects of the Guyana Nursing Education Certificate Program on the participant's self -reported confidence and competence in simulation knowledge and skills.

Methods: The program consists of 4 courses that combine distance learning via weekly virtual online classes with face-to-face instruction. Faculty made four trips to Guyana to provide onsite education and support. The program was tailored to meet the specific needs of the tutors with the goal of giving participants tools to customize their own curricula. Topics included teaching and learning theory, teaching methodology, and evaluation methods. Specific simulation topics covered throughout the program comprised of the development of simulation objectives, development and implementation of simulation scenarios, incorporation of critical thinking components into simulation activities, use of standardized patients, the role of the facilitator, and the simulation debriefing process. The NCSBN guidelines for Pre licensure Nursing Programs (2015) and the International Nursing Association for Clinical Simulation and Learning Simulation standards (2013) provided the foundation for the content provided. The participants were required to develop simulation objectives, scenarios and debriefing points as part of the course assignments.

A pre/post mixed method design was utilized. Following institutional review board approval twenty-six participants were asked to complete online surveys prior to and following the certificate program. The participants were nursing tutors from four schools of nursing. The survey consists of demographic data, self -reported confidence and competence in the seven-simulation topic areas described above, and qualitative open - ended questions.

Results: Scale analysis for the self - reported confidence and competence survey revealed a Cronbach's alpha value of 0.98 and demonstrated good internal consistency with all item correlations greater than 0.76. Statistically significant pre – post scores were found in the participants self -reported confidence in the areas of the development of simulation objectives ($p = .002$), development of simulation scenario($p = .010$), implementation of scenario ($p = .040$), incorporation of critical thinking ($p = .006$), simulation debriefing($p < .001$), and role of simulation facilitator ($p = .008$). Pre- post scores for self reported confidence in the area of use of a standardized patient in simulation was not statistically significant

($p=.075$). Statistically significant pre – post scores were found in the participants self -reported competence in the areas of the development of simulation objectives ($p = .013$), development of simulation scenario($p=.013$), implementation of scenario ($p = .029$), incorporation of critical thinking ($p=.002$), simulation debriefing($p= .006$), and role of simulation facilitator ($p=.036$). Pre- post scores for self reported competence in the area of use of a standardized patient in simulation was not statistically significant ($p=.10$).

Conclusion: Following the completion of the nursing education certificate program for Guyanese nurse tutors, statistically significant pre-post scores were found in the participants' self- reported confidence and competence scores in the areas of development of simulation objectives, development and implementation of simulation scenarios, incorporation of critical thinking components into the activity, the role of the simulation facilitator and the simulation debriefing process. No significant difference was noted in the post survey in the use of standardized patients in simulation education. These findings offer promise for future plans to repeat the nursing education certificate program for additional Guyanese nurse tutors to improve self reported confidence and competence in the use of simulation as a teaching modality. The increase in confidence and competence may result in an increase in the use of simulation as a teaching modality. Several study limitations exist including a relatively small number of participants and the use of self-reported data. Future offerings of the program will include an increased emphasis on the use of standardized patients for simulation and the use of “virtual” simulation modalities.

References

- Aebersold, M., Tschannen, D., (May 31, 2013) Simulation in Nursing practice: The impact on patient care. *The Online Journal of Issues in Nursing* 18(2), Manuscript 6.
- Alexander, M., Durham. C., Hooper, J., Jeffries, P., Goldman, N., Edgren- Kardong, S., ...Tillman, C. (2015). National Council for State Boards of Nursing Simulation Guidelines for Pre licensure nursing programs. *Journal of Nursing Regulation*, 6(3), 39-42.
- Decker, S., Fey, M., Sideras, S., Caballero, S., Rockstraw, L., ...Borum, J. (2013). Standards of Best Practice: Simulation Standard VI: The debriefing process. *Clinical Simulation in Nursing*. 6, Suppl. 26-29.
- Hayden, J., Smiley, RI, Alexander, M., Edgren-Kardong, S., & Jefferies, P. (2014). The National Council of State Boards of Nursing National Simulation Study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in pre licensure nursing education. *Journal of Nursing Regulation*, 5(2) Suppl.
- Liaw, S., Zhou, W., Lau, T., Siau, C., & Chan, S. (2014). An interprofessional communication training using simulation to enhance safe care for a deteriorating patient. *Nurse Education Today*, 34, 259-264.
- Pauly-O'Neill, S., & Prion, S. (2013). Using integrated simulation in a nursing program to improve medication administration skills in the pediatric population. *Nursing Education Perspectives*, 34(3), 148
- Shin, H., Ma, H., Park, J., Ji, E., & Kim, D.(2015). The effect of simulation courseware on critical thinking in undergraduate nursing students: Multi-site pre-post study. *Nurse Education Today*, 32, 537-542.

Contact

mmckay@miami.edu

I 09 - Improving Education Through Simulation

The Effect of Evaluator Training on Reliability in High-Stakes Assessment Simulations: Pilot Study Results

Jone Tiffany, DNP, RN, CNE, CHSE, ANEF, USA

Linda Blazovich, DNP, RN, CNE, USA

Vicki Schug, PhD, RN, CNE, USA

Abstract

Purpose: Evaluating clinical competency of nursing students is essential as we prepare them for the ever-changing and rapid pace of the healthcare environment. As greater emphasis is placed on high stakes assessment of clinical performance, the training of evaluators to assure good intra and inter-rater reliability of simulation performance is paramount. Supported by recent findings from the National Council for State Boards of Nursing study (NCSBN), simulation is quickly developing into a core teaching strategy for nursing education. Evaluation of learning during simulation, an essential component in the NCSBN study, informed nurse educators about valid and reliable mechanisms to assess achievement and competency in practice. The growing interest in using simulation to evaluate student competency led the National League for Nursing to conduct a four-year study to evaluate the process and feasibility of using mannequin-based high fidelity simulation for high stakes assessment in pre-licensure RN programs. Achieving clarity about the specific behaviors that students need to exhibit in order to demonstrate competency is paramount. Equally important is the training of evaluators to assure satisfactory intra/inter-rater reliability. This presentation describes the results of a pilot study conducted to test the effectiveness of a training intervention in producing intra and inter-rater reliability among nursing faculty evaluating student performance in simulation. The study is an extension of the NLN Project to Explore the Use of Simulation for High Stakes assessment. The pilot study was guided by the questions: What is the effect of (a) a training intervention and (b) faculty personality characteristics on faculty ability to achieve intra/inter-rater reliability when evaluating student performance during high-stakes simulation?

Methods: A pilot study was designed to precede a national experimental study. Basic orientation and advanced evaluator training modules were developed. These modules included orientation documents, *StrengthsFinder Inventory* instructions, a training video for the Creighton Competency Evaluation Instrument (CCEI), a training webinar, and a coaching webinar. Study instruments included the CCEI, student performance videos created for the National League for Nursing (NLN) Project *to Explore the Use of Simulation for High Stakes*, a demographic survey, and the *StrengthsFinder Inventory Survey*. With NLN approval, the student performance videos and the performance assessment tool produced for and used in the NLN feasibility study were used in the pilot study. A training intervention for faculty evaluators was developed. Five simulation experts completed the training intervention and the performance evaluation procedure. Reliability and correlational analysis was performed to evaluate the impact of training and faculty personality characteristics on inter/intra rater reliability. Feedback was collected from the participants to guide modifications to the content and process of the intervention in preparation for a regional, multi-site, experimental study, which began in the fall of 2016.

Results: All pilot participants were female. Three participants were ages 51 to 60; one was age 61-70; and one was age 31-40. Four participants held a master's degree and one held a doctoral degree as the highest academic credential. The participants taught in associate, baccalaureate, and entry-level master's programs. The five participants taught in three different states. Only one participant taught in a program currently conducting high-stakes assessment in simulation. Quantitative analysis was conducted on the CCEI video evaluations. When the analysis of the six videos was compared with the three training videos, a large increase in inter-rater reliability was noted for two subscales: Assessment and Clinical Judgment. Two subscales: Communication and Patient Safety showed little difference. The two overall measures, Yes/No Competency, and Overall score showed little difference. The results were reported in an aggregated format, which obscured the differences between the separate evaluations of the training videos and the experimental videos. Even though the statistics were reported in aggregate, it still appears that the training intervention helped the participants to develop a more shared mental model of

evaluation. These statistics will be analyzed and reported both individually and in aggregate for the full study.

Conclusion: It was evident that conducting a pilot study was invaluable. When data collection instruments, study procedures, and data analysis are complex, one can expect difficulties that require problem solving. This study has raised some critical questions relative to high stakes assessment, including: 1) what is the “right” amount and format of training? and 2) how do you help teams of faculty develop a shared mental model? This pilot study provided the opportunity to implement study procedures and make changes where issues and problems were discovered.

References

- Adamson, K. A., & Kardong-Edgren, S. (2012). A method and resources for assessing the reliability of simulation evaluation instruments. *Nursing Education Perspectives, 33*(5), 334-339.
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). The NCSBN national simulation study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Education, 5*(2), Supplement.
- Jonker, C. M., Van Riemsdijk, M. B., & Vermeulen, B. (2011). Shared mental models. In *Coordination, organizations, institutions, and norms in agent systems vi* (pp. 132-151). Springer Berlin Heidelberg.
- McComb, S., & Simpson, V. (2014). The concept of shared mental models in healthcare collaboration. *Journal of advanced nursing, 70*(7), 1479-1488.
- Rath, T. (2007). *Strengths finder 2.0*. New York, NY: Gallup Press.
- Rizzolo, M. A., Kardong-Edgren, S., Oermann, M. H., & Jeffries, P. R. (2015). The National League for Nursing project to explore the use of simulation for high-stakes assessment: Process, outcomes, and recommendations. *Nursing Education Perspectives, 36*(5), 299-303.

Contact

jone-tiffany@bethel.edu

I 10 - Interventions in Birth Outcomes

The Critical Role of Fathers to Reduce Stillbirth in India

Lisa R. Roberts, DrPH, MSN, RN, FNP-BC, CHES, USA
Susanne Montgomery, PhD, MPH, USA

Abstract

Purpose: The purpose of this study was to explore how men and women experience stillbirth in India, and their respective needs, to inform locally sustainable interventions.

Millennium Development Goal 4, to reduce child mortality, cannot be achieved without reducing the world's 3.3 million stillbirths (Yoshida et al., 2016). India has the highest number of stillbirths in the world (Blencowe et al., 2016). A confluence of medical and sociocultural factors contribute to the high stillbirth rate among poor, rural women in central India, and the effects are devastating. For women, fertility is correspondent to worth, yet social norms increasing the risks of stillbirth include: lifelong malnutrition due to girls/women receiving less food, of less quality, after males have been fed; young (due to early marriage) or advanced maternal age (as women continue trying to get pregnant with a boy child), lack of reproductive health choice/resources, and the quest for sons; maternal socioeconomic disadvantage as girls receive less education, are less likely to work in the formal workforce, and are unable to inherit property; short birth intervals and lack of antenatal care; and lack of skilled birth attendants due to lack of infrastructure in addition to women's low general autonomy and specifically lack of health care decision making power (McClure et al., 2015). When stillbirth occurs, women in India and other low-middle income countries suffer perinatal grief that may persist for years, but is unrecognized, repressed, and untreated, resulting in mental health sequelae such as depression, anxiety, somatic symptoms, decreased functioning, and increased risk for domestic violence, stigma, and abandonment, or isolation (Burden et al., 2016; Lawn et al., 2016).

All too often multiple stillbirths occur in one family, as stillbirth begets stillbirth. In India's patriarchal society with its strong son preference and deficient women's autonomy, sex-selective abortion occurs, putting women at risk for future preterm birth—increasing the risk of poor infant outcomes, including stillbirth (Ahankari, Myles, Tata, & Fogarty, 2015; Bharadwaj & Lakdawala, 2013; Straus & Mickey, 2012). While few studies have explored how fathers experience grief after stillbirth, previous studies in the West indicate that fathers—unlike mothers, have increased psychological symptoms the more time elapses before another pregnancy (Cacciatore, Erlandsson, & Rådestad, 2013). In India, this tendency combined with social pressure to try to conceive a son soon after stillbirth, may actually cause men to unwittingly reduce their chances of fulfilling desired fertility expectations (Kozuki & Walker, 2013). Therefore, men's perceptions and knowledge regarding maternal-child health and reproduction are important to achieving a reduction in stillbirth rates in India.

Methods: We used mixed-methods in two parallel studies; (a) evaluation of a short mindfulness-based pilot intervention which was culturally adapted and implemented in collaboration with local nurses, for women ($n = 22$) who had experienced stillbirth, and (b) formative work exploring men's experiences with stillbirth using key informant interviews ($n = 5$) and structured interviews using a survey based on identified themes ($n = 23$).

Results: Women who had experienced one to three stillbirths participated in the Mindfulness-based intervention (MBI), 6-week, and 12-month follow-up assessments. Anxiety and depression symptoms were significantly reduced, as measured by HSC index ($M = 2.17$ (SD 0.60), $M = 1.81$ (SD 0.48), and $M = 1.59$ (0.47) respectively). Likewise, significant reductions in the perinatal grief index as well as the active grief, difficulty coping, and despair subscales were noted at each assessment over time. Mindfulness was positively correlated to resilience, and at 1 year, 95.4% of the participants were still practicing mindfulness skills. Women reported that mindfulness was useful in helping them feel calm, increased their sense of peace in mind and body despite stressors, and gave them positive energy making it easier to function in their roles despite never forgetting their stillborn babies.

Men (three who were fathers of stillborn babies) acknowledged their medical and reproductive decision making power matter-of-factly as well as the lack thereof for their wives, and while they saw it as a natural a right, they also experienced it as a burden. They often felt they lacked knowledge and readiness for decision-making. Wives were not allowed/encouraged to discuss their stillbirth and men accede societal expectations for fertility, pushing their wives to conceive again soon. If unsuccessful, or a son was not produced, a second wife was seen as a possible solution.

Of the 23 men who completed surveys, 18 had experienced stillbirth. These men, compared to those without a history of stillbirth, were significantly more likely to have anxiety or depressive symptoms and perceived lower social provision of support. They also had significantly more egalitarian attitudes towards women, though they were also more abusive of their wives. They reported a greater number of days as normal for women to grieve after stillbirth and employed greater use of positive religious coping, but still reported frustration with their wives crying or otherwise showing grief and wished their wives would just get on with life. Once aware of the MBI for women, men were supportive of the program.

Overall, men reported granting far greater autonomy to women than women themselves perceived. Additionally, men were more likely to report abusing their wives than women were to report being abused. There was, however, concordance of reports by both men and women that approximately half of the stillbirth deliveries had been conducted by unskilled birth attendants at home.

Conclusion: Our short, culturally adapted MBI was found to be effective in reducing perinatal grief and increasing resilience for poor village women in rural central India, with not only sustained but increased improvements at one year. However, men in the same villages were often unaware of the need or that the intervention had been offered. Fathers of stillborn babies had unmet needs for support, yet dealing with perinatal grief possibly provided an opportunity for them to gain new insight, experience personal growth and develop empathy resulting in the more egalitarian view towards women noted in our results. Providing support to fathers might reduce their increased propensity for abuse and symptoms of anxiety and depression, while increasing capacity for the positive changes in attitudes found towards their wives.

Miss-matched perceptions between men and women regarding women's autonomy and abuse are opportunities for community engagement and discussion. The link between stillbirth and the low use of skilled birth attendants/facilities represents an opportunity for education and community-based intervention. Nurses, who interact with both genders and are knowledgeable of the cultural context are already positioned in the community. Local nurses are ideal collaborative partners for community engagement and with appropriate training and support can implement community-based interventions.

As Kofi Annan has said, "When women thrive, all of society benefits and succeeding generations are given a better start in life." Clearly, if progress toward reducing stillbirths is to be made both men and women have to be involved in intervention efforts. In a patriarchal society like India, stillbirth studies should explore fathers' perceptions, attitudes, and behaviors regarding stillbirth so that appropriate interventions can be developed for men, ultimately supporting women. While societal norms would require separate interventions, an effective intervention such as the pilot MBI for women is promising and may be adaptable for fathers too.

References

- Ahankari, A. S., Myles, P., Tata, L. J., & Fogarty, A. W. (2015). Banning of fetal sex determination and changes in sex ratio in India. *The Lancet Global Health*, 3(9), e523-e524.
- Bharadwaj, P., & Lakdawala, L. K. (2013). Discrimination Begins in the Womb. *Journal of Human Resources*, 48(1), 71-113.
- Blencowe, H., Cousens, S., Jassir, F. B., Say, L., Chou, D., Mathers, C., . . . You, D. (2016). National, regional, and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis. *The Lancet Global Health*.
- Burden, C., Bradley, S., Storey, C., Ellis, A., Heazell, A. E. P., Downe, S., . . . Siassakos, D. (2016). From grief, guilt pain and stigma to hope and pride - a systematic review and meta-analysis of mixed-method research of the psychosocial impact of stillbirth. *BMC Pregnancy & Childbirth*, 16, 1-12. doi:10.1186/s12884-016-0800-8

Cacciatore, J., Erlandsson, K., & Rådestad, I. (2013). Fatherhood and suffering: A qualitative exploration of Swedish men's experiences of care after the death of a baby. *International journal of nursing studies*, 50(5), 664-670. doi:10.1016/j.ijnurstu.2012.10.014

Kozuki, N., & Walker, N. (2013). Exploring the association between short/long preceding birth intervals and child mortality: using reference birth interval children of the same mother as comparison. *BMC Public Health*, 13(3), 1.

Lawn, J., Blencowe, H., Waiswa, P., Amouzou, A., Mathers, C., Hogan, D., . . . Calderwood, C. (2016). Stillbirths: rates, risk factors, and acceleration towards 2030. *The Lancet*.

McClure, E. M., Saleem, S., Goudar, S. S., Moore, J. L., Garces, A., Esamai, F., . . . Pasha, O. (2015). Stillbirth rates in low-middle income countries 2010-2013: a population-based, multi-country study from the Global Network. *Reproductive health*, 12(Suppl 2), S7.

Straus, M. A., & Mickey, E. L. (2012). Reliability, validity, and prevalence of partner violence measured by the conflict tactics scales in male-dominant nations. *Aggression & Violent Behavior*, 17(5), 463-474. doi:10.1016/j.avb.2012.06.004

Yoshida, S., Martines, J., Lawn, J. E., Wall, S., Souza, J. P., Rudan, I., & Cousens, S. (2016). Setting research priorities to improve global newborn health and prevent stillbirths by 2025. *Journal of global health*, 6(1).

Contact

lroberts@llu.edu

I 10 - Interventions in Birth Outcomes

Should Our Approach for Reducing Poor Birth Outcomes Differ in Urban and Rural Populations?

Judy Griffin McCook, PhD, RN-BC, USA
Beth A. Bailey, PhD, MA, BS, USA

Abstract

Purpose: Location of residence has long been recognized to impact maternal-child health disparities. For decades, women residing in urban areas have experienced high rates of poor pregnancy outcomes. More recently, rural disparities in birth outcomes have been recognized, and have been found to occur at rates similar to those reported for urban populations. In order to appropriately address poor birth outcomes in such highly disparate environments, a better understanding of the modifiable factors that may differentially drive these outcomes is needed. The current study had two objectives. First, we examined potential differences between rural and urban women on modifiable factors known to impact birth outcomes. Second, we examined whether these factors differentially predicted two specific adverse birth outcomes, preterm delivery (PTB, 9.6% nationally) and intrauterine growth restriction (IUGR, 9.9% nationally), for urban and rural newborns.

Methods: Data were extracted from birth certificates for all live births in the state of Tennessee for a 3-year period from 2012-2014. Rural Urban Commuting Area (RUCA) Codes were assigned based on maternal residence zip code, and participants were classified as either urban (Metropolitan, codes 1.0 – 2.1) or rural (Rural, codes 10.0-10.3). Those with micropolitan and small town RUCA codes were eliminated from further analysis. Birth outcomes of interest were PTB (birth prior to 37 weeks gestation) and IUGR (birth weight for gestational age < 10th percentile). Modifiable dichotomous predictors included maternal weight based on BMI (underweight prior to pregnancy, overweight prior to pregnancy, gained too little weight during pregnancy, gained too much weight during pregnancy), smoking (smoked cigarettes at any point during pregnancy), time between pregnancies (previous pregnancy ended < 6 months prior to current pregnancy), prenatal care (inadequate based on timing of entry and number of visits, no prenatal care), and existing or emerging chronic health conditions (prepregnancy and gestational hypertension, prepregnancy and gestational diabetes). Chi-square analyses were used to compare the urban-rural groups on the predictors, while logistic regression was used to look at the odds of poor birth outcomes relative to each predictor separately for urban and rural participants, while controlling for possible confounders (maternal age, race, infant gender, and eligibility for income-based government benefits).

Results: The final sample contained 183,703 maternal-infant dyads (9,385 classified as rural). The urban and rural populations did not differ significantly ($p > 0.05$) in rates of PTB (10.9% vs 11.4%) or IUGR (11.8% vs 11.3%). The two groups differed significantly ($p < 0.05$ – $p < 0.001$) on all predictors of interest. Compared to urban women, rural women had significantly higher rates of being underweight prior to pregnancy, being overweight prior to pregnancy, gaining too little weight, and gaining too much weight. Compared to urban women, rural women were more than twice as likely to have smoked during pregnancy (27.3% vs 12.2%), had a short inter-pregnancy interval, and had substantially higher rates of prepregnancy and gestational hypertension and diabetes. The only predictors for which urban women were worse off than rural women were related to prenatal care – urban women were 10% more likely to have inadequate prenatal care, and almost twice as likely (2.1% vs 1.1%) to have had no prenatal care. Logistic regression analyses revealed similar predictor patterns for urban and rural women for PTB, with gestational hypertension the strongest predictor (aOR=3.39 for urban women, aOR=2.82 for rural women). Prepregnancy hypertension and diabetes were significant predictors for both groups of women, more than doubling the chances of a PTB. While gaining too little weight predicted PTB for both groups, being overweight prepregnancy and inadequate prenatal care were strong predictors for rural women, while no prenatal care and pregnancy smoking were strong predictors for urban women. Prediction models were very different for urban and rural women regarding IUGR, with pregnancy smoking the strongest predictor for urban women, and prepregnancy hypertension the strongest predictor for rural

women. Being underweight prepregnancy significantly predicted IUGR for both groups, as did gaining too little weight, with prenatal care factors only marginally important and only for urban women.

Conclusion: PTB and IUGR are important indicators of not only newborn wellbeing, but of long term growth and development. In our sample, rates of PTB and IUGR in our urban and rural groups were higher than national averages, but not different between the two regions. This is despite the fact that rural women had significantly higher rates of most modifiable predictors of these adverse birth outcomes. Differences in what predicts PTB and IUGR in the two groups emerged, and may suggest avenues for differentially tailored interventions in urban and rural settings, especially with regard to how to better prioritize improved management of chronic health conditions, addressing weight preconception and weight gain during pregnancy, intervening with smokers, and increasing engagement in prenatal care. However, results also show that just because a potential determinant occurs at a higher rate in a specific region does not mean addressing it to the exclusion of other factors will lead to the greatest improvement in birth outcomes, and interventions should consider the predictors of poor birth outcomes in specific populations. Future research should examine potential buffers or resilience factors in rural samples who, based on rates of predictors of adverse birth outcomes, might be expected to have higher rates of PTB and IUGR than even urban women.

References

- Baugh, N., Harris, D. E., Aboueissa, A. M., Sarton, C., & Lichter, E. (2016). The impact of maternal obesity and excessive gestational weight gain on maternal and infant outcomes in Maine: analysis of Pregnancy Risk Assessment Monitoring system results from 2000 to 2010. *Journal of Pregnancy*, 5871313.
- Lisonkova, S., Haslam, M. D., Dahlgren, L., Chen, I., Synnes, A. R., & Lim, K. I. (2016). Maternal morbidity and perinatal outcomes among women in rural versus urban areas. *Canadian Medical Association Journal*, 188(17-18), E456-E465.
- Strutz, K. L., Dozier, A. M., van Wijngaarden, E., & Glantz, J. C. (2012). Birth outcomes across three rural-urban typologies in the Finger Lakes Region of New York. *Journal of Rural Health*, 28(2), 162-73.
- Till, S. R., Everetts, D., & Haas, D. M. (2015). Incentives for increasing prenatal care use by women in order to improve maternal and neonatal outcomes. *Cochrane Database of Systematic Reviews*, 15(12), CD009916.

Contact

mccook@etsu.edu

I 11 - Nursing Students and the Care of Vulnerable Populations Using Trigger Films as a Bariatric Sensitivity Intervention to Improve Nursing Students' Attitudes and Beliefs

Margory A. Molloy, DNP, RN, CNE, CHSE, USA

Abstract

Purpose: This project was a program evaluation. Its aim was to develop, implement, and evaluate the effects of a bariatric sensitivity intervention (BSI) on nursing students' attitudes toward obesity and their beliefs about caring for obese patients.

Methods: One-group repeated measures design used surveys immediately before the intervention, immediately after the intervention, and 30 days after the intervention to evaluate the effects of the BSI on nursing students' attitudes toward obesity and beliefs about obese persons. The BSI was delivered to a convenience sample of 70 first-semester nursing students enrolled in the introductory clinical nursing course of an accelerated BSN program. The entire class viewed the trigger films, participated in a debrief session facilitated by the project investigator, and completed surveys during regularly scheduled class time. Survey completion was optional, but all 70 students elected to participate in the surveys. Student survey packets were coded to ensure anonymity but allow matching of the surveys completed by each student at the 3 time points for analysis. For protection of human rights, this project was reviewed and approved by the institutional review board of the author's university.

The BSI developed for this project included the creation of 6 short video vignettes, or trigger films, along with a facilitated debrief. Trigger films are short social guidance educational films intended for student audiences and focus on themes that engage the affective domain. The trigger films highlighted simulated scenarios involving interactions among members of the health care team and, in some cases, interactions with patients. Key learning points built into the BSI included: recognizing the multifactorial etiologies of obesity, avoidance of 'blaming the victim', and understanding the consequences of attributing the lack of personal willpower as the cause of all obese conditions.

The Nurses' Attitudes Toward Obesity and Obese Patients Scale (NATOOPS) developed by Watson, Oberle, and Deutscher (2008) is a 36-item questionnaire framed on 100 mm visual analog scale that was used to measure students' attitudes toward obesity and obese adult patients at 3 time points. The Beliefs About Obese Persons Scale (BAOPS) developed by Reto (2003) is a questionnaire with 8 items, each scored on 6-point Likert scale (total score 0 to 48). Each item assesses extent of agreement or disagreement with statement about controllability of obesity. Both instruments were administered before, immediately after, and 30 days after delivery of the BSI

Results: NATOOPS subscale scores showed significant improvement in attitudes toward obesity for 3 of 5 subscales from pre-intervention to immediately post-intervention and 2 of 5 subscales from pre-intervention to 30-day post-intervention. BAOP total scores showed significantly more positive beliefs about controllability of obesity from pre-intervention to immediately post-intervention, from pre-intervention to 30-day post-intervention.

The BSI produced immediate changes in nursing students' attitudes (NATOOPS) and underlying (explicit) beliefs about individuals who are obese (BAOP). However, sustainability of this intervention needs to be explored further.

Conclusion: A well-designed Bariatric Sensitivity Intervention (BSI) exploring obesity issues can positively impact nursing students' attitudes toward and beliefs about caring for obese patients. Attitudes about obese persons are positively changed when obesity is attributed to genetics and/or environmental factors. However, beneficial effects of this intervention may not be sustained unless mechanisms are in place to reinforce its content throughout the educational curriculum. Faculty should consider exposing students to simulations using bariatric-sized mannequins/models and bariatric equipment prior to clinical entry, sharing current research on causes, health risks, and effective nursing interventions associated

with obesity with nursing students in order to reduce stigmatization of obese patients. Modeling use of supportive communication / language when talking to overweight or obese patients should be demonstrated by faculty in the classroom, clinical and laboratory settings. This project could be replicated to determine whether delivery of BSI would be more effective if delivered at time points later in the nursing curriculum. Further research is needed to develop effective interventions for improving student attitudes and reducing bias, stigma, and discrimination toward obese patients.

References

Budd GM, Mariotti M, Graff D, Falkenstein K. Health care professionals' attitudes about obesity: An integrative review. *Appl Nurs Res.* 2011;24(3):127-37.

Dietz WH, Baur LA, Hall K, et al. Management of obesity: improvement of health-care training and systems for prevention and care. *Lancet.* 2015;385(9986):2521-2533.

Puhl RM, Luedicke J, Grilo CM. Obesity bias in training: attitudes, beliefs, and observations among advanced trainees in professional health disciplines. *Obesity.* 2014;22(4):1008-15.

Contact

margory.molloy@duke.edu

I 11 - Nursing Students and the Care of Vulnerable Populations

What Do Nursing Students Know About the Homeless and Their Care Experiences? A Qualitative Study

Kim Schafer Astroth, PhD, RN, USA
Cindy H. Kerber, PhD, PMHCNS, BC, USA
Sheryl Henry Jenkins, PhD, APN, ACNP-BC, RN, USA
Wendy M. Woith, PhD, RN, FAAN, USA

Abstract

Purpose: The **purposes** of this qualitative study were to: a) explore the attitudes and knowledge of nursing students regarding the homeless, b) describe their experiences with the homeless, c) examine their perceptions of nursing care of the homeless, and d) identify possible strategies for teaching nursing students about care of the homeless. Vulnerable populations, especially homeless people, may be particularly at risk for experiencing uncivil behavior from nurses. Studies have demonstrated that homeless people believe they are not treated as well as others when seeking healthcare; they have reported experiencing incivility and lack of compassion by nurses. These nursing behaviors constitute a barrier to care of the homeless. There is little literature regarding nursing students' attitudes toward the homeless and how these attitudes may impact the care of this vulnerable population.

Methods: We interviewed 19 undergraduate nursing students, aged 20 to 21, from a baccalaureate nursing program in the Midwestern United States. We obtained informed consent and demographic data immediately before initiating the audiotaped interviews. Audiotaped interviews took an average of thirty minutes to complete and were later transcribed verbatim. Field notes were maintained with each interview to allow for an audit trail. Qualitative data were analyzed through content analysis identification of themes. Coding categories were generated from the data, with final themes identified through an iterative process, until data saturation was reached. Themes were examined for fit with Leininger's model and were also compared to themes found in the literature and examined for congruency. Descriptive statistics were used to explore participants' characteristics. Trustworthiness was enhanced through use of an audit trail and member checking.

Results: Four major themes emerged from data analysis: a) student perceptions of the homeless, b) student experiences with the homeless, c) healthcare of the homeless, and d) how best to teach students about the homeless.

Student perceptions of the homeless. Students defined homelessness as lacking both a physical home and basic necessities, not having a job, and, interestingly, an absence of an emotional sense of belonging. Most students believed homelessness was primarily due to circumstances beyond the individual's control. Some mentioned that homelessness may also be caused by poor personal choices, such as drug use, but they believed that this described only a minority of homeless people. In describing the appearance and behavior of homeless people, students asserted that the homeless wear old clothes in poor repair, have poor hygiene and grooming, and carry all their belongings with them in bags or boxes. Students envisioned a typical day for the homeless as one spent in looking for resources, food, shelter, money, and work. They described a typical night for the homeless as cold and frightening. Many thought it would be very difficult to find a safe place to sleep. Students also expressed a strong sense of empathy for the homeless. They felt sadness, shock, and humility as they described their experiences. A few reported feeling guilty if they ignored the homeless because they didn't have anything to give them.

Student experiences with the homeless. Students reported both self-directed and community-directed experiences with the homeless. Self-directed experiences included chance encounters on the street in which they gave money, water, or left-over food to the people they met. Community-directed experiences included working at soup kitchens, food pantries, and homeless shelters with school or church groups. Some of the community-directed experiences were superficial in that students merely dished up food or bagged items without interacting with recipients. Others were deeper in that they actually spent time in

conversation with the homeless. These students described trying to get to know them and understand their circumstances.

Healthcare of the homeless. Half of the students thought that homeless people usually did not seek professional healthcare, but instead tried to care for themselves. The other half said homeless people seek care at free clinics or hospitals. In addition, students believed that homeless people receive help from friends, family members, or strangers on the street. Lack of money or health insurance, inadequate transportation, fear of inequitable care, and stigma were described as major barriers to care. Students suggested nursing care of the homeless should be empathetic, attentive, compassionate, and equitable.

How best to teach students about the homeless. Students identified four specific teaching strategies. They suggested discussing homelessness as a topic inserted into an existing course. They also asserted that simulations in which students experience what it is like to be homeless could be informative and also give students an entirely new perspective. Several recommended developing clinical experiences in which students work in low income clinics or shelters to provide direct care for the homeless. Finally, a few students believed that cultural immersion, in which students interact with the homeless in natural environments, would be most helpful.

Conclusion: Nurses have a responsibility to advocate for the needs of vulnerable populations including the homeless. In order to be effective advocates, nurses and nursing students must thoroughly understand the issues related to homelessness. Students in this study had varying types of involvement with and knowledge of the homeless and their care experiences. Many of their perceptions were based on stereotypes, and some were patently erroneous, such as assertions that most homeless people have jobs, or that substance abuse has negligible impact on homelessness. This suggests that student nurses need more comprehensive education concerning the needs of this vulnerable population.

References

- Boylston, M. T. & O'Rourke, R. (2013). Second-degree bachelor of science in nursing students' preconceived attitudes toward the homeless and poor: A pilot study. *Journal of Professional Nursing, 29*, 309-317.
- Kooken, W., Baylor, J. K., & Schwend, K. R. (2014). Worlds apart in the same town? A qualitative comparison of pre- and post-clinical themes assessing student nurse perceptions of homeless, mentally ill clients. *Nurse Education Today, 34*(3), 306-312.
- Patterson, N. & Hulton, L. (2011). Enhancing nursing students' understanding of poverty through simulation. *Public Health Nursing, 29*, 143-151.
- XXX&X. (in press). Lessons from the homeless: Civil and uncivil interactions with nurses. *Nursing Forum*.

Contact

kmastro@ilstu.edu

I 12 - Perinatal Health Promotion

Preconception Health Planning: Improving Outcomes

Julie A. Fitzgerald, PhD, RN, CNE, USA

Abstract

Purpose: Current data suggests that lack of engagement in preconception health planning is a global problem and new approaches are needed to prevent preterm births and improve pregnancy outcomes. Many pregnant women make lifestyle changes during pregnancy to promote their health and the health of the fetus. Studies note that pre-conceptual health of both the mother and father influence pregnancy outcomes (Ding, Li, Xie & Yang, 2015; Moss & Harris, 2015). The CDC and Workgroup of the National Preconception Health and Health Care Initiative (Frayne, Verbiest., Chelmow., Clarke, Dunlop, Hosmer, & ... Stuebe 2015) identified the need for preconception health screening, assessment and education to improve birth outcomes. They estimate as many as one in ten women had a poor birth outcome and needed interventions to improve health, with minority and poor women at higher risk (CDC, 2006, 2015). The CDC recommends that risk assessment and health education be part of all primary care visits (CDC, 2015; Hurst & Linton, 2015). In spite of these recommendations PRAMS data from 2004-2010 from twelve states in the United States reported that only one third of women who delivered reported receiving preconception health planning (Ozra-Frank, Gilson, Keim, Lynch & Kiebanoff, 2014). The government of China, offered free preconception health planning to Chinese men and women to improve birth outcomes. A survey of over 12,000 pregnant women and men living in China, revealed that although the majority knew of the service, only 40% accessed the service (Ding, Li, Xie & Yang, 2015). Likewise, a survey of pregnant women living in London, noted that although 73 % of women planned their pregnancy less than 50% received pre conceptual care (Stephenson, Patel,Barrett, Howden, Copas, Ojwuku et. al. , 2014). Further assessment of this population revealed although many reduced alcohol and quit smoking prior to conception, only 51% reported taking folic acid. Few studies have focused on the postpartum as a time to incorporate pre-conception health planning.

Methods: Based on the need to improve birth outcomes and reduce the number of preterm births, the March of Dimes funded a Nurse Educator/Health Coach to work with mothers of infants admitted to the NICU. The Nurse Educator/Health Coach recruited (N=70) mothers of preterm infants admitted to the NICU, to learn about stress reduction and healthy lifestyles. Since mothers who give birth to preterm infants, often have health risks and may have a subsequent preterm birth the education focused on preconception care. The Nurse Educator assigned to the project, administered a pregnancy quiz (to assess knowledge of healthy pregnancy) a Risk Assessment Survey, and provided patient education with a Preconception Health Education Module developed by the March of Dimes. All participants received individualized risk assessment and education regarding importance of folic acid intake prior to conception, pregnancy spacing, postpartum depression, healthy eating, importance of management of chronic diseases, stress reduction techniques and the value of exercise. Additional education was targeted related to specific clinical conditions or knowledge deficits, including hypertension,obesity, diabetes, substance abuse, weight loss and diabetes, based on an evaluation of the individual mother's risk assessment and pregnancy quiz. Mothers were encouraged to identify one health goal and define strategies to achieve that goal. The nurse educator used motivational interviewing to discuss the benefits of the goal selected. As part of the evaluation for the educational project, mothers who participated were contacted two to six months after the intervention to assess if they had made changes in their health behaviors.

Results: Seventy mothers from diverse backgrounds, received education in the NICU during the project year. Twenty-five successful follow up phone calls were conducted. Nineteen women (76%) of those in the follow up group reported positive lifestyle changes. These changes included: fourteen women reported eating healthier, with six reporting weight loss, three reported increasing exercise, and two reported a decrease in smoking behavior. One reported quitting completely and one reported decreasing the number of cigarettes smoked daily. Six participants reported no change in health behavior. Overall, it appears that women are receptive to health education during the postpartum period. Some participants reported although they wanted to make lifestyle changes such as exercising, they were overwhelmed

caring for their infant and planned to try in the future. Many follow ups could not be completed due to the fact participants changed phone numbers or used cell phones that did not accept calls.

Conclusion: The early postpartum period may be an ideal time for nurses to provide targeted education and reinforce the need to continue positive lifestyles changes to improve the health of the mother and ensure a healthy pregnancy in the future. Nurses that provide care for women of reproductive age should provide pre-conception care and health education at every visit. Behavior changes such as smoking cessation, healthy eating and exercise can positively impact future pregnancies and the health of the whole family. Adopting healthy eating patterns and getting regular exercise can improve mood, reduce stress, reduce the incidence of Type 2 Diabetes and improve cardiovascular health. Further longitudinal research to determine if changes in health behaviors made in the pregnancy and postpartum period are sustained and identification of strategies that empower women to improve their health are indicated.

References

- Center for Disease Control (2006). <http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5610a1.htm#>
- Centers for Disease Control and Prevention (2015). Action plan for the initiative on preconception health and health care. www.cdc.gov/preconception/articles.htm
- Ding, Y., Li, X., Xie, F., & Yang, Y. (2015). Survey on the Implementation of Preconception Care in Shanghai, China. *Paediatric & Perinatal Epidemiology*, 29(6), 492-500. Doi:10.1111/ppe.12218
- Frayne, D. J., Verbiest, S., Chelmow, D., Clarke, H., Dunlop, A., Hosmer, J., & ... Stuebe, A. (2016). Health Care System Measures to Advance Preconception Wellness: Consensus Recommendations of the Clinical Workgroup of the National Preconception Health and Health Care Initiative. *Obstetrics & Gynecology*, 127(5), 863-872. doi:10.1097/AOG.0000000000001379
- Hurst, H. M. & Linton, D. M. (2015). Preconception Care: Planning for the Future. *Journal For Nurse Practitioners*, 11(3), 335-340. Doi: 10.1016/j.nurpra.2014.09.011
- Moss, J.L. & Harris, K.M. (2015). Impact of maternal and paternal preconception health on birth outcomes using prospective couples' data in Add Health. *Archives of Obstetrics and Gynecology* 291: 287. doi:10.1007/s00404-014-3521-0
- Oza-Frank, R., Gilson, E., Keim, S. A., Lynch, C. D., & Klebanoff, M. A. (2014). Trends and Factors Associated with Self-Reported Receipt of Preconception Care: PRAMS, 2004-2010. *Birth: Issues In Perinatal Care*, 41(4), 367-373. doi:10.1111/birt.12122
- Stephenson J, Patel D, Barrett G, Howden B, Copas A, Ojukwu O, et al. (2014). How Do Women Prepare for Pregnancy? Preconception Experiences of Women Attending Antenatal Services and Views of Health Professionals. *PLoS ONE* 9(7): e103085.

Contact

juliefitz99@gmail.com

I 12 - Perinatal Health Promotion

Knowledge, Attitudes, and Competency about Providing Perinatal Care to Women With Disabilities

Lorraine Byrnes, PhD, FNP-BC, PMHNP-BC, CNM, FAANP, USA

Abstract

Purpose: Women who are disabled (n=8 million) account for approximately 11% of the childbearing population in the U.S. today. Although there are no available population based studies that report incidence and prevalence of pregnancy and birth in this population, smaller studies find that many women who are disabled desire biological children and plan to become mothers. The majority of women with disabilities report a physical disability (51%) followed by mental disabilities (30%) and sensory disabilities (19%). The purpose of this study is to describe the knowledge, attitudes, and perceived competencies about providing perinatal care to women with disabilities by nurse practitioners and certified nurse midwives.

Methods: A 37 item online, anonymous survey developed for the purpose of this study was distributed via SurveyMonkey to the membership of a leading U.S. based Nurse Practitioner organization after IRB review and approval. Eligibility criteria included licensure as an advanced practice nurse/nurse-midwife and current clinical practice in this role. Of the 185 surveys returned, 150 were eligible for inclusion in the final analysis. This represented almost 7% of eligible participants to whom the recruitment email was sent. Surveys with incomplete data were excluded from the final analysis. SPSS version 22 was used to analyze the data. Descriptive statistics were used to analyze demographics and participants' education and practice histories. Chi-square tests were then conducted to investigate the association between knowledge, attitude, and perceived competency to provide perinatal care to women with disabilities.

Results: Although only 30% of respondents reported receiving didactic information, and 20% of respondents reported receiving clinical experience on providing care to women with disabilities during their academic coursework, a majority of respondents reported positive knowledge, attitude and competency in providing care to this population. There was a significant relationship between professional experience (years of practice and education) and knowledge, attitude, and perceived competency in providing care to women with disabilities. NPs/CNMs who were in practice over 10 years reported greater perceived competency providing care to pregnant women with intellectual ($\chi^2 = 5.18$, $n=150$, $p<.05$) or developmental disabilities ($\chi^2 = 4.14$, $n=150$, $p<.05$). In addition, NPs/CNMs who received either didactic ($\chi^2 = 8.81$, $n=150$, $p<.001$) or clinical ($\chi^2 = 5.81$, $n=150$, $p<.05$) education in this area were more likely to feel that they received sufficient education to attain competency in providing care to disabled women than those who reported receiving none of this content

Conclusion: Advanced practice nurses can help bridge the gaps in care and help ensure positive experiences with the healthcare system. Raising awareness about the unique needs of women with disabilities is one step toward ensuring a more positive experience within the healthcare system. Nurse practitioners reported providing perinatal care to women with physical, sensory, intellectual and developmental disabilities. However knowledge about providing care to women with disabilities came through clinical experience, by working with colleagues who share their own experience and knowledge and experiences learning from disabled patients. We recommend the development of formal didactic and clinical education to prepare NPs to care for this population of women.

References

- Byrnes, L. & Hickey, M. (2016). Perinatal care for women with disabilities: clinical considerations. *Journal for Nurse Practitioners* 12(8): 503-09. DOI: <http://dx.doi.org/10.1016/j.nurpra.2016.06.005>
- Byrnes, L., Hickey, M., Seo, J.Y., Goshin, L. (in review). Knowledge, Attitudes, and Perceived Competency about Providing Perinatal Care to Women with Disabilities. *Women's Healthcare: A Clinical Journal for NPs* Centers for Disease Control and Prevention. Disability and Health. <http://www.cdc.gov/ncbddd/disabilityandhealth/disability.html> 2015 Accessed March 17, 2016.
- Tarasoff LA. Experiences of women with physical disabilities during the perinatal period: a review of the literature and recommendations to improve care. *Health Care Women Int.* 2015; 36: 88-107.

Iezzoni LI, Yu J, Wint AJ, Smeltzer SC, Ecker JL. Prevalence of current pregnancy among US women with and without chronic physical disabilities. *Med Care*. 2013; 51,6:555-62.

Iezzoni LI, Yu J, Wint AJ, Smeltzer SC, Ecker JL. Health risk factors and mental health among women with and without chronic physical disabilities by whether women are currently pregnant. *Matern Child Health J* 2015; 19:1364–1375 DOI 10.1007/s10995-014-1641-6

Mitra, M., Long-Belli, LM., Iezzoni, LI., Smeltzer, SC., Smith, LD. Pregnancy among women with physical disabilities: Unmet needs and recommendations on navigating pregnancy. *Disabil Health J* 2016 Jan 2 (e published) 25 women who had a child in the past 10 years participated in a telephone interview. 3 themes: clinician knowledge and attitudes, physical accessibility of facility and assistive devices, need for information related to pregnancy and PP.

World Health Organization. Disabilities. <http://www.who.int/topics/disabilities/en/> 2015 Accessed March 17, 2016

Americans with Disabilities Act. <http://www.ada.gov/pubs/adastatute08.htm#12102> 1990 Accessed January 17, 2016.

Anastasiou, D. & Kauffman, J.M. The social model of disability: dichotomy between impairment and disability. *J Med Philos*. 2013 Aug;38(4):441-59. doi: 10.1093/jmp/jht026.

Shakespeare, T. & Watson, N. (2002). The social model of disability: an outdated ideology? <http://disability-studies.leeds.ac.uk/files/library/Shakespeare-social-model-of-disability.pdf> 2002 Accessed January 17, 2016.

Walsh-Gallagher, D., Sinclair, M. & Mc Conkey, R. (2012). The ambiguity of disabled women's experiences of pregnancy, childbirth and motherhood: A phenomenological understanding. *Midwifery* 28: 156-162. doi:10.1016/j.midw.2011.01.003

Mitra, M, Iezzoni, L.I., Zhang, J., Long-Bellil, L.M., Smeltzer, S.C., & Barton, B.A. Prevalence and Risk Factors for Postpartum Depression Symptoms Among Women with Disabilities *Matern Child Health J* 2015; 19:362–372 DOI 10.1007/s10995-014-1518-8

Mitra, M., Manning, S.E., & Lu, E. Physical Abuse Around the Time of Pregnancy Among Women With Disabilities *Matern Child Health J* 2012; 16:802–806 DOI 10.1007/s10995-011-0784-y

Centers for Disease Control and Prevention. Preconception Health and Health Care. www.cdc.gov/preconception/overview.html 2015 Accessed January 17, 2016

Contact

Isander@hunter.cuny.edu

I 13 - Service Learning in Undergraduate Nursing

A Diabetes Camp Impacts Nursing Students and Children: Evaluation of an Interprofessional Service Learning Course

Jennifer L. Saylor, PhD, MSN, BSN, RN, APRN-BC, USA
Christina Calmaro, PhD, RN, CRNP-BC, USA

Abstract

Purpose: The purpose of this study was to evaluate an interprofessional service learning, undergraduate nursing course that combines a didactic diabetes focus with a diabetes camp to promote learning beyond the classroom.

Background/Literature Review: Service learning is an established andragogy that aims to translate information presented in didactic courses to real-world situations. This unique teaching approach synergizes the classroom objectives and the application of abstract thinking, which is required in “real-life” situations. The aspect of abstract thinking involved in service learning includes social, ethical, and cultural aspects, which develops and fosters cultural diversity (Adegbola, 2013). Progression from instructive to experiential learning, reflection, and ultimately reciprocal learning, service learning bridges a gap between the classroom and practical application (Schmidt & Brown, 2016). When integrated into the nursing curriculum, service learning not only reinforces academic coursework, but also strengthens critical thinking, responsibility, accountability, and promotes students as change agents in their communities. An undergraduate nursing elective and service learning course (NURS411: “Topics in Healthcare Delivery: Teaching Wellness to Children) combines a didactic and clinical component in the form a diabetes camp.

Diabetes and You: Kamp for Kids (K4K) provides education, camaraderie, and support to children with T1D between 4-17 years old. There are typically 65-85 campers that attend each year, 50-60% of whom have T1D. The scheduled activities and games are based on one of the five topics: diabetes overview, physical activity, nutrition, stress, and “tying it all together”. Each topic is assigned to a different day of camp with different education modalities and learning to cultivate an understanding and knowledge about diabetes and healthy living of all campers.

Course Didactic Component: During the didactic portion of the course, students attend five instructional classes centered on the care and management of children with T1D and also develop the week-long day camp for children with T1D and their siblings and friends. One of the class days is an interprofessional education day sponsored by a local pediatric hospital focused on comprehensive approach to diabetes management. The students interact and learn from a pediatric nurse practitioner, registered dietitian, and a psychologist who all specialize in endocrinology.

Traditionally, nursing students are taught using nursing textbooks and journals. However, this course textbook is the same book that parents receive in the hospital when their child is first diagnosed with T1D and is titled, *Understanding diabetes: A handbook for people who are living with diabetes* (Chase & Maahs, 2016). The students not only learn concepts to assist with camp management, but also the translation of these concepts into clinical practice including glucose management, leadership skills, team building, and conflict resolution. Each class begins with a quiz, followed by small group discussions and interactive activities about teamwork, leadership, conflict resolution. The evaluation methods used in the classroom includes quizzes, direct observation, group discussions, and reflective journals.

Course Clinical Component: The last week of the course incorporates the didactic components into the diabetes camp focused on health and wellness of children with diabetes and their friends/siblings. Each group comprised of four to five randomly assigned students is charged with organizing and managing the diabetes camp for one day. Each morning a pre-conference briefing is held before the campers’ arrival. Safety is reiterated and the logistics of the day are reviewed. Throughout the day, students learn through experiencing family interactions between and among siblings and parents at drop off. Students interact directly with the nursing and psychology staff regarding diabetes management and psychological aspects

associated with children. Besides hands-on diabetes management, this course provides essential “life skills” including teamwork, conflict resolution, management, and interpersonal communication across the lifespan. The camp day concludes each day with a post-conference briefing to celebrate successes of the nursing students and campers. Students identify issues or concerns that occurred that day, which are then presented to the full class for resolution.

Methods: With University Institutional Review Board approval, a mixed method design was used to evaluate the 400 level nursing elective, “Topics in Healthcare Delivery: Teaching Wellness to Children.” As part of the students’ NURS411 course assignments, the students (n = 23) completed a Perceived Confidence Survey in diabetes management during class. The survey was completed 2 days before the week of diabetes camp and again the last day of camp. This adapted survey used a four-point Likert scale for the eight questions, which included the following areas: communication with campers and families, hypo- and hyperglycemic assessment and treatment, insulin pump therapy, and empathy. ((Johnson, 2007)) To avoid bias, faculty did not review the pre- or post-confidence surveys until after student grades were posted. Using the service learning approach, students completed a reflection analysis paper 48-72 hours after camp. As per faculty guidelines, the four to six paper consisted of six open-ended, adapted questions to focus on the course objectives.((Johnson, 2007)) With permission, students were allotted more pages if necessary. The pre- and post-perceived confidence surveys were analyzed using SPSS (version 23). Paired T-test analyzed each question of the pre- and post-perceived confidence survey using an alpha level of < 0.05. Content analysis of the final reflection paper was conducted by the professor and another author who are experienced in qualitative researchers.

Results: The overall mean and standards deviation for the pre and post confidence survey results were 3.2 (.47) and 3.80 (.19), respectively. The largest difference between the mean among the eight questions was related to the students’ confidence in insulin pump therapy with a pre-camp mean of 2.35 (.71) compared to a post-camp mean of 3.48 (.59). Content analysis revealed four major themes with some having subthemes: pre-camp assumptions and fears, growth in confidence, understanding diabetes management in the community, and appreciation for learning beyond the classroom and hospital setting.

Pre-camp assumptions and fears: The students assumed that they would recognize a campers’ high or low blood sugar and that they campers would have a lack of knowledge related to diabetes management because they are nursing students and have more education about diabetes than children. One student said, “ ...these kids know their bodies (which completely blew me away) and they knew when they were feeling low or high and they let their counselors know.” Another assumption was the expectation of chaos and the students’ planned daily schedules included times of all activities would not occur. One student said, “Although there was chaos in some rooms, it was filled with laughter, smiles, and balloons flying through the air.

Growth in Confidence: This course has a positive environment and students’ clinical confidence grows exponentially related to diabetes management, which is natural since the students repeated these skills many times throughout the week. However, managing multiple patients in the inpatient hospital setting and understanding that a nurse’s day is constantly changing requires excellent communication skills, delegation, and teamwork. One student said, “The preparation leading up to and the week of Kamp truly put us [students] in circumstances where leadership and delegation are necessary. Both of which are key components of nursing”. Students’ confidence in themselves evolved throughout the course in many different areas. Another said, “I feel that I personally grew from a nervous and unsure nursing student, to a confident and self-sufficient counselor who is able to help challenge and inspire campers.”

Understanding Diabetes Management in the Community: Using camp to immerse the students into community, fostered the students understanding of how children with and without diabetes interact and manage diabetes on a daily basis. This experience is quite different than a hospital setting. One student said, “Caring for this population wasn’t just about giving shots, and checking glucose levels – it also meant negotiating their social circles, navigating their logical and mental routes and relating to them person-to-person, not just nurse-to-patient.”

Appreciation for Learning beyond the Hospital Setting: Students were able to gain new perspectives on caring for children with T1D. The hospital setting provides nursing experiences in an acute phase. However, there is much more to chronic conditions such as T1D that may only be understood when immersed in a community like setting such as a diabetes camp. One student said, "I never knew how much time and effort they [children with T1D] spent on diet and understanding diabetes [I have] respect for patients, families, and children, who have diabetes." Learning occurs from a different perspective. One student said, "Kamp helped me learn and understand diabetes from the children and family perspective"

Conclusion: Using a service learning approach, the faculty and nursing staff at Diabetes and You: Kamp for Kids are able to foster critical thinking and personal reflection through hands on experience of overseeing a diabetes camp and a reflection assignment. This course also provides a heightened sense of community engagement and responsibility not only to the campers and their families, but also to the camp staff and the students enrolled in the course.

References

- Adegbola, M. (2013). Relevance of service learning to nursing education. *The ABNF Journal : Official Journal of the Association of Black Nursing Faculty in Higher Education, Inc*, 24(2), 39.
- Chase, H., & Maahs, D. (2016). *Understanding diabetes* (13th ed.). Denver, CO: Children's Diabetes Foundation.
- Johnson, J. F. (2007). A diabetes camp as the service-learning capstone experience in a diabetes concentration. *American Journal of Pharmaceutical Education*, 71(6), 119.
- Schmidt, N. A., & Brown, J. M. (2016). Service learning in undergraduate nursing education: Strategies to facilitate meaningful reflection. *Journal of Professional Nursing*, 32(2), 100-106. doi:10.1016/j.profnurs.2015.06.006

Contact

jsaylor@udel.edu

I 15 - Clinical Practice Strategies

Implementing Best Practices Using Appreciative Inquiry

Joyce J. Fitzpatrick, PhD, RN, FAAN, USA
Reynaldo R. Rivera, DNP, RN, NEA-BC, FAAN, USA
Bernadette Khan, MSN, RN, NEA-BC, USA
Wilhelmina M. Manzano, MA, RN, NEA-BC, USA

Abstract

Appreciative Inquiry (AI) is a model of organizational behavior that has recently been applied in a number of health care organizations to improve care. AI is focused on discovering the best that is, and designing a future that could be even better. AI includes 4 cycles: Discovery of the best of what is; Dream what might be; Design what could be; and Destiny: what will be. One important component of the AI experience is that it relies on the collective design of a desired future state that is compelling, thus lifting the conversation to avoid problems and complaints and focus on positive possibilities. We implemented AI by taking the best evidence from the literature related to key areas central to enhancing RN to RN interaction: the bedside shift report and RN floating. We asked clinical nurses providing direct care to describe the evidence and best practices related to each of these areas. The creativity that was generated for each of these challenging situations was impressive, and best practices have been described and implemented on the units. Responses related to “floating” included providing a “buddy system” for nurses who have floated, designing a concise unit orientation system for these nurses, and making sure there is a “check out” to ask the floating nurses “what worked” for you, so as to improve the experience of the next float nurse. Responses related to best practices in bedside shift report including making certain patients are aware of all that is being done to keep them safe, conducting an environmental scan to ensure patient safety, directly communicating to the patient the strengths of the oncoming nurse, thus assuring the patient and the nurse that there is trust in the system. As part of the AI model there is a “check out” after each implementation session. Nurses who have participated in the AI sessions have described the experience as “inspiring”, “empowering” “energizing” and “validating”. Other positive terms for the experience as well as the developmental process will be shared in this presentation. Future plans are to link this work to both nurse and patient satisfaction.

References

Gregory, S., Tan, D., Tilrico, M., Edwardson, N., & Gamm, L. (2014). Bedside shift report: What does the evidence say? *Journal of Nursing Administration*, 44(10): 541-5.
Watkins, J. M., & Mohr, B. J. (2011). *Appreciative Inquiry: Change at the speed of imagination*. NY: Wiley.

Contact

jffitzpatrick@hotmail.com

I 15 - Clinical Practice Strategies

Development of a Practice Change Model to Incorporate Tradition-Based Nursing Practices

Annette M. Bourgault, PhD, RN, CNL, USA

Michele J. Upvall, PhD, RN, CNE, USA

Abstract

Purpose: The purpose of this study was to explore factors influencing the use of tradition-based practices and create a model of de-implementation processes to facilitate adoption of evidence-based practice in the critical care setting. This presentation is aligned with the conference objective of discussing research strategies to promote evidence-based teaching and learning influencing interprofessional environments.

Evidence-based practice is an expected standard of clinical practice as the means for optimizing patient outcomes and minimizing cost. Nursing research has focused its attention on the implementation of evidence-based practices without considering de-implementation of existing entrenched, routine practice, also known as tradition-based practice. Tradition-based practices may be devoid of adequate empirical evidence (Prasad & Ioannidis, 2014) and some are described as low-value care (van Bodegom-Vos, Davidoff, & Marang-van de Mheen, 2016). Since tradition-based practices may be potentially harmful or ineffective, de-implementation is necessary to optimize patient outcomes and/or resources (Flynn Makic, Rauen, Watson, & Poteet, 2014). De-implementation or termination of these tradition-based practices is a relatively new approach to changing practice and is necessary to facilitate evidence-based practices in the clinical setting (Montini & Graham, 2015; Prasad & Ioannidis, 2014). Our novel study was the first that we are aware of to study de-implementation of tradition-based practices by critical care nurses.

The research question was: What are the factors and processes necessary for de-implementation of tradition-based practices by critical care nurses to facilitate implementation of evidence-based practices? Specific aims included 1) explore factors that influence the continued use of tradition-based practices by critical care nurses and barriers to stopping these practices, and 2) identify processes that facilitate de-implementation of tradition-based practices.

Methods: Qualitative, descriptive inquiry using semi-structured interviews were used to collect data. Critical care nurses from an acute care hospital in Central Florida were recruited for the study. University and hospital institutional review boards granted ethical approval. A series of demographic and interview questions were asked. Interview questions inquired about practice changes, including roles, facilitators and barriers, processes, and tradition-based practices. Questions evolved based on participant data and interviews ceased when data saturation was reached. Thematic content analysis was used to code and categorize interview data in two phases (Miles, Huberman & Saldaña, 2014). Two researchers reached consensus on coding and derived categories and themes. HyperResearch software was utilized to manage and code data.

Results: The sample consisted of 22 critical care nurses; 4 of the participants were in formal leadership roles and 18 were staff nurses. Nursing experience ranged from 1-39 years (M=10) and 17/22 (77%) of participants held a BSN or higher degree. The major theme that emerged during secondary data analysis was *uncertainty of the scientific underpinnings of clinical nursing practice*. Participants were unsure if their practices were based solely on tradition, evidence, or a combination of sources and most were unable to define and/or identify a tradition-based practice. Uncertainty then became the core concept in our new model for practice change. "Desire to know" was the primary mediator between uncertainty and de-implementation of tradition-based practices and implementation of evidence-based practices. Sources of information to satisfy desire to know and relieve uncertainty included professional organizations, nursing leadership at the unit level including the Unit Practice Council, and previous knowledge acquired from formal nursing education. Additional mediators to de-implementation of tradition-based practices were identified as secondary facilitators and barriers. These facilitators, such as use of a Gemba visual management board and identified barriers to practice change, influenced both de-implementation and implementation processes.

Conclusion: The inclusion of tradition-based practices in this new model for clinical practice changes may facilitate de-implementation of tradition-based practices and enhance the evidence-based practice process. More research is necessary to explore factors associated with uncertainty of the scientific underpinnings of clinical nursing practice. This model will need to be tested in the local critical care setting with consideration to the environment and cultural context. Nurse educators and leaders may play an active role to assist students and nurses to become aware of tradition-based practices and determine methods to de-implement these practices. Additionally, Gemba boards may be a useful tool to identify tradition-based practices and begin discussions about de-implementation. Further research on the effectiveness of Gemba boards in nursing is also warranted.

References

- Flynn Makic, M. B., Rauen, C., Watson, R., & Will Poteet, A. (2014). Examining the evidence to guide practice: Challenging practice habits. *Critical Care Nurse, 34*(2), 28-46. doi:10.4037/ccn2014262
- Miles, M.B., Huberman, A. M., and Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook. The coding manual for qualitative researchers*. 2nd ed. Thousand Oaks, CA: Sage Publications, Inc.
- Montini, T. and Graham, I.D. (2015). "Entrenched practices and other biases": Unpacking the historical, economic, professional, and social resistance to de-implementation. *Implementation Science, 10*(1): 211-211.
- Prasad, V., & Ioannidis, J. P. (2014). Evidence-based de-implementation for contradicted, unproven, and aspiring healthcare practices. *Implementation Science, 9*(1), 1-1. doi:10.1186/1748-5908-9-1
- van Bodegom-Vos, L., Davidoff, F., & Marang-van de Mheen, P. J. (2016). Implementation and de-implementation: Two sides of the same coin? *BMJ Quality & Safety, 0*, 1-7. doi:10.1136/bmjqs-2016-005473

Contact

annette.bourgault@ucf.edu

I 16 - Promoting Research in Nursing

Measuring What Matters: A Multi-Site Study of Self-Reported and Objectively Measured Nursing EBP Knowledge

Darrell Spurlock, PhD, RN, NEA-BC, ANEF, USA
Anglea McNelis, PhD, RN, FAAN, ANEF, CNE, USA
Amy Hagedorn Wonder, PhD, RN, USA
Pam Ironside, PhD, MS, BA, RN, ANEF, FAAN, USA

Abstract

Purpose: Research findings from fields as diverse as psychology and medicine (Blanch-Hartigan, 2011; Zell & Krizan, 2014) suggest that when tasked with evaluating one's own knowledge and abilities, people often over- or under-estimate themselves when their self-ratings are compared to more objective measures. The purpose of this study was to evaluate nurses' self-reported EBP knowledge, attitudes, and skills compared to EBP knowledge measured using a previously developed standards-based, objective test of EBP knowledge. Findings from the current study are compared with past research to provide a wider perspective on the state of nurses' EBP knowledge levels and approaches to measuring EBP knowledge, skills, and abilities.

Methods: Practicing nurses from two Magnet®-designated hospitals in the Midwest United States were recruited to the study. In proctored data collection sessions, subjects completed a 17-item demographic and professional characteristics questionnaire, the self-report Evidence-based Practice Questionnaire (EBPQ; Upton & Upton, 2006), and the Evidence-based Practice Knowledge Assessment in Nursing (EKAN; Spurlock & Wonder, 2015), a 20-item multiple-choice EBP knowledge test developed based on two widely-adopted US EBP competency frameworks. Data from $N=151$ subjects indicated subjects were 95.1% White/Caucasian, 92% female, and had an average age of 40.9 years (Range 23-66 years). Nearly all (99.4%) of subjects reported English as their primary language and 57.7% reported having a bachelor's degree in nursing as their highest degree.

Results: Subjects provided positive ratings overall on the three subscales of the EBPQ. Considering a maximum score of 7, subjects provided the highest average ratings on the EBP attitudes subscale ($M=5.51$, $SD=.98$), followed by EBP knowledge ($M=4.68$, $SD=.81$), and then on practice/use of EBP ($M=4.48$, $SD=1.37$). The mean sum score on the EKAN was 10.58 ($SD=2.87$) out of a possible 20 points. One-way ANOVA (with familywise error correction for alpha) showed no statistically significant difference on any subscale of the EBPQ across nurses' educational levels (e.g., associate's, bachelor's, and master's degree levels). When EKAN scores were compared based on subjects' highest level of education, a statistically significant difference in EKAN scores was observed (9.0 for associate's degrees versus 12.7 for master's degrees; $F_{3,159}=11.84$, $p<0.001$). While scores from each of the subscales of the EBPQ were statistically significantly correlated with each other ($r=.350-.595$, $p<.01$), correlations between EBPQ subscales and the EKAN sum score were small ($r=.017-.123$) and statistically nonsignificant. To further evaluate effect size, a two-step hierarchical regression analysis showed that educational level, but not EBPQ subscale scores, predicted EKAN sum scores ($F_{(1,149)}=30.43$, $p<.001$, $R^2=.170$).

Conclusion: In this study, nurses' EBP attitudes and self-reported knowledge and skills showed a near zero correlation with more objectively measured EBP knowledge. Higher levels of education were associated with higher scores on the EKAN knowledge measure but not with EBP attitudes, practices, or self-reported knowledge. These findings are consistent with those from a broad range of fields showing that accurate self-assessment is often difficult, as illustrated by the low concordance between self-assessed and objectively measured knowledge. Nurses' EBP knowledge levels in the current study are similar to those reported elsewhere (e.g., Spurlock & Wonder, 2015). Implications for leaders and educators in academic and clinical environments include re-evaluating strategies for assessing learning outcomes with a focus on using more direct, objective approaches when possible.

References

Blanch-Hartigan, D. (2011). Medical students' self-assessment of performance: Results from three meta-analyses. *Patient Education and Counseling, 84*(1), 3-9.

Spurlock, D. & Wonder, A. (2015). Validity and reliability of a new objective measure: The Evidence-Based Practice Knowledge Assessment in Nursing (EKAN). *Journal of Nursing Education, 54*(11), 605-613.

Upton, D., & Upton, P. (2006). Development of an evidence-based practice questionnaire for nurses. *Journal of Advanced Nursing, 53*(4), 454-458.

Zell, E., & Krizan, Z. (2014). Do people have insight in their abilities? A metasynthesis. *Perspectives on Psychological Science, 9*(2), 111-125.

Contact

dspurlock@widener.edu

I 16 - Promoting Research in Nursing

Adult Attachment Style and Family Presence Preference During Invasive Nursing Procedures

Nurten Kaya, PhD, RN, Turkey

Abstract

Purpose: This study was carried out in the descriptive and correlational type to examine the effect of adult attachment styles regarding the fact that the patients prefer their family members/relatives/the people they care to stand by them during invasive nursing procedures.

Methods: The study population consisted of patients hospitalized in the observation unit of the internal medicine section in the emergency department of a university hospital. The sample consisted of 76 patients who were selected by random sampling method.

Results: It was found that 56.6% (n=43) of the patients were female, the age average was 47.83 (SD=18.88), 65.8% (n=50) of them were married, 28.9% (n=22) of them had university or higher education, 36.8% (n=28) of them were civil servants, 93.4% (n=71) of them had social security and the remaining 6.6% (n=5) of them had green cards, 65.8% (n=50) of them had children, and 56.6% (n=43) of them were living with their families. 57.9% (n=44) of the patients said that they preferred their relatives to stand by them during invasive nursing procedures. 51.3% (n=39) of the individuals gave yes answer to the question of "Is there someone you would like him/her to stand by you especially during the intervention?". When they were asked to identify the person they want to stand by them, mother/father, child, spouse, sibling, relatives and friends were preferred. 76.3% (n=58) of the patients gave the answer of "me" to the question of who should make the decision of status of the presence of a relative during invasive nursing procedures. When the point averages of adult attachment styles of the patients, who were included within the scope of the research, were examined, it was seen to be (potential point distribution is between 1-5 in all styles) 3.57 in indifferent, 3.02 (SD=0.63), (SD=0.57) in frightening, 2.87 (SD=0.50) in obsessive, 2.79 (SD=0.66) in confident.

Conclusion: In addition, it was determined that the patients' adult attachment styles did not affect the status of demanding someone beside them during invasive nursing procedures ($p>0.05$).

References

- Al-Abbass, T.M., Abdelkader, R.H., Shoqirat, N., Obeidat, H.(2016). The effect of parental presence in decreasing pain level for children during venipuncture, *Pyrex Journal of Nursing and Midwifery*,2(3): 12-19.
- Dingeman, R. S., Mitchell, E. A., Meyer, E. C., & Curley, M. A. (2007). Parent presence during complex invasive procedures and cardiopulmonary resuscitation: a systematic review of the literature. *Pediatrics*, 120(4), 842-854.
- Dougal, R. L., Anderson, J. H., Reavy, K., & Shirazi, C. C. (2011). Family presence during resuscitation and/or invasive procedures in the emergency department: one size does not fit all. *Journal of Emergency Nursing*, 37(2), 152-157
- İşlekdemir B., Kaya N. (2016). Effect of family presence on pain and anxiety during invasive nursing procedures in an emergency department: A randomized controlled experimental study", *International Emergency Nursing*, 24, 39-45.
- Kaya, N.(2010). Attachment styles of nursing students: A cross-sectional and a longitudinal study", *Nurse Education Today*, 30(1):666-673.
- Kaya, N., Kaya, H. (2009). Effects of attachment styles of nurses on coping strategies. *J Med Sci*,29,1563-1572.

Contact

nurka@istanbul.edu.tr

J 13 - End-of-Life Care

The Closing Composition: End-of-Life Communication Strategies

Mary J. Isaacson, PhD, RN, CHPN, USA

Mary E. Minton, PhD, RN, CNS, CHPN, USA

Abstract

Background: Globally, palliative care at end-of-life (EOL) is indicated for over 19 million adults (Connor & Bermedo, 2014). Palliative and EOL care encompasses physical, psychosocial, and spiritual changes which necessitate ongoing intervention and evaluation (Coyle, 2015). Both the World Health Organization (WHO, 2016) and the International Association for Hospice and Palliative Care (IAHPC, 2016) identify the palliative care team's interprofessional composition, of which nurses are an integral component. At the center of the interprofessional, palliative care team is the patient; who desires shared decision-making (Alston et al., 2012). Patients and families are best served when health care communication envelopes the elements of clinician expertise, patient and family goals and concerns, and medical evidence (IOM, 2015). Nurses have a unique and intimate role in the decision-making process by virtue of the amount of time they spend with the patient on a daily basis (Ferrell, Malloy, Mazanec, & Virani, 2016). A systematic review of the literature identified registered nurses in the roles of information broker, supporter, and advocate with patients and families engaged in EOL decision-making (Adams, Bailey, Anderson, & Docherty, 2011). These rich and meaningful roles hold communication as a central component—one which is best characterized by honesty and transparency (IOM, 2015) as well as an engagement that renders explicit the nature of bearing witness to personal suffering (Ferrell & Coyle, 2010). Dahlin and Wittenberg (2015) describe critical communication competencies of the registered nurse which echo the roles of information broker, supporter, and advocate reported by Adams and associates (2011). The imperative for nurse presence, practice expertise, and communication excellence is well established within the palliative and EOL nursing literature (Dahlin & Wittenberg, 2015; Wittenberg-Lyles, Goldsmith, Ferrell, & Ragan, 2013). However, absent in the literature are the strategies used by registered nurses when communicating with patients and families about EOL decision-making (Adams et al., 2011).

Purpose: The purpose of this presentation is to share findings from a qualitative study with hospice/palliative care nurses regarding palliative and EOL communication strategies with patients and families. Our specific aim was to determine the key communication strategies employed by hospice/palliative nurses when engaging patients and families in advanced EOL decision-making.

Methods: Using a phenomenological approach, this study describes hospice/palliative nurses' experiences when engaging patients and families in EOL decision-making. A sample of 10 female hospice/palliative care nurses between the ages of 30-60 years of age participated in face-to-face interviews with both PI's. Interviews lasted approximately 45-60 minutes. Interviews began with three lead-in questions, were audio recorded, and were transcribed verbatim by a qualified transcriptionist. Analysis of the transcripts began with the PI's dwelling with the data followed by a shared process of iterative discovery of the overarching pattern and key themes. To illuminate the pattern and subsequent themes, the researchers employed the use of metaphors. Metaphor in qualitative research assists in the critical reexamination of a common experience through a different lens; expanding understanding and awareness (Carpenter, 2008).

Results: The exemplars shared by these nurses were abundant with context and content. The EOL experience is not rehearsed; throughout the transcripts it was clear how, together, the patient, family, and the nurse must co-create the closing composition—which became the overarching pattern of the communication strategies described by these nurses. Essential to successful implementation of the closing composition is the understanding that these strategies are ever evolving and non-linear. The themes comprising the closing composition are: *establishing context*, *acknowledgement through attentive listening*, *trust*, *wishes/goals of care*, and *honesty*. Hope was interwoven throughout the closing composition and included knowing and accepting the patient and family's journey, building trust through honesty, and identifying how they (patients and families) wish to write the final refrain.

Discussion: New nursing graduates in the United States (US) are expected to provide competent EOL care (American Association of Colleges of Nursing, 2016). They are also entering a healthcare environment caring for more patients with comorbidities, advancing age, and frailty. In the US and internationally (Connor & Bermedo, 2014), the educational environment should be the point of introduction for professional, therapeutic communication. This introduction must incorporate targeted content about palliative and EOL care communication and in on-going learning. Incorporating palliative and EOL case studies or simulation into pre-licensure student learning experiences has demonstrated student reports of enhanced confidence (Gillan, Parmenter, vander Riet, & Jeong, 2013) and the importance of presence when caring for patients and families at EOL (Fabro, Schaffer, & Scharton, 2014). However, the interview participants were quick to note that nothing in their pre-licensure education prepared them for the depth of skill required when communicating with patients and families at EOL. Interview participants acknowledged the positive influence of skilled health care professionals, i.e., physicians, nurses, chaplains, who role modeled several of the communication strategies described. Practicing nurses must be skilled in facilitating advance care planning conversations near EOL that reflect patient and family wishes and goals of care.

Conclusion: Based on descriptions offered by these registered nurses, we conclude that the EOL decision-making communication strategies could be considered universal, crossing cultures and settings. Additionally, conversations in which these communication strategies are used will provide a foundation for advance care planning which has the potential to impact both patient outcomes (Garrido, Balboni, Maciejewski, Bao, & Prigerson, 2015) and fiscal stewardship of healthcare resources (Bischoff, Sudore, Miao, Boscardin, & Smith, 2013).

References

- Adams, J., Bailey, D., Anderson, R., & Docherty, S. (2011). Nursing roles and strategies in end of life decision making: A systematic review of the literature. *Nursing Research and Practice*, 2011, 1-15. doi: 1155/2011/527834
- Alston, C., Paget, L., Halvorson, G., Novelli, B., Guest, J., McCabe, P., . . . Von Kohorn, I. (2012). *Communication with patients on health care evidence. Discussion paper*. Washington, DC: IOM. Retrieved from <http://www.iom.edu/global/perspectives/2012/evidence.aspx>
- American Association of Colleges of Nursing. (2016). *CARES: Competencies and recommendations for educating undergraduate nursing students: Preparing nurses to care for the seriously ill and their families*. Retrieved from <http://www.aacn.nche.edu/elnc/New-Palliative-Care-Competencies.pdf>
- Bischoff, K.E., Sudore, R., Miao, Y., Boscardin, W.J., & Smith, A.K. (2013). Advance care planning and the quality of end-of-life care in older adults. *Journal of the American Geriatric Society*, 61, 209-214. doi: 10.1111/jgs.12105
- Carpenter, J. (2008). Metaphors in qualitative research: Shedding light or casting shadows? *Research in Nursing and Health*, 31(3), 274-282. doi: 10.1002/nur.20253
- Connor, S.R. & Bermedo, M.C.S. (2014, January). *Global atlas of palliative care at the end of life*. Retrieved from <http://www.who.int/nmh/Global-Atlas-of-Palliative-Care.pdf>
- Coyle, N. (2015). Introduction to palliative nursing care. In B. R. Ferrell, N. Coyle, & J. A. Paice (Eds.), *Oxford textbook of palliative nursing* (4th ed., pp. 3-10). New York, NY: Oxford University Press.
- Dahlin, C. M., & Wittenberg, E. (2015). Communication in palliative care: An essential competency for nurses. In B. R. Ferrell, N. Coyle, & J. A. Paice (Eds.), *Oxford textbook of palliative nursing* (4th ed., pp. 81-109). New York, NY: Oxford University Press.
- Fabro, K., Schaffer, M., & Scharton, J. (2014). The development, implementation, and evaluation of an end-of-life simulation experience for baccalaureate nursing students. *Nursing Education Perspectives*, 35(1), 19-25. doi: 10.5480/11-593.1
- Ferrell, B., & Coyle, N. (2010). The nature of suffering and the goals of nursing. In D. Meier, S. Isaacs, & R. Hughes (Eds.), *Palliative care: Transforming the care of serious illness* (pp 137- 151). Princeton, NJ: Jossey-Bass.
- Ferrell, B., Malloy, P., Mazanec, P., & Virani, R. (2016). CARES: AACN's new competencies and recommendations for educating undergraduate nursing students to improve palliative care. *Journal of Professional Nursing*, 32(5), 327-333. doi: <http://dx.doi.org/10.1016/j.profnurs.2016.07.002>
- Garrido, M.M., Balboni, T.A., Maciejewski, P.K., Bao, Y., & Prigerson, H.G. (2015). Quality of life and cost of care at the end of life: The role of advance directives. *Journal of Pain and Symptom Management*, 49(5), 828-834. doi: <http://dx.doi.org/10.1016/j.jpainsymman.2014.09.015>
- Gillan, P.C., Parmenter, G., van der Riet, P.J., & Jeong, S., (2013). The experience of end of life care simulation at a rural Australian university. *Nurse Education Today*, 33(11), 1435-1439. doi: 10.1016/j.nedt.2012.11.015
- Institute of Medicine. (2015). *Dying in America: Improving quality and honoring individual preferences near the end of life*. Washington, D.C.: The National Academies Press.

International Association for Hospice and Palliative Care. (2016). *5 What is palliative care?* Retrieved from <http://hospicecare.com/about-iahpc/publications/manuals-guidelines-books/getting-started/5-what-is-palliative-care>

Wittenberg-Lyles, E., Goldsmith, J., Ferrell, B., & Ragan, S. L. (2013). *Communication in palliative nursing*. New York, NY: Oxford University Press.

World Health Organization [WHO]. (2016). *Palliative care*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs402/en/>

Contact

mary.isaacson@sdstate.edu

J 13 - End-of-Life Care

Symptom Burden of Critically Ill Patients at High Risk of Dying: Reliability of Proxy Reports

Peggy Kalowes, PhD, MSN, RN, CNS, FAHA, USA

Abstract

Purpose: Examine the perceived symptom burden (prevalence, frequency, intensity), and overall distress, as reported by (ICU) patients at high-risk of dying and to determine the level of agreement (congruence) of patient-rated symptoms with those rated by designated proxy-responders.

Background: Good symptom control is an essential factor of care at end-of-life (EOL).¹ Patients with life-limiting illness or those actively dying, often experience substantial pain and/or discomfort, whether from their admitting diagnosis, procedures done in the intensive care unit (ICU)², or related with a multiplicity of medical conditions¹. Patient self-report is *gold standard*, however, ICU patients over time, may be unable to self-report, due to declining physical or cognitive function.³ Thus, validating the congruence of proxy perceived assessments related to patient symptom burden is important, as often treatment decisions may be made by family/other proxy decision makers.⁴⁻⁶

Methods: Prospective, correlational design was used to study the reported symptom burden of ICU patients' compared to proxy perception of patient symptoms.

Study was conducted in a 55-bed ICU, 559-bed, academic medical center in western United States. A convenience sample of 80 patients at high-risk of dying and 53 proxy responders were enrolled, based on following criteria: 1) >18 years older; 2) speak, read/understand English/Spanish; 3) able to complete self-report instrument written or alternative method (e.g. if questionnaire read to patient by researcher; 4) normal mental status, assessed by the Richmond Agitation-Sedation Scale (RASS)⁷ and the Confusion Assessment Method for the ICU (CAM-ICU)⁸ and; 5) probability factor of 60-80% risk for hospital death. Exclusion: 1) diagnosis of cancer and receiving treatments; 2) principal diagnosis of dementia with altered cognitive status; or 3) altered level of consciousness.

Proxies were defined as individuals who provided the majority of emotional, financial, and physical support to the patient prior to ICU admission. No legal relation or cohabitation with the patient was required. Eligibility were: 1) non-professional, non-paid caregiver; 2) age \geq 18 years; 3) reliable telephone access; and 4) able to read and speak English/Spanish.

Patient variables were recorded on a demographic Log- age, sex, ethnicity of patient; insurance, diagnosis, admission location, specific treatments (mechanical ventilation; medications, particularly analgesics and sedatives, and comorbidities. The APACHE III Acute Physiologic Score (APS)⁹ and Predicted Mortality (r) for hospital death, was from the APACHE III data system.

Study instruments included: RASS, used to assess the level of agitation-sedation in patients prior to obtaining consent and conducting symptom measurement. Scores on the 10-point observational scale ranged from -5 (unarousable) to +4 (combative). Patients were judged able to provide informed consent and symptom measurement data if RASS score was 0 (alert and calm); *Confusion Assessment Measure for the ICU (CAM-ICU)* used to assess delirium prior to symptom measurement. CAM-ICU assesses four features of cognitive domain including: acute onset or fluctuating mental status, inattention, disorganized thinking, altered level of consciousness. Scores on four domains determined if delirium was present (CAM-ICU positive) or absent (CAM-ICU negative).

To assess patient symptom burden, the *Modified Condensed Memorial Symptom Assessment Scale (CMSAS)*¹⁰ was used, which is a shortened version of Memorial Symptom Assessment Sale (MSAS), a valid cancer tool to assesses multiple dimensions (severity, frequency, and distress) of 32 physical and emotional symptoms. The condensed version of CMSAS rates eleven physical symptoms in terms of distress from 0 (none) to 4 (very much), and three emotional symptoms in terms of frequency from 0 (not

present) to 4 (almost constant). Proxies also completed the CMSAS- Proxy Respondent Symptom Survey, which was modified to state "Which of these symptoms bothered your loved ones in the last seven days" and "Which of these symptoms bothered your loved ones in the past two days". Data points were day-1 and day-3 of the patients ICU stay. Proxies were asked to state their relationship to patient; age; ethnicity; and if they were primary care providers for patient. All study instruments (patient/proxy), were available in Spanish/English.

Procedures: Human subject approval was obtained from institution's Institutional Review Board (IRB). Patients were screened daily using Acute Physiology, Age, Chronic Health Evaluation (APACHE III) score, and mortality risk (r) >.60% in first 24-hours for eligibility. APACHE III Scores and CMSAS data was recorded on Day-1-Day-3 of patient's ICU stay. Patient informed consent was obtained if RASS score was 0 (alert and calm). If patient unable to give informed consent, proxy consent was obtained (n=44, 55%).

Statistical Analysis -Data was analyzed using IBM-SPSS v. 20.0 (SPSS, Inc.; Chicago, IL, USA). Descriptive statistics were used to analyze demographic and study variables. Chi-square test and Mann-Whitney U tests compared prevalence and severity scores of the four most prevalent symptoms in patients. Spearman's rank correlation was used to explore the relationships between four most prevalent physical symptoms in patients and proxy responses. Crosstabs with the Pearson Chi-Square and Cohen's Kappa statistics were computed to assess the concordance between patients and family members on ratings of CMSAS symptom presence. Statistical significance was set at $\alpha = 0.05$, two-tailed.

Results: The Condensed Memorial Symptom Assessment Scale (CMSAS) was used to gain patient/proxy report of symptoms on day-1 and day-3 after admission. N=80 patients who were able to respond to symptom assessments on day-1 while only 66 (80%) completed study survey on day-3. Reasons for attrition: patient expired (10%), patient discharged (5%), or patient lacked capacity (5%), with deterioration of critical illness. Overall, there was no significant difference in age, gender, ethnicity, and ICU admission source among those who did or did not complete day-3 symptom assessments.

Study Characteristics: Patient's mean age was $70.5 \pm$; and primarily male (62.5%). Racial/ethnic composition was diverse with 48.8% White, 22.5% Black, 15% Hispanic, 11.3% Asian and 2.5% other. Participants were predominately English speaking (81.3%), yet 12.5% of the participants completed the symptom survey(s) in Spanish. Among the cohort, the first-ICU-day mean (%) predicted hospital mortality rate was 69%, and mean first-ICU-day APACHE III score was 170 ± 23 . The mean ICU length of stay (LOS) was 10, with a range of 1-49 days and mean hospital LOS was 15, (range = 1.5-73) days. Following discharge from the ICU approximately 16% of the patients had to be readmitted to the ICU from the discharge unit for further treatment. The observed ICU and hospital mortality rates were 19% and 2% respectively. 30% of the patients who died in the ICU, resulted from the decision to withhold or withdraw life-sustaining treatments while in the ICU. Of the 63 patients who survived to hospital discharge, 16 (25%) died within three months following discharge.

Proxy Reporters - Mean age was 59 years (25-92) and (69.8%) were female. Racial/ethnicity was: White (43.4%), Black (17%), Hispanic (20.8%), Asian (15.1%) and other (3.8%). Relationship of proxies to patient included: spouse (43.4%), patient's child (41.5%), patient's sibling (5.7%), patient's parent (3.8%) and significant partner (5.7%). Three quarters (75%) were English speaking, 9.4% Spanish speaking and 13.2% other languages. Approximately 70% identified themselves as the primary caregivers.

Symptom Burden -Majority of patients were symptomatic (98%), reporting an average of 10.23 symptoms. Most common symptoms reported on Day-1, were lack of energy (fatigue) and difficulty concentrating, with a mean symptom distress score of 2.96 (SD = 0.70) and 2.79 (SD = 0.84), scored on a scale of 1 = low symptom distress to 4 = high symptom distress, respectively. The CMSAS Total Distress Score was 2.24 (SD=0.66). The Physiological Symptom Distress Subscale (CMSAS-PHYS) score was 2.19 (SD=0.71). Approximately 97.9% of patients reported psychological symptoms (sadness, worry, nervousness) with a mean symptom distress score of 2.45 (SD=0.66), measured by the Psychological Symptom Distress Subscale (CMSAS-PSYCH). On Day-3, 65 of the patients were still in the ICU. The most prevalent symptom reported was difficulty sleeping (90.8%), with a medium intensity distress score

of 3.79 (SD=1.06). Eighty percent of patients reported additional symptoms: lack of energy, lack of appetite, pain, dry mouth, feeling drowsy, shortness of breath, and difficulty concentrating, with a moderate intensity mean score of 3.42.

Overall distress increased among all symptoms, as measured by the CMSAS-Total Distress Score of 3.17 (SD=0.44), and the two distress subscales: CMSAS-PHYS mean score of 3.07 (SD=0.46) and CMSAS-PSYCH means score of 3.46 (SD=0.52). Hospital mortality was 17 (21%) during initial hospitalization and 16 (25%) at 3-months follow-up. Family members correctly estimated the presence and absence of symptoms 85.5% of the time, yet rated the patients' physiologic symptoms higher than psychological distress.

Conclusions: This study identified that ICU patients *near death*, experience a significant burden of multiple symptoms, yet receive limited treatment for overwhelming symptom distress. A need for widespread symptom management strategies with proven effectiveness is indicated. Data also confirmed that proxy reporter's perception of patient symptom burden can be a reliable alternative, and should be used when patients can no longer self-report. Further research is needed to test new evidence-based interventions to serve as practice standards in the delivery of consistent, high quality care for all dying patients to minimize unnecessary suffering.

References

1. Choi J, Hoffman LA, Schulz R, et al. Self-reported physical symptoms in intensive care unit (ICU) survivors: pilot exploration over four months post-ICU discharge. *J Pain Symptom Manage.* 2014;47:257–270.
2. Puntillo KA, Max A, Timsit JF, et al. Determinants of procedural pain intensity in the intensive care unit. The Europain(R) study. *Am J Respir Crit Care Med.* 2014; 189:39–47.
3. Lyngaa T, Christiansen CF, Nielsen H, Neergaard MA, Jensen AB, Laut KG, et al. Intensive care at the end of life in patients dying due to non-cancer chronic diseases versus cancer: A nationwide study in Denmark. *Critical Care.* 2015;19(413):1-9.
4. Puntillo KA, Neuhaus J, Arai S, Paul SM, Gropper MA, Cohen NH, Miaskowski C. Challenge of assessing symptoms in seriously ill intensive care unit patients: Can proxy reporters help? *Crit Care Med.* 2012;40(10):2760-7.
5. Marks M, Arkes H. Patient and Surrogate Disagreement in End-of-Life Decisions: Can Surrogates Accurately Predict Patients' Preferences? *Medical Decision Making.* 2008;28(4):524-31.
6. Engelberg RA, Patrick DL, Curtis JR. Correspondence Between Patients' Preferences and Surrogates' Understandings for Dying and Death. *Journal of Pain and Symptom Management.* 2005;30(6):498-509
7. Ely, E. W., & et al. Monitoring sedation status over time in ICU patients: The reliability and validity of the Richmond Agitation Sedation Scale (RASS). *JAMA.* 2003;289:2983-2991.
8. Ely, E. W., Inouye, S. W., Bernard, G. R., Gordon, S. M., Francis, J., & May, L., & et al. (2001). Delirium in mechanically ventilated patients: Validity and reliability of the confusion assessment method for the intensive care unit (CAM-ICU). *JAMA,* 286:2703-2710.
9. Knaus WA, Wagner DP, Draper EA, et al. The APACHE III prognostic system. Risk prediction of hospital mortality for critically ill hospitalized adults. *Chest.* 1991;100(6):1619-36.
10. Chang, V. T., Hwang, S., Kasimis, B. S., & Thaler, H. T. Shorter symptom assessment instruments: The condensed memorial symptom assessment scale (CMSAS). *Cancer Investigation.* 2004;22(4):526-536.

Contact

pkalowes@memorialcare.org

J 13 - End-of-Life Care

Shall We Let Them Die? Factors Influencing the Withdrawal of Life-Sustaining Treatment in ICU

Fiona D. Foxall, MA, BSc, DPSN, PGCE (FAHE), RN, Australia

Abstract

Purpose: Recently across the developed world, there has been an increase in the occurrence of withdrawal of life-sustaining treatment (WLST) in ICUs (Burns, Sellers, Meyer, Lewis-Newby & Truog, 2014). There is a great deal of literature relating to WLST but to date, there is no data relating to the ethical perspectives of nurses and physicians when making decisions about WLST in ICU and the impact these decisions have on them. Where a patient possesses the mental capacity to make a decision, the preferences of the patient should prevail (Beauchamp & Childress, 2012). However, 95% of patients in ICUs are unable to participate in decision-making regarding life-sustaining treatments (Wright, Strong & Welters, 2011). In these circumstances a collaborative decision involving the patient's significant others and the ICU team should prevail (Monteiro, 2014). Nurses have an active role in the implementation of such decisions and therefore it is argued that they should be involved in the decision-making process (McLeod, 2014).

Therefore the purpose of this study was to determine the factors that influence decision-making when considering withdrawal of life-sustaining treatment (WLST) in ICU; and the level of collaboration between nurses and physicians when making such decisions. To explore the process of WLST and how it affects nurses and physicians in view of their personal ethical perspectives.

Methods: Using narrative inquiry, a purposive sample of six senior nurses and five intensivists, who have experience of caring for patients from whom life-sustaining treatment has been withdrawn in ICU, was recruited from a major tertiary hospital in metropolitan Western Australia.

Narrative inquiry is based firmly in the premise that, as human beings, we come to understand and give meaning to our lives through story (Creswell, 2013). Thus, narrative inquiry is the study of the activities involved in generating and analyzing stories of life experiences and reporting the results (De Fina & Georgakopoulou, 2012). Therefore, during narrative interviews, participants were asked to recount personal stories relevant to the issue of interest, while relevant probing questions were used when appropriate. Participants were asked to choose stories that highlighted what they considered to be exemplars of good practice, or situations that left them with a level of discomfort, or culminated in ethical tension.

Following the interviews, transcriptions were 're-storied', which is an important process in narrative inquiry, involving reorganising and rewriting the story to place it within a chronological sequence (Creswell, 2013). Restorying commenced as each interview transcription was completed and the rewritten story was submitted to the participant for member checking to ensure the narrative produced, captured the essence of the discussion. The stories are treated as data and analysis allows themes to emerge that hold within and across stories. Analysis commenced after the first interview and was a continuous process, with content from each interview being used to inform and enhance the following interviews. To triangulate the data, the themes emerging from the narrative interviews were further explored and validated during a focus group discussion.

Results: Eight major themes emerged from the narratives:

1). The Drivers.

This theme refers to the factors that drive the decision to withdraw life-sustaining treatment to be considered and/or made.

2. The Pushmi-pullu Effect.

This theme relates to how nursing and medical staff feel pushed into various actions and as a result may feel emotionally pulled in different directions.

3. The Beast of Burden.

This theme refers to the burden of the decision resting solely on the shoulders of the intensivist.

4. War and Peace.

This theme relates to professional discord and conflict arising as a result of differing perspectives, whilst the team remained cohesive and respectful of each other.

5. The Emotions.

This theme highlights moral distress and differing emotions arising as a result of a delayed decision and the prolongation of the dying process.

6. A Tree with many Branches.

This theme describes the visualisation of a flexible model of decision-making.

7. Letting Die.

This theme refers to the differing processes of withdrawing life-sustaining treatment.

8. Benefit and Harm. This theme relates to the differing ethical perspectives of nurses and physicians related to WLST.

Conclusion: The study has determined that the ethical perspectives of nurses and physicians differ in relation to WLST in one ICU. It has provided a platform for further work to develop a model of decision-making relating to WLST in ICU, which could be transferable to other ICU environments locally, nationally or internationally. A link between a lack of collaboration in the decision-making process relating to WLST, moral distress and professional conflict has been determined. Public education is required to ensure families discuss their values with regard to end-of-life decision-making to reduce suffering in the dying patient, as it is considered that a family's refusal to allow WLST can result in the prolongation of the dying process.

References

- Beauchamp, T. L., & Childress, J. F. (2012). *Principles of biomedical ethics* (5th ed.). Oxford University Press: Oxford.
- Burns, J. P., Sellers, D.E., Meyer, E.C., Lewis-Newby, M., & Truog, R. (2014). Epidemiology of death in the PICU at five U.S. teaching hospitals. *Critical Care Medicine*, 42, 2101-2018.
- Creswell, J. W. (2013). Qualitative approaches to inquiry. In *Qualitative inquiry and research design: choosing among five approaches* (3rd ed). Thousand Oaks, CA: Sage Publications, Inc.
- (De Fina, A. & Georgakopoulou, A. (2012). Analyzing narrative: discourse and sociolinguistic perspectives. Cambridge University Press, New York.
- McLeod, A. (2014). Nurses' views of the causes of ethical dilemmas during treatment cessation in the ICU: a qualitative study. *British Journal of Neuroscience Nursing*, 10(3), 131-137.
- Monteiro, F. (2014). Family reliance on physicians' decisions in life-sustaining treatments in acute-on-chronic respiratory diseases in a respiratory ICU: a single-center study. *Respiratory Care*, 59(3), 411-419. doi: 10.4187/respcare.02695
- Wright, A., Strong, A., & Welters, I. (2011). Obtaining retrospective consent in incapacitated intensive care patients. *Intensive Care Medicine*, 36(2), 387-392.

Contact

f.foxall@ecu.edu.au

L 02 - Health Behaviors of At-Risk Adolescents and Young Adults Orthorexia Nervosa and Its Relationship to Obsessive Compulsive Behaviors Among University Students in Southern California

Christine B. Costa, DNP, RN, NP, PMHNP-BC, USA
Kholoud Hardan-Khalil, PhD, RN, USA

Abstract

Background: Eating disorders, impact quality of life and can result in distress. Orthorexia Nervosa (ON), is a disordered eating pattern, that focuses on an obsession with healthy eating according to dietary theory. Orthorexia Nervosa is not currently considered a diagnostic category in the 5th edition of the Diagnostic and Statistical Manual of Mental Illness (DSM-5) which outlines diagnostic criteria required for eating disorder diagnosis. However, current research suggests the orthorexia pathology is multifaceted and associated with obsessive compulsive behaviors. These behaviors may interfere with a desire to engage in healthy behaviors for individuals with this disordered eating pattern. The relationship between Orthorexia Nervosa characteristics and obsessive compulsive behaviors are not clearly defined.

Purpose: This study explores the prevalence of orthorexia nervosa and the relationship between obsessive-compulsive behaviors and orthorexia nervosa (ON) behaviors among female and male university students, a nonclinical population.

Methods: A cross-sectional, questionnaire survey study design using a convenience sampling method was used to examine self-report eating behaviors in a sample of 281 students from a large university in the United States, average age from 18 to 43 years. Participants completed a demographic survey, the Orthorexia Nervosa Inventory (ORTO-15), and an Obsessive Compulsive Inventory (OCI-R). The ORTO-15 questionnaire is self-report instrument previously validated in European populations for measuring ON tendencies, comprised of 15-item items with a 4-point Likert scale. The ORTO-15 risk scales scores (EDRS) were used to identify assesses beliefs about attitudes covering food selection, the extent to which food concerns influence daily life, the perceived effects of eating healthy food and habits of food consumption. Lower overall scores on this instrument refer to more ON components (increased ON tendency). Researchers who developed the tool found sensitivity, specificity, and predictive validity values for the ORTO-15 using an original cut-off < 40 in an Italian adult sample. The Obsessive Compulsive Inventory –Revised (OCI-R), composed of 18 items in 6 subscales on a five-point scale was used to measure obsessive compulsive patterns among six domains including checking, hoarding, neutralizing, obsessing, ordering, and washing. **Analysis:** descriptive and correlational analysis using independent t-test and ANOVA. Multiple linear regressions using stepwise entry was used to examine the prevalence of obsessive compulsive behavior patterns among those with orthorexia nervosa characteristics.

Results: The data analysis showed one third of the participants scored below the cut off score of 40 which identifies the presence of orthorexia nervosa behaviors on the ORTO-15. There was a statistically significant difference between male and female on ORTO-15 total score, but not on OCI-R scale. A significant correlation was found between the ORTO-15 total score and OCI-R total score. Orthorexia nervosa predicts only 10% of obsessive-compulsive disorder behaviors in the sample. Significant negative correlations were found between ORTO-15 total score and five out of six OCI-R subscales, the Pearson's correlations for checking, hoarding, neutralizing, obsessive behaviors, and ordering were -.271, -.291, -.276, -.300, and -.287 respectively. There was no significant correlation with the washing OCI-R subscale in this population. Stepwise regression results show that the Orthorexia Nervosa composites significantly predicted five of the obsessive compulsive patterns.

Conclusion: Participants with less orthorexia nervosa related symptoms have fewer tendencies to show obsessive behavior disorder behaviors related to checking, hoarding, neutralizing, obsessive behaviors, and ordering. More women were found to have orthorexia behaviors and there was no gender difference with those who also reported obsessive compulsive behaviors. Further tool psychometric studies on ORTO-15 scale are needed to evaluate its validity, reliability, and scoring criteria in different populations.

Implications: Participants with less orthorexia nervosa related symptoms have fewer tendencies to show obsessive behavior disorder behaviors. The high level of Orthorexia Nervosa score in this study might be attributed to that the original cut off points were developed based on Italian society. Further tool psychometric studies on ORTO-15 scale are needed to evaluate its validity, reliability, and scoring criteria in different populations. There is a need to build appropriate cut off points of orthorexia scale for individuals in the United States to differentiate between healthy eating and pathologically healthy eating. Health care providers should aware the occurrence of orthorexia nervosa among individuals presenting with disordered eating patterns and the influence of obsessive compulsive behaviors on orthorexia disordered eating behaviors.

References

Brytek-Matera, A., Donini, L. M., Krupa, M., Poggiogalle, E., & Hay, P. (2015). Orthorexia nervosa and self-attitudinal aspects of body image in female and male university students. *Journal of Eating Disorders*, 2, 1-13. doi: 10.1186/s40337-015-0038-2

Brytek-Matera, A. (2012). Orthorexia nervosa: An eating disorder, obsessive-compulsive disorder or disturbed eating habit? *Archives of Psychiatry and Psychotherapy*, 1, 55-60.

Dunn, T. M. & Bratman, S. (2016). On orthorexia nervosa: A review of the literature and proposed diagnostic criteria. *Eating Behaviors*, 21, 11-17.

Contact

christine.costa@csulb.edu

L 02 - Health Behaviors of At-Risk Adolescents and Young Adults

Role of Race and Ethnicity on Trajectories of Health Risk Behaviors From Adolescence Into Adulthood

Robin Bartlett, PhD, RN, USA

Thomas P. McCoy, PhD, PStat, USA

Eunhee Park, PhD, RN, APHN-BC, USA

Jennifer Toller Erausquin, PhD, MPH, CHES, USA

Abstract

Purpose: Research on the development of risk behaviors including smoking, marijuana use, tobacco use, alcohol use, and sexual intercourse has been limited in several ways. Studies often stratify by race or gender and may adopt a single developmental pathway for each category of interest. There is a lack of understanding about the relationship between race / ethnicity and the chance of following a particular developmental trajectory and this information could aid in the tailoring of interventions to improve health outcomes for specific groups. The purpose of this study was to explore whether there are exclusive subgroups discernable within the trajectories of selected health risk behaviors (sexual behaviors, smoking, alcohol use, and marijuana use) by examining deviations from each trajectory. Then, we examined whether race / ethnicity is a predictor of subgroup membership for each risk behavior.

Methods: We examined selected health risk behaviors in a sample of participants from Waves I-IV of the National Longitudinal Study of Adolescent to Adult Health (Add Health) using an accelerated longitudinal design approach. Including those 12-31 years of age, 9,421 participants interviewed at all four waves of data collection were included in the study. We estimated trajectories over time by performing growth mixture modeling for the outcomes sexual intercourse, smoking, marijuana use, tobacco use, and alcohol use. To assess the association between race / ethnicity and trajectory membership we used multinomial logistic regression. Our research questions included 1. Do trajectories of development of risky health behaviors from age 12 to 21 vary by race or ethnicity? 2. Are there multiple classes of trajectories or is one trajectory sufficient? Life Course Theory guided this study. According to this theory, trajectories of health behavior change across the various life stages, and these trajectories may change depending on cultural context and social factors. The study was institutional review board approved.

Results: We identified two trajectories for heavy episodic drinking and three for sexual intercourse, smokeless tobacco use, and number of days drunk. Four trajectories were identified for cigarette smoking and five resulted for marijuana use. When we controlled for gender and compared with Whites, African American and Hispanic adolescents / young adults were less likely to be late starters for the use of tobacco, and for both heavy episodic and excessive drinking. Again, compared to Whites, Hispanic adolescents / young adults were less likely to be late initiators for marijuana use. Finally, compared to Whites, African Americans were less likely to engage in sexual intercourse as teens or young adults.

Conclusion: There are different developmental pathways for health risk behaviors among adolescents and young adults in the United States. As might be expected, some behaviors begin with experimentation in early adolescence whereas other behaviors have their beginnings in later adolescence or even young adulthood. Race / ethnicity is related to trajectory. In most cases, non-Whites were more likely to be members of trajectories involving later or no instigation of risk behaviors. These trajectories could provide important information about when to best intervene for particular subpopulations. Targeting nursing interventions has the potential to improve outcomes for these groups.

References

- Allen, C. D., McNeely, C. A., & Orme, J. G. (2016). Self-rated health across race, ethnicity, and immigration status for US adolescents and young adults. *Journal of Adolescent Health, 58*, 47–56. DOI: 10.1016/j.jadohealth.2015.09.006.
- Elder, G.H., Johnson, M.K., & Crosnoe R. (2003). The emergence and development of life course theory. *Handbook of the life course*. New York, NY: Kluwer Academic/Plenum Publishers.
- Frech, A. (2012). Healthy behavior trajectories between adolescence and young adulthood. *Advances in Life Course Research, 17* (2), 59–68. DOI: 10.1016/j.alcr.2012.01.003.

Harris, K.M., C.T. Halpern, E. Whitsel, J. Hussey, J. Tabor, P. Entzel, & J.R. Udry. 2009. *The National Longitudinal Study of Adolescent to Adult Health: Research Design*. doi: 10.3886/ICPSR27021.v9 or <http://www.cpc.unc.edu/projects/addhealth/design>

Mahalik, J. R., Levine Coley, R., McPherran Lombardi, C., Doyle Lynch, A., Markowitz, A. J., & Jaffee, S. R. (2013). Changes in health risk behaviors for males and females from early adolescence through early adulthood. *Health Psychology, 32*, 685–694. DOI: 10.1037/a0031658.

Nelson, S. E., Van Ryzin, M. J., & Dishion, T. J. (2015). Alcohol, marijuana, and tobacco use trajectories from age 12 to 24 years: Demographic correlates and young adult substance use problems. *Development and Psychopathology, 27*, 253-277. doi:10.1017/S0954579414000650

Pampel, F. C. (2008). Racial convergence in cigarette use from adolescence to the mid-thirties. *Journal of Health and Social Behavior, 49*, 484-498.

Passarotti, A. M., Crane, N. A., Hedeker, D., & Mermelstein, R. J. (2015). Longitudinal trajectories of marijuana use from adolescence to young adulthood. *Addictive Behaviors, 45*, 301-308. DOI: 10.1016/j.addbeh.2015.02.008.

Pollard, M. S., Tucker, J. S., Green, H. D., Kennedy, D., et al. (2010). Friendship networks and trajectories of adolescent tobacco use. *Addictive Behaviors, 35*, 678-685. DOI: 10.1016/j.addbeh.2010.02.013.

Contact

robin_bartlett@uncg.edu

L 02 - Health Behaviors of At-Risk Adolescents and Young Adults

Mindfulness Intervention in At-Risk Adolescents: Participant Voices

Kristen E. Rawlett, PhD, MSN, BS, FNP-BC, USA

Abstract

Purpose: At-risk behaviors are related to poor outcomes among adolescents. Adolescence as a vital time for stress reduction to reduce risk and improve mental health. The purpose of this abstract is to describe qualitative interviews of participants regarding their experiences with mindfulness(MC) as compared to attention only(AC) interventions using the participant's voice. Clinical decision making strategies will be presented.

Methods: Twenty-three students participated. Open-ended questions were asked before and after completion of 6 week interventions. Interview questions included:What two words or phrases best describe you?What distracts you?How do you manage your stress? Responses were independently coded.

Results: MC students were happy, mad and angry. Post-test they were positive being happy, excited, and relaxed. The AC group had mixed emotions, negative emotions such as mad, irked and annoyed remained unchanged. Both indicated auditory interruptions affecting concentration. Distractions were unchanged:people laughing, noises and talking. The MC group used techniques taught in the mindfulness intervention. In post-test, the MC group dealt with stress by listening (to music), body scans, breathing and meditating. The AC group did not demonstrate a change. They managed stress by 'screaming, yelling, hitting and taking it out on 'stuff'. In program evaluation, MC participants referred to specific techniques breathing, paying attention, using silence and listening to music to achieve calm. AC participants focused on the impact. The AC intervention included talking, being able to express true self and getting stress out. A useful aspect of the interventions was learning how to control stress and the support they received from the instructors. Students mentioned wanting to get outside, not having enough space. Students had an acute awareness of others in the group.

Conclusion: Clinically significant is that girls in the MC were able to learn, use and identify specific strategies such as breathing, listening and meditating to reduce stress. Common barriers to stress reduction were auditory distractions and lack of space. Providers can implement knowledge into clinical decision making by providing an opportunity in the inpatient and primary care setting for adolescents to have quiet time and listen to music.

References

- Broderick, P., C. (2013). *Learning 2 BREATHE: A mindfulness curriculum for adolescents to cultivate emotional regulation, attention and performance*. Oakland, CA: New Harbinger
- Lawlor, M. S. (2014). Mindfulness in practice: Considerations for implementation of mindfulness-based programming for adolescents in school contexts. *New Directions for Youth Development, 2014*(142), 83-95. doi:10.1002/yd.20098 [doi]
- Metz, S. M., Frank, J. L., Reibel, D., Cantrell, T., Sanders, R., & Broderick, P. C. (2013). The effectiveness of the learning to BREATHE program on adolescent emotion regulation. *Research in Human Development, 10*(3), 252-272. doi:10.1080/15427609.2013.818488
- Rawlett, K., & Scrandis, D. (2016). Mindfulness based programs implemented with at-risk adolescents. *The Open Nursing Journal, 10*, 90-98. doi:10.2174/187443460160101090 [doi]

Contact

rawlett@son.umaryland.edu

L 03 - Faculty Retention

Leadership Practices, Job Satisfaction, and Faculty Stress Among Dutch Postdoctoral Nurses: A National Survey

Anne Mien Regelink, MSc, RN, Netherlands

Wedela de Lange, MSc, RN, Netherlands

Irina Poslawsky, PhD, RN, Netherlands

Harmieke van Os-Medendorp, PhD, RN, Netherlands

Thóra Hafsteinsdóttir, PhD, MSc, BSc, RN, Netherlands

Abstract

Purpose: Post-doctoral nurses have an important role in evidence based nursing. Leadership is described as “the skill of motivating, guiding, and empowering a team towards a socially responsible vision, whereby leadership is a process, entails influence, occurs within a group setting or context, and involves achieving goals that reflect common vision”(1,2) Leadership practices are defined as both leadership skills and knowledge. Transformational leadership is described by Kouzes and Posner, following five leadership practices: “Modelling the Way, Inspiring a Shared Vision, Challenging the Process, Enabling Others to Act, and Encouraging the Heart”(1). Leadership practices (1) are needed to deal with the complexity of faculty roles, faculty stress, and lack of job satisfaction. Insight into leadership practices of Dutch post-doctoral nurses and the relationship with their job satisfaction and faculty stress is needed to improve the position of nursing research. The psychometric properties of instruments to measure the above mentioned aspects are yet unknown. The main purpose of this study was to identify leadership practices, job satisfaction and faculty stress of Dutch post-doctoral nurses and to investigate the relationship between leadership practices, job satisfaction, and faculty stress. Another, preliminary, purpose was to investigate the psychometric properties of the Dutch Leadership Practices Inventory (LPI) (3-5), Job Satisfaction Scale (MMSS) (6), and Faculty Stress Index (FSI) (7,8), in terms of translational validity.

Methods: A quantitative, cross-sectional survey was conducted to investigate leadership practices of postdoctoral nurses and the association between leadership practices, job satisfaction, and faculty stress, as well as the psychometric properties of the LPI, the MMSS, and FSI in terms of translational validity.

Results: Participants showed considerably strong leadership practices, especially on the domain 'Motivating others to act'. All the subscales of the MMSS showed moderate satisfaction, with a high satisfaction on the number of responsibilities. Participants experienced the highest faculty stress due to self-expectations. Several significant correlations were found between leadership practices, job satisfaction and faculty stress, measured with Kendall's tau analysis. Content validity of the LPI, MMSS, and FSI showed items to be relevant (92%, 74.2%, 85.2%, respectively). Internal consistency was excellent ($\alpha = 0.90$, $\alpha = 0.93$, $\alpha = 0.92$, respectively).

Conclusion: Dutch post-doctoral nurses show considerably strong leadership practices. Additional research is needed to identify the impact of leadership on career development and research productivity, and the societal impact of nursing research.

References

- 1) Shaw S. (2007) Nursing Leadership. . Oxford, United Kingdom: Blackwell Publishing.
- 2) Northouse P.G. (2004) Leadership: Theory and Practice. 3rd ed. California: SAGA Publications Ltd.
- 3) Kouzes J. M. & Posner, B. Z. (2012) The Leadership challenge 5TH ed. San Francisco: Jossey- Bass.
- 4) Posner B.Z. & Kouzes J.M. (1993) Psychometric properties of the leadership practices inventory-updated. Educational and Psychological Measurement, 53, 191-199.
- 5) Plas M. & Crijns M. (2010) Leadership and the LPI [Vakinhoudelijk leiderschap en de LPI]. Nederlands tijdschrift voor evidence based practice, 3, 20-22.
- 6). Mueller C.W. & McCloskey J.C. (1990) Nurses' job satisfaction: a proposed measure. Nursing Research, 39 (2), 113-7.
- 7) Gmelch W.H. (1993) Coping with faculty stress. Newbury Park, CA.: Sage Publications.

8) Chung C.E. & Kowalski S. (2012) Job stress, mentoring, psychological empowerment, and job satisfaction among nursing faculty. Journal of Nursing Education, 51 (7), 381-8.

Contact

t.hafsteinsdottir@umcutrecht.nl

L 03 - Faculty Retention

Burnout and Intent to Leave Among Mid-Level Academic Nurse Leaders: An Unfolding Crisis

Linda Flynn, PhD, RN, FAAN, USA

Pam Ironside, PhD, MS, BA, RN, ANEF, FAAN, USA

Abstract

Purpose: Much attention has been focused, appropriately, on nursing faculty shortages. Another growing international concern, however, is the critical shortage of mid-level academic nurse leaders such as associate and assistant deans. Since many future deanship vacancies are expected to be filled by current mid-level academic leaders, it is vital to the future of nursing education that we better understand the contributors to mid-level leader shortages (Morton, 2014). Occupational burnout has been found to be associated with job dissatisfaction and attrition in international samples of clinical-focused nurses as well as educators in other disciplines (Aiken, et al., 2012; Brunsting, Sreckovic, & Lane 2014). Therefore, the purpose of this study was to determine the prevalence and predictors of occupational burnout among mid-level academic nurse leaders so that evidence-based retention strategies can be developed.

Methods: To ensure protection of human subjects, the study protocol was approved by the Colorado Multiple Institutional Review Board prior to subject recruitment and data collection. This multi-site, multi-state study recruited 28 schools of nursing from all geographic regions of the U.S. to participate in a comprehensive web-based survey of faculty. A portion of the survey items were dedicated exclusively to mid-level academic nurse leaders who devoted 50% or more of their effort to an administrative position within the school, including assistant and associate deans, program directors, and department chairs. Dillman survey methods were used to obtain a robust response rate resulting in a sample of 140 mid-level academic nurse leaders representing all 28 participating schools. Burnout was measured by the Emotional Exhaustion subscale of Maslach Burnout Inventory; scores greater than 27 are indicative of burnout (Maslach & Leiter, 2016). Satisfaction with various dimensions of work life, intent-to-leave their school, and intent-to-leave academic nursing were measured by survey items tested in previous research (Yedidia, Chou, Brownlee, Flynn, & Tanner). Generalized estimating equations, producing robust logistic regression models that account for clustering of respondents within schools, were used to determine the effects of study variables on the odds on burnout and intentions-to-leave.

Results: There were no associations between any demographic characteristics and burnout or intentions-to-leave. A total of 71.2% of mid-level academic nurse leaders reported that they typically worked more than 56 hours per week, and 12.3% reported working more than 66 hours per week. Importantly, 21.2% reported that they planned to leave their school within one year and 18.8% indicated they planned to leave academic nursing within the year. A total of 37.7% of mid-level academic nurse leaders had a high emotional exhaustion subscale score indicating occupational burnout. The prevalence of burnout within this sample was higher than that found among hospital staff nurses as recently measured across 13 countries, including the U.S. Mid-level academic nurse leaders who were dissatisfied with their workloads were almost eight times more likely to have developed occupational burnout [OR = 7.84 (3.12, 20.0)]; respondents who typically worked more than 56 hours per week were almost three times more likely to be suffering from burnout [OR = 2.80 (1.33, 5.88)]. In models adjusted and unadjusted for age, mid-level academic nurse leaders suffering from burnout were approximately three times more likely to be planning to leave their school within the year [OR = 2.97 (1.26, 6.94)], and more than three and a half times more likely to be planning to leave academic nursing, entirely [OR = 3.64 (1.42, 8.63)].

Conclusion: The future of nursing education can ill afford to lose approximately 20% of the current mid-level academic nurse leaders to attrition that is due mainly to modifiable work environment factors. Fortunately, findings from this study provide valuable insight into strategies that can be implemented to reduce this trend. Heavy workloads and long work weeks contributed to an unacceptably high prevalence of burnout within mid-level academic nurse leaders in this study. Burnout, in turn, was a major predictor of their intentions-to-leave. Schools of nursing must act quickly to re-examine and redesign workloads among this invaluable group of academic experts and future deans. Responsibilities that can be

delegated to support staff should be identified, and schools should ensure that supportive resources are available. Although this study was conducted in the U.S., the growing internationalization of nursing education denotes core challenges that are experienced by us all. Findings from this study not only serve to be the proverbial canary in the coal mine, warning of crises to come, but also provide guidance for preventative strategies that could be implemented in schools of nursing around the world.

References

- Aiken, L.H., Sermeus, W., Van den Heede, K., Sloane, D.M., Busse, R., McKee, M., Bruyineel, L., Rafferty, A.M., ... Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *British Medical Journal (BMJ)*, *344*, 1-14.
- Brunsting, N.C., Sreckovic, M.A., & Lane, K.L. (2014). Special education teacher burnout: A synthesis of research from 1979-2013. *Education and Treatment of Children*, *37*(4), 681-712.
- Maslach, C. & Leiter, M.P. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, *15*(2), 103-111.
- Morton, P.G. (2014). Preparing the next generation of academic chief nurse administrators. *Journal of Professional Nursing*, *30*(4), 279-280.
- Yedidia, M.J., Chou, J., Brownlee, S, Flynn, L., & Tanner, C.A. (2014). Association of faculty perceptions of work-life with emotional exhaustion and intent-to-leave academic nursing: Report on a national survey of nurse faculty. *Journal of Nursing Education*,*53*(10), 569-579.

Contact

linda.flynn@ucdenver.edu

L 03 - Faculty Retention

A Comprehensive Needs Assessment to Gauge the Impact and Extent of the Nursing Faculty Shortage

Judith M. Jarosinski, PhD, RN, CNE, USA

Lisa A. Seldomridge, PhD, RN, USA

Tina P. Brown Reid, EdD, RN, USA

Abstract

Purpose: The aim of this presentation was to explore the use of a comprehensive needs assessment to identify common and unique issues related to the statewide shortage of undergraduate and graduate clinical nursing faculty; this project assessed current efforts and resources that are in place for recruitment, training and mentoring of clinical nursing faculty across the State.

Background: Globally, two factors impact the nurse faculty shortage and subsequent student enrollments: Economic migration contributing to a “brain drain” for many countries, and an aging nurse faculty force. (Gutierrez, Candela, & Carver, 2012; ICN, 2015; Newton, Pillay, & Higginbottom, 2012). In the United States the lack of experienced nurses in specific specialty areas and the later age nurses enter graduate schools, also contribute to the nurse faculty shortage (AACN, 2012). The Eastern Shore-Western Shore Faculty Initiative (ES-WSFI) created a needs assessment with the sole purpose of identifying issues related to the clinical nurse faculty shortage in Maryland, U.S.A. The needs assessment provided direction for planning and modifying current strategies addressing the nursing faculty shortage in regionally diverse nursing programs and is supported by a Maryland Higher Education System, Nurse Support Program-2 grant.

Methods: In collaboration with 12 universities, colleges and community colleges, a mixed-methods approach comprised of web-based surveys, faculty focus groups and interviews with deans/directors of nursing education programs was conducted over a two year period. The comprehensive needs assessment included establishment of relationships with prospective partners, collection of demographic information about partner programs (educational offerings, staffing needs by clinical specialty and level), compilation of existing approaches to address staffing needs, identification of untapped resources, and discussions with partners about gaps and possible solutions. A dedicated website was constructed to facilitate communication about the project not only among partner institutions but across the state. A password protected database has been created to house the results of the needs assessment. With statewide data available in a single place, future initiatives can be planned and implemented, maximizing efficiency and effectiveness in utilization of resources while addressing the need for increasing capacity across all levels of nursing education from associate degree through doctoral degrees.

Results:

1. In undergraduate programs the majority of respondents agree or strongly agree there is inadequate clinical faculty for growth; in the graduate programs, only 1/3 of respondents agree there is inadequate clinical faculty for growth.
2. In both undergraduate and graduate programs 75%-80% agree or strongly agree it is difficult to recruit from underrepresented groups. 69% of undergraduate programs find it difficult to *retain* faculty from underrepresented groups, while 50% of graduate programs find it difficult to *retain* faculty from underrepresented groups.
3. Clinical specialties in greatest demand or representing the greatest need included: pediatrics, mental health (both acute and community-based), obstetrics and women’s health.
4. The nurse faculty shortage indirectly impacts faculty member’s ability to mentor, engage in scholarship and meet increasingly stringent promotion requirements. *“Everybody is stretched really, really thin”*
5. Despite concerted efforts to “grow our own” and by encouraging clinical specialists and alumni to teach on a part-time basis, these proactive initiatives to attract potential clinical faculty, as well as nationwide searches for nursing faculty, continue to be a challenge for most programs. *“We have 4-5 open positions at any given time; we are constantly serving on search committees.”*

6. Challenges confronting universities, colleges and community colleges differ regionally and programmatically.
7. In this initiative, primary strategies currently in use to address the faculty shortage are incorporation of weekend clinical experiences or classes, hiring more clinical faculty and limiting the number of students that can be enrolled.

Conclusion: Current practices are insufficient to meet the growing need for nursing faculty. In order to maximize human capital, a renewed focus on twin strategies of attracting faculty and retaining current faculty must include incentives for seasoned faculty such as: increased salaries for experienced faculty, release time or reduced workloads to provide time for scholarship, as well as support strategies for research and mentorship. In order to attract nurses to academia, Nardi and Gyurko (2013) suggest the inception of international cooperatives that would make possible collaborative teaching and enhance the global attractiveness and reach of nursing. They caution that the diminishing pipeline of PhD prepared nurses provide few “role models with whom nursing students can work and emulate in the practice setting” (p. 320).

References

American Association of Colleges of Nursing (2012). Special survey on vacant faculty positions for academic year 2012-2013.

<http://www.aacn.nche.edu/leading-initiatives/research-data/vacancy12.pdf>

Gutierrez, A., Candela, L. & Carver, L. (2012). The structural relationships between organizational commitment, global job satisfaction, developmental experiences, work values, organizational support, and person-organization fit among nursing faculty. *Journal of Advanced Nursing*, 68,7, 1601-1614.

Nardi, D., Gyurko, C. (2013). The Global Nursing Faculty Shortage: Status and Solutions for Change *Journal of Nursing Scholarship*; Sep 2013; 45, 3, 317

Newton, S. Pillay, J. Higginbottom, G. (2012) The migration and transitioning experiences of internationally educated nurses: A global perspective. *Journal of Nursing Management*, 20, 534–550.

International Council of Nurses (April, 2015). Salaries, Demand and Career Opportunities Contribute to Global Nursing Migration. <http://www.icn.ch/news/whats-new-archives/salaries-demand-and-career-opportunities-contribute-to-global-nursing-faculty-migration-1178.html>

Contact

jmjarosinski@salisbury.edu

L 04 - Competencies in Psychiatric Health

Enhancing Mental Health Competencies in Advanced Practice Nursing Graduates

Nancy E. Edwards, PhD, MSN, ANP-BC, USA
Susan J. Kersey, MSN, PMHCNS-BC, USA

Abstract

Purpose: The purpose of this project was to assess the impact of a curricular enhancement of mental health content to Adult Gerontology Primary Care Nurse Practitioner students. The project goal was to demonstrate the influence of this enhanced curricular content on graduating NP students' perceived competence and confidence in providing care for patients with basic mental health concerns in the primary care setting.

Methods: A gap analysis was conducted to determine the mental health content that needed to be integrated into the curriculum. The content was determined by comparing the current curriculum with the 2013 NONPF Population- Focused Nurse Practitioner Competencies- Psychiatric Mental Health. Content was added to the didactic portion (from 6-18 hours), through progressive interactive case studies led by a psychiatric Mental Health CNS, and with clinical integration (30 hours) with psychiatric mental health professionals. A pre-test /post-test evaluation was conducted using a written questionnaire to assess the graduating NPs perceived competence in the knowledge of psychoactive medications and in the treatment of mental health conditions that frequently present to mental health clinics. The questionnaire was given at the completion of their first year, before any clinical or specialty content and again at the completion of their second year, prior to graduation.

Results: The sample included 45 students who completed the Master's of Science Nurse Practitioner at a Midwestern State University between the years of 2013 through 2016. The students (4 male and 41 female) were enrolled in the Adult Gerontology Primary Care Nurse Practitioner program. A significant difference was noted between the pre-test and post test scores in the graduates reported comfort in providing care for individuals with mental health conditions. The students reported a significant increase in their comfort in providing care for individuals who presented to primary care with depression, depression resistant to 1 medication, anxiety, ADD/ADHD and Bipolar disorder. No significant difference was noted in comfort with providing care for individuals with Obsessive compulsive disorder, Victims of domestic violence, addiction, eating disorders and schizophrenia. In relation to psychotropic medications, a significant difference was noted in their comfort in prescribing SSRIs, SNRIs, Norepinephrine-Dopamine Reuptake inhibitors, Antianxiety medications (Benzodiazepines) and ADHD medications. No difference was noted in the reported comfort in atypical antipsychotics and norepinephrine-specific Reuptake inhibitors

Conclusion: Enhancing students exposure and experience in handling mental health concerns through the use of progressive mental health case studies, enhanced didactic content and clinical exposure led to an increase in perceived competence and confidence in the graduates ability to handle many common mental health concerns that often present to the primary healthcare setting. In addition, the graduates were able to identify and appropriately refer individuals with mental health conditions they were not comfortable treating. The graduates also reported increased confidence in ordering medications used to treat common mental health conditions. With the shortage of mental healthcare providers, primary care providers including NPs are called upon to provide increasing mental health

References

Scharf, D., Eberhart, N., Schmidt, N., Vaughan, C., Dutta, T., Pincus, H., & Burnam, M., (2013). Integrating primary care into community behavioral health settings: programs and early implementation experiences. *Psychiatric Services*, 64(7), 660 – 665.

Kovandzic, M., Graham, C., Reeve, J., Edwards, S., Peters, S., Edge, D., Aseem, S., ... & Dowrick, C. (2011). Access to primary mental health care for hard to reach groups: from "silent suffering" to "making it work." *Social Science & Medicine*. 72, 763-772.

Contact

edwardsn@purdue.edu

L 04 - Competencies in Psychiatric Health

Mental Health Stigma and Perceived Practice Competence Among Nurse Practitioners: A Cross-Sectional Descriptive Study

Cara C. Young, PhD, RN, FNP-C, USA

Susan Calloway, PhD, RN, FNP-BC, PMHNP-C, FAANP, USA

Courtney Brown, USA

Abstract

Purpose: Approximately 50% of Americans will meet the criteria for a mental health disorder sometime during their life, and the majority of these illnesses begin in childhood and adolescence (Merikangas et al., 2010). Significant health disparities exist among those with a major mental illness who die 10 to 32 years earlier than the general population due to largely preventable causes (NIMH, 2011; Walker, McGee, & Druss, 2015). In order to reduce this health disparity, the Centers for Disease Control and Prevention (2011) developed an action plan outlining specific strategies to integrate mental health promotion and mental illness prevention with chronic physical disease prevention from a public health model. The challenge is for health care professionals to respond to these initiatives.

The Institute of Medicine's report on the future of nursing (2010) identifies the integral role of nurses, particularly advanced practice nurses, in the rapidly evolving healthcare system. Nurse practitioners are ideal providers to reduce health disparities among those with mental illness as they are prepared both philosophically and educationally from a health promotion and disease prevention framework. However, there are multiple barriers to help-seeking that prevent individuals from initiating conversations with their health care provider regarding mental health issues. A primary barrier to help-seeking is perceived stigma regarding those with mental health disorders (Ahmedani, 2011; Calloway, Kelly & Ward-Smith, 2012). Goffman (1963) defines stigma as an "attribute that is deeply discrediting and reduces the bearer from a whole and usual person to a tainted, discounted one (p.3)"

While studies exist describing the attitudes of physicians and other health care providers toward those with mental illness there is a gap in the literature related to stigmatizing attitudes among nurse practitioners. Additionally, it is unknown what facilitators and barriers to effective recognition and management of mental health disorders nurse practitioners experience. Therefore, the purposes of this study are to 1) assess nurse practitioners' attitudes regarding treating individuals with mental health disorders, and 2) examine perceived competence and factors associated with nurse practitioner recognition and management of mental health disorders in non-psychiatric settings.

Methods: A cross-sectional descriptive study was conducted via anonymous surveys at a national nurse practitioner conference. Participants provided demographic and practice data and completed the Medical Condition Regard Scale (MCRS; Christison, Haviland, & Riggs, 2002) for three separate mental health diagnoses (anxiety/depression [A/D], attention deficit hyperactivity disorder [ADHD], and substance use disorders [SUD]). Descriptive statistics were calculated to examine demographic and practice pattern data as well as the distribution of scores on the MCRS for all three conditions. Pearson correlation and Spearman's Rho were used to examine relationships between variables, depending on the level of the data. Student t-tests were utilized to evaluate variation in stigmatizing attitudes based on participants' demographic, educational, and personal factors.

Results: The final sample (N=141) were predominantly female (82%), Caucasian (71%), and reported <10 years of experience in advanced practice (62%). Only 33% of participants reported feeling well-prepared by their nurse practitioner education to manage mental health disorders. Mean values on the MCRS (higher scores indicating more positive attitudes) were highest for A/D (M=39.15, SD=5.93), followed by ADHD (M=35.85, SD=7.19), and SUD (M=35.21, SD=7.77). Examination of individual items revealed 42% of participants reported working with patients with anxiety and/or depression as 'satisfying' while only 26% and 22.7% of participants rated satisfaction with treating ADHD and SUD, respectively. Participants with a personal or family history of a mental health disorder reported more favorable attitudes

towards patients with ADHD ($t = -2.3, p = .024$) than those without a personal or family history, but no differences were detected with A/D or SUD.

Conclusion: Results suggest stigmatizing attitudes towards individuals with mental health disorders may exist among nurse practitioners, and lack of confidence in managing mental health disorders may contribute to this stigma. The majority of participants did not feel well prepared to manage mental health disorders, yet 70% of mental health care is provided in primary care settings (NAMI, 2015). These findings highlight the need for increased mental health content within nurse practitioner curricula as well as the development and implementation of innovative evidence-based educational strategies to decrease stigmatizing attitudes and beliefs towards those with a mental health disorder.

References

- Ahmedani, B.K. (2011). Mental health stigma: society, individuals, and the profession. *Journal of Social Work Values & Ethics* 8(2), 1-16.
- Calloway, S.J., Kelly, P. J. & Ward-Smith, P. (2012). Barriers to help-seeking for psychological distress among rural college students. *The Journal of Rural Mental Health*, 36(1), 3-10.
- Centers for Disease Control and Prevention (2011). Public health action plan to integrate mental health promotion and mental illness prevention with chronic disease prevention, 2011-2015. Atlanta: U.S. Department of Health and Human Services.
- Christison, G. W., Haviland, M. G., & Riggs, M. L. (2002). The medical condition regard scale: Measuring reactions to diagnoses. *Academic Medicine*, 77(3), 257-262.
- Goffman, E. (1963). *Stigma: Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice Hall.
- Merikangas, K., He, J., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., ... Swendsen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980-989. doi:10.1016/j.jaac.2010.05.017
- National Alliance on Mental Illness (2015). Mental illness facts and numbers. Retrieved from www.nami.org.
- National Institute of Mental Health (2011). *Statistics*. Retrieved from <http://www.nimh.nih.gov/statistics/index.shtml>
- Walker, E., McGee, R., & Druss, B. (2015). Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis, *Journal of the American Medical Association*, 72(4), 334-341. doi: 10.1001/jamapsychiatry.2014.2502.

Contact

cyoung@mail.nur.utexas.edu

L 04 - Competencies in Psychiatric Health

MRI Outcomes of Emotional Regulation: A Feasibility Study

Brenda Marshall, EdD, MSN, APN-BC, NE-BC, ANEF, USA

Abstract

Purpose: The purpose of this study was to evaluate neuronal responses to emotional regulation in healthy adults when exposed to static faces and changing contexts. Emotional regulation is the array of automatic and controlled strategies that either attaches meaning to, or directs attention away from, an event. This project investigated, through the use of a functional Magnetic Resonance Imaging (fMRI), the impact of stories on visual cues, and brain activity in the areas of the brain devoted to memory and thoughtful consideration. The hypothesis was that the changing of the context, despite the attachment of those stories to the same surprised faces, would change the neuronal connections related to memory and trust.

Methods: Ten participants were scanned with functional magnetic resonance imaging (fMRI) as they were exposed to repeating neutral and surprised faces that were coupled with changing contexts of happy stories or scary stories. The volunteers were exposed to 25 neutral faces and 25 surprised faces with no story. Then the same 25 surprised faces were coupled with five sets of different stories (happy or scary). The process duration in the fMRI was about 25 minutes.

Results: Five men and five women were scanned. Images were processed, aggregated, and compared for changes in neuronal firing and regional activity. Results indicated increased regional activation when individuals were exposed to scary and happy stories while looking at static faces compared to no story exposure. Additionally, exposure to scary stories resulted in increased activity compared to happy stories. Regions of activation included the posterior cingulate process, occipital fusiform gyrus, precuneus, cingulate gyrus and intra-calcarine cortex.

Conclusion: The findings support previous studies identifying the posterior cingulate cortex as engaging in a successful mediating role related to memory and emotional regulation. This study reflects the brain's reappraisal mechanisms that exist when patients experience psychotherapeutic reframing and can also be reflective of the process occurring during the establishment of the therapeutic relationship. This study indicates that way a diagnosis is presented to a patient, combined with the facial expression of the healthcare worker can impact the patient's ability to retain information and to understand and process it.

References

- Marshall, B., Wagner, V., & Nguyen, N. (2015). The effect of visual and contextual stimuli on emotional regulation measured by functional neuroimaging techniques: a systematic review. *Journal of Psychology and Neuroscience*, 8,3. 321-332.
- Metcalf, J., & Schwartz, B. . (2016). The Ghost in the Machine: Self Reflective Consciousness and the Neuroscience of Metacognition. In J. Dunlosky, & Tauber, S. (Eds.), *The Oxford Handbook of Metamemory* (Vol. 1, p. 1). Oxford, United Kingdom.
- Porges, S. (2011). *The Polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, self-regulation*. New York, NY: Norton & Company.
- Rosenthal, C., Andrews, M., Antoniadou, C., Kennard, C., & Soto, D. (2016). Learning and Recognition of a Non-Conscious Sequence of Events in Human Primary Visual Cortex. *Current Biology*, 26, 834-841.
- Victor, T., Furey, M.L., Fromm, S.J., Ohman, A., & Drevets, W.C. (2013). Changes in the neural correlates of implicit emotional face processing during antidepressant treatment in major depressive disorder. . *The International Journal of Neuropsychopharmacology*, 16 (19), 2195-2208.

Contact

marshallb3@wpunj.edu

L 07 - Global Management of Chronic Conditions

Developing and Validating a Problem-Solving Tool for Caregivers to Manage Antineoplastic Treatment for Family Members

Annamaria Bagnasco, PhD, MSN, RN, Italy

Abstract

Purpose: To develop and validate an educational tool consisting of a deck of cards for caregivers to educate them to autonomously and safely manage biological antineoplastic oral therapy for their family members at home. This will also increase patients' adherence to treatment.

Methods: We started from the definition of 'self-management' coined by Corbin & Strauss (1988): 'Self-management aims at helping patients to maintain a wellness in their foreground perspective' (Lorig & Holman 2003, p. 1). Therefore, self-management is based on the perception patients have about problems linked to their conditions. This led us to choose a method based on the theory of problem-based learning, such as the Barrows Cards (Barrows & Tamblyn, 1977), and applied it to patients with the purpose of improving self-management through therapeutic education.

The Barrows Cards were originally used to test decision-making skills and critical thinking in medical students. This method—also known as the 'Portable Patient Problem Pack' or simply P4 System—uses a situational card that describes a complex problem and learners can choose from a deck of at least 15 cards each of which describes a possible solution to that problem with the support of a picture.

Two focus groups with a group of 12 oncologists and cancer nurses were conducted at our Teaching Hospital in Genoa to define the themes to include in the cards. Also the nursing diaries of the last 6 months of nurses directly caring for cancer patients were included in the study. The 15 cards were then tested on 18 caregivers to verify if the contents (terminology and pictures) on the cards were clear and appropriate.

The instrument development process included the following steps: 1) A review of the literature to retrieve scientific evidence to support the purpose of our study; 2) Obtaining support and advice from 12 cancer experts; 3) Checking the nursing records diaries of the last six months; 4) Obtaining feedback from caregivers on the clarity of the statement provided on each card and on the appropriateness of the picture that illustrates the statement.

Results: At the end of this study, all of the 18 caregivers were satisfied with the deck of 15 cards, plus a situational card initially developed by our cancer experts. On the cards, caregivers preferred to include photographs rather than drawn illustrations. This qualitative process enabled to validate the cards for caregivers.

Conclusion: The lack of adherence to therapy not only reduces the effectiveness of therapeutic treatment but incorrect management of the therapy can also lead to adverse events. Therefore, at home caregivers play an important role in ensuring that the people they care for correctly adhere to the treatment prescribed, and yet the importance of their role is neglected. It is important for nurses to provide caregivers with structured education interventions to help them manage treatment and monitor adverse effects in a more confident manner. This will improve adherence to treatment and outcomes both for patients and their caregivers, who will feel more confident and less burdened by the fear of making mistakes. However, more work will be needed to confirm this.

References

- Bagnasco, A., Calza, S., Petralia, P., Aleo, G., Feroni, L., & Sasso, L. (2016). Investigating the use of Barrows Cards to improve self-management and reduce healthcare costs in adolescents with blood cancer: a pilot study. *Journal of advanced nursing*. 2016; 72 (4): 754-758. DOI: 10.1111/jan.12883
- Bevans, M., & Sternberg, E.M. (2012). Caregiving burden, stress, and health effects among family caregivers of adult cancer patients. *Jama*, 307(4), 398-403.

Bevans, M., Wehrlen, L., Castro, K., Prince, P., Shelburne, N., Soeken, K., ... & Wallen, G. R. (2014). A problem-solving education intervention in caregivers and patients during allogeneic hematopoietic stem cell transplantation. *Journal of health psychology, 19*(5), 602-617.

Griffin, J. M., Meis, L. A., MacDonald, R., Greer, N., Jensen, A., Rutks, I., & Wilt, T. J. (2014). Effectiveness of family and caregiver interventions on patient outcomes in adults with cancer: A systematic review. *Journal of general internal medicine, 29*(9), 1274-1282.

Waldron, E. A., Janke, E. A., Bechtel, C. F., Ramirez, M., & Cohen, A. (2013). A systematic review of psychosocial interventions to improve cancer caregiver quality of life. *Psycho-Oncology, 22*(6), 1200-1207.

Contact

annamaria.bagnasco@unige.it

L 07 - Global Management of Chronic Conditions

The Value of Peer Contact in Patients Impacted By "Rare" Diseases

J. Dwayne Hooks, PhD, MN, BSN, APRN, FNP-BC, NEA-BC, AAHIVS, FACHE, USA

Abstract

Purpose: Rare diseases in the United States are defined as illnesses that impact fewer than 200,000 individuals concurrently. Guillain-Barre' syndrome (GBS) is an example of a rare disease that impacts the peripheral nervous system. With the eradication of polio, GBS has become the leading cause of paralysis in the U.S. GBS is an autoimmune illness that generally results in areflexia, paresthesias, and the potential for temporary yet total paralysis.

Because of the significant morbidity that patients face subsequent to the onset of this syndrome, a study was designed to better understand the patient's experience related to this illness. The stated purpose of the study was to gain a richer understanding of the patient's recalled experience of an acute episode of moderate to severe Guillain-Barre' syndrome.

Methods: The study utilized a qualitative descriptive research design with inductive content analysis. Criteria for inclusion in the study were: (a) adult patients 18 years of age and older, (b) individuals with a prior self-identified diagnosis of moderate to severe Guillain-Barre syndrome, (c) individuals who were alert and oriented, (d) individuals able to respond to interview questions, (e) individuals with English as a primary or secondary language, and (f) those who were able to give informed consent.

Results: Fourteen individuals were interviewed about their experience with moderate to severe Guillain-Barre' syndrome. These participants were from 8 states representing primarily states located within the southeastern part of the United States. Seventy one point four percent of the participants were female and 28.6% were male. All of the participants were hospitalized ranging from 5 days to 405 days. Three research questions were addressed through description of five themes and 14 subthemes. This presentation will focus on one of the themes. The theme of focus revealed the value expressed by participants related to contact with a peer who had been impacted with the same illness. There is additional evidence to suggest that patients find value in talking with peers who share a similar illness experience (Doyle, 2015). Having contact with a peer provided hope about what the future may hold including the potential for recovery. Participants described that information shared by someone who had experienced the illness was perceived as being more impactful than information shared by healthcare professionals. Information from individuals impacted with the illness was considered more impactful because it created reassurance that recovery was possible. Information from peers was also seen as being more credible than information from professional caregivers.

Conclusions: Additional research is needed with more individuals impacted with rare illnesses focusing on the value of peer support/peer counseling. It is important for patients diagnosed with Guillain-Barre' syndrome to be linked to the GBS/CIDP Foundation so that peer counselors can be linked if so desired by the individual impacted by this rare neurological illness.

References

- Doyle, M. (2015). Peer Support and Mentorship in a US Rare Disease Community: Findings from the Cystinosis in Emerging Adulthood Study. *Patient* 8(1), 65-73.
- Locock, L. & Brown, J. (2010). 'All in the same boat'? Patient and carer attitudes to peer support and social comparison in Motor Neurone Disease (MND). *Social Science Medicine*, 71(8), 1498-1505.

Contact

jhooks6@kennesaw.edu

L 07 - Global Management of Chronic Conditions

Self-Management of Medication Regimen in Chronic Disease: Analysis of the Portuguese Nursing Information System (NIS)

Inês Cruz, MNSc, RN, Portugal

Fernanda Bastos, PhD, MsC, RN, Portugal

Fillipe Miguel Soares Pereira, PhD, RN, Portugal

Abstract

Actually, the world is confronted with a high proportion of diseases and premature deaths caused mainly by chronic diseases. Chronic illness represents indeed the principal cause of death and morbidity in Portugal and in the world, with an estimated increase in prevalence in next years. We even see a reality in which people are simultaneously affected by more than one chronic illness which makes the treatment regimen more complex. To control and live with this diseases, patients should integrate several self-care behaviors into their daily lives . These behaviours include taking regular medication, making exercise, reduce fat intake, etc. Since nurses are the professionals who help clients experiencing these illness transitions, the training for self-management is a key area in nursing.

In Portugal, nurses use nursing information systems to document their decision-making process. They document nursing diagnoses and nursing interventions, using the terminology of international council of nurses' classification. Therefore, it is important to analyze how they document the care needs in information systems related to one aspect that is common in the treatment of all chronic disease: taking medication.

Purpose: The aim of this study is to analyse the documentation (nursing diagnoses and nursing interventions) customized in Portuguese nursing information system (SAPE®) about self-management of medication regimen.

Methods: Content analysis of all nursing documentation customized in the Portuguese nursing information system (SAPE® – Nursing Practice Support System) was made, using an a priori model – ISO 18104: 2003 standard. The International Classification for Nursing Practice (ICNP®) language was used as ontology. A total of 31583 nursing diagnoses and 27380 nursing interventions were analyzed.

Results: A total of 598 nursing diagnoses and 509 nursing interventions were identified, related with self-management of the medication regimen. The comparative analysis of different statements revealed multiple redundancies, i.e. different syntaxes for the same semantics. As a result of the content analysis 29 nursing diagnoses and 67 nursing interventions were considered by a panel of experts as being clinically useful, thus they will be included in the clinical data model being developed.

Conclusion: Nurses use different terms and concepts to represent the same care needs and the same nursing intervention. The proliferation of different statements of diagnosis reflecting the same reality makes information management and production of indicators more difficult. The extended variety in the form of documentation does not add clinical utility and hampers the visibility of nursing contributions to people's health.

This is a first contribution to the development of a clinical data model on self-management of the medication regimen, which will facilitate semantic interoperability between different nursing information systems and help nurses' decision making.

References

- MERANUS M. & ENGSTROM G. (2015) – Experience of self-management of medications among older people with multimorbidity. *Journal of Clinical Nursing*. Vol. 24, 2757-2764.
- Richard A. & Shea K. (2011) Delineation of self-care and associated concepts. *Journal of Nursing Scholarship*. 43(3), 255–264.

WORLD HEALTH ORGANIZATION (2014) – Global status report on noncommunicable diseases 2014: “Attaining the nine global noncommunicable diseases targets; a shared responsibility”. Geneve.

Contact

inescruz@esenf.pt

L 08 - Conversations on Intimate Partner Violence

Economics and Intimate Partner Violence: Reducing Risk Through Economic Solvency

Heidi Gilroy, PhD, RN, APHN-BC, USA

Abstract

Purpose: Poverty is one of the most consistent risk factors for intimate partner violence. However, little is known about the economic state at which women are no longer at risk for intimate partner violence due to their economic status, which can be referred to as economic solvency. In order to address poverty as a risk factor, we need to understand more about economic solvency. The purpose of this research is to validate a model of economic solvency in women and create a basis for measurement of economic solvency.

Methods: This is a mixed methods study. First, a quantitative study was performed to validate an established theoretical model of economic solvency, which is made up of four factors (human capital, social capital, sustainable employment, and independence). Next, a qualitative study was performed to find out how women described economic solvency and create a separate model to compare with the original model. For the quantitative analysis, data was used from an ongoing 7 year study of women who were applying for a protection order or using a safe shelter for the first time. For the qualitative analysis, women were recruited from area safe shelters. All women in the study had experienced intimate partner violence, spoke English or Spanish, and were at least 18 years old. A confirmatory factor analysis was performed on the quantitative data. The qualitative data was independently reviewed by 2 researchers and themes were noted and compared.

Results:

The model was a good fit for the data according to the confirmatory factor analysis. Qualitative inquiry revealed that women did describe human capital, social capital, sustainable employment, and independence as parts of economic solvency. They also described assets as an important factor that was not included in the original model.

Conclusions:

By comparing results from the quantitative and qualitative research, we created a five-factor model, which includes human capital, social capital, sustainable employment, independence, and assets. The results of this study support programs that address not only poverty in women who have experienced or at risk for intimate partner violence, but also the psychosocial issues that may be preventing them from escaping poverty. These programs should be multi-dimensional, addressing all factors of the model, in order to increase safety and decrease poor outcomes related to intimate partner violence.

References

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse, 3*(2), 231.

Gilroy, H., Symes, L., & McFarlane, J. (2015). Economic solvency in the context of violence against women: a concept analysis. *Health & social care in the community, 23*(2), 97-106.

Contact

hegilroy@twu.edu

L 08 - Conversations on Intimate Partner Violence

Opportunities for International Interdisciplinary Research Collaborations to Improve Health Outcomes for Intimate Partner Strangulation Survivors

Jacquelyn Campbell, PhD, RN, FAAN, USA

Dominic Robert Reed, MLitt, BSc, United Kingdom

Michelle Patch, MSN, APRN-CNS, ACNS-BC, USA

Abstract

Purpose: The purpose of this presentation is to describe the current health care literature on intimate partner strangulation from the US and UK, and to suggest areas for international research collaboration among nurses, physicians and domestic violence advocacy to better understand this unique form of violence and inform practice and policy efforts.

Methods: A literature review was conducted by U.S. and U.K. researchers to illustrate the current state of the science related to intimate partner strangulation (IPS) and its health outcomes in both regions, and to identify gaps in IPS knowledge amenable to international research collaborations.

Results: Internationally, being strangled by a current or former intimate partner is a very real threat to health and life for significant numbers of women (Sorenson, Joshi & Sivitz, 2013). In the most recent U.S. National Intimate Partner and Sexual Violence Survey (NISVS, 2011) (Breiding et al., 2014), approximately 10% of female respondents reported surviving a strangulation attack by a current or former intimate partner at least once in their lifetimes, extrapolating to approximately 11 million U.S. adult women. The estimated prevalence ratio in NISVS shows non-fatal intimate partner strangulation to be 13 times higher in women than men, with men's lifetime prevalence proportion of 0.7% equal to women's 12-month prevalence proportion, suggesting an extreme gender disparity. Additionally, for female victims of intimate partner violence, prior nonfatal strangulation has been associated with a 6-fold odds of future attempted homicide and a 7-fold odds of completed homicide (Glass et al., 2008). In the U.K., evidence exists that strangulation remains largely under-reported and has far outstripped assault with a weapon as a feature of domestic abuse. This was most recently highlighted in a Scottish Crime Survey from 2014/15, in which 22.7% of women with experience of partner abuse since the age of 16 reported their partner had tried to "choke"/strangle them compared to 12.9% reporting a weapon was used against them (Murray, 2016). Nonetheless, the health implications of non-fatal strangulation remain under-assessed. Intimate partner strangulation (IPS) has been increasingly recognized as a significant risk factor for serious negative health outcomes such as carotid artery dissection, stroke, seizures, PTSD, depression and future attempted or completed homicide (Joshi, Thomas & Sorenson, 2012; Kwako et al., 2011; Le Blanc-Louvry, Papin, Vaz & Proust, 2013; Vella, 2013). However, much of the extant literature on IPS outcomes in the U.S. is limited to case reports and descriptive studies with relatively small sample sizes. Similarly, in Scotland and the wider U.K., despite occasional case studies spaced across decades reporting catastrophic injuries in living strangulation victims, there remains a dearth of IPV strangulation research and little assessment of prevalence or long term health outcomes. This is despite the evidence of its potential lethality, illustrated in a homicide report for 2014/15 in England and Wales, showing almost a quarter of female domestic homicide victims are killed in this manner (ONS, 2016).

Conclusion: Taken together, these data indicate an urgent need for more rigorous health care research efforts regarding IPS. Many opportunities for international health care research collaborations exist, such as: greater frameworks for multi-centre, multi-national studies assessing the link between IPS and complex long term injury, using robust longitudinal, prospective and mixed methods designs; psychometric testing of IPS screening tools and protocols in different geographic populations; qualitative studies on women's experiences seeking care after being strangled; and development and testing of staff training on IPS recognition and treatment.

References

Breiding, M. J., Smith, S. G., Basile, K. C., Walters, M. L., Chen, J., & Merrick, M. T. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization—National Intimate Partner and

Sexual Violence Survey, United States, 2011. Centers for Disease Control and Prevention Morbidity and Mortality Weekly Report Surveillance Summaries, 63(8), 1-18.

Centers for Disease Control and Prevention. (2015). *Intimate partner violence*. Retrieved from <http://www.cdc.gov/violenceprevention/intimatepartnerviolence/>

Holbrook, D. S., & Jackson, M. C. (2013). Use of an alternative light source to assess strangulation victims. *Journal of Forensic Nursing, 9*(3), 140-145.

Joshi, M., Thomas, K. A., & Sorenson, S. B. (2012). "I Didn't Know I Could Turn Colors": Health problems and health care experiences of women strangled by an intimate partner. *Social Work in Health Care, 51*(9), 798-814.

Kwako, L. E., Glass, N., Campbell, J., Melvin, K. C., Barr, T., & Gill, J. M. (2011). Traumatic brain injury in intimate partner violence: A critical review of outcomes and mechanisms. *Trauma, Violence, & Abuse, 12*(3), 115-126.

Le Blanc-Louvry, I., Papin, F., Vaz, E., & Proust, B. (2013). Cervical artery injury after strangulation— different types of arterial lesions. *Journal of Forensic Sciences, 58*(6), 1640-1643. doi: 10.1111/1556-4029.12197

Murray, K. (2016). *Scottish crime and justice survey 2014/15: Partner abuse*. Retrieved from: <http://www.gov.scot/Resource/0050/00500328.pdf>

Office for National Statistics (ONS), United Kingdom. (2016). *Homicide findings from analyses based on the Homicide Index recorded by the Home Office covering different aspects of homicide*. Retrieved from <http://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/compendium/focusonviolentcrimeandsexualoffences/yearendingmarch2015/chapter2homicide>

Sorenson, S. B., Joshi, M., & Sivitz, E. (2014). A systematic review of the epidemiology of nonfatal strangulation, a human rights and health concern. *American Journal of Public Health, 104*(11), e54-e61.

Vella, S. (2013). *Cognitions and behaviors of strangulation survivors of intimate terrorism* (Doctoral dissertation). Retrieved from ProQuest Gradworks. (3561163)

Contact

icampbe1@jhu.edu

L 08 - Conversations on Intimate Partner Violence

Prevalence and Predictors of Intimate Partner Violence in Mexican and Non-Mexican Hispanic Women from SEPA

Nilda (Nena) Peragallo Montano, DrPH, RN, FAAN, USA
Young Ju Kim, PhD, RN, ACNP, Korea, Republic of (South)
Rosa M. Gonzalez-Guarda, PhD, MPH, RN, CPH, FAAN, USA
Rosina Cianelli, PhD, MPH, RN, FAAN, IBCLC, USA
Natalia Villegas, PhD, MSN, RN, IBCLC, USA

Abstract

Purpose: The purpose of the study was to examine prevalence and difference of intimate partner violence (IPV) between Mexican and non-Mexican Hispanic women residing in the United States. In addition, this study investigated what factors predict IPV in each of two Hispanic subgroups.

Methods: All of measures were drawn from baseline data of two separate SEPA (Salud-Health, Educacion-Education, Prevencion-Prevention and Autocuidado-Self-care) projects. The SEPA projects are culturally specific, theoretically based group HIV-risk reduction interventions for adult Hispanic women. They consist of five small-group sessions covering HIV and STI prevention, violence prevention, condom use, and communication with partner. The SEPA I includes 529 Mexican Hispanic women in Chicago. The SEPA II has 508 non-Mexican Hispanic women in South Florida. The differences and predictabilities of sociodemographic factors (age, education, income, employment, insurance status, number of partner, age difference with partner), acculturation, depressive symptoms, self-esteem, protective sexual communication with partner, alcohol or drug abuse, and physical or sexual abuse during childhood on IPV were assessed by using t-test, chi-square test, and logistic multivariate regression. IPV in the past 3months was measured with 12 questions of the Revised Conflict Tactics Scale. Any positive responses to one or more questions relating to physical or psychological abuse were categorized as being exposed to IPV.

Results: Although the prevalence of IPV was very high in both groups, it was significantly higher in Mexican Hispanic women (79.1%) than non-Mexican Hispanic women (63.5%). Mexican Hispanic women were significantly younger, less educated, less Americanized, poorer, more sexually abused during childhood, and more likely to have partners with a heavy drinking than non-Mexican Hispanic women. Additionally, they had significantly more depressive symptoms and lower self-esteem. Depression and partners' heavy drinking were significant risk factors for IPV in women born in Mexico. Educational years, depression, and partners' alcohol or drug abuse were predictors in women born in other Latin American countries than Mexico.

Conclusion: IPV Interventions should address the culturally specific needs of Hispanic women from different nationalities and geographical locations in the U.S.

References

McCabe, B., Gonzalez-Guarda, R. M., Peragallo, N., & Mitrani, V. B. (2015). Mechanisms of partner violence reduction in a group HIV-risk intervention for Hispanic women. *Journal of Interpersonal Violence*, 30(4), 1-22.
Peragallo, N., Gonzalez-Guarda, R. M., McCabe, B., & cianelli, R. (2012). The efficacy of an HIV risk reduction intervention for Hispanic women. *AIDS and Behavior*. 16, 1316-1326.

Contact

nperagallo@miami.edu

L 09 - Nursing Leadership

A Review and Synthesis of Literature Examining Healthcare Managers' Use of Knowledge in Their Practice

Greta G. Cummings, PhD, RN, FCAHS, FAAN, Canada
Kaitlyn C. Tate, BScN, RN, Canada
Sarah J. Hewko, MHA, RD, Canada
Patrick B. McLane, PhD, MA, Canada
Pamela E. Baxter, PhD, RN, Canada
Susan Armijo-Olivo, PhD, PT, Canada
Carole A. Estabrooks, PhD, CM, RN, FCAHS, FAAN, Canada

Abstract

Background. Despite acceptance of the merits of evidence-based practice, healthcare managers are frequently cited as discounting the value of research evidence to inform management practice. We identified and evaluated the effectiveness of interventions implemented to enhance healthcare managers' use of research in their management practice.

Methods. We searched ten online bibliographic databases. Articles eligible for inclusion reported on interventions targeted to healthcare managers for enhancing research utilization in their practice. Two reviewers independently screened all titles, abstracts and manuscripts using predefined inclusion and exclusion criteria and independently conducted quality reviews on all manuscripts meeting inclusion criteria. Four research team members employed Hoon's (2013) approach to meta-synthesis of qualitative studies to synthesize review results. We validated our findings in two semi-structured focus groups with 16 healthcare managers.

Results. Our database search yielded 15, 715 potentially relevant records. After duplicates were removed, a total of 14, 227 unique references remained. These references were screened and 178 titles moved forward to full text screening. Seven studies of variable quality (reported in 11 articles) met inclusion criteria. Three were case studies with primarily qualitative results. Interventions employed to enhance research use among healthcare managers' included: informal and formal training, a computer-based/desktop application; meeting based, executive-level knowledge translation activities; and a formal residency program. Meta-synthesis yielded four themes including organizational culture/context, prioritization, time as a resource, and capacity building. An additional perspective was identified after reviewing focus group data. Awareness relates to participant's lack of awareness that literature exists to inform management practice in health care or participants' prematurely concluding that there is no relevant research in a particular area.

Conclusions. Methods employed to study interventions to enhance management research use among healthcare managers are primarily qualitative. Qualitative results can inform future studies, with study designs that can demonstrate causation and the relative effectiveness of specific components of an intervention in this area. The small number of studies available in the literature and the diverse strategies employed hindered our ability to identify one intervention or strategy as superior to any other.
Registration: PROSPERO (CRD42013005628)

References

Champagne F, Lemiex-Charles L, Duranceau M, MacKean G, Reay T. Organizational impact of evidence-informed decision making training initiatives: A case study comparison of two approaches. *Implementation Science*. 2014;9(53).
Schick-Makaroff K, MacDonald M, Plummer M, Burgess J, Neander W. What synthesis methodology should I use? A review and analysis of approaches to research synthesis. *AIMS Public Health*. 2016;3(1).
Morris ZS, Bullock A, Atwell C. Developing engagement, linkage and exchange between health services managers and researchers: Experience from the UK. *Journal of Health Services Research and Policy*. 2013;18(23).

Contact

gretac@ualberta.ca

L 09 - Nursing Leadership

Leadership Insights of Senior Nurse Executives

Robie Hughes, DSN, RN, CNS, USA

Abstract

Purpose: The purpose of this study was to identify characteristics, behaviors, and context for top performing nurse executive leaders.

Methods: A qualitative study of 8 senior ranking, retired United States military nurse executives was approved by the institutional IRB to conduct semi-structured interviews utilizing the historical narrative method. A modified "Life History Questionnaire: Nurses", developed by Dr. Lucinda McCray was utilized to guide the semi-structures interviews. All interviews were conducted within an eight-month time period. The interviews were audio recorded, and then transcribed verbatim. The transcribed data was examined both in historical context and narrative themes using DiCicco-Bloom and Crabtree's qualitative technique as described in "Making sense of qualitative research" (2006).

Results: Each of the nurses served in a top leadership position during a different time frame. Contextual factors related to health care policies, political environment, and develop of nursing as a profession were discussed. Leadership challenges and accomplishments were identified. Personal characteristics of integrity, service, sacrifice, and humility were consistent, however, leadership strategies varied some based on contextual factors. Stories were extremely touching, emotionally moving, and rewarding.

Conclusion: The combined executive leadership experience of the 8 nurses stretched across 32 years with combined responsibility over 100,000 nurses revealing the stages of nurse advancement from the role of hand-maiden to the role of advanced practice nurse and healthcare executive. The visionary leadership impact of the 8 executive nurses interviewed was nothing less than transformational. The insights from this study have relevance to a broader range of health care leadership roles. Nurses are uniquely prepared through their education and clinical practices to lead teams, but require additional knowledge and skills before successfully moving into executive healthcare leadership. The insight gained from this study demonstrates that retired Senior Nurse Executives can play a vital role in facilitating the success of the next generation of nurse executive leaders.

References

- Akerjordet, K. & Severinsson, E. (2008). Emotionally intelligent nurse leadership: a review study. *Journal of Nursing Management*, 16, 565-577.
- Anderson, B. J., Manno, M., O'Connor, P., & Gallagher, E. (2010). Listening to Nurse Leaders. *The Journal of Nursing Administration*, 40(4), 182-187.
- Anonson, J., Walker, M. E., Arries, E., Maposa, S., Telford, P., & Berry, L. (2014). Qualities of exemplary nurse leaders: perspectives of frontline nurses, *Journal of Nursing Management*, 22, 127-136.
- Bish, M., Kenny, A., & Nay, R. (2015). Factors that influence the approach to leadership: Directors of nursing working in rural health services, *Journal of Nursing Management*, 23, 380-389.
- Boyce, C. and Neale, P. (2006). Interviews: A guide for designing and conducting in-depth interviews for evaluation input, Pathfinder International.
- Byrom, S. & Downe, S. (2010). She sort of shines': Midwives' accounts of "good" midwifery and "good" leadership. *Midwifery*, 26, 126-137.
- Cowden, T., Cummings, G., & Profetto-McGrath, J. (2011). Leadership practices and staff nurses' intent to stay: a systematic review, *Journal of Nursing Management*, 19, 461-477.
- Cummings, G., Lee, H., MacGregor, T., Davey, M., Wong, C., Paul, L., & Stafford, E. (2008). Factors contributing to nursing leadership: a systematic review, *Journal of Health Services Research and Policy*, 13(4), 240-248. DOI: 10.1258/jhsrp.2008.007154
- Cummings, G. G., MacGregor, T., Davey, M., Lee, H., Wong, C. A., Lo, E., Muise, M., & Stafford, E. (2010). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review, *International Journal of Nursing Studies*, 47, 363-385. DOI: 10.1016/j.ijnurstu.2009.08.006
- Curtis, E. A., Vries, J. d., & Sheer, F. K. (2011). Developing leadership in nursing: exploring core factors. *British Journal of Nursing*, 20(5), 306-309.

DiCicco-Bloom, B. & Crabtree, B. F. (2006). Making sense of qualitative research, *Medical Education*, 40, 314-321, doi: 10.1111/j.1365.2929.2006.02418.x.e

Downe, M., Parslow, S., & Smart, M. (2011). The hidden treasure in nursing leadership: informal leaders. *Journal of Nursing Management*, 19, 517-521.

Harris, R., Bennett, J., & Ross, F. (2013). Leadership and innovation in nursing seen through a historical lens. *Journal of Advanced Nursing*, 70 (7), 1629-1638.

Hoffman, B. J., Woehr, D. J., Woehr, D. J., Maldagen-Youngjohn, R. & Lyons, B. D. (2011). Great man or great myth? A qualitative review of the relationships between individual differences and leader effectiveness. *Journal of Occupational and Organizational Psychology*, 84, 347-381.

Junker, N. M., & van Dick, R. (2014). Implicit theories in organizational settings: A systematic review and research agenda of implicit leadership and followership theories. *The Leadership Quarterly*, 25, 1154-1173.

Kennedy, S., Hardiker, N., & Staniland, K. (2015). Empowerment an essential ingredient in the clinical environment: A review of the literature. *Nurse Education Today*, 35, 487-492.

Kirkpatrick, S. A. & Locke, E. A. (1991). Leadership: Do traits matter? *Academy of Management Executive*, 5(2), 48-60.

Contact

vhughes@jhu.edu

L 09 - Nursing Leadership

A Global Exploration of Leadership Competencies for Academic Nurse Educators

Anne Marie Krouse, PhD, MBA, RN-BC, USA

Barbara J. Patterson, PhD, RN, ANEF, USA

Abstract

Purpose: Leadership is an essential element of the role of the nurse educator. It is a key factor in creating and sustaining academic institutional quality in that “leadership training and succession planning may contribute to organizational success” (Minnick, Norman, Donaghey, Fisher, & McKirgan, 2010, p. 504). Many nurse faculty leaders are thrust into their positions with insufficient leadership education or experience (Young, Pearsall, Stiles, Nelson, & Horton-Deutsch, 2011). This is of great concern as academic leadership has been shown to affect faculty satisfaction and retention and affect the health of the overall work environment (Brady, 2010). Leadership succession in academic programs is particularly concerning.

Organizational success is dependent upon the competency of its leaders. In nursing education, the NLN has identified eight core nurse educator competencies (Halstead, 2007). One of these competencies specifically focuses on the nurse educator as a leader, that being to “...function as change agents and leaders... to create a preferred future for nursing education, the nursing profession, and health care delivery systems” (Halstead, 2007, p. 116). Nurse faculty are charged to “assume a leadership role in various levels of institutional governance” and “advocate for nursing and nursing education in the political arena” as part of the competency, functioning within the educational environment (Halstead, 2007, p. 156).

This study builds upon three previous studies examining the leadership competencies of nurse educators. Patterson and Krouse (2015) completed a qualitative study of 15 leaders in nursing education from which six leadership competencies emerged. Those competencies were validated through a Delphi study distributed to leaders in nursing education across the country. The results of the Delphi study were used for development of Leadership in Nurse Educators (LNE)[®] instrument. The 3rd study established the psychometrics of the instrument with a sample of 340 academic nurse educators in the United States. This study extends the sample internationally to provide greater depth and understanding to leadership competencies for the academic nurse educator adding the global perspective.

The advancement the science of nursing education and transforming practice requires nurse educators who are prepared to be leaders. While nurse faculty competencies have been clearly articulated by the NLN, there is a gap in the evidence-based literature in regards to the leadership competencies necessary for the academic nurse educators from a global perspective. The development of nurse faculty who have the leadership skills that are essential to take on the challenging roles of higher education is critical. The purpose of this research was to describe leadership competencies of nurse educators from an international sample.

Methods: A descriptive quantitative design was employed to answer the research question. From a list of nursing schools outside of the United States, the investigators accessed the publicly available web pages identifying the nursing school/department faculty and potential participants’ email contact information. Using SurveyMonkey[®], each identified educator was contacted via email informing him or her about the study and requesting study participation. A total of 2138 emails were distributed with a 11% response rate. Demographic data were analyzed using descriptive statistics. Psychometric evaluation of the instrument was completed to determine reliability and validity of the instrument for international academic nurse educators.

Results: Since the state of the science in nursing education research is in its infancy, this study contributes to the evidence for leadership competencies of academic nurse educators globally. The sample consisted of 250 academic nurse educators with a mean age of 52 years and 22 years of teaching experience. Eighty-three percent were women and 67% had a doctoral degree in nursing (92%

PhD, 4% EdD, 2% DNP, 1% DNS/DNSc). The findings of this study were consistent with previous findings from a U.S. sample of academic nurse educators. The LNE[®] was determined to be valid and reliable for use with an international population of academic nurse educators.

Conclusion: Academic nurse educators are challenged to become leaders, using innovation and creativity to create a more efficient and effective learning environment for students. As members of the academic community, they must become leaders in university governance to proactively address increasing regulation in higher education and threats to academic freedom. Developing those leadership competencies necessary to work within the higher education environment is crucial as the challenges faced in healthcare and education become more complex.

In a global nursing community, this study contributes data from an international sample using a reliable and valid instrument for the science of nursing education that can be used to assess leadership competencies in academic nurse educators. The instrument may be used in conjunction with leadership development programs for academic nurse educators to identify areas for development or to assess program outcomes. It may also be used to evaluate relationships between leadership competencies and organizational outcomes in higher education. Faculty development is the critical element (Cleeter, 2011).

References

- Brady, M. (2010). Brady, M. (2010). Healthy nursing academic work environments. *Online Journal of Issues in Nursing, 15*(1), Manuscript 6. doi:10.3912/OJIN.
- Cleeter, D. (2011). Faculty leadership development: Concept or reality? [Guest Editorial]. *Nursing Outlook, 59*, 109-110. doi:10.1016/j.outlook.2011.03.017
- Halstead, J. (2007). *Nurse educator competencies: Creating an evidence-based practice for nurse educators* (Ed.). New York: National League for Nursing.
- Minnick, A., Norman, L., Donaghey, B., Fisher, L., & McKirgan, I. (2010). Leadership in doctoral nursing research programs. *Journal of Nursing Education, 49*, 504- 510. doi: 10.3928/01484834-20100820-02
- Patterson, B., & Krouse, A. (2015). Competencies for leaders in nursing education. *Nursing Education Perspectives, 36*, 76-82. doi:10.5480/13-1300.
- Young, P., Pearsall, C., Stiles, K., Nelson, K., & Horton-Deutsch, S. (2011). Becoming a nursing faculty leader. *Nursing Education Perspectives, 32*, 222-228. <http://dx.doi.org/10.5480/1536-5026-32.4.222>

Contact

bjpatterson@widener.edu

L 11 - Interprofessional Collaboration Enhancing Clinical Outcomes Interprofessional Oral-Systemic Health Standardized Patient and Case Study Experience

Judith Haber, PhD, APRN, BC, FAAN, USA
Erin Hartnett, DNP, CPNP, APRN-BC, USA

Abstract

Purpose: The aim of the NYU College of Nursing Teaching Oral-Systemic Health (TOSH) Program Interprofessional Oral-Systemic Health Standardized Patient and Case Study Experience is to promote the acquisition of the Core Competencies for Interprofessional Collaborative Practice and the Interprofessional Oral Health Core Clinical Competencies among future primary care providers by engaging nurse practitioner, nurse-midwifery, dental, and medical students in interprofessional oral-systemic health simulation experiences.

Methods: In 2013, 2014, and 2015, students and faculty from NYU College of Nursing, College of Dentistry, and School of Medicine participated in an interprofessional oral-systemic health simulation experience, featuring a standardized patient and case study teaching-learning strategy, to advance students' competence in both areas. The Interprofessional Collaborative Competencies Attainment Survey (ICCAS) was selected to evaluate the degree to which students, using a pre-test/post-test approach, report a change in perception of their own IP competencies following the learning experience. Data from faculty facilitators was collected to assess their perceptions about the value of exposing students to interprofessional clinical simulation experiences focused on oral-systemic health.

Results: For all student groups, the changes in ICCAS mean scores from pre to post were significant ($p < 0.001$, two-tailed). There was also a statistically significant change in mean scores from pre-test to post-test in each of the six interprofessional competency domains measured by the ICCAS for all participating students ($p < 0.001$, two-tailed). Faculty facilitators reported that the IPE clinical simulation experiences were valuable and positively influenced interprofessional communication, collaboration, patient communication, and student understanding of patient care roles.

Conclusion: These findings suggest that the experience was similarly effective among all student groups in having a positive impact on perceived interprofessional competencies. Topics in which mean post-survey scores were lower are potential opportunities for curriculum refinements to further emphasize those competencies. The Teaching Oral-Systemic Health (TOSH) Program Interprofessional Oral-Systemic Health Clinical Simulation and Case Study Experience is effective as a standardized, replicable curriculum unit, using oral-systemic health as a population health exemplar, to teach and assess interprofessional competencies to nurse practitioner/midwifery, dental, and medical students.

References

- Archibald, D., Trumpower, D., & MacDonald, C. J. (2014). Validation of the interprofessional collaborative competency attainment survey (ICCAS). *Journal of Interprofessional Care*, 1820, 1–6. doi:10.3109/13561820.2014.917407
- Haber, J., Hartnett, E., Allen, K., Hallas, D., Dorsen, C., Lange-Kessler, J., ... Wholihan, D. (2015). Putting the Mouth Back in the Head: HEENT to HEENOT. *American Journal of Public Health*, 105(3), 437–41. <http://doi.org/10.2105/AJPH.2014.302495>
- Interprofessional Education Collaborative Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.: Interprofessional Education Collaborative. Retrieved from <http://www.aacn.nche.edu/Education/pdf/IPECReport.pdf>
- U.S. Department of Health and Human Services, Health Resources and Services Administration. (2014). Integration of oral health and primary care practice. Rockville, MD: Health Resources and Services Administration.

Contact

hartne01@nyu.edu

L 11 - Interprofessional Collaboration Enhancing Clinical Outcomes

ABCDE Bundle Adherence: The Influence of Access to ABCDE-Enhancing Supplies and Equipment

Leanne M. Boehm, PhD, RN, ACNS-BC, USA

Abstract

Purpose: The ABCDE interprofessional bundle (**A**wakening and **B**reathing **C**oordination, **D**elirium monitoring and management, and **E**arly mobility) is an evidence-based approach to organizing Intensive Care Unit (ICU) people, processes, and technology to improve collaboration among disciplines and standardize critical care practices. Implementation of the ABCDE bundle is associated with improvements in delirium prevalence (62.3% pre-implementation vs 48.7% post-implementation, $p=0.02$), ventilator-free days (21 pre-implementation vs 24 post-implementation, $p=0.04$), and hospital mortality (20% pre-implementation vs 11% post-implementation, $p=0.04$). Despite this evidence, bundle adoption is limited. The perceived workload burden of ABCDE bundle execution has been inversely associated with likelihood of bundle adherence (OR=0.47, CI=0.28-0.79, $p=0.004$). Furthermore, limited access to supplies and equipment for ABCDE bundle execution is associated with increased difficulty performing the bundle ($r_s=0.37$, $p<0.001$). The objective of this study was to describe accessibility of ABCDE-enhancing supplies and equipment (e.g., overhead lifts and portable monitors) in units attempting to implement the ABCDE bundle.

Methods: This is a secondary analysis of data from a pilot study investigating organizational factors influencing ABCDE bundle implementation. The Conceptual Framework for Interprofessional Bundle Implementation guided the study. Physical environment data were collected from participating medical and surgical ICUs ($n=10$) in six academic medical centers. The principal investigator personally visited each site between April 2014 and August 2015, during which time available ABCDE-enhancing supplies and equipment were logged. Daily execution of the ABCDE bundle was at the discretion of the ICU team and guided by a standardized protocol. Adherence was tracked daily via the ABCDE bundle checklist. ABCDE bundle adherence is defined as all five components being completed on a ventilator day (i.e., **A**wakening trial [SAT], **B**reathing trial [SBT], **C**oordination [SAT precedes SBT], **D**elirium assessment, **E**arly mobility). ABCDE bundle adherence was aggregated at the unit level.

Results: Variation in ABCDE bundle adherence on ventilator days was noted to range between 38% and 85% across units. ABCDE bundle adherence was lesser in surgical ICUs compared to medical ICUs, but this did not reach statistical significance (63% vs. 75%, $z=1.89$, $p=0.059$). Upon evaluation of individual bundle components, **C**oordination (89%) and **E**arly mobility (86%) had the least adherence for mechanically ventilated patients. Unit ABCDE-enhancing supply/equipment comparison demonstrated a range of 3-10 accessible items across units. The highest performing unit (adherence=85%) had access to two ABCDE-enhancing items while the lowest performing unit (adherence=38%) had access to seven ABCDE-enhancing items. The most frequently reported ABCDE-enhancing items ($\geq 80\%$) include walkers ($n=9$) and overhead lifts ($n=7$). The least commonly reported ABCDE-enhancing items ($\leq 20\%$) included nonpharmacologic delirium management tools (e.g., radio, earplugs) ($n=2$), bariatric chairs ($n=2$), portable monitors ($n=2$), turning straps ($n=2$), strength bands ($n=2$), portable ventilator ($n=2$), and sit-to-stand device ($n=2$).

Conclusion: The ABCDE bundle is recommended practice for critical care, but utilization is low and implementation varies. In this study, the number of ABCDE-enhancing supplies/equipment procured by the ICU is not noted to be consistent with greater adherence to the ABCDE bundle. In fact, there were more than twice the number of ABCDE-enhancing items in the lowest ($n=7$) performing unit compared to the highest performing unit ($n=2$). These data suggest that environmental factors contributing to the workload burden of ABCDE bundle execution may not be so much related to the presence or absence of ABCDE-enhancing supplies/equipment, but more so to unit architecture (e.g., configuration, number of corners) or distances to supplies/equipment. However, unit milieu (e.g., teamwork, coordination across disciplines) and policy and protocol factors (e.g., protocol complexity, role clarity) must also be more closely explored.

References

- Balas, M. C., Burke, W. J., Gannon, D., Cohen, M. Z., Colburn, L., Bevil, C., ... & Vasilevskis, E. E. (2013). Implementing the awakening and breathing coordination, delirium monitoring/management, and early exercise/mobility bundle into everyday care: opportunities, challenges, and lessons learned for implementing the ICU Pain, Agitation, and Delirium Guidelines. *Critical care medicine*, *41*(9 Suppl 1), S116-27.
- Balas, M. C., Vasilevskis, E. E., Olsen, K. M., Schmid, K. K., Shostrom, V., Cohen, M. Z., ... & Stothert, J. C. (2014). Effectiveness and safety of the awakening and breathing coordination, delirium monitoring/management, and early exercise/mobility (ABCDE) bundle. *Critical care medicine*, *42*(5), 1024.
- Boehm, L. M., Vasilevskis, E. E., & Mion, L. C. (2016). Interprofessional Perspectives on ABCDE Bundle Implementation: A Focus Group Study. *Dimensions of Critical Care Nursing*, *35*(6), 339-347.
- Boehm, L.M., Vasilevskis, E.E., Dietrich, M.S., Wells, N., Ely, E.W., Pandharipande, P.P., Mion, L.C. (In Press). Organizational domains are associated with variation in ICU provider attitudes regarding the ABCDE bundle, *American Journal of Critical Care*.
- Boehm, L.M., Dietrich, M.S., Vasilevskis, E.E., Wells, N., Ely, E.W., Pandharipande, P.P., Mion, L.C. (In Press). ICU provider perceptions of ABCDE bundle workload burden are associated with adherence, *American Journal of Critical Care*.
- Miller, M. A., Govindan, S., Watson, S. R., Hyzy, R. C., & Iwashyna, T. J. (2015). ABCDE, but in That Order? A Cross-Sectional Survey of Michigan Intensive Care Unit Sedation, Delirium, and Early Mobility Practices. *Annals of the American Thoracic Society*, *12*(7), 1066-1071.

Contact

leanne.boehm@vanderbilt.edu

L 11 - Interprofessional Collaboration Enhancing Clinical Outcomes

Interprofessional Collaboration in Fall Prevention: Home Care Providers' Experience

Kyeongra Yang, PhD, MPH, RN, USA
Keville Frederickson, EdD, RN, FAAN, USA

Abstract

Purpose: Approximately 12 million individuals currently receive home care because of acute illness, chronic diseases, or permanent disability (National Association for Home Care & Hospice, 2010). Diabetes is one of the most frequently encountered conditions in home care (Jones, Harris-Kojetin, & Valverde, 2012). Researchers have found that older adults with diabetes are at high risk for falls (Yau et al., 2013) largely due to poor balance and loss of pressure sensitivity related to diabetic-related neuropathy (Maurer, Burcham, & Cheng, 2005; Morrison, Colberg, Mariano, Parson, & Vinik, 2010; Schwartz et al., 2002). Falls contribute to about 54% of unintentional injuries in older adults and are a leading cause of death in adults 65 years or older and home care providers have become major players in fall prevention among community-dwelling populations (Centers for Disease Control and Prevention, 2014). Research suggests that a multifactorial fall risk assessment can effectively identify the risk of falls among patients receiving home care (James, Kimmons, Schasberger, & Lefkowitz, 2014). An inter-professional team approach also has been identified as the key to improving the quality of fall prevention among older adults at risk of falling in home care settings (Baxter & Markle-Reid, 2009). The purpose of the study was to understand home care providers' inter-professional collaborative experience in providing fall prevention in home settings.

Methods: The study employed a qualitative, descriptive approach through a series of focus groups. Recruitment began after Institutional Review Board (IRB) approval was obtained both from the University and home visiting agency. To be eligible, participants had to be a homecare provider working with patients 65 years or older who are at risk for falls. Study flyers were distributed via agency email listserv at a home care agency in New York to recruit the sample. The focus group (approximately one hour) took place in a quiet and private setting to protect participant confidentiality. Focus group discussions were audio-recorded, transcribed, and coded for content analysis.

Results: Twenty-nine home care providers participated in three focus groups and included nurses (n=12), physical therapists (n=10), occupational therapists (n=5), one social worker and one speech therapist. Twenty-six (89.7%) were female and the mean age was 44.8 years (SD: 10.2). The average number of years of job experience with home care was 11 (SD: 7.8, Range: 2-33) and the years in their profession ranged from 2 to 46 years (Mean \pm SD: 18.8 \pm 11.3). The themes that emerged included, "teaming up" for patient care and communicating through emails, texts, phone calls, and/or in-person meetings with team members; reaching out to team members perceived to have more knowledge or a "better scope" or a "better handle" on both practice issues as well as more experience in specific settings; and working in an agency as a team was a facilitator in providing care yet working with external home caregivers was identified as a challenge.

Conclusions: This study explored the experiences of home care providers toward inter-professional collaboration. Participants reported that effective inter-professional collaboration is essential to ensure the quality of care and improve patient outcomes; therefore, it is imperative to explore best strategies to enhance inter-professional collaboration in a home care setting.

References

- Baxter, P., & Markle-Reid, M. (2009). An interprofessional team approach to fall prevention for older home care clients 'at risk' of falling: health care providers share their experiences. *International Journal of Integrated Care*, 9, e15.
- Centers for Disease Control and Prevention. (2014). Injury prevention & control: Data & statistics Retrieved December 5, 2016, from <http://www.cdc.gov/injury/wisqars/index.html>

James, M. B., Kimmons, N. J., Schasberger, B., & Lefkowitz, A. (2014). Validating a multifactorial falls risk assessment. *Home Healthcare Nurse*, 32(1), 14-22. doi: 10.1097/nhh.0000000000000008

Jones, A. L., Harris-Kojetin, L., & Valverde, R. (2012). Characteristics and use of home health care by men and women aged 65 and over. *National Health Statistics Reports*, 52, 1-7.

Maurer, M. S., Burcham, J., & Cheng, H. (2005). Diabetes mellitus is associated with an increased risk of falls in elderly residents of a long-term care facility. *The Journals of Gerontology: Series A, Biological Sciences and Medical Sciences*, 60(9), 1157-1162.

Morrison, S., Colberg, S. R., Mariano, M., Parson, H. K., & Vinik, A. I. (2010). Balance training reduces falls risk in older individuals with type 2 diabetes. *Diabetes Care*, 33(4), 748-750. doi: 10.2337/dc09-1699

National Association for Home Care & Hospice. (2010). Basic statistics about home care Retrieved January 7, 2013, from http://www.nahc.org/facts/10hc_stats.pdf

Schwartz, A. V., Hillier, T. A., Sellmeyer, D. E., Resnick, H. E., Gregg, E., Ensrud, K. E., . . . Cummings, S. R. (2002). Older women with diabetes have a higher risk of falls: a prospective study. *Diabetes Care*, 25(10), 1749-1754.

Yau, R. K., Strotmeyer, E. S., Resnick, H. E., Sellmeyer, D. E., Feingold, K. R., Cauley, J. A., . . . Schwartz, A. V. (2013). Diabetes and risk of hospitalized fall injury among older adults. *Diabetes Care*, 36(12), 3985-3991. doi: 10.2337/dc13-0429

Contact

yangk@utexas.edu

L 12 - Nursing Ethics

Legal and Ethical Accountability for Nursing Errors: Disclosure and Apology

Susan J. Westrick, JD, CNE, USA

Abstract

Purpose - The purpose of this session is to review the legal and ethical evidence bases for accountable disclosure of errors and apology by nurses, and to provide guidance on best practices for these disclosures.

Error disclosure and apology are evolving concerns for nurses who have increased exposure to liability. The Institute of Medicine (IOM) report *To Err is Human* brought national attention in the United States to the problem of medical errors and preventable injuries that occur every day (Institute of Medicine, 1999). According to this report, it is estimated that 98,000 patient deaths per year can be attributed to preventable medical errors, raising concerns about patient safety. One of the tenets of communication and patient safety is the ethical obligation to promptly disclose medical errors. Transparency is an integral component of providing safe and accountable care and a critical element of transparency is disclosure of harmful errors. This practice has been recommended by United States (U.S.) accrediting organizations and professional bodies. In 2001, the Joint Commission on Accreditation of Healthcare Organization (now called The Joint Commission) issued the first nationwide disclosure standards, requiring patients to be informed of all unanticipated outcomes of care (Weiss & Koch, 2012). In 2006, the National Quality Forum endorsed a new safe practice guideline on the disclosure of serious unanticipated outcomes to patients. Although these guidelines are not legal mandates, the recommendations of these well-known health care organizations comprise professional standards that could be used as evidence in malpractice cases or other legal challenges in the U.S.

In the United Kingdom (U.K.) there is a new law and guidelines for National Health Service (NHS) doctors and nurses that requires them to apologize to patients for mistakes (Merrifield, 2015). These guidelines, issued by the General Medical Council and Midwifery call for a “duty of candor” in disclosing medical errors. The International Council of Nurses (ICN) Code of Ethics for Nurses (2012) and the American Nurses Association (ANA) Code of Ethics for Nurses (2015) provide further support for error disclosure practices.

Yet even with these mandates and guidelines, barriers to disclosure exist, and error disclosure has been a subject of debate by healthcare professionals. Errors threaten a practitioner’s competency, adequacy, and self-esteem and may lead to employer or professional discipline (Westrick, 2014). Nurses also may not be aware of U.S. state apology statutes (laws) that protect some statements from use in civil lawsuits for negligence or malpractice. Two law cases involving physicians that apply apology laws are reviewed to illustrate these protections (Airasian, 2008; Davis, 2011). Nurses would be similarly protected as “health care practitioners” under the wording of the statutes applied in both cases.

Successful error disclosure programs in the U.S. and best practices for error disclosure such as the “Michigan Model” (Kalachalia, Kaufman & Boothman (2010) have made a difference in reducing liability claims. The Sorry Works! Coalition was formed in 2005 as an advocacy group that promotes apology for medical errors and fair compensation when appropriate to patients and families (<http://www.sorryworks.net/>). The website provides training materials and toolkits to assist practitioners and organizations in the apology process. Additionally nurse educators are urged to include error disclosure content in nursing curricula as part of safety and quality education, since this is typically not a part of undergraduate or graduate courses for advanced practice nurses (Westrick & Jacob, 2016). Nurses continue to need support and guidance for specific aspects of error disclosure and apology to patients (Meyers, 2011).

References

1. AHRQ PSNet Patient Safety Network. Patient safety primer—error disclosure. Retrieved from: <http://www.psnet.ahrq.gov/primer.aspx?primerID%42>.

2. Airasian v Shaak, 289 Ga. App.540, 657 S.E. 2nd 600 (GA.App.2008)
3. American Association of Colleges of Nursing QSEN Education Consortium. Graduate-level QSEN competencies knowledge, skills and attitudes. (2012). Retrieved from <http://www.aacn.nche.edu/faculty/qsen/competencies>.
4. American Nurses Association. (2015). Code of ethics for nurses with interpretive statements. Silver Springs, MD. Author.
5. Australian Commission on Safety and Quality in Health Care. The Australian open disclosure framework. Retrieved from: <http://www.safetyandquality.gov.au/our-work/open-disclosure/the-open-disclosure-framework/>
6. Canadian Nurses Protective Society. InfoLAW—legal status of an apology. www.info@cnps.ca.
7. COPIC. 3Rs Program- recognize, respond and resolve (2015). Retrieved from: <https://www.callcopic.com/copic-services/safety-and-risk/Pages/3rs.aspx>.
8. Davis v Wooster Orthopaedics & Sports Medicine, Inc., 193 Ohio App. 3d 581 (2011).
9. Gallagher TH, Studdert D, & Levinson W. Disclosing harmful medical error to patients. (2007) New England Journal of Medicine,356, 2713-2719
10. Harrison, R., Birks, Y., Hall, J., Bosanquet, K., Harden, M., & Ledema, R. (2014). The contribution of nurses to incident disclosure: A narrative review, International Journal of Nursing Studies, 51, 334-345.
11. International Council of Nurses, (2012). The ICN code of ethics for nurses. Author. Retrieved from http://www.icn.ch/images/stories/documents/about/icncode_english.pdf
12. Institute of Medicine, Committee on Quality of Health Care in America, (1999). To Err Is Human: Building a Safer Health System. Washington, DC: Institute of Medicine. Retrieved from <http://www.csen.com/err.pdf>.
13. Kachalia A., Kaufman S., Boothman R., et al.(2010) Liability claims and costs before and after implementation of a medical error disclosure program. Annals of Internal Medicine, 153, 213-222.
14. Ledema R, Allen S, & Britton, et.al. (2011). Patient's and family members' views on how clinicians enact and how they should enact incident disclosures: The "100 patient stories" qualitative study. British Medical Journal, 343, 1-9.
15. Merrifield, N. (2015). Nursing staff 'mistakenly believe apology leaves them liable for error'. Nursing Times, May 26, 2015. Retrieved from <https://www.nursingtimes.net/roles/nurse-managers/nursing-staff-mistakenly-believe-apology-leaves-them-liable-for-error/5085221.article>
16. Meyers, V. (2011). When something goes wrong: How to disclose an error. American Nurse Today, 6 (10), Retrieved from <https://www.americannursetoday.com/when-something-goes-wrong-how-to-disclose-an-error/>
17. Pfrimmer D.M. (2010). Nursing's role in disclosure and apology. Journal of Continuing Education in Nursing, 41(8), 342-343
18. Raper S.E. (2011). No role for apology: Remedial work and the problem of medical injury. Yale Journal of Health Policy, Law, and Ethics,11, 267-318
19. Saitta N.M., & Hodge S.D. (2011). Is it unrealistic to expect a doctor to apologize for an unforeseen medical complication? A primer on apologies laws. Pennsylvania Bar Association Quarterly, 82, 93-110.
20. Sorry Works! Retrieved from: <http://sorryworkssite.bondwaresite.com/apology-laws-cms-143>.
21. Weiss, P.M., & Kock S. (2012). Medical errors: Disclosure and apology. Contemporary OBGYN. Contemporaryobgyn.net. Retrieved from: <http://contemporaryobgyn.modernmedicine.com/contemporary-obgyn/news/modernmedicine/modern-medicine-feature-articles/medical-errors-disclosure-an?page=full>
22. Westrick, S.J. (2014). Essentials of nursing law and ethics, (2nd ed.) Burlington, MA: Jones and Bartlett Learning.
23. Westrick, S.J. & Jacob, N. (2016). Disclosure of errors and apology: Law and Ethics. The Journal for Nurse Practitioners, 12(2), 120-126.

Contact

killions1@southernct.edu

L 12 - Nursing Ethics

The Impact of Conscience and Ethical Climate Among Nurses in the Hospital Setting

Theresa Kyzar, PhD, MSN, MBA, RN, USA

Abstract

Purpose: The purpose of this study was to conduct a quantitative descriptive correlational investigation to examine the relationship between ethical climate and the role of conscience in registered nurses who worked in acute care hospital facilities in a southern state in the United States. While the relationships of various types of organizational climates, including ethical climate, have been studied in multiple industries and disciplines, there is a paucity of research that addresses the role of nursing conscience in the acute care environment. The relationship of ethical climate, perceptions of conscience and stress of conscience had not been examined prior to this study. An examination of conscience beliefs and how these beliefs may be influenced by the ethical climate of various hospital nursing units could provide insight into differences and similarities that will add to the collective knowledge in nursing bioethics. A better understanding of the contributing factors to high levels of stress of conscience in nurses should result in improvement in nursing educational ethics programs and in specific support systems designed to aid the nurse during moral dilemmas in the work setting. The data obtained provide additional insight to nurse leaders and assist with needed methods to reduce the likelihood of nurses departing from their chosen specialty, changing employers, or leaving the profession. Additional research findings explaining the interface between the hospital ethical climate and the role of nursing conscience can assist administrators in developing workplace environments suitable for the flourishing of safe places for nurses to voice ethical concerns (Ford et al., 2010).

Methods: A quantitative, non-experimental, descriptive correlational study was utilized to determine the relationship between the variables defined as perceptions of conscience, hospital ethical climate and stress of conscience. A purposive, non-probability-based sampling of 193 registered nurses in the southern United States was surveyed using a web-based survey instrument. Both the ethical climate theory and moral distress theory were utilized to guide the implementation of this study.

Personal characteristics included the respondent's background information (i.e., institutional information, education level, years of experience) and information about the respondent's thoughts on the ethical climate of the patient care unit using the Hospital Ethical Climate Survey [HECS] (Olson, 1995). Conscience was measured by the Perceptions of Conscience questionnaire (PCQ) which assessed different beliefs on where nurses think conscience originates, and what its nature and functions are (Dahlqvist et al., 2007; Gustafson, Eriksson, Strandberg, & Norberg, 2010). Examining background data and information was important to this research to identify factors and characteristics that could be related to the hospital ethical climate where the nurse is employed and attitudes about the importance of conscience. The second part of this study asked respondents to identify concerns that may contribute to a stress of conscience, also referred to as a troubled conscience, by using the Stress of Conscience (SoC) questionnaire (Glasberg et al., 2006). This stress was measured by frequency of selected stressful situations and the amount of troubled conscience the nurse experienced in each of those occurrences. Both multiple and hierarchical regression analyses were conducted to obtain the findings.

Results: The inability to act on one's values leads to internal conflict and situations that prohibit the nurse from expressing ethical or moral concerns and interceding on the patient's behalf lead to moral distress and a stress of conscience. A culture of conformity may suppress the nurse's ability to address feelings associated with a stress of conscience and moral distress. The results of this study verified a significant relationship exists between perceptions of conscience and hospital climate. An additional relationship was established between hospital ethical climate and stress of conscience. There was no relationship found between nursing demographics and job characteristics, however.

Conclusion: Based on the results of this study, the conclusion can be drawn that perceptions of conscience in nursing contribute to the work environment. It does influence how ethically challenging

dilemmas are experienced and are perceived and serves a vital underpinning which allows the nurse to act with moral courage. The important role of team relationships was also duly noted as part of these findings. In ethical climates where nurses perceive that their ability to act on their consciences is suppressed by other nurses or physicians, a troubled conscience ensues. Moreover, the results of this study demonstrate that there is still a significant need to improve the interdisciplinary approach to patient care delivery where all professional contributions, opinions, and ideas foster better collaboration among healthcare team members. These interactions, including ongoing dialogue regarding ethical dilemmas which cause moral uncertainty and distress among the nursing staff are vital for the safety and clinical progress of patients under care. The importance of this and other related research findings from this study cannot afford to go unnoticed by hospital administrators and nurse managers. Their leadership role is critical to finding and implementing solutions that mitigate the negative consequences of poor ethical climates on nursing units and the resulting moral distress, burnout and exodus of nurses from their institutions and the nursing profession. These strategies will assist in combating the growing nursing shortage in the United States and the world.

References

- Ahlin, J., Ericson-Lidman, E., Eriksson, S., Norberg, A. & Strandberg, G. (2013). Longitudinal relationships between stress of conscience and concepts of importance. *Nursing Ethics*, 20(8), 927-942. doi: 10.1177/0969733013484487
- Atabay, G., Cangarli, B.G., & Penbek, S. (2015). Impact of ethical climate on moral distress revisited: Multidimensional view. *Nursing Ethics*, 22(1), 103-116. doi: 10.1177/0969733014542674
- Birchley, G. (2012). A clear case for conscience in healthcare practice. *Journal of Medical Ethics*, 38(1), 13-17. doi:10.1136/jme.2011.043653
- Borhani, F., Jalai, T., Abbaszadeh, A. & Haghdoost, A. (2014). Nurses perception of ethical climate and organizational commitment. *Nursing Ethics*, 21(3), 278-288. doi: 10.1177/0969733013493215
- De Villers, M.J. & DeVon, H.A. (2013). Moral distress and avoidance behavior in nurses working in critical care and noncritical care units. *Nursing Ethics*, 20(5), 589-603. doi: 10.1177/0969733012452882
- Ericson-Lidman, E. & Ahlin, J. (2015). Assessments of stress of conscience, burnout, and social support before and after implementation of a participatory action-research-based intervention. *Clinical Nursing Research*, 1-19. doi: 10.1177/1054773815618607

Contact

kyzart@nsula.edu

L 12 - Nursing Ethics

A Collaborative State of the Science Initiative: Transforming Moral Distress to Moral Resiliency in Nursing

Cynda Hylton Rushton, PhD, RN, FAAN, USA

Heidi Kathleen Holtz, PhD, RN, USA

Patricia Rodney, PhD, RN, Canada

Abstract

Background: Moral distress is a pervasive problem impacting health care in numerous settings and at multiple organizational levels (Oh & Gastmans, 2015; Whitehead, Herbertson, Hamric, & Epstein, 2015). First identified in the 1980s (Jameton, 1984), moral distress occurs in situations where “the person is aware of a moral problem, acknowledges moral responsibility, and makes a moral judgment about the correct action; yet, as a result of real or perceived constraints, participates in perceived moral wrongdoing” (Nathaniel, 2002). The American Nurses Association Code of Ethics for Nurses (2015) delineates moral distress as, “The condition of knowing the morally right thing to do, but institutional, procedural, or social constraints make doing the right thing nearly impossible; threatens core values and moral integrity” (p. 44).

Nurses in all roles, and settings, encounter morally distressing situations. A critical care nurse struggles with implementing invasive interventions for a patient with little chance of survival. A nurse on a medical/surgical unit knows they cannot provide good patient care because of insufficient staffing. A nurse administrator fights for required resources only to face significant budget cuts. Widespread moral distress has been linked with *personal* (burnout, empathy fatigue, job dissatisfaction), and *system* (quality of care, staff turnover, poor patient outcomes) consequences (Burston & Tuckett, 2013; Wallis, 2015; Rushton, Caldwell, & Kurtz, 2016). Despite decades of documenting moral distress, few solutions have been proposed for alleviating this problem that is only expected to escalate with increasing health care complexity (Rushton, 2016).

Moral resilience is an evolving concept that offers promise for helping nurses and other providers manage moral distress. Generally, resilience, refers to “the ability to recover or healthfully adapt to challenges, stress, adversity, or trauma: to be buoyant in adverse circumstances” (Rushton, 2016, p. 112). Specifically, moral resilience has been defined as “the capacity of an individual to sustain or restore, or deepen [his or her] integrity in response to moral complexity, confusion, distress, or setbacks” (p. 112). Moral resilience involves cultivating individual capacities and developing systems to support individual integrity in morally distressing situations by creating a culture of ethical practice.

Purpose: A *State of the Science Symposium: Transforming Moral Distress to Moral Resiliency* was held to explore promising evidence-based practices and answer three critical questions:

- What is known about building moral resilience as a strategy to reduce moral distress?
- What is known about individual and organizational strategies for reducing conditions that give rise to moral distress and for supporting moral resilience?
- What are the recommendations for practice, education, research and policy around addressing moral distress and cultivating moral resilience in clinical settings?

The desired outcomes for this project include delineating what is needed to develop individual capacities and systems that will create an environment that will promote ethically grounded, humane, quality care for patients and their families.

Methods: A two day workshop involving forty-six nurse clinicians, researchers, ethicists, organization representatives, and other stakeholders collaborated using several strategies. First, participants were asked to reflect on what each individual's understanding and beliefs were about moral distress and moral resilience. A background synthesis of moral distress research and interventions were presented to participants to build upon a previous symposium held in 2010. Following that conversation a World Café discussion was held in which group facilitators conveyed emerging ideas for addressing moral distress. To move participants' discussion beyond moral distress a manuscript was presented on transcending

moral distress by building moral resilience followed by a panel presentation describing promising interventions that could be developed and implemented to build individual capacities for moral resilience. Succeeding the panel, participants met in small groups to brainstorm and identify essential elements for successful interventions to address moral distress and build individual capacities of moral resilience. These groups focused on what changes and/or additions were needed to move forward in research, education, policy and practice to address moral distress and cultivate individual capacities towards moral resilience.

Day two of the workshop used similar strategies that focused participants towards discussion of promising system and environmental strategies necessary for addressing moral distress and building moral resilience. Small group participation identified key elements needed to build system capacities to support ethical practice; the priorities in research, education, policy, and practice to build systems that support ethical practice; and steps necessary to cultivate systems that support ethical practice.

Results: Participants voted on recommendations for essential elements and next steps necessary for building individual and system capacities to address moral distress, build moral resilience, and support ethical practice. Additionally, participants identified priorities for a research agenda which was formulated into specific research questions to move research forward on addressing moral distress and building moral resilience.

Conclusion: Nurses, other healthcare providers, and administrators can use the results of this workshop to guide discussions, make considerations on how specific ideas can be moved forward, even implemented, through their personal and organizational efforts. With decided action, we can help nurses and other providers mitigate the effects of moral distress, increase the understanding and implications of building moral resilience, improve the ethical environment in which they practice, and improve the quality of health care.

References

- Albun, G., Gott, M., & Hoare, K. (2016). What is resilience? An integrative review of the empirical literature. *Journal of Advanced Nursing*, 72(15), 980–1000. doi: org/10.1111/jan.12888
- Burston, A. S., & Tuckett, A. G. (2013). Moral distress in nursing: Contributing factors, outcomes and interventions. *Nursing Ethics*, 20(3) 312–324. doi: org/10.1177/0969733012462049
- Jameton A. (1984). *Nursing practice: the ethical issues*. New York: Prentice Hall.
- Musto, L. D., Rodney, P., Vanderheide, R. (2014). Toward interventions to address moral distress: Navigating structure and agency. *Nursing Ethics*, 22(1), 91-102.
- Nathaniel A. (2002). *Moral distress among nurses*. Washington, DC: American Nurses Association.
- Oh, Y., & Gastmans, C. (2015). Moral distress experienced by nurses: A quantitative literature review. *Nursing Ethics*, 22(1), 15–31. doi: org/10.1177/0969733013502803
- Pauly, B., Storch, J. L., & Varcoe, C. (2010). *Moral distress in health care symposium. Final Report to the Canadian Institutes of Health Research*. Ottawa.
- Rodney, P., Buckley, B., Street, A., Serrano, E., & Martin, L.A. (2013). The moral climate of nursing practice: Inquiry and action. In Storch, J., Rodney, P., & Starzomski, R. (Eds.) *Toward moral horizon: Nursing ethics for leadership and practice* (2nd ed.; pp. 188-214). Toronto: Pearson-Prentice Hall.
- Rushton, C. H. (2016). Moral Resilience: A Capacity for Navigating Moral Distress in Critical Care. *AACN Advanced Critical Care*, 27(1), 111-119. doi: 10.4037/aacnacc2016275
- Rushton, C. H., Caldwell, M., & Kurtz, M. (2016). Moral distress: A catalyst in building moral resilience. *American Journal of Nursing*, 116(7), 2-11. doi: 10.1097/01.NAJ.0000484933.40476.5b

Contact

crushto1@jhu.edu

L 13 - Health Promotion in Asthma Patients

Commencement of Global Dissemination and Implementation of a School-Based Academic Asthma Education and Counseling Program

Eileen Kae Kintner, PhD, RN, FAAN, USA

Abstract

Background, Purpose, Aims: One of the most critical issues impeding improvement in public health is the gap between what we know can optimize health and what gets implemented. Dissemination and implementation science seeks to address this gap by understanding how best to transfer efficacious and effective programs into real world settings. The purpose of this presentation is to share the commencement phase of our dissemination and implementation study. We seek to facilitate increased dissemination and implementation of an innovative and effective theory-guided, evidence-based academic asthma health education and counseling self-management program into schools and community settings. We are using the program to challenge an existing paradigm that condition-specific asthma self-management programs are inappropriate for academic settings and to address a critical school barrier to progress in the field of asthma self-management. The novel program, *Staying Healthy-Asthma Responsible & Prepared*[™] (SHARP) has two components: a school component for older school age students with asthma aged 9–14 years enrolled in grades 4–7 delivered by trained certified elementary school teachers in schools during instructional time and a community component for invited members of the students' social networks delivered by public health educators during scheduled evening and weekend events [1–3]. The specific aims of the dissemination and implementation study were formulated to (a) assess the acceptability, integration, and adaptation of SHARP within schools and community settings that serve diverse populations, (b) evaluate the degree of fidelity in whether SHARP's core components are faithfully transported to real world settings, (c) address issues of SHARP's complexity, adoption, sustainability, and cost-effectiveness, and (d) determine the impact of SHARP on community-wide outcomes related to school absenteeism and use of healthcare services.

Framework: The Transdisciplinary Dissemination and Implementation of SHARP Model (TDISM) used to guide the study integrates concepts and processes of three related frameworks: (a) the Consolidated Framework for Implementation Research (CFIR) that provides structure for implementing complex, interacting, and multi-level interventions in real world settings [4], (b) the Logic Model of School-based Asthma Interventions (LM-SAI) that provides structure for implementing asthma health education and counseling programs in school settings [5], and (c) the Acceptance of Asthma Model (AAM) that served as the basis for development and evaluation of the SHARP program.

Participants: We used outreach, engagement, and marketing efforts to launch dissemination and implementation across the United States and around the globe. We contracted with site principal investigators to identify and recruit targeted users as study participants; specifically, program champions who in turn identify and recruit school liaisons, certified elementary school teachers, and public health educators. Champions such as school nurses are responsible for promoting the program within school districts and community settings. School liaisons such as school personnel with access to district-wide databases are responsible for recruiting students with asthma and their caregivers into the program. Certified elementary school teachers identified by the district are responsible for delivery of SHARP's school component. Public health educators are responsible for delivery of SHARP's community component. We orient, train, monitor, and evaluate targeted users in their respective roles and provide them with user-specific packaged program materials.

School-based Intervention: When the National Asthma Education and Prevention guidelines recommended expanding asthma self-management education to schools and community settings to address high morbidity and mortality outcomes in diverse older school age students; schools were reluctant to adopt programs that were not academically-focused. Using a transdisciplinary and community-based participatory approach, we collaborated with health professionals, school personnel, and community partners to develop SHARP as a comprehensive and developmentally-appropriate academic asthma health education and counseling self-management program [1–3]. SHARP has features

that appeal to school administrators because the program complements existing curricula by integrating biology, psychology, and sociology content with related spelling, math, reading, writing, and art assignments as an elective course that meets benchmarks for grades 4–7 and performance-based assessment activity consistent with grade 5. A series of randomized clinical trials confirmed SHARP's feasibility, benefits, efficacy, and effectiveness on improving cognitive, psychosocial, and behavioral factors that impact condition control, quality of life, and use of health care service outcomes in racially-diverse, medically-underserved, inner-city, lower socioeconomic families.

Method: We used the TDISM to guide the commencement phase of dissemination and implementation. During the commencement phase, we partnered with technology and education specialists to transfer our orientation, training, and certification modules as well as monitoring checklists and evaluation surveys to an online format. The online format has the capacity for (a) a public platform to promote and market the program, (b) an individual login platform with a series of eLearning modules for training and certification of targeted users, (c) a user group survey platform for monitoring and evaluating ongoing dissemination and implementation efforts, and (d) a secure platform for ordering program materials, supplies, and products. We created the public platform for advertisement and marketing at the individual, district, community, state, national, and international levels using all forms of communication such as social media, face-to-face, email, pamphlets, presentations, and bulletted-talking-point handouts. In addition, space on the public platform was allocated for sharing students' competitively-selected creative and written expressions of what it is like for them to live with asthma. We created the individual login platform to streamline time and effort invested in training and certification of individually-targeted users. For example, school teacher training was streamlined from 12 face-to-face hours to six online hours while retaining important content and allowing for review using a series of four eLearning modules. We created the user group survey platform to respond to participant feedback in real time and to post responses to frequently asked questions. We contracted to use the university's secure payment platform for ordering, downloading, and/or purchasing SHARP materials and products including: (a) curriculum manuals, student workbooks, community handouts, invitation notecards, and certificates, (b) teaching flip charts for the school component and PowerPoint slides for the community component, and (c) peak flow meters, expandable sponges, stethoscopes, spacers, refrigerator magnets, asthma stat cards, mugs, pins, and stickers.

Evaluation: We chose to use a hybrid, blended, type III implementation design. Study participants include the targeted users; specifically program champions, school liaisons, school teachers, and public health educators. We chose not to include students with asthma and members of their social networks enrolled in the SHARP program as participants in this study because no data will be collected directly from students or members of their social networks. Targeted users will report student participation and progress in aggregate format. We evaluated the commencement phase and will continue to evaluate every phase of dissemination and implementation using online surveys. The user group platform sends emails to targeted individuals and/or groups with links to the online system at preset intervals. We selected reliable and valid measures as well as pragmatic open-ended and guided interview items that map to CFIR domains and constructs to assess and address our dissemination and implementation aims. We modified our existing session-specific checklists to evaluate the degree of fidelity in delivery of SHARP's core components. We integrated reliable and valid scales and sub scales used in our previous studies into program training and ongoing monitoring. We partnered with epidemiologists to obtain public data to determine SHARP's impact on two major health outcomes over time: (a) district-wide school absenteeism rates and (b) community-wide healthcare services utilization rates such as emergency room visits. We determined a multiple-group pre-post interrupted time series analysis, where one group consists of districts that receive the SHARP program and a matched control group of districts not receiving the SHARP program would be appropriate. A matching process based on propensity scores was established and power estimates for sample size were based on minimum detectable effect sizes. We are using the aims to guide analyses of quantitative and qualitative data.

Implications: Findings will be used to advance dissemination and implementation science, guide dissemination and implementation of other efficacious and effective school- and community-based health education and counseling programs, uncover further direction for dissemination and implementation

science, and inform health policy related to delivery of asthma self-management programs in schools and community settings.

References

1. Kintner, E. K., Cook, G., Marti, C. N., Stoddard, D., Gomes, M., Harmon, P., & Van Egeren, L. A., (2015). Comparative effectiveness on cognitive outcomes of the SHARP academic asthma health education and counseling program and a non-academic program. *Research in Nursing and Health*, 38(6), 423-435. doi: 10.1002/nur.21678
2. Kintner, E. K., Cook, G., Marti, C. N., Allen, A., Stoddard, D., Harmon, P., Gomes, M., Meeder, L., & Van Egeren, L. A., (2015). Effectiveness of a school- and community-based academic asthma health education program on use of effective asthma self-care behaviors in older school age students. *Journal for Specialists in Pediatric Nursing*, 20(1), 62-75. doi: 10.1111/jspn.12099
3. Kintner, E. K., Cook, G., Marti, C. N., Gomes, M., Meeder, L., & Van Egeren, L. A., (2015). Effectiveness of a school-based academic asthma education and counseling program on fostering acceptance of asthma in older school age students with asthma. *Journal for Specialists in Pediatric Nursing*, 20(1), 49-61. doi: 10.1111/jspn.12098
4. Kirk, M. A., Kelley, C., Yankey, N., Birken, S. A., Abadie, B., & Damschroder, L. (2016). A systematic review of the use of the Consolidated Framework for Implementation Research. *Implementation Science*, 11:72, doi: 10.1186/s13012-016-0437z
5. Harris, K. M., Kneale, D., Lasserson, T. J., McDonald, V. N., Grigg, J., & Thomas J. (2015). School-based self-management interventions for asthma in children and adolescents: A mixed methods systematic review. *Cochran Database of Systematic Reviews*, 4, 1-20.
<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011651/full>

Contact

ekintner@wisc.edu

L 13 - Health Promotion in Asthma Patients

Can an Asthma Self-Management Intervention Improve Quality of Life in Children Who Have Asthma?

Sharon Dee Horner, PhD, RN, USA

Abstract

Purpose: Asthma is a major public health problem in childhood. Frequent symptomatic days requiring urgent management, disturbed sleep, and limitations in daily activities due to asthma contribute to worsening quality of life (QOL) in children who have asthma (Moreira et al., 2013). Asthma is a heavy burden on children who are members of racial/ethnic minority groups (Akinbami et al., 2012). A randomized controlled trial was conducted to test an asthma self-management intervention in comparison to an attention control intervention of general health promotion on school-aged (7-12 years) children's QOL. The aims of this presentation are twofold: (1) To report results of the intervention on children's asthma-related QOL. Hypothesis: Children in the treatment group will report significantly better asthma-related QOL than children in the attention control group. (2) Noting the heavier burden of asthma on members of ethnic/racial minority groups, we will also explore differences in QOL between Hispanic, Black, and non-Hispanic white children.

Methods: Children were randomly assigned to the treatment or comparison group. The intervention was designed to improve children's asthma self-management and included learning activities related to asthma trigger recognition, asthma symptom prevention and treatment, children's problem-solving in common scenarios, self-monitoring and correct use of a metered dose inhaler (Horner & Brown, 2014; Raymond et al., 2012). All intervention and data collection materials were presented in English and Spanish-language versions. Data on QOL were collected from children at baseline and again at 12 months. The intervention was provided after study enrollment. QOL was measured with Juniper's 23-item scale for children with 3 sub-scales (activity limitations, emotional functioning, and asthma symptoms). Higher scores on the QOL scale indicates worse asthma QOL. Repeated measures ANOVA were run to examine changes from baseline to 12 months (Field, 2013). Follow-up ANOVA were run to examine QOL by racial/ethnic group.

Results: Sample: A total of 257 children and their parental caregiver completed the 12-month study (88% retention) and included 163 boys (63.6%), 94 girls (36.4%); of which 58% were Hispanic, 21% were Black, and 19% were non-Hispanic white (white). The children's mean age was 8.82 years (SD=1.2).

Aim1. Examination of baseline demographics (gender, age, race/ethnicity) and QOL scores revealed no significant differences between the treatment groups. After the intervention, when compared to the attention-control group, QOL was significantly improved in the treatment group: QOL total score, $F=7.53$, $p=.007$; QOL emotional functioning, $F=4.05$, $p=.02$; and QOL asthma symptoms, $F=3.28$, $p=.04$. In terms of activity limitations due to asthma, there were no between treatment group differences – both groups had fewer days with limited activity.

Aim 2. When comparing racial/ethnic groups, additional information is revealed. There were significant differences at baseline in children's QOL: QOL total score, $F=7.05$, $p=.001$; QOL activity limitations, $F=5.89$, $p=.003$; QOL emotional functioning, $F=3.46$, $p=.03$; and QOL asthma symptoms, $F=8.21$, $p<.001$. Black children reported significantly worse QOL than the other two ethnic/racial groups. The children's QOL improved after the intervention, but there continued to be significant differences between racial/ethnic groups 12 months later: QOL total score, $F=3.62$, $p=.03$; QOL activity limitations, $F=3.18$, $p=.04$; QOL asthma symptoms, $F=4.52$, $p=.01$. Whereas, QOL emotional functioning, $F=2.25$, $p=.11$ was not significantly different.

When reviewing the descriptive findings (means & SD) for children's total QOL scores at baseline: 62.30 (SD=19.28) for Blacks, 52.34 (SD=18.96) for Hispanics, and 48.86 for whites we find that Black children had worse total QOL than did Hispanic children, who in their turn had worse QOL than did the non-Hispanic white children. However, the total QOL scores 12-months later were: 48.56 (SD=16.91) for

Blacks, 46.66 (SD=18.83) for Hispanics, and 39.86 (SD=15.18) for whites. The 12-month data shows improvements in their total QOL scores, but the between racial/ethnic group differences remained.

Conclusion: In terms of whether the intervention improved QOL in children with asthma, the hypothesis was supported. The treatment group had significantly better improvements in their QOL than did the comparison group. QOL is a patient-centered indicator of well-being and health. The intervention, which focused on symptom recognition, self-monitoring, problem-solving, and skill development, was an effective way to improve QOL in children with asthma. It is important to note that the treatment and comparison group were composed of equivalent groups in terms of gender and race/ethnicity. The further examination of QOL by racial/ethnic group did reveal significant differences in QOL for children who are members of racial/ethnic minority groups. Nevertheless, their scores also improved after the intervention. While this is a positive finding, the continued differences in QOL reported by children who are ethnic/racial minority group members should be noted. The secondary aim highlights the need for continued work to look carefully at ways to improve asthma self-management and thereby improve the QOL of children who have asthma (Sweet et al., 2014). Interventions may require tailoring to address specific issues of concern to parents and children with asthma who are members of racial/ethnic groups.

References

- Akinbami, L.J., Moorman, J.E., Bailey, C., Zahran, H.S., King, M., Johnson, C.A., & Liu, X. (2012). Trends in asthma prevalence, health care use, and mortality in the United States, 2001-2010. *NCHS data brief, no.94*. Hyattsville, MD.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*, 4th Ed. London: Sage.
- Horner, S.D., & Brown, A. (2014). Evaluating the effect of an asthma self-management intervention for rural families. *Journal of Asthma, 51*, 168-177.
- Moreira, H., Carona, C., Silva, N., Frontini, R., Bullinger, M., & Canavarro, M.C. (2013). Psychological and quality of life outcomes in pediatric populations: a parent-child perspective. *The Journal of Pediatrics, 163*, 1471-1478.
- Raymond, K.P., Fiese, B.H., Winter, M.A., Knestel, A., & Everhart, R.S. (2012). Helpful hints: Caregiver-generated asthma management strategies and their relation to pediatric asthma symptoms and quality of life. *Journal of Pediatric Psychology, 37*, 414-423.
- Sweet, L.L., Polivka, B.J., Chaudry, R.V., & Bouton, P. (2014). The impact of an urban home-based intervention program on asthma outcomes in children. *Public Health Nursing, 31*, 243-252.

Contact

shorner@mail.nur.utexas.edu

L 13 - Health Promotion in Asthma Patients

Use of Spirometry to Measure Asthma Control in Patients With Sickle Cell Disease

Laurie Duckworth, PhD, ARNP, USA
Gloria Lipori, MBA, USA
Jeanette Green, PhD, PNP-BC, USA
Jeffrey Klann, PhD, USA
Shaun Grannis, MD, USA

Abstract

Purpose: Purpose: The purpose of this study is to determine the use of spirometry testing to monitor and evaluate asthma control in patients with asthma, sickle cell disease and acute chest syndrome, ages 5 to 34 years.

Sickle Cell Disease (SCD) is a common inherited genetic disorder and affects approximately 100,000 people in the United States annually and one in 400 African American births (CDC,2016). Asthma affects 23 million people in the US alone. African American children are disproportionately affected having a greater prevalence rate for asthma compared to Caucasians, in addition to a higher rate of hospitalization and higher mortality rate. SCD, when combined with a diagnosis of asthma, increases the risk of Acute Chest Syndrome (ACS), which can lead to significant morbidity and mortality. Findings from The National Heart Lung and Blood Institute (NHLBI) funded Sickle Asthma Cohort (SAC) study confirm that asthma is a risk factor for ACS in patients with SCD and that one early life ACS episode was a significant predictor for future ACS events (DeBaun et al., 2014). It has been reported that as many as 28% of children with SCD may have asthma (Strunk et al., 2014). While there seems to be increasing recognition of the importance of co-morbid asthma and SCD, asthma continues to be underdiagnosed and undertreated (DeBaun, Strunk, 2016). NHLBI Guidelines for the Diagnosis and Management of Asthma should be followed for patients with SCD and asthma (EPR 3, 2007). This would include routine follow up by a pulmonology provider to ensure proper management of asthma. Part of this routine care would include Spirometry testing to evaluate effectiveness of asthma medications and subtle changes in pulmonary function. Early detection of a decrease in pulmonary function may lead to changes in management, which may decrease the incidence of an asthma exacerbation and possibly prevent an occurrence of ACS. The number of spirometry procedures conducted may be indicative of how many patients with Asthma and SCD are receiving routine pulmonology management. Data gleaned from the EMR database may show that although a significant number of patients with SCD and ACS carry the diagnosis of asthma, very few have spirometry testing to evaluate the effectiveness of asthma treatment or to provide early detection of worsening lung function.

Methods: A descriptive cross-sectional study design was utilized to identify the number of patients with SCD, ACS, Asthma and the number of spirometry procedures performed. The Electronic Medical Record (EMR) using i2b2, (a de-identified data repository) for 4 Academic Medical Centers (AMC) was queried for the count of patients 5-34 years of age seen between 12/01/2010 and 12/01/2015 having co-morbid diagnoses of Asthma, Sickle Cell Disease and Acute Chest Syndrome. Queries to cross-reference those patients with the CPT code for spirometry was then performed. The i2b2 query included; (1) Number of patients with SCD + ACS + Asthma + Spirometry, (2) Number of patients with SCD, (3) Number of patients with SCD + Asthma, (4) Number of patients with SCD + ACS, and (5) Number of patients with SCD + ACS + Asthma. The percentage of SCD + ACS+ Asthma patients having spirometry testing was calculated by dividing SCD + ACS + Asthma +Spirometry by the number of patients with SCD + ACS+ Asthma. The four AMC's were labeled as A, B, C, D.

Results: The combined total number of patients for 4 AMC (A,B,C,D) for categories (1) SCD+ACS+Asthma+Spirometry,(2) SCD,(3) SCD+Asthma, (4) SCD+ACS, (5) SCD+ACS+Asthma are respectively; (1)77, (2)2749, (3) 577, (4) 409, and (5) 249. Number of patients for each AMC for these five categories; (1) Number of patients with SCD + ACS + Asthma + Spirometry, A =<10, B= 18, C= 52, D=<10. (2) Number of patients with SCD, A=428, B=378, C=1202, D=741. (3) Number of patients with

SCD+Asthma, A=79 (18.4%), B=57 (15.0%), C=377 (31.3%), D=64 (8.6%). (4) Number of patients with SCD+ACS, A=72 (16.8%), (B) =78 (20.6%), C=142 (11.8%), D=117 (15.7%). (5) SCD+ACS+Asthma, A=37 (8.6%), B=43 (11.4%), C=146 (12.1%), D=23(3.1%). The percent of patients with SCD+ACS+Asthma who also had spirometry performed for each AMC was calculated (SCD+ACS+Asthma+Spiro/SCD+ACS+Asthma = %); A=<10%, B=41.8%, C=35.6%, D=26%. The total number of patients with SCD+ACS+Asthma for all 4 AMC= 249, those having spirometry = 77, thus (77/249) 30.9% of patients with SCD+ACS+Asthma had spirometry performed.

Conclusion: Asthma is prevalent in children with SCD and may result in episodes of ACS. Across 4 AMC only 30.9% of patients with SCD, ACS, and asthma received spirometry testing. In addition there is considerable variation among the 4 AMC ranging from <10% to 41.8% receiving spirometry. Despite the NHLBI recommendations for children with asthma it appears that only a third of these patients with co-morbid SCD, ACS, and Asthma receive this procedure. Very few are being routinely tested for changes in pulmonary function, or those tests are not being coded and documented appropriately. Better coding and documentation practices for spirometry testing in those with sickle cell disease and asthma will allow better access for providers to utilize those test results for asthma management. If the testing is not being done routinely, further research should be done to determine if there are barriers to obtaining appropriate pulmonology evaluation and management.

References

- Centers for Disease Control. (2016). *Sickle Cell Disease*. Retrieved November 30, 2016 from <http://www.cdc.gov/ncbddd/sicklecell/index.html>
- EPR 3. (2007). National Asthma Education and Prevention Program, *Expert Panel Report 3: Guidelines for the diagnosis and management of asthma*, U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Heart, Lung, and Blood Institute, Bethesda, MD, USA, no. 08-4051.
- DeBaun, M., Rodeghier, M., Cohen, R., Kirkham, F., Rosen, C., Toberts, I., Cooper, B., Stocks, J., Wilkey, o., Inusa, B., Warner, J., Strunk, R. (2014). Factors predicting future ACS episodes in children with sickle cell anemia. *American Journal of Hematology*, 89(11), E212-E217. doi: 10.1002/ajh.23819.
- Strunk, R., Cohen, R., Cooper, B., Rodeghier, M., Kirkham, F., Warner, J., Stocks, J., Kirby, J., Roberts, I., Rosen, C., Craven, D., DeBaun, M. (2014). Wheezing symptoms and parental asthma are associated with a physician diagnosis of asthma in children with sickle cell anemia. *J Pediatrics*, 164, 821-826.
- DeBaun, M., Strunk, R. (2016). The intersection between asthma and acute chest syndrome in children with sickle-cell anemia. *Lancet*, 387, 2545-53

Contact

lduck@ufl.edu

L 14 - Perinatal Health

"You're Not Alone": The Power of Peer Mentoring for Pregnant Women With Substance Use Disorder

Mary T. Paterno, PhD, CNM, RN, USA

Abstract

Purpose: Substance use disorder (SUD) accounts for an estimated 10.9% of mental health disease burden globally¹. In the United States, SUD is increasing nationwide², particularly in rural areas³, and more than 11% of women of reproductive age and 5% of pregnant women use illicit drugs². For many women, pregnancy is a time of hope and an opportunity to address substance use^{4,5}. Increasing social support is important to the recovery process for pregnant and postpartum women with SUD, particularly through connection with other women in similar situations⁶. Programs that provide social and community support, integrated with clinical care for pregnant women with SUD, are recommended^{4,7}. Peer mentoring models have been demonstrated to be effective in promoting SUD recovery among veterans⁸ but little is known about the effect of peer mentoring for pregnant substance users. This is relevant as substance use during pregnancy has significant maternal and neonatal health consequences⁹ and pregnant women with SUD may fear potential legal consequences, including the loss of parental rights¹⁰. Understanding the value of peer mentoring from the insider perspective of women in recovery who are peer mentors with lived experience of SUD in pregnancy is important in order to develop effective programs to support pregnant women with SUD. Therefore, the purpose of this study was to describe from the perspective of women in recovery with lived experience of substance use in pregnancy, (1) the experience of mentoring currently pregnant women with substance use disorder, and (2) what it means to be in recovery, in order to discover opportunities for nurse-led interventions that could bridge community support and clinical care in a way that will promote recovery from substance use and lead to positive family building.

Methods: Design: Ethnographic, community-based participatory study using narrative inquiry

Participants: Five women with lived experience of SUD in pregnancy who are in recovery and serve as peer mentors for currently pregnant women with active SUD

Setting: A rural community in Massachusetts, United States

Data collection: Peer mentors took part in a 3-day collaborative digital storytelling workshop¹¹, in which each participant wrote and produced a three-minute digital story telling her personal story of peer mentoring, in her own words. Each participant also took part in a follow-up, in-depth, individual interview approximately one month after the workshop. The researchers wrote field notes in and around the digital storytelling workshop and the individual interviews, to document contextual (etic) details. Key workshop activities and the follow-up interviews were audio-recorded to capture emic, or insider, viewpoints.

Analytic approach: At the end of the digital storytelling workshop, the five digital stories were screened and discussed by the group, serving as a first level of analysis. The authors then conducted additional content analysis of the stories and interviews, focusing on findings in the emic data (i.e. transcripts of audio-recordings of digital storytelling activities and follow-up interviews) related to the experience of peer mentoring and what it means to be in recovery from substance use.

Results: Women in the study described the hopelessness and loss they experienced related to addiction, the path to recovery, the meaning of being in recovery, and the ways in which peer mentoring supports each of these phases. Realizing that as women and mothers they were not alone in their struggle with addiction, and seeing other women in recovery, motivated their own recovery and their drive to provide continued peer mentorship to others. The work of achieving recovery was an "inside job", strengthened by social and community support. As women in recovery, they viewed themselves as contributing to the development of hope for women with active addiction. Peer mentoring became an all-

encompassing job, one that not only supported their mentees, but also bolstered the continued recovery of the mentors themselves.

Conclusion: Peer mentoring may be a powerful tool for providing social and community support to pregnant women with SUD in rural settings. Further work is needed to understand the benefit of peer mentoring for women with SUD in other settings in the United States and globally in order to promote health and recovery from SUD. Nurses are in a unique position to link such community level support with existing clinical care programs in order to maximize the health of pregnant women and their neonates who are affected by substance use disorder.

References

- Davie-Gray, A., Moor, S., Spencer, C., & Woodward, L. J. (2013). Psychosocial characteristics and poly-drug use of pregnant women enrolled in methadone maintenance treatment. *Neurotoxicology and Teratology*, 38, 46–52. doi:10.1016/j.ntt.2013.04.006
- Goettler, S. M., & Tschudin, S. (2014). Care of drug-addicted pregnant women: Current concepts and future strategies - an overview. *Women's Health*, 10(2), 167–177. doi:10.2217/whe.14.7
- Gubrium, A. (2009). Digital storytelling: An emergent method for health promotion research and practice. *Health Promotion Practice*, 10(2), 186–191. doi:10.1177/1524839909332600
- Kuo, C., Schonbrun, Y. C., Zlotnich, C., Bates, N., Todorova, R., Kao, J. C.-W., & Johnson, J. (2013). A qualitative study of treatment needs among pregnant and postpartum women with substance use and depression. *Substance Use & Misuse*, 48(14), 1–15. doi:10.1097/MPG.0b013e3181a15ae8
- Maeda, A., Bateman, B. T., Clancy, C. R., Creanga, A., & Leffert, L. R. (2014). Opioid abuse and dependence during pregnancy: Temporal trends and obstetrical outcomes. *Anesthesiology*, 121(6), 1158–1165. doi:10.1097/ALN.0000000000000472
- Marcellus, L., MacKinnon, K., Benoit, C., Phillips, R., & Stengel, C. (2015). Reenvisioning success for programs supporting pregnant women with problematic substance use. *Qualitative Health Research*, 25(4), 500–512. doi:10.1177/1049732314551058
- Roberts, S. C. M., & Pies, C. (2011). Complex calculations: How drug use during pregnancy becomes a barrier to prenatal care. *Maternal and Child Health Journal*, 15(3), 333–341. doi:10.1007/s10995-010-0594-7
- Substance Abuse and Mental Health Services Administration. (2014). *Results from the 2013 national survey on drug use and health: summary of national findings*. NSDUH Series H-48, HHS Publication No. (SMA) 14-4863. Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from <http://www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf>
- Tracy, K., Burton, M., Nich, C., & Rounsaville, B. (2011). Utilizing peer mentorship to engage high recidivism substance-abusing patients in treatment. *The American Journal of Drug and Alcohol Abuse*, 37(6), 525–531. doi:10.3109/00952990.2011.600385
- U.S. Department of Health and Human Services. (2013). *Addressing prescription drug abuse in the United States*. Retrieved from http://www.cdc.gov/HomeandRecreationalSafety/pdf/HHS_Prescription_Drug_Abuse_Report_09.2013.pdf
- Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E., ... Vos, T. (2013). Global burden of disease attributable to mental and substance use disorders: Findings from the Global Burden of Disease Study 2010. *The Lancet*, 382, 1575–1586. doi:10.1016/S0140-6736(13)61611-6

Contact

mtpaterno@umass.edu

L 14 - Perinatal Health

Perinatal Nurse Home Visiting and Rates of Diabetes and Hypertension Among Child-Bearing Mothers

Amy McKeever, PhD, RN, CRNP, WHNP-BC, USA

Joan Rosen Bloch, PhD, MSN, BSN, CRNP, USA

Susan Zupan, MS, RN, USA

Jennifer Barkin, PhD, MS, USA

Abstract

Purpose: Increased rates of maternal mortality in the United States and prevalence rates of diabetes and hypertension especially among women who live in socioeconomically disadvantaged communities, underscore the importance of perinatal nurse home visiting tailored to pregnant women with hypertension and diabetes. Concurrently, an increasing number of maternal and child health (MCH) home visiting services have emerged nationally and internationally as a key strategy to improve population-level health among socioeconomically disadvantaged mothers and their families. Three years of life are crucial in determining an infant's life course, the Affordable Care Act of 2010 allocated increased funding for MCH home visiting services. In addition, the national Maternal, Infant and Early Childhood Home Visiting (MIECHV) program, through the Maternal and Child Health Bureau of the Health Resources and Services Administration (HRSA), provides funding for evidence-based home visiting programs in communities with high rates of infant morbidity and mortality, often in low-income areas with diverse ethnic and racial marginalized minority populations. Specifically, public health MCH models of home visiting that are well studied and that provide programs that focus on reduction of psychosocial risk (e.g., Nurse-Family Partnership, Healthy Beginnings, Healthy Families America; Hayes et al., 2014; Issel, Forrestal, Slaughter, Wiencrot, & Handler, 2011; Olds et al., 2014; Wen et al., 2015) are now eligible for increased funding through the Affordable Care Act. They are listed on MIECHV's Web site (HRSA, 2016). However, the evidence-based transitional care model (TCM) of perinatal home visiting that was developed decades ago by Brooten and colleagues (Brooten, Brooks, Madigan, & Youngblut, 1998; Brooten et al., 2001; Brooten et al., 2007; Brooten et al., 2012) for pregnant women with medical complications is absent from MIECHV's list of eligible programs.

Before the publication of the randomized clinical trial by Brooten et al. (2001), the standard of care for many high-risk pregnant women with diabetes and hypertension was hospitalization. In their seminal work, these researchers implemented in-home nurse interventions for high-risk women with pregnancy-related complications that entailed careful monitoring with tailored nursing interventions that incorporated teaching, guidance, counseling, and activating appropriate referrals for transdisciplinary clinical and community resources (Brooten et al., 2002; Brooten et al., 2007; Brooten et al., 2012). The frequent, long antenatal hospitalizations for pregnant women with hypertension and diabetes no longer exists as a result of these researchers' findings, which changed practice and showed that perinatal nurse home visiting was cost effective (Brooten et al., 2001). However, little is known about the use, processes, and outcomes of perinatal nurse home visiting services that evolved from the original TCM.

Various models of home visiting programs exist to improve maternal child health (MCH) outcomes. In the context of rising maternal mortality rates, an evidence-based translational care model (TCM) of perinatal nurse home visiting tailored for pregnant women with hypertension and diabetes warrants attention. To study access to TCM perinatal nurse home visiting services for medically high-risk pregnant women, we examine referral patterns among this urban population of pregnant women referred for this model of care because of their diagnosis of diabetes and/or hypertension.

Methods: Secondary analyses were conducted to study referral patterns to home visiting and prevalence rates of diabetes and hypertension among childbearing mothers in Philadelphia. During 2012, 595 pregnant women with diabetes and/or hypertension were referred to perinatal nurse home visiting services.

Results: Factors influencing a larger dosage for services included the diagnosis of diabetes, gestational age at the time of referral and having public (Medicaid) insurance ($p < 0.05$). On average, 23,000 women give birth yearly in Philadelphia. The prevalence rate for diabetes was 4.2% with the Asian population having the highest prevalence of 7.8%. The prevalence rate of hypertension was 9.4% with the Black population having the highest prevalence of 12.7%.

Conclusion: The transitional model of perinatal nurse visiting tailored for women with hypertension and diabetes exists. Surprisingly underrepresented in the larger discourse of MCH programs, further research of this model of care is for this medically high-risk childbearing population is needed. Opportunities for innovation in health promotion and prevention interventions among this medically high risk childbearing populations have promise in changing life course trajectories of chronic illness.

References

- Center for Medicaid & CHIP Services & Health Resources and Services Administration. (2016). Joint information bulletin: Coverage of maternal, infant, and early childhood home visiting services. Retrieved from <https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-03-02-16.pdf>
- Cowley, S., Whittaker, K., Malone, M., Donetto, S., Grigulis, A., & Maben, J. (2015). Why health visiting? Examining the potential public health benefits from health visiting practice within a universal service: A narrative review of the literature. *International Journal of Nursing Studies*, 52(1), 465–480. <http://dx.doi.org/10.1016/j.ijnurstu.2014.07.013>
- Creanga, A. A., Berg, C. J., Ko, J. Y., Farr, S. L., Tong, V. T., Bruce, F. C., & Callaghan, W. M. (2014). Maternal mortality and morbidity in the United States: Where are we now? *Journal of Women's Health*, 23(1), 3–9. <http://dx.doi.org/10.1089/jwh.2013.4617>
- Creanga, A. A., Berg, C. J., Syverson, C., Seed, K., Bruce, F. C., & Callaghan, W. M. (2015). Pregnancy-related mortality in the United States, 2006-2010. *Obstetrics & Gynecology*, 125(1), 5–12. <http://dx.doi.org/10.1097/AOG.0000000000000564>
- Fawcett, J., & Ellenbecker, C. H. (2015). A proposed conceptual model of nursing and population health. *Nursing Outlook*, 63(3), 288–298. <http://dx.doi.org/10.1016/j.outlook.2015.01.009>

Contact

amy.mckeever@villanova.edu

L 14 - Perinatal Health

Longitudinal Evaluation of a Prenatal Mentoring Program for Decreasing Maternal Anxiety in a Military Sample

Karen L. Weis, PhD, RNC-OB, FAAN, USA

Regina P. Lederman, PhD, MA, RN, FAAN, USA

Katherine C. Walker, MSN, RN, USA

Wenyaw Chan, PhD, MS, USA

Abstract

Purpose: A relationship exists between prenatal maternal anxiety to pregnancy complications, poor birth outcomes and infant/childhood cognitive delays.¹⁻³ Traditionally, high-risk groups of young, unmarried, undereducated primigravidas have been the focus of prenatal assessment and interventions.⁴ Less understood is anxiety in differing samples. The aim of this project was to assess the efficacy of the Mentors Offering Maternal Support (M-O-M-S™) program for decreasing prenatal maternal anxiety in a military sample.

Methods: Two hundred and forty-six military women were consented and randomized to either the M-O-M-S™ intervention or prenatal care without M-O-M-S.™ The PSEQ-SF, EPDS, RSES and BRIEF were administered in each trimester. Women in the intervention attended 8, 1-hr mentored sessions aimed at decreasing prenatal pregnancy-specific anxiety and depression. The efficacy of the intervention across pregnancy was examined for prenatal anxiety, self-esteem, depression and resilience using linear mixed models with autoregressive correlation. Demographic covariates were: age, employment, parity, marital status, education, deployment history, military branch, race, and active duty status.

Results: M-O-M-S™ participants had significantly greater decreases in prenatal anxiety related to *Identification with a Motherhood Role* ($p = .049$) and *Preparation for Labor* ($p = .017$). Nulliparous women had significantly lower anxiety related to *Acceptance of Pregnancy* ($\beta = 1.32$; $se = 0.56$) but five times the anxiety for *Preparation of Labor* ($\beta = -5.01$; $se = 0.51$). Women with deployed husbands had significantly greater anxiety for *Identification of a Motherhood Role* ($\beta = 1.04$; $se = 0.50$). All participants had significantly greater increases in resilience ($\beta = 0.04$; $se = 0.02$). There were no significant findings for depression.

Conclusion: The findings reflected significant decreases in prenatal anxiety for women who received the M-O-M-S™ program. The impact of the father's absence on a women's identification as a mother is extremely important. Military leaders recognize that the well-being of the military family is integral to the morale and readiness of service members.⁵ The findings provide evidence of the effectiveness of a mentored support program for decreasing pregnancy-specific prenatal anxiety predictive of preterm birth and low birthweight in military women. The findings also highlight the need for appropriate assessments and interventions for differing populations.

References

1. Ding, X. X., Wu, Y. L., Xu, S. J., Zhu, R. P., Jia, X. M., Zhang, S. F.,... Tao, F. B. (2014). Maternal anxiety during pregnancy and adverse birth outcomes: A systematic review and meta-analysis of prospective cohort studies. *Journal of Affective Disorders*, 159, 103-110. doi: 10.1016/j.jad/2014.02.027.
2. Betts, K.S., Williams, G.M., Najman, J.M., & Alati, R. (2015) The relationship between maternal depressive, anxious, and stress symptoms during pregnancy and adult offspring behavioral and emotional problems. *Depression and Anxiety*, 32, 82-90. doi: 10.1002/da.22272.
3. Wakeel, F., Wisk, L. E., Gee, R., Chao, S. M., & Witt, W. P. (2013) The balance between stress and personal capital during pregnancy and the relationship with adverse obstetric outcomes: Findings from the 2007 Los Angeles Mommy and Baby (LAMB) study. *Archives of Women's Mental Health*, 16, 435-451. doi: 10.1007/s00737-013-0367-6.
4. Thomas, N., Komiti, A., & Judd, F. (2014). Pilot early intervention antenatal group program for pregnant women with anxiety and depression. *Archives of Women's Mental Health*, 17, 503-509. doi: 10.1007/200737-014-0447-2.

5. Bowles, S. V. & Bates, M. J. (2010). Military organizations and programs contributing to resilience building. *Military Medicine*, 175, 382-386.

Contact

weis@uiwtx.edu

L 16 - Transitioning From Military to Civilian Nurse

Personal and Professional Transition From Military to Civilian Nursing Practice

Brenda Elliott, PhD, RN, USA

Katie A. Chargualaf, PhD, RN, CMSRN, USA

Barbara J. Patterson, PhD, RN, ANEF, USA

Abstract

Purpose: The purpose of this presentation is to discuss the military nurse officer's transition from nursing practice in a military setting to a civilian setting.

Methods: Naturalistic inquiry paradigm, qualitative description was used to guide this study. The investigators interviewed 10 nurse Veterans from the United States who served a minimum of four years active duty and at least one year in a civilian clinical nursing role, after separation from active duty status. Semi-structured interviews started with an open-ended question asking participants to describe their transition from military nursing to civilian nursing practice. They were also asked to identify any challenges or facilitators to the process. Clarifying and probing questions were used to gain an understanding of the transition. Data analysis occurred simultaneously with data collection and inductive coding to identify patterns was used during data analysis. Data were collected until saturation was reached.

Results: Results suggest that nurses leaving military nursing practice and entering civilian nursing practice progress through four major phase: *Separating from Military Life, Conflict and Chaos, Shifting Sands, and Personal and Professional Reconstruction*. Findings also suggest that these nurses go through two transitions simultaneously. One is in their professional role and one in their personal identity, which can complicate progress through each phase. With the passage of time, nurse Veterans do undergo a transition to a new identity and professional practice, but aspects of the military culture will always remain a part of who they are. Particularly challenging to the transition was the perception that the skills and leadership experiences garnered from their military service did not translate to civilian practice and a temporary state of chaos, resulting from feelings of grief associated with a loss of the military "lifestyle," often occurs. Exit counseling, anticipatory support resources, and confiding in family or other Veterans were identified as facilitators of transition.

Conclusion: Globally, military nurses bring significant value from their military experiences to the civilian sector. However, their transition could potentially take longer due to challenges in the civilian healthcare context and differences between military and civilian cultures. Healthcare organizations need to examine strategies to help assist these nurses throughout the transition process. Having some understanding of the challenges these nurses may face, potential issues that could surface, and ways to utilize their strengths may aid in a smoother transition as well as promote personal and professional growth.

References

- Doherty, M.E., & Scannell-Desch, E. (2015). After the parade: Military nurses' reintegration experiences from Iraq and Afghanistan wars. *Journal of Psychosocial Nursing*, 53, 29-35. doi:10.3928/02793695-20150406-01
- Elliott, B. (2015). Military nurses' experiences returning from war. *Journal of Advanced Nursing*, 71, 1066-1075. doi:10.1111/jan.12588
- Ray, S.L., & Heaslip, K. (2011). Canadian military transitioning to civilian life: A discussion paper. *Journal of Psychiatric and Mental Health Nursing*, 18, 198-204. doi:10.1111/j.1365-2850.2010.01652.x

Contact

brendaelliott6@gmail.com

L 16 - Transitioning From Military to Civilian Nurse

Understanding the Experiences of Veterans Enrolled in Prelicensure Nursing Programs in the United States

Teresa Shellenbarger, PhD, RN, CNE, ANEF, USA
Julie L. Decker, DNP, RN, USA

Abstract

Purpose: Following military discharge many veterans return to colleges and universities for further education (Allen, Armstrong, Saladiner, Hamilton, & Conrad, 2014; Ness, Rocke, Harrist, & Vroman, 2014). With financial benefits for veterans and job opportunities available for graduates, the number of veterans enrolling in higher education in the United States continues to remain strong (Cate, 2014). However, little information is available to assist educators to meet the unique needs that veterans returning to school may have (Graf, Ysasi, & Marini, 2015; Jones, 2013; Naphan & Elliott, 2015). Therefore, nursing faculty are challenged to assist these students as they transition to professional nursing roles with little empirical data to guide their work. Given the paucity of research available, a hermeneutic phenomenological study was conducted to fully understand the experiences of veterans enrolled in prelicensure nursing programs in the United States.

Methods: A purposive sample of nine students enrolled in associate and baccalaureate degree nursing programs was recruited through professional colleagues and personal networking/referrals using purposive sampling. After explaining the study, a member of the research team obtained informed consent. Informants then participated in audiotaped interviews which were then transcribed verbatim. A 5-step process guided data analysis. To ensure data quality peer debriefing, data triangulation, and member checking was used to validate the themes.

Results: Findings emerging from the interviews with veteran nursing students revealed four themes. Informants described maneuvering through the mental mind shift, battling conflicting forces, avoiding landmines, and accepting support. Students described feeling lost and adrift as they transitioned from structured military life with their comrade community to the isolated foreign much more fluid landscape of higher education with different rules and norms. Informants described needing to reset their compass as they navigated through this unfamiliar territory. As they return to school the veteran nursing students encountered disparities with classmates and battled generational and professional differences. Additional battles emerge as the student veteran confronted financial, academic, psychological, and personal struggles. These students needed to learn to avoid potential landmines that could adversely affect their educational experience. In spite of encountering multiple obstacles, supportive faculty, diverse teaching and learning methods, and open communication with others provided the needed support that helped the student survive the educational experience.

Conclusion: Based upon these findings, recommendations for faculty and campus communities to support these students are suggested. Nursing faculty need to employ watchfulness, use appropriate communication, make referrals, and customize interventions based on specific needs of the veteran. These findings provide useful guidance in the development of evidence-based approaches that can be implemented to allow veterans to successfully navigate the higher education environment and emerge as professional nurses.

References

- Allen, P. E., Armstrong, M. L., Saladiner, J. E., Hamilton, M. J., & Conrad, P. L. (2014). Opportunities, hurdles, solutions, and approaches to transition military veterans into professional nursing programs. *Journal of Professional Nursing, 30*(6), 474-480.
- Cate, C. A. (2014). *Million records project: Research from student veterans of America*. Washington, DC: Student Veterans of America.
- Graf, N. M., Ysasi, N. A., & Marini, I. (2015). Assessment of military viewpoints regarding post-secondary education: Classroom preferences and experiences. *Rehabilitation Counseling Bulletin, 59*(1), 18-29.
- Jones, K. C. (2013). Understanding student veterans in transition. *The Qualitative Report, 18*(74), 1-14.

Naphan, D. E., & Elliott, M. (2015). Role exit from the military: Student veterans' perceptions of transitioning from the U. S. military to higher education. *The Qualitative Report*, 20(2), 36-48.

Ness, B. M., Roche, M. R., Harrist, C. J., & Vroman, K. G. (2014). College and combat trauma: An insiders perspective of the post-secondary education experience shared by service members managing neurobehavioral symptoms. *NeuroRehabilitation*, 35, 147-158.

Contact

tshell@iup.edu

L 16 - Transitioning From Military to Civilian Nurse

The Reintegration Experience of Nurses Who Served in the Iraq and Afghanistan Wars

Mary Ellen Doherty, PhD, RN, CNM, USA
Elizabeth Scannell-Desch, PhD, RN, OCNS, USA

Abstract

Purpose: The purpose of this study was to describe the reintegration experience of U.S. military nurses after wartime deployment to the Iraq and Afghanistan wars.

Methods: A qualitative phenomenological study was conducted to describe the reintegration experience of nurses who served in the Army, Navy, or Air Force during the war years 2003-2013. The sample included Active Duty, National Guard, and Reserve nurses. A purposive sample was drawn from two Veteran organizations and one professional nursing organization. Participation criteria included that the respondents be registered nurses who were able to read, write, speak and understand English and be a current or former U.S. military nurse who served in Iraq or Afghanistan. This method seeks to describe human experience from the perspective of those who have lived the phenomenon of interest and the meaning it holds for them. Once the sampling criteria was met, nurses were mailed informational letters explaining the study. After confirmation of interest, an email was sent to schedule an interview. Data were collected by unstructured interviews, which took place over four months in late 2013. Twenty-three interviews were face-to-face and twelve were conducted via speaker phone because of geographical distance. Informed consent was obtained prior to each interview. Interviews lasted 45 to 90 minutes. Study participants were asked the following research question: "What can you tell me about your reintegration experience?" Additional questions were asked as necessary to clarify or expand what was divulged. Participants were told that they may become uncomfortable with probing questions that could trigger upsetting memories. Although the plan was to provide contact with a mental health practitioner who agreed to provide counseling if needed, no participants needed to be referred. Field notes were taken during the interviews to document emotional reactions, such as crying or laughing, as well as body language such as folding arms or lack of eye contact. The interviews were audio-recorded and transcribed verbatim. Two months later, respondents were sent a copy of their interview transcript to validate content, provide feedback, and check accuracy. Colaizzi's (1978) method for analyzing phenomenological data was employed to guide the discovery of themes embedded in the reintegration experience. Data analysis involved coding, extracting significant statements, and forming theme clusters. Findings were integrated into an exhaustive description of the reintegration experience. The trustworthiness criteria of Lincoln and Guba (1985) was adhered to and rigor was ensured by attending to credibility, confirmability, dependability, and transferability. A limitation of the study may be that the nurses were recruited from veterans and professional nursing organizations and that they may not be representative of all military nurses deployed to Iraq and Afghanistan.

Results: Nine themes emerged from data analysis: 1) homecoming; 2) renegotiating roles; 3) painful memories of trauma; 4) getting help; 5) needing a clinical change of scenery; 6) petty complaints and trivial whining; 7) military unit or civilian job: support versus lack of support; 8) family and social networks: support versus lack of support; and 9) reintegration: a new normal. Participants ranged in age from 25 to 57 years of age with a mean age of 37 years. Most had been home for three years since their last deployment. One half of the participants were married with children while deployed. Thirty-two participants were women and three were men.

Conclusion: The nurses' descriptions of their reintegration experience are similar to those of combat warriors. Their thoughts, feelings, emotions, and stories emanate from their experiences in providing care to military personnel, government contractors, insurgents, local nationals, and children in the war zones of Iraq and Afghanistan. The nurses struggled with reintegration on many levels and with different factions, including family, friends, co-workers, and their communities. Some nurses received support, encouragement, and appreciation from family and social networks, their workplace, and their community. Others experienced a lack of support without thanks or acknowledgement for their service or

recognition that they might be returning mentally and physically exhausted. Their voices were asking for better treatment, patience, understanding, support, and caring. Recommendations for future research include identifying educational and supportive interventions that elevate the current reintegration offerings put forth by the military to a higher level. It appears that the most advantageous and beneficial way to do this is to ask returning nurses for their input. Nursing leaders and therapists need to avail themselves of the latest psychological and therapeutic advances to facilitate healing. The current study fills a gap in the literature by exploring how nurses returning from war transition back into their lives with family, social networks, workplace environment, and community. The nurses shared details of their personal and professional lives and identified conflicts and issues that were sources of frustration, sadness, and stress. They articulated their disappointments and told how individuals and their military leadership could have made a difference. It is important for the American people, as well as those from other countries, to listen to the voices of nurses as they attempt to reintegrate and adapt to a new normal. With nurses being at the forefront of healthcare, it is imperative to hear what they have to say about getting back into their lives and what was helpful and what was not. Their stories provide a lens for others to view the reintegration process. Future research needs to build on this study and further develop interventions to address the reintegration process to ensure optimal functioning for returning nurses both personally and professionally.

References

- Doherty, M.E., & Scannell-Desch, E.A. (2012). Women's health and hygiene experiences during deployment to the Iraq and Afghanistan wars, 2003 through 2010. *Journal of Midwifery and Women's Health*, 57, 172-177.
- Rivers, F.M., Gordon, S., Speraw, S., & Reese, S. (2013). U.S. Army nurses' reintegration and homecoming experiences. *Military Medicine*, 178, 162-166.
- Scannell-Desch, E.A. & Doherty, M.E. (2013). Nurse parents: Parental separation during deployment to the Iraq and Afghanistan wars. *MCN: The American Journal of Maternal-Child Nursing*, 38, 3-8.

Contact

medphd57@gmail.com

M 04 - Cultural Education Initiatives

A Global Approach to Promoting EBP Knowledge: Validating the Translated Version of EKAN Into Spanish

Jan M. Nick, PhD, RN, RNC-OB, CNE, ANEF, USA

Amy Hagedorn Wonder, PhD, RN, USA

Alfa Rigel Suero, MD, BS, Dominican Republic

Darrell Spurlock, PhD, RN, NEA-BC, ANEF, USA

Abstract

Purpose: This study is part of a multi-site research project aimed at documenting the evidence-based practice (EBP) knowledge of nursing students on a global scale. Although the benefits of EBP are widely known, EBP is still not consistently implemented across care settings. A variety of subjective instruments are used in countries to gauge what nursing students know about EBP. The documented lack of correlation between subjective and objective knowledge measures (Zell & Krizan, 2014) coupled with a lack of consistent instrumentation to enable generalizability of findings are two factors that inhibit a global approach toward promoting EBP and collaboratively advancing the science of nursing. The availability of a common, standards-based objective EBP knowledge measure would: a) enable a universal assessment of the state of EBP knowledge in nursing students and nurses, and b) facilitate a collaborative approach toward developing and testing educational strategies across levels of nursing education and practice around the world. The Evidence-based Practice Knowledge Assessment in Nursing (EKAN) instrument was selected for use due to its objective approach to knowledge measurement and solid psychometric properties.

The purposes of this research were to: a) translate the EKAN instrument into Spanish and conduct a validation study in the Dominican Republic, a geographic area that expressed interest in integrating EBP in their nursing curriculum, and b) supply a baseline knowledge assessment for the program to gauge the success of their curriculum enhancement. A secondary purpose included strengthening programs of research at the site institution through a collaborative relationship.

Methods: Using a cross-sectional, descriptive, correlational design, 139 actively enrolled baccalaureate nursing students from a program in Dominican Republic volunteered to participate in the study. Subjects were invited via posters, verbal announcements, and email communication. They were asked to take the EKAN exam, translated into Spanish.

The EKAN is a 20-item multiple-choice objective measure of EBP knowledge with an established item reliability of .98 and strong evidence of validity with infit statistics centering on 1.0, when tested with a similar population in the United States (Spurlock & Wonder, 2015). Using Brislin's (1970) traditional translation method, the EKAN was translated into Spanish by three individuals, then back to English by two additional translators who had not previously seen the original English version. The back-translation was then compared with the original instrument for content, semantic, technical, and conceptual equivalence (Squires et al., 2012) while maintaining focus on cultural and linguistic considerations for the geographic area of study (Palmieri, 2014). A 7-item demographic questionnaire, developed for use with the EKAN, was also incorporated to describe the sample characteristics. Subjects were also asked to self-rate their confidence in delivering evidence-based care using a 5-point Likert-type scale.

The investigators obtained IRB approval from the home institution of the PI and the host institution in Dominican Republic. Subjects completed the Demographic Questionnaire and EKAN-Spanish in paper/pencil format during a proctored data collection session. Most subjects completed the study forms within 35 minutes. Data were later entered into SPSS v.24 for analysis. Additionally, jMetrik (Meyer, 2014) was used to conduct 1-parameter item response theory (IRT) Rasch analysis of the EKAN responses.

Results: After excluding responses from subjects with more than one missing response to EKAN items (because the EKAN is a sum-scored instrument), complete data were available from $N = 123$ subjects.

Subjects were 93.5% female with an average age of 29.6 ($SD = 7.8$) years. The majority (92.7%) of subjects reported the Dominican Republic as their country of origin with 5.7% reporting Haiti and 1.6% reporting another country. Sixty-six percent of subjects were seniors, and reported being in their eighth or ninth term of enrollment in the nursing program (with a range of five to ten terms). A large majority (83.6%) of subjects reporting having already completed a statistics course with 7.4% reporting current enrollment and 9.0% reporting not having yet taken a statistics course. Most (65.5%) subjects reported having completed a special EBP workshop of 1-2 days in length, while 23% reported having completed no special EBP courses.

Using Rasch model analytics, validity indices of the EKAN produced a difficulty index ranging from $\Theta = -1.78$ to 2.22. Mean infit and outfit statistics narrowly centered on 1.0 (WMS $M = .978$; UMS $M = .988$) indicating strong evidence of trait unidimensionality. For reliability indices, separation index values of > 2.0 is a desirable goal. The EKAN-Spanish item separation was robust at 4.27 but person separation was somewhat limited at .38. Item reliability was .94 and person reliability was .13, indicating trait (EBP knowledge) restriction among the study sample. These results compare similarly to the English version of EKAN. Additionally, differential item functioning (DIF) analysis produced no evidence of language-related concern on any of the EKAN's 20 items, supporting translational accuracy.

For baseline knowledge assessment, the mean EKAN EBP knowledge score for the group was 6.52 ($SD = 2.03$) out of 20 possible points, with scores ranging from 2-12 points. No statistically significant differences in mean EKAN scores were found when comparing subjects by level of completion of the nursing program ($F = 1.81$, $df = 5, 117$, $p = .117$) or whether subjects had completed a special EBP course or not ($F = .302$, $df = 4, 117$, $p = .876$). Current enrollment in a statistics course however was associated with higher scores on the EKAN when compared to subjects having not yet taken or having previously taken the course ($F = 4.51$, $df = 2, 119$, $p = .013$).

While subjects' self-rated competence to deliver evidence-based care on a scale from 1 = strongly disagree to 5 = strongly agree was quite high ($M = 4.16$, $SD = .80$), the correlation between self-reported confidence and objectively measured EBP knowledge was small, negative, and statistically nonsignificant ($r = -.041$, $p = .654$).

Conclusion: This is a first step in using a unified, standards-based approach to EBP assessment, and the results indicate the ability to use the EKAN instrument in populations outside the U.S. The findings from this study align with those reported previously (Spurlock & Wonder, 2015), with evidence reported here of a slightly lower and narrower EBP knowledge trait range among the study sample. The EKAN-Spanish translation produced good validity and reliability parameters under the Rasch model. This study provides baseline EBP knowledge level information useful for future score norming and educational intervention research among Spanish-speaking populations like those in the Dominican Republic. Also congruent with findings from an increasing number of studies, subjects' self-evaluations of EBP confidence were not related to objectively measured EBP knowledge.

Future translation and validation studies are currently planned for Japan, Korea, Colombia, and Brazil within the next year. Once psychometric properties are demonstrated for each country, nurse scientists can use the EKAN to describe student knowledge across different levels of preparation (AS, BS, MS, Doctoral), or differentiate knowledge within a particular level (i.e., year 1, year 2), thereby providing evidence for curricular decisions or gauge effectiveness of EBP training. In addition, EKAN translations can also be tested in practice settings and provide clinical leaders information on the knowledge base of nurses practicing in their institutions.

Because education is commonly acknowledged as a barrier to the implementation of evidence-based care, it is essential for academic faculty and clinical leaders to accurately evaluate EBP knowledge. Enabling use of the EKAN in non-English language countries will provide nurse leaders the ability to expand EBP knowledge through accurate and systematic measurement in educational and clinical environments.

The collaborative research relationship between countries has provided a validated instrument in Spanish, baseline knowledge of EBP in junior and senior nursing students, a system for annual assessment for nursing knowledge, and a research trajectory for faculty at the host institution. The validation of EKAN into Spanish now has the ability to transform EBP assessment in over 21 Spanish speaking countries.

References

- Brislin, R.W. (1970). Back-translation for cross-cultural research. *Journal of Cross Cultural Psychology*, 1: 187–196
- Meyer, J. P. (2014). *Applied measurement with jMetrik*. New York, NY: Routledge.
- Palmieri, P. A. (2014, September). Hospital survey on patient safety culture (HSOPSC): A cross-cultural target-language instrument translation study in Peru. Paper session presented at the meeting of the XIV Coloquio Panamericano de Investigación en Enfermería, Cartagena de Indias, Colombia. Retrieved from: http://profedic.com/uploads/3/5/3/2/3532730/941_palmieri_2014_coloquio-investigacion-enfermeria_presentation_final_2014.09.07.pdf
- Spurlock, D., & Wonder, A. H. (2015). Validity and reliability evidence for a new measure: The Evidence-based Practice Knowledge Assessment in Nursing. *Journal of Nursing Education*, 54(11), 605-613.
- Squires, A., Aiken, L. H., van den Heede, K., Sermeus, W. Bruyneel, L., Lindqvist, R., ...Matthews, A. (2012). A systematic survey instrument translation process for multi-country, comparative health workforce studies. *International Journal of Nursing Studies*, 50(2), 264-273.
- Zell, E., & Krizan, Z. (2014). Do people have insight into their abilities? A metasynthesis. *Perspectives on Psychological Science*, 9(2), 111-125.

Contact

jnick@llu.edu

M 04 - Cultural Education Initiatives

Influencing Global Health Through Cultural Nursing Education Assignments: Results of a Mixed-Methods Study

Amanda L. Veearsart, PhD, RN, CNE, USA

Abstract

Purpose: To report the results of a research study regarding changes in cultural awareness levels among prelicensure nursing students after completion of a culturally based clinical assignment.

Methods: The Voice Project was a culturally based assignment (CBA) designed to teach nursing students how to provide culturally competent nursing care. The study utilized a mixed methods retrospective, descriptive research design to evaluate the data. For the purpose of the research project, self-reported levels of cultural awareness among senior nursing students before and after the completion of the Voice Project was evaluated. A convenience sample of 252 students was evaluated, divided into two cohorts (A and B). A quantitative data analysis was completed with a Pearson correlation, coefficient of determination, a paired *t*-test and Cohen's *d* for each subscale on the survey. For the qualitative data, narrative inquiry was used to examine students' reflections on the impact of the CBA. The qualitative data were used to report the impact of the completion of the CBA on student's cultural awareness.

Results: The analysis showed a significant impact to the student's cultural awareness levels after completing the culturally based assignment. Student reflections revealed themes such as emotional connections or unexpected biases when caring for diverse patients. Using a mixed methods approach, the data revealed significant differences in 3 of the 4 subscales and a significant difference between Cohort A and B on 1 subscale after completion of the Voice Project. The results were supported by the prior literature review connecting cultural education to changes in cultural awareness levels (Campinha-Bacote, 2011).

Conclusion: Nursing education should take steps to ensure that cultural education is present in the nursing curricula. The profession of nursing as a practice is committed to providing individualized care with attention to the patient's dignity, and uniqueness (Wang, Liu, & Wang, 2015). Nursing professionals are considered the most trusted profession across many nations. Providing educational opportunities, such as the Voice Project, improves cultural competent care and is the first step in continuing this trustworthiness. The lack of cultural education means nursing programs are graduating nurses who are not prepared to care for a culturally diverse population. The results of the study aligned with current literature reviews showing baccalaureate of science in nursing (BSN) students reported feelings of unpreparedness or discomfort when caring for culturally diverse populations (Rew, et. al, 2015; Reyes, Hadley, & Davenport, 2013). Therefore, cultural based assignments, similar to the one used in the current study, should be included throughout nursing education programs.

References

- American Association of Colleges of Nursing (AACN). (2014). *Building a framework for the future*. Retrieved from <http://www.aacn.nche.edu/aacn-publications/annual-reports/AnnualReport14.pdf>.
- Campinha-Bacote, J. (2011). Delivering patient-centered care in the midst of a cultural conflict: the role of cultural competence. *The Online Journal of Issues in Nursing*, 16(2). doi: 10.3912/OJIN.Vol16No02Man05
- Rew, L., Becker, H., Chontichachalalauk, J., & Lee, H. (2014). Cultural diversity among nursing students: reanalysis of the cultural awareness scale. *Journal of Nursing Education*, 53(2), 71-76.
- Reyes, L., Hadley, D., Davenport (2013). A comparative analysis of cultural competence in beginning and graduating nursing students. *International Scholarly Research Notices*. Retrieved from: <http://dx.doi.org.ezproxy.ttuhs.edu/10.1155/2013/929764>
- Wang, S., Liu, Y., & Wang, L. (2015). Nurse burnout: personal and environmental factors as predictors. *International Journal of Nursing Practice*, 21, 78-86.

Contact

amanda.veearsart@ttuhsc.edu

M 06 - Genetic Health

An Innovative Approach to Teaching Genetics to Graduate Nursing Students Using Interprofessional Teaching Modalities

Dorothy S. Lee, PhD, RN, ANP-BC, FNP-BC, CME, USA
Sharon K. Panepucci, MSN, RNC-OB, CHSE, CLC, USA

Abstract

Purpose: To present an innovative approach to teaching genetics to graduate nursing students using interprofessional teaching modalities.

The Masters' Essentials (2011) mandate the integration of genetic and genomic evidence into the graduate nursing curriculum for use in advanced nursing practice. Faculty strive to answer the question: How can we incorporate current and emerging genetic/genomic evidence into the Masters' Curriculum to promulgate the provision of advanced nursing care to individuals, families and communities utilizing a meaningful, interactive, and motivating approach?

Since the first draft sequences of the human genome (International Human Genome Sequencing Consortium, 2001) the study of human genetics has developed exponentially. Patient's genomic information is currently being used in their clinical care by multiple institutions. Therefore, how can faculty ensure that graduate nursing clinicians have the necessary genetic knowledge to apply genetics/genomics in a clinical setting?

Methods: An active teaching strategy that fosters critical thinking in students is simulation; yet the use of simulation in graduate nursing education is limited. The design and implementation of interprofessional simulations was used to increase confidence, critical thinking and clinical decision making in graduate nursing students. The simulations embodied the presentation, assessment, diagnostics, and intraprofessional outreach needed to arrive at and deliver the diagnosis to the family in an emotionally and educationally supportive manner. The scenario for this strategy focused on the diagnosis of Down's Syndrome.

In addition, concept mapping and reflective thinking were found to be effective strategies to guide students in expressing the meaning of the material and identifying strengths and weaknesses in their thought processes. Both of these strategies were utilized to measure the integration of genetic/genomic knowledge at the clinical and personal level. These complex concept maps encompassed all aspects of the diagnostic and care plan for the family experiencing a genetic disorder such as: the location of the gene on the chromosome, the physical presentation, the diagnostic work up, the treatment, referrals to specialists to assist in treatment of the disorder, and finally the community resources needed for quality of life of the patient and family.

Lastly, the use of a panel discussion was extremely beneficial to impact student learning regarding patients who had experience with cancer that may or may not have had a genetic etiology, and their degree of willingness to pursue genetic testing. This learning modality created a vividly realistic atmosphere as the panelists related their cancer journey. The students researched and composed the panel questions that were preapproved by faculty and were shared with the panelists prior to the panel discussion. By examining the lived experiences of cancer survivors (i.e. what parts of their clinical treatment and care were supportive and which parts caused them despair) the graduate nursing students learned about shared responsibility and empathy of clinicians.

Results: The student evaluations of the teaching techniques were extremely positive: "Having interprofessional interactive sims was helpful in making connections and furthering my understanding", "The concept maps allowed us to feel the investment of the sim character's viewpoint", "The debriefing after the cancer panel was very powerful & emotional. The panelists gave us a valuable glimpse into their journeys; I learned a lot!" and "The simulations complemented the genetics info well".

Conclusion: The use of genetic-based interprofessional sims set the stage for students to engage in a variety of teaching strategies to facilitate learning, critical thinking, and foster clinical decision making in graduate nursing students.

References

American Association of Colleges of Nursing. (2011). The essentials of master's education in nursing. <http://www.aacn.nche.edu/education-resources/MastersEssentials11.pdf>. Gerdeman, J. L., Lux, K., & Jacko, J. (2012). Using concept mapping to build clinical judgment skills. *Nurse Education in Practice*, 13(1) doi:10.1016/j.nepr.2012.05.009 Greco, K.E., Tinley, S., & Seibert, D. (2011). Development of the essential genetic and genomic competencies for nurses with graduate degrees. *Annual Review of Nursing Research*, 29,173-90. Manolio, T. A., Chisholm, R. L., Ozenberger, B., Roden, D. M., Williams, M. S., Wilson, R., . . . Ginsburg, G. S. (2013). Implementing genomic medicine in the clinic: The future is here. *Genetics in Medicine* 15, 258 – 267. Maten-Speksnijder, A. J., Grypdonck, M. H. F., Pool, A., & Streumer, J. N. (2012). Learning opportunities in case studies for becoming a reflective nurse practitioner. *Journal of Nursing Education*, 51(10), 563-569. doi:10.3928/01484834-29129820-05 Pittman, O. (2012). The use of simulation with advanced practice nursing students. *Journal of the American Academy of Nurse Practitioners*, 24, 516-520. Reinisch, C. E. & Kwong, J. (2014). Implementing simulation for evaluation of student nurse practitioner readiness for clinical practicum. *Clinical Scholars Review*, 7(1), 12-15. Taylor, L.A., & Littleton-Kearney, M. (2011). Concept mapping: A distinctive educational approach to foster critical thinking. *Nurse Educator*, 36(2), 84-88. doi:10.1097/NN.0b013e31820b5308 Zhang, C., Thompson, S., & Miller, C. (2011). A review of simulation based interprofessional education. *Clinical Simulation in Nursing*, 7(4), e117-e126. <http://dx.doi.org/10.1016/j.ecns.2010.02.008>

Contact

dslee@svsu.edu

M 06 - Genetic Health

Improving Global Health and Advancing Nursing Science: Parental Knowledge on Genetic Screening and Immunization

Tami L. Thomas, PhD, RN, CPNP, FAANP, FAAN, USA

Jeff Mauer, MS, USA

Kathleen Hickey, EdD, RN, FAAN, FAHA, USA

Abstract

Purpose: The World Health Organization (WHO) has set a priority to reduce disparities in socio economics and health within the next generation. To inform global health initiatives, advance nursing science, and provide data for evidenced based practice, pilot studies were conducted with parents from underserved communities in urban areas and rural areas of the United States. The purpose of these studies was to identify intervention points for nurses in practice and research specifically who are focused on health promotion and disease prevention in the areas of screening for genetic illness (genetic testing) and HPV Immunization. The objective of this investigation was to evaluate the perceived risk and benefits toward genetic testing and among these vulnerable populations. We sought to compare and contrast these findings to elucidate research on health promotion and inform evidenced based practice for nursing and the health sciences.

Methods: After Institutional Review Board approval and meetings with rural community gatekeepers and leaders, a survey was developed to determine parents' levels of knowledge regarding health promotion for their children. Parent Participants completed an 89 item survey that captured 135 participants and their overall health choices and decisions related to health promotion practices in their families and communities.

Results: There were 136 participants (18% males, 82% females) the mean age was 38 years +/- the SD. Descriptive statistics revealed that over 45 percent of parents felt their knowledge about genetic testing and screening was inadequate or non-existent. In addition over 80% of parents knew no one who had ever had any DNA testing and 65% did not understand the connection between Human Papillomavirus (HPV) infection and cancer. In general quantitative results supported three common issues among all groups of parents: (a) fear of poor health outcomes for their children, (b) lack of knowledge regarding HPV vaccination and genetic testing, and (c) concerns regarding cost. Data also revealed concerns genetic testing included cost and application to being able to improve the individuals' health. Limited knowledge of what genetic screening is and the uses of genetic testing were the majority and also identify the need for increased education in this area of health promotion. These findings high light the need for future investigations that include testing ways to increase health promotion education using culturally relevant approaches that are acceptable to parents regardless of geography, economy or cultural background. Additional analysis will also be shared.

Conclusion: Our findings are consistent with those reported in the literature, the National HPV Vaccine Roundtable and highlight the stigma surrounding HPV vaccination and genetic testing. Novel advances in immunization including emerging vaccines for Zika virus as well as the current advances in genetic technology highlight the need for health promotion education in underserved populations to ensure uptake and answer the call from WHO to decrease health care disparities within the next generation. Nurses and nurse researchers who engage in health promotion as part of their research and evidenced based practice in any country can adapt the findings to improve outcomes for patients and families.

References

Thomas, T. L. (2016). Cancer Prevention: HPV Vaccination. *Seminars in Oncology Nursing*, 32(3), 273-280. doi: <http://dx.doi.org/10.1016/j.soncn.2016.05.007>

Thomas, T., Blumling, A. & Delaney, A. (2015). The Influence of Religiosity and Spirituality on Rural Parents' Health Decision-Making and Human Papillomavirus Vaccine. *Advances in Nursing Science*, 38(4):E1-E12. doi: [10.1097/ANS.0000000000000094](https://doi.org/10.1097/ANS.0000000000000094).

Hickey KT, Katapodi MC, Coleman B, Reuter-Rice K, Starkweather AR. Improving Utilization of the Family History in the Electronic Health Record. *Journal of Nursing Scholarship*. 2016. *In Press*.

Williams JK, Katapodi MC, Starkweather A, Badzek L, Cashion AK, Coleman B, Fu MR, Lyon D, Weaver MT, Hickey KT. Advanced Nursing Practice and Research Contributions to Precision Medicine. *Nursing Outlook*. 2015 Nov 23. [Epub ahead of print] PMID: 26712384.

Kulage KM, Schnall R, Hickey KT, Travers J, Zezulinski K, Torres F, Burgess J, Larson EL. Time and Costs of Preparing and Submitting an NIH Grant Application at a School of Nursing. *Nursing Outlook*. 2015 Sept 13. [Epub ahead of print] PMID: 26566959.

Thomas, T., Strickland, O., DiClemente, R. & Higgins, M. (2014). Increasing Human Papillomavirus (HPV) Vaccination in Boys: Reducing Health Disparities through Advanced Pediatric Nursing Practice. *Journal of Pediatric Health Care*, Vol. 28 Iss6, e 55, Nov/Dec issue, 2014.

Thomas, T., DiClemente, R. & Snell, S. (2014) Overcoming the triad of rural health disparities: How local culture, lack of economic opportunity, and geographic location instigate health disparities. *Health Education Journal*, 73(3) 285-294.

Contact

tthomas@fiu.edu

M 07 - Global Practices for Pressure Ulcers

Description of Medical-Surgical Nurses' Care of Patients at Risk for Pressure Ulcers (PU)

Barbara J. Mayer, PhD, RN, CNS, USA

Abstract

Purpose: The purpose of this qualitative study was to explore and describe the level of understanding of PU development and prevention and the perceptions of implementing PU prevention measures of nurses caring for patients in MS units.

Methods: The study was conducted in three (3) community hospitals in California within the same healthcare system using an interpretive description approach (Bertero, 2015). Purposive sampling was used to recruit medical surgical nurses. Six (6) focus groups were conducted including a total of thirty (30) participants. Participant comments were coded following each focus group session. Initial impressions and preliminary themes were explored in subsequent focus groups, allowing the investigator to refine and reorient the inquiry. Demographic information was collected to describe study participants.

Results: A total of 30 nurses working in MS units participated in six focus groups. A brief demographic questionnaire revealed the majority of participants were female (90%) and ranged in age between 26-61 years with a mean age of 41 years. Academic educational preparation included a Bachelor's degree in nursing (67%); pressure ulcer prevention continuing education within the last 12 months (83%), with 74% of classes attended by participants including instruction on evidence-based protocols. The majority of participants were employed full time (87%) and years of nursing experience ranged from 1 year to 38 years, with a mean of 12 years. Findings in this study are not dissimilar to those that have been reported elsewhere, but serve to orient us to today's environment in the wake of the 2008 CMS ruling. Four (4) major themes emerged from analysis of the data: 1) nurses' knowledge of PU prevention improved following an educational activity and nurses' experience caring for patients at risk for development of PU was a significant factor in acquiring and maintaining their knowledge level; 2) an accurate risk assessment is essential in determining appropriate PU prevention measures. Risk was determined using a standardized assessment tool, the Braden Scale. However, participants related inconsistent use and interpretation of the scale, rendering patient scores suspect in determining risk. The presence of diagnoses and conditions known by participants, through previous experience, to be associated with patients at risk for PU development was more important in determining the level of patient risk for PU; 3) many factors were identified as influencing nurses' implementation of PU prevention measures. Factors identified as facilitating implementation of PU prevention measures were: nurses' personal motivations, the use of evidence-based treatment protocols to guide decision-making, the use of expert consultants, and leadership support. Factors identified as barriers to implementation of prevention measures were: staffing concerns, lack of equipment and supplies, patient cooperation; family influences, and balancing nurses' ethical need to provide safe, compassionate care with the desire to respect the wishes of the patient; and 4) regulatory mandates, specifically the 2008 CMS ruling on non-payment for hospital acquired PU, were perceived as having improved nurses' care of patients at risk for PU.

Conclusions: This study was undertaken to describe nurses' knowledge of PU development and prevention and to discover factors affecting nurses' ability to implement PU prevention measures. When interventions are omitted assumptions are often made that the nurse lacks the knowledge, skill or desire to provide quality care (Waugh, 2014). This study revealed that, in the case of PU development and prevention, nurses' knowledge was satisfactory, nurses understood the importance of PU prevention, and were motivated to carry out prevention measures. However, barriers and facilitators to implementation of prevention measures were identified. Because every hospital, shift, and patient encounter presents a unique set of circumstances, organizations must assess and identify contributing factors and implement improvements based on their own assessments to ensure quality care. Findings suggest several actions that could be taken to improve nurses' assessment of PU and implementation of prevention measures. Education promoting a common understanding and consistent use of the Braden Scale is essential to its effectiveness in guiding PU prevention measures. Methods within the practice setting to validate

consistency should be implemented. Evidence-based protocols allow the nurse autonomy to implement measures aligned with the patient's individual risk factors. Protocols also remove the necessity of consulting the patient's physician, allowing timely implementation. The prudent organization should consider implementation of the wound care nurse role and/or expanding the involvement of wound care nurses in the direct provision of PU prevention measures, and provide regular formal and informal education regarding PU prevention for the RN as well as assistive staff such as the CNA. Finally, organizational recognition of the importance of PU prevention is required to facilitate consistent implementation of prevention measures. This includes providing adequate staff both in numbers and quality, leaders serving as role models, and public recognition of positive outcomes by leadership.

References

- Aydin, A., & Karadag, A. (2012). Assessment of nurses' knowledge and practice in prevention and management of deep tissue injury and stage I pressure ulcer. *Journal WOCN*, 37 (5), 487-494.
- Roberts, S., McInnes, E., Wallis, M., Bucknall, T., Banks, M., & Chaboyer, W. (2016). Nurses' perceptions of a pressure ulcer prevention care bundle: a qualitative descriptive study. *BMC Nursing*. Accessed December 6, 2016 at <https://bmcnurs.biomedcentral.com/articles/10.1186/s12912-016-0188-9>
- Samuriwo, R. (2011). The impact of nurses' values on the prevention of pressure ulcers: a Straussian grounded theory study (*unpublished doctoral dissertation*). University of Glamorgan, Wales.
- Sving, E., Gunningberg, L., Hogman, M., & Mamhidir, A. (2012). Registered nurses attention to and perceptions of pressure ulcer prevention in hospital settings. *Journal of Clinical Nursing*, 21, 1293-1303.
- Waugh, S. (2014). Attitudes of nurses toward pressure ulcer prevention: A literature review. *Medsurg Nurs*, 23 (5), 350-357.

Contact

bmayer57@gmail.com

M 07 - Global Practices for Pressure Ulcers

Understanding Pressure Injuries: A Case Study of Adult Patients Treated in Their Own Homes

Debra Jackson, PhD, RN, FACN, United Kingdom

Lisa Durrant, PhD, AHP, United Kingdom

Emily Buxton, BSc, NMC, United Kingdom

Sarah Gardner, MSc, NMC, United Kingdom

Ria Betteridge, MSc, NMC, United Kingdom

Helen Walthall, PhD, RGN, United Kingdom

Marie Hutchinson, PhD, RN, RM, Australia

Steven Neville, PhD, RN, New Zealand

Kim Usher, PhD, MNSt, AM, RN, BADipAppSc (Nsg), FACN, FACMHN, Australia

Abstract

Purpose: Pressure Injuries (PI's) are a major burden to both patients and healthcare providers. NHS England (NHSi, 2014) state 700,000 people are affected by PI's each year costing the NHS £3.8 million per day. Current research and policy position PI's as an acute hospital based problem (Jackson et al., 2016), however the majority of patients are living with chronic PI wounds, receiving treatment within the community (Bennett et al., 2004; Stevenson et al., 2013). Information regarding the extent of PI's in community based adults is lacking and urgently needs addressing as healthcare undergoes a national shift from hospital to home based care provision (NHS 5YFV, 2014). New research is required to not only evaluate the extent of service provision required for community based PI patients but more importantly to understand the care needs and preferences of patients to provide a safe and patient focused service.

Methods: As part of an ethically approved university funded project, all mandatory incident reports of PI's from 2015 were collated from a case study region defined by a single postcode district. Information from reports and district nursing notes were cross-reference to produce detailed demographic and pressure related information. Descriptive statistics (SPSS v22.0 IBM) were used to describe patients within the case study region. To illustrate the burden on service provision, records of PI related equipment given to community dwelling patients were analysed. Semi-structured qualitative patient interviews were conducted with appropriate consent to build a perspective of the burden of living with a PI by individuals within their own homes, and to gain an insight into their understanding and use of pressure relieving equipment.

Results: 50322 adults lived in the case study region, 3086 were aged 75+ (ONS, 2011). In 2015, 103 individuals received community based care for 137 PI's. Multiple combinations of equipment from several manufacturers were supplied, but further analysis showed patients concerns about its use and more patients were likely to not use the equipment as per manufacturer's instructions, than to use it correctly. Narratives of patients revealed the greatest personal burden of living with a PI was living a life of pain, describing days that were clouded in pain; a pain they felt was poorly understood and managed and often out of control. Continuity of care, and the trust built from stable relationships, and knowing their care providers, was fundamental to their personal wellbeing and potential for recovery.

Conclusion: Using a case study approach we have demonstrated that home dwelling patients represent the complete spectrum of PI's including those with full skin thickness damage (Cats 3 & 4). Equipment to relieve or prevent pressure damage is provided extensively into patients homes, even despite a lack of robust evidence that the equipment is beneficial (McInnes et al., 2012). The multiple combinations and choices of specialised equipment supplied perhaps suggest that the system is tailored to meet individual patient needs. However, this study has found that appraisal and re-appraisal of equipment once in a patient's home is lacking and equipment is often redundant or used incorrectly. Furthermore, participant narratives indicated their pain was poorly recognised and under-treated. People living with PI often struggled to maintain continuity of their own care and should have opportunities for dialogue and mutual decision making with health professionals. Further work focusing on the perspectives, understanding and choices of home dwelling patients is imperative because of rapid growth in this sector of the community.

References

- Bennett, G., Dealey, C. and Posnett, J., 2004. The cost of pressure ulcers in the UK. *Age and ageing*, 33(3), pp.230-235.
- Jackson, D., Hutchinson, M., Barnason, S., Li, W., Mannix, J., Neville, S., Piper, D., Power, T., Smith, G.D. and Usher, K., 2016. Towards international consensus on patient harm: perspectives on pressure injury policy. *Journal of nursing management*.
- McInnes, E., Jammali-Blasi, A., Bell-Syer, S., Dumville, J. and Cullum, N., 2012. Preventing pressure ulcers—Are pressure-redistributing support surfaces effective? A Cochrane systematic review and meta-analysis. *International journal of nursing studies*, 49(3), pp.345-359.
- NHS England. 2014. NHS Improvement Available at <http://nhs.stopthepressure.co.uk/>. Accessed on 6th December 2016
- NHS Five Year Forward View. 2014. Available online at <https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>. Accessed on 6th December 2016.
- Office for National Statistics ; National Records of Scotland ; Northern Ireland Statistics and Research Agency (2016): 2011 Census aggregate data. UK Data Service (Edition: June 2016).
DOI: <http://dx.doi.org/10.5257/census/aggregate-2011-1>
- Stevenson, R., Collinson, M., Henderson, V., Wilson, L., Dealey, C., McGinnis, E., Briggs, M., Nelson, E.A., Stubbs, N., Coleman, S. and Nixon, J., 2013. The prevalence of pressure ulcers in community settings: an observational study. *International journal of nursing studies*, 50(11), pp.1550-1557.

Contact

djackson@brookes.ac.uk

M 08 - Health Promotion of Patients With Catheters

The One Million Global Peripheral Intravenous Catheter Study: Findings From a Large Urban Hospital

Marygrace Leveille, PhD, RN, ACNP-BC, USA

Lori Ewalt-Hughes, BSN, RN, CIC, USA

Abstract

Purpose: Over a billion Peripheral Intravenous Catheters (PIVCs) are inserted each year in hospitalized patients worldwide and data on the care and management of these devices is largely unknown. However, data on the prevalence of PIVCs and their management and infection practices across countries and regions are limited. While PIVCs are deemed critical for medical care, they expose patients to bloodstream infections, endocarditis and thrombophlebitis (Bacerra, Shierley & Safdar, 2016). There are many avenues of research to be explored with intravenous catheters. Should PIVCs routinely be changed out at 72-96 hours? Are there any ramifications to having idle PIVCs? According to Keogh (2013) many PIVCs can be safely changed only when clinically indicated. In an effort to understand how PIVCs are managed, an international study, "One Million Global Catheters: PIVC worldwide Prevalence Study", was initiated by a group of investigators in Sydney, Australia. . The worldwide study included fifty one countries with 418 participating hospitals, fifty three of which were in the United States with a total of 5048 patients (Alexandrou et al, 2015). The total number of PIVCs submitted into the One Million Global (OMG) database was 40,620. The study objectives were to assess the prevalence of PIVCs and their management practices, identify patients and PIVC characteristics, the prevalence of localized symptoms, and PIVC securement and dressing practices.

Methods: A convenience sample of 181 medical/surgical patients were recruited and consented by bedside nurses from a large urban teaching hospital to participate in this prevalence study in March of 2015. The study received approval from the Healthcare system institutional review board. A validated data collection tool was utilized by bedside nurses who were trained in Human Subjects Protection and data collection for this study. All observational data collected was de-identified and maintained in a locked secure area. Data was then electronically sent to the study principal investigators in Sydney via a secure modality. Statistical Software (SAS version 9.1; SAS Institute, Inc., Cary, NC) was utilized for statistical analysis. Each site was then presented with individual findings in addition to individual countries and region findings.

Results: The majority of the patients were 18 years and older (99.5%), and half of them are men. Eighty seven percent of PIVCs were inserted for IV fluid and IV medications orders, and the majority were inserted by IV team and nurses (99%). Ninety four percent of the PIVC sites had a borderless transparent polyurethane dressing which reportedly were clean, dry and intact (87%). The majority of PIVC site assessments were documented in patients' charts in last 24 hours (91%) and with no clinical symptoms (88%). A small proportion of PIVC sites with blood in line (3.9%), pain/tenderness on palpation (2.8%), and bruising/dried blood around PIVC (2.8 %). PIVC site selection was usually the forearm (40%) with a 20 gauge(35%) or 22 gauge (34%), respectively.

Table 1. Patients and PIVCs Characteristics

	XX Facility (%)	Country (%)	Comparison (%)	Overall (%)
Age groups				
< 18 years	0.55	7.29	7.01	10.35
≥ 18 years	99.45	91.30	91.47	87.47
Not reported	-	1.41	1.52	2.17
Sex				
Male	50.28	48.12	51.68	50.59
Female	49.72	51.62	47.92	48.88

Not reported	-	0.26	0.39	0.53
Reason for PIVC insertion				
IV fluids	12.15	18.58	15.27	15.88
IV medications	74.59	61.87	64.40	64.95
Taking blood	2.76	3.76	5.78	4.98
Patient unstable/ Requiring resuscitation	-	1.53	2.58	2.07
Blood product transfusion	0.55	1.45	2.22	2.33
Parenteral nutrition	-	0.14	0.46	1.11
Chemotherapy	-	0.08	0.80	1.53
Unknown	9.94	12.60	8.50	7.15
PIVC inserted by				
IV team	22.65	10.84	2.90	2.49
Nurse	76.24	69.67	62.73	70.35
Doctor	-	1.45	16.95	14.14
Technician	0.55	4.73	2.68	2.71
Other	0.55	0.12	0.11	0.08
Unknown/ Not documented	-	13.2	14.64	10.22
Where was the catheter inserted				
Emergency department	18.78	26.76	23.36	18.19
Operating room	4.97	8.87	12.38	10.85
ICU/CCU	1.10	5.19	5.31	6.29
General ward/unit/clinic	67.96	42.85	45.81	54.57
Radiology/Procedure room	2.76	0.99	1.39	1.10
Ambulance/EMS	1.10	2.56	1.89	1.31
Other	-	-	0.04	0.25
Unknown/Not documented	3.32	12.78	9.81	7.43
PIVC position/site				
Hand	25.97	22.46	27.80	32.66
Wrist	9.94	10.99	12.74	13.45
Forearm	40.33	35.62	33.70	31.20
Antecubital fossa	17.68	26.23	19.66	15.20
Upper arm	4.97	2.95	4.11	4.20
Foot	-	0.73	1.13	2.05
Head/ Neck	-	0.12	0.15	0.33
Other	1.10	0.85	0.47	0.68
Missing	-	0.04	0.23	0.22
Catheter gauge/size				
14 G (orange)	-	0.04	0.37	0.44
16 G (grey)	2.76	1.29	2.35	1.85
18 G (green)	12.71	17.23	17.56	14.52
20 G (pink)	34.81	45.78	44.64	40.12
22 G (blue)	34.25	27.91	25.38	26.83
24 G (yellow)	14.92	6.18	4.41	11.28
26 G (purple)	-	-	0.16	0.71
Not visible/ Missing	0.55	1.05	4.32	3.29
Other	-	0.52	0.80	0.97

Table 2. PIVC Site Assessment Results

	XX Facility (%)	Country (%)	Comparison (%)	Overall (%)
PIVC site assessment				
No clinical symptoms	87.85	79.87	82.21	81.73
Pain/tenderness on palpation	2.76	4.06	3.97	5.60
Redness > 1 cm from insertion site	1.10	1.55	1.31	1.24
Swelling > 1 cm from insertion site	1.66	0.77	0.76	0.91
Purulence	-	0.04	0.04	0.03
Itch / rash under dressing	-	0.32	0.22	0.25
Blistering/skin tears under dressing	-	0.04	0.05	0.05
Bruising/dried blood around PIVC	2.76	5.84	4.31	3.20
Palpable hard vein cord beyond IV tip	-	0.26	0.25	0.42
Streak/red line along vein	-	0.28	0.22	0.34
Induration/hardness of tissues > 1 cm	-	0.22	0.17	0.20
Leaking PIVC	-	1.23	0.69	0.63
Extravasation/infiltration	-	0.14	0.22	0.30
Blood in line	3.87	4.81	4.96	4.53
Partial/complete dislodgement of PIVC	-	0.50	0.55	0.51
Other	-	0.08	0.06	0.06
PIVC site assessment documented in the patient chart in last 24 hours?				
Documented	90.61	88.71	62.36	53.72
Not documented	7.73	5.69	28.85	36.40
Not applicable (line newly inserted)	1.66	5.61	8.79	9.88
PIVC dressing type				
Borderless transparent polyurethane	94.48	54.68	58.33	56.08
Window transparent polyurethane	2.21	43.21	28.43	21.57
Sterile gauze and tape	1.66	0.20	8.08	6.22
Chlorhexidine-impregnated dressing	-	0.61	0.19	0.24
Tape only	1.66	0.61	3.33	12.71
Other	-	0.18	0.28	0.18
No dressing	-	0.04	0.14	0.17
Missing	-	0.48	1.23	2.83
PIVC dressing assessment				
Clean, dry and intact	87.29	79.34	78.64	78.25
Moist and soiled with blood/discharge	1.10	2.81	3.15	3.32
Dry and soiled with blood/discharge	6.63	6.87	6.44	5.99
Loose or lifting edges	3.87	8.84	8.22	8.47
Other	1.10	1.55	3.02	3.16
Missing	-	0.59	0.54	0.81
PIVC and administration set securement				
Sutureless securement device	-	12.36	4.71	5.29
Sterile tape strips around PIVC	17.13	7.29	18.02	15.27
Non-sterile tape around PIVC	4.42	7.27	6.11	13.06
Non-sterile tape over PIVC dressing	35.36	27.40	15.40	14.90
Non-sterile tape around admin set	4.42	18.42	11.79	11.31
IV admin set securement device	-	3.49	1.58	2.68
Splint/bandage/tubular net	1.10	3.19	15.91	11.80
Site dressing only	34.25	13.93	16.70	15.26

Other	0.55	1.47	0.50	0.46
No securement	1.66	2.93	6.81	7.33
Missing	-	-	2.49	2.65
If the patient receives an IV flush bolus to keep PIVC patent, what is the flush solution used?				
0.9 sodium chloride	82.32	57.29	45.50	47.96
Heparin/heparinized saline	-	0.69	2.88	4.75
Other	-	0.10	0.27	0.59
No order	17.68	41.92	51.35	46.70

Conclusion: Contribution in this international study was a clear positive learning experience for the bedside nurses to have a "lived experience" in conducting research in a large urban teaching hospital. Involvement in this study promoted the transformation of knowledge and practice among 51 countries and 418 hospitals. Study results pertinent to our site specific findings revealed slight gaps in PIVC site maintenance, vigilance of PIVC dressing assessments to maintain dry and intact PIVS dressing, and documentation practices in comparison to other participating facilities. Additionally, nursing practice changes will be supported by additional education and policy making with regards to PIVC site management. As a result, future patient outcomes such as decreased infiltrates, decreased peripheral line infection rates and decreased pain, will be impacted by the increased awareness and education of the bedside nurses assessment skills of PIVC insertion sites and management of the PIVC site.

References

- Alexandrou, E., Ray-Barruel, G., Carr, P. J., Frost, S., Inwood, S., Higgins, N., . . . Rickard, C. M. (2015). International prevalence of the use of peripheral intravenous catheters. *Journal of Hospital Medicine*, 10(8), 530-533. doi:10.1002/jhm.2389
- Becerra, m. B., Shierley, D., & Safdar, N. (2016). Prevalence, risk factors, and outcomes of idle intravenous catheters: An integrative review. *American Journal of Infection Control*, 44, 167-172. doi:10.1016/j.ajic.2016.03.073
- Keogh, S. (2013). New Research: Change peripheral intravenous catheters as clinically indicated, not routinely. *The Journal of the Association for Vascular Access*, 18(3), 153-154. doi:10.1016/j.java.2013.03.005

Contact

Marygrace.Leville@BSWHealth.org

M 08 - Health Promotion of Patients With Catheters

Association of Catheter-Associated Urinary Tract Infection (CAUTI) With the Practice Environment at the Unit Level

Nancy Ballard, PhD, RN, NEA-BC, USA

Marjorie J. Bott, PhD, RN, USA

Shin Hye Park, PhD, RN, USA

Byron Gajewski, PhD, USA

Peggy A. Miller, PhD, RN, USA

Abstract

Purpose: Identification of elements of the practice environment that influence both nurse satisfaction and patient outcomes is an important area for nursing research. Several valid and reliable tools to measure the components of the practice environment have been developed by nurse researchers. The Practice Environment Scale and Job Enjoyment Scale are included in the National Database of Nursing Quality Indicators® (NDNQI®) RN Satisfaction Survey. In addition the NDNQI provides a database for participating hospitals to collect nurse-sensitive quality outcome data including catheter-associated urinary tract infection rates (CAUTI) for internal use and external benchmarking. All data are collected at the unit level providing opportunity for researchers to explore associations between the nurse work environment and measured quality outcomes.

Leiter and Laschinger (2006) posited the Nursing Worklife Model (NWLM) to explain how the elements identified in the practice environment are interrelated in the complex system of the nurse practice environment with subsequent work that extended the model to include association of nurse perception of patient adverse events. To date, researchers have primarily evaluated the impact of the practice environment on clinical outcomes using administrative data at the hospital or individual nurse level using nurse perceived adverse patient outcomes.

Exploration of the practice environment using the NWLM with catheter-associated urinary tract infections (CAUTI), an identified *never event*, is an important area for research. Care occurs at the work unit level where practice environments may vary. Study of relationships at the unit level with a measured clinical outcome extended previous hospital-level NWLM research. The purpose of this two-phased study was to fit the NWLM to unit level data, validate the fit of a modified NWLM from the first phase and extend the model to evaluate the association with CAUTI rate at the work unit level in acute care settings.

Methods: A secondary data analysis of a national sample ($N= 3,023$) of critical care, step-down, medical, surgical, and combined medical-surgical units from the 2011 NDNQI® was used to fit the NWLM to the unit level data. The modified NWLM was then validated using a national sample, ($N=1,106$), of medical, surgical, and combined medical-surgical unit level data from the 2012 NDNQI® data. Using structural equation modeling (SEM), a modified NWLM of job enjoyment was confirmed and extended to include a unit level outcome measure, the annualized CAUTI rate from the matched units in the 2012 NDNQI® data.

Results: Following indicated modifications to the NWLM pathways in the analysis of the 2011 data, additional significant paths were added to job enjoyment, staffing and resource adequacy, and foundations for quality care resulting in good model fit to the unit level data ($CFI=.999$; $RMSEA=.059$ [$95\% CI=.034-.089$]; $SRMR=.002$). Using the *a priori* model from 2011 data analysis, the modified NWLM at the unit level showed an excellent model fit ($CFI=.995$, $RMSEA=.041$ [$95\% CI=.028-.056$]; $SRMR=.020$) to the 2012 NDNQI® unit level data. The results of the extension of the model to include the clinical outcome revealed a significant ($p= <.01$) negative pathway from job enjoyment to CAUTI rates ($\beta= -.08$). There were significant positive association of CAUTI rate with hospital characteristics that included Academic Medical Centers ($\beta=.13$) and hospitals greater than 500 beds ($\beta=.07$), indicating both had higher CAUTI rates.

Conclusion: The validated model using unit level data supported the importance of the nurse practice environment in reducing negative clinical outcomes (i.e., CAUTI rates). The results demonstrated the importance of the unit practice environment based on the NWLM, for improving quality of care. In addition to emphasis on best clinical practice, strategies to support a culture of professional practice are indicated.

References

- Aiken, L., Cimiotti, J., Sloane, D., Smith, H., Flynn, L., & Neff, D. (2011). Effects of Nurse staffing and nurse education on patient deaths in hospitals with different nurse work environments. *Medical Care*, 49, 1047-1053.
- Ballard, N., Boyle, D., & Bott, M. (2015). Evaluation of elements of the nursing worklife model using unit level data. *Western Journal for Nursing Research* Advance online publication. doi: 10.1177/0193945915581628
- Cimiotti, J. P., Aiken, L. H., Sloane, D. M., & Wu, E. S. (2012). Nurse staffing, burnout, and health care-associated infection. *American Journal of Infection Control*, 40, 486-490. doi:10.1016/j.ajic.2012.02.029.
- Leiter, M. and Laschinger, H. (2006). Relationships of work and practice environment to professional burnout. *Nursing Research*, 55, 137-146.
- Simon, M., Klaus, S., & Dunton, N. (2009). Using NDNQI data to manage CAUTI. *Nursing Management*, 40, 16-18. doi: 10.1097/01.NUMA.0000356628.18587.b9.

Contact

nballard@kennesaw.edu

M 09 - Improving Health in the Psychiatric Patient

Improving Dual Diagnosis Care in Acute Psychiatric Inpatient Settings Through Education

Kofi Bonnie, DNP, MSc, BSc(Hons), RPN, USA

Abstract

Background: Patients with co-existing substance use and mental disorder (dual diagnosis) have complex and challenging care needs. They have an increased risk of homicide, suicide, homelessness, incarceration, multiple admissions and infectious diseases such as hepatitis C and HIV. Acute psychiatric care settings play a vital role in providing services for dual diagnosis patients who often do not voluntarily seek treatment. There is evidence that nurses working in these settings often have unmet learning needs regarding dual diagnosis care, posing a challenge to nursing practice with this clientele. This is significant in that recent data reveals that 57% of the psychiatric inpatients at an inner city hospital in Vancouver, Canada are characterized as dual diagnosis.

Purpose: To develop and pilot an educational module which will equip nurses with the skills and knowledge required to deliver evidence-based dual diagnosis care in acute psychiatric settings.

Methods: A survey of 74 nurses working in acute psychiatric settings was completed to identify their learning needs and challenges. This was followed by a comprehensive review of evidence from the literature to identify competencies, knowledge, and skills needed to deliver dual diagnosis care. Content for the educational module was then validated by a panel of leading international experts on dual diagnosis. Two focus groups of acute psychiatric nurses were then conducted to discuss content. After this, an 8 hour educational session was developed and piloted using the content that was reviewed and validated. Evaluation from 55 participants' of the educational session was collected and analyzed.

Results: Thirteen content areas were identified and validated by experts. Evaluations from 55 participants of the educational session suggest improved knowledge, skills and competencies in dual diagnosis care.

Conclusion: This project translates evidence into practice, contributes to the body of knowledge on dual diagnosis care in acute psychiatric settings and improves nurses' confidence and competency in delivering evidence-based care which also will improve patient care outcomes and experiences.

References

Copello, A., Walsh, K., Graham, H., Tobin, D., Fellows, S., Griffith, E., . . . Birchwood, M. (2012). The impact of training within a comprehensive dual diagnosis strategy: The combined psychosis and substance use (COMPASS) experience. *Mental Health and Substance use: Dual Diagnosis*, 5, 206-216. doi:10.1080/17523281.2012.660191

McGovern, M. P., Lambert-Harris, C., Gotham, H. J., Claus, R. E., & Xie, H. (2014). Dual diagnosis capability in mental health and addiction treatment services: An assessment of programs across multiple state systems. *Administration and Policy in Mental Health and Mental Health Services Research*, 41, 205-214. doi:10.1007/s10488-012-0449-1

Contact

kofi.bonnie@yale.edu

M 09 - Improving Health in the Psychiatric Patient

Working Together to Treat Tobacco Dependence Among Smokers With Serious Mental Illness

Rhonda Schwindt, DNP, RN, PMHNP-BC, USA

Karen Hudmon, DrPH, MS, RPh, USA

Kathy Lay, PhD, MSW, USA

Angela McNelis, PhD, RN, FAAN, ANEF, CNE, USA

Jon Agle, PhD, MPH, USA

Abstract

Purpose: The prevalence of tobacco use among persons with mental illness exceeds the prevalence in the general population by a factor of 2 to 4. Despite strong evidence that tobacco cessation counseling by a health professional can approximately double patients' odds of quitting, clinicians across disciplines are reluctant to offer these individuals effective means by which to quit smoking. The purpose of this pilot study was to estimate the impact of an interprofessional tobacco education program on the perceived self-efficacy and self-rated counseling abilities of graduate health professions students to provide tobacco cessation counseling and their perceptions of interprofessional collaborative practice.

Methods: Investigators used a 1-group, pre/post-test design with quantitative and qualitative analysis. All health professions students ($N=36$ [$n=13$ nursing, $n=9$ pharmacy, and $n=14$ social work]) completed pre-test-post-test surveys, 5 hours of tobacco education training consisting of a 2-hour online module and a 3-hour interprofessional live training session, a simulation experience with a standardized patient, and a post-simulation debriefing session. Data were analyzed using descriptive statistics, correlations, paired t -tests, and qualitative analysis techniques.

Results: Participants' perceived self-efficacy ($t=-9.92$, $df = 35$, $p<0.001$), self-rated counseling abilities ($t=-7.36$, $df = 35$, $p<0.001$), intention to ask about tobacco ($t=-3.16$, $df = 35$, $p=0.003$), and to provide counseling for tobacco cessation ($t=-4.35$, $df = 35$, $p<0.001$) were significantly improved at post-test. In addition, all participants reported high perceived ability to engage in collaborative care and work as part of an interprofessional team. Emergent themes from qualitative analyses of open-field queries were valuing simulations, demystifying disciplines, reflecting on and building skills, critiquing practice, and lessons learned.

Results: Participants' perceived self-efficacy ($t=-9.92$, $df = 35$, $p<0.001$), self-rated counseling abilities ($t=-7.36$, $df = 35$, $p<0.001$), intention to ask about tobacco ($t=-3.16$, $df = 35$, $p=0.003$), and to provide counseling for tobacco cessation ($t=-4.35$, $df = 35$, $p<0.001$) were significantly improved at post-test. In addition, all participants reported high perceived ability to engage in collaborative care and work as part of an interprofessional team. Emergent themes from qualitative analyses of open-field queries were valuing simulations, demystifying disciplines, reflecting on and building skills, critiquing practice, and lessons learned.

Conclusion: Teaching health professions students an interprofessional collaborative approach to treating tobacco dependence for persons with serious mental illness appears to be an effective approach to improve perceived self-efficacy and self-rated counseling abilities and to positively impact their perceptions of interprofessional collaborative practice. These findings have the potential to inform the ways in which students across the spectrum of health professions are educated to provide tobacco cessation counseling. Larger studies are recommended to validate results of this pilot study.

References

- Aniyizhai, A., Singh, N., & O'Malley, S. (2015). Smoking use and cessation among people with serious mental illness. *Yale Journal of Biology and Medicine*, 88(3), 271-277. Retrieved from <http://medicine.yale.edu/yjbm/>
- Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional education: Effects on professional practice and healthcare outcomes (update). *Cochrane Database of Systematic Reviews*, Issue 3. Art. No.: CD002213. <http://dx.10.1002/14651858.CD002213.pub3>.

Schmitt, M.H., Gilbert, J.H.V., Brandt, B.F., & Weinstein, r.s. (2016). The coming of age for interprofessional education and practice. *The American Journal of Medicine*, 126(4), 284-288.
<http://dx.doi.org/10.1016/j.amjmed.2012.10.015>

Contact

rschwind@iu.edu

M 10 - Male Sexual Health and Substance Abuse

Substance Use Experiences of HIV-Positive and HIV-Negative Young Black Men Who Have Sex With Men

Austin Nation, PhD, MSN, RN, PHN, USA

Abstract

Purpose: The prevalence of HIV among young Black men who have sex with men (MSM) is three to four times higher than white MSM. Young black MSM are run-aways and homeless, forcing them to survive on the streets by becoming sex workers, engaging in unprotected anal intercourse because either they or their partner is under the influence of drugs or alcohol. Previous studies cite crack cocaine use, sex while high on crack cocaine, marijuana and alcohol, or sharing needles for injection drugs as strongly associated with HIV infection among young black MSM. The purpose of this presentation is to understand the substance use experiences of HIV-positive and HIV-negative young Black MSM.

Methods: This narrative qualitative study, obtained from participant interviews, offers insights about the range of factors and enhance our understanding about the role that substance use plays in the lives of HIV-positive and HIV-negative young Black MSM.

Results: The themes that emerged from the coding of this qualitative narrative study describe an across-case experiential trajectory with a summary of the significant experiences of this population. This information contributes to the limited body of knowledge currently available and will assist with the development of prevention education strategies specifically tailored to this population that address issues surrounding substance abuse in HIV transmission.

The narratives describe experiences with substance use related to the following:

- (1) early substance use exposure and initiation in family - Young Black MSM are exposed to substance use in their family, with family members who are also using drugs.
- (2) for coping with gay sex and being gay – Participants how substance use allowed them the freedom to explore gay sex and their sexuality, including how they bottom (be the receptive anal partner) when under the influence of drugs.
- (3) peer pressure in new community to fit in with others - Participants describes meeting new people through social media and how substance use is a part of that experience
- (4) exposure to lots of methamphetamine in San Francisco – Participants describe the prevalence of methamphetamine in the dominant gay community, in this case White gay men, who are often times use the drug to control young Black MSM.
- (5) to numb feelings- Participants discover the benefits of methamphetamine for numbing, masking feelings and coping,
- (6) sexual enhancement and survival sex – Participants discover the *sexual enhancement* benefit and this leads them to engage in high risk behaviors, often times as a way to obtain food, clothing and shelter.

Here is a summary of the four key findings related to the overall research aims of this study that emerged from the narrative stories of the young Black MSM:

- 1) “There was a lot going on in the homes of these participants.” Almost all of the young Black MSM discussed early substance use exposure in their family, including parents who were also drugs. The young men shared about broken family structures, including abuse and neglect. These social and environment factors contribute directly to their own early substance use initiation (median age 15), as well as early sex initial (median age 15), at times with parents providing the drugs. Mean age for participants is 26.
- 2) Over thirty years into the AIDS epidemic, stigma and homophobia continue to be an issue for these young Black MSM. Most of the participants were either kicked out of their family homes, asked to leave by their family, or wanted to get away from their family so that they could be themselves. This is blatant discrimination. Most came to San Francisco as a safe place, only to face homelessness and having to figure out how to survive on their own. This creates a sense of insecurity.

3) With the prevalence and exposure to methamphetamine in the San Francisco, young Black MSM discover the benefits of this drug for numbing, masking, and coping with everything from being gay, gay sex, dealing with peer pressure, and for sexual enhancement and survival sex. These issues act as drivers for methamphetamine use as an ineffective coping mechanism.

4) Almost all the young Black MSM had some knowledge and awareness about HIV prior to arriving in San Francisco; most were testing regularly every three months. Once under the influence of methamphetamine, the participants don't care about condoms, nor do they have the ability to negotiate condom usage with their partners. There is a sense of anticipation, resignation and acceptance about acquiring HIV; HIV risk reduction apathy.

Conclusion: Clinicians and researchers in all academic and practice settings will encounter HIV-positive and HIV-negative young Black men and need to understand the prevalence of substance use among this population. It is also important to take a thorough family history, social history, as well as sexual health and risk behavior assessment.

References

Centers for Disease Control and Prevention. (2106). HIV among youth. Retrieved from:
<http://www.cdc.gov/hiv/group/age/youth/>

Centers for Disease Control and Prevention. (2015a). HIV among African Americans. Retrieved from:
<http://www.cdc.gov/hiv/group/raciaethnic/africanamericans/index.html>.

Centers for Disease Control and Prevention. (2015b). Health Disparities in HIV/AIDS, Viral Hepatitis, STDs, and TB: African Americans/Blacks HIV/AIDS. Retrieved from:
<http://www.cdc.gov/nchhstp/healthdisparities/africanamericans.html>.

Contact

austin90621@gmail.com

M 10 - Male Sexual Health and Substance Abuse

Substance Use Among Middle-Aged Hispanic Men Who Have Sex With Men (HMSM) in South Florida

Beatriz Valdes, PhD, RN, CHSE, RN, USA

Abstract

Purpose: In 2014, Hispanics represented 17% of the population but accounted for 24% (10, 887) of the estimated 44, 784 new diagnoses of Human Immunodeficiency Virus (HIV) infection in the US, and 86% (9, 379) of these cases were in men, of which 84% (7, 893) of the estimated HIV diagnosis among Hispanic men were attributed to Hispanic men who have sex with men (HMSM). If current diagnosis rates continue, estimates indicate that 1 in 4 HMSM will be diagnosed with HIV infection during their lifetime. An abundance of research demonstrates a consistent association between alcohol and substance use and high risk sexual practices among HMSM. High risk sexual behaviors include: unprotected anal intercourse (UAI), multiple partners, and sex under the influence of alcohol or drugs. This study explored the effects that substance use has on high risk sexual behaviors which predispose middle aged HMSM to STIs and HIV infection risk.

Methods: A non-experimental, cross-sectional research method design was used to collect data from a sample of 150 urban HMSM aged 40 to 65 residing in South Florida. Participants completed standardized measures of substance use, sexual behaviors, and demographic characteristics. This study was part of a larger study funded by Sigma Theta Tau International-Beta Tau Chapter.

Results: The sample included 150 HMSM, with a mean age of 45.54 ($SD = 4.71$), ranging from 40 to 60 years. Most of the participants were foreign-born 86% ($n = 129$). Fifty-two (34.7%) participants reported illicit drug use in the past 30 days. Alcohol was the most common substance used by participants in the past 30 days (106; 70.7%), followed by cigarettes (54; 36%), marijuana (28; 18.7%), amil nitrates (14; 9.3%), prescription narcotics (13; 8.7%), club drugs, i.e., Ecstasy (9; 6%), and cocaine (7, 4.7%). Participants reported substance use while having sex (61; 40.7%); history of diagnosed sexually transmitted infections (57; 38%); unprotected sex with serodiscordant partner (21; 14%); participating in receptive anal intercourse, i.e., bottom partner (94; 62.7%); never using a condom as a receptive partner (22; 14.7%); occasionally using a condom as a receptive partner (90; 60%); and sex with women (12; 8%) and transgender persons (10; 6.7%). Number of sexual partners reported in the last three months ranged from 0 to 32, ($M = 5.23$, $SD = 5.51$).

Conclusion: As a population, Hispanic men continue to experience high rates of STIs and HIV infection. This study is the first step in developing interventions targeted to reduce STIs and HIV infection among Hispanic sexual minorities. This study is essential in providing data to direct programs of health education geared to decrease high risk sexual practices among sexual minorities, which will subsequently reduce morbidity and mortality of this high risk group. Future research should build on these findings to develop tailored risk reduction interventions.

References

- Center for Disease Control and Prevention (CDC). (2016, August). *CDC fact sheet: HIV among gay and bisexual men*. Retrieved from <https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/cdc-msm-508.pdf>
- Center for Disease Control and Prevention (CDC). (2016, October). *CDC fact sheet: HIV among Hispanics/Latinos*. Retrieved from <https://www.cdc.gov/hiv/group/raciaethnic/hispaniclatinos/index.html>
- Center for Disease Control and Prevention (CDC). (2015). *HIV in the United States: At a glance*. Retrieved from https://www.cdc.gov/hiv/pdf/statistics_basics_ataglance_factsheet.pdf
- Center for Disease Control and Prevention (CDC). (2016, October). *HIV in the United States: At a glance*. Retrieved from <http://www.cdc.gov/hiv/statistics/overview/ataglance.html>
- Colby, S. L., & Ortman, J. M. (2015, March). *Projections of the size and composition of the U.S. population: 2014 to 2060, Current population reports*, P25-1143. Washington, DC: U.S. Census Bureau.
- De Santis, J. P., Arcia, A., Vermeesch, A., & Gattamorta, K. A. (2011). Using structural equation modeling to identify predictors of sexual behaviors among Hispanic men who have sex with men. *Nursing Clinics of North America*, 46, 233-248. doi: 10.1016/j.cnur.2011.02.010

De Santis, J. P., Gonzalez-Guarda, R., Provencio-Vasquez, E., & Deleon, D. A. (2014). The tangled branches (las ramas enredadas): Sexual risk, substance abuse, and intimate partner violence among Hispanic men who have sex with men. *Journal of Transcultural Nursing, 25*(1), 23-32. doi: 10.1177/1043659613504110

De Santis, J. P., Martin Layerla, D., Barroso, S., Gattamorta, K. A., Sanchez, M., & Prado, G. J. (2012, April). Predictors of eating attitudes and behaviors among gay Hispanic men. *Archives of Psychiatric Nursing, 26*(2), 111-126. doi: 10.1016/j.apnu.2011.06.003

De Santis, J. P., Provencio-Vasquez, E., Weidel, J. J., Watson, S., & Sanchez, M. (2009). A comparison of depressive symptoms, self-esteem, and sexual behaviors between foreign-born and U.S.-born Hispanic men who have sex with men: Implications for HIV prevention. *Hispanic Health Care International, 7*(2), 80-87. doi: 10.1891/1540-4153.7.2.80

De Santis, J. P., Valdes, B., Provencio-Vasquez, E., Patsdaughter, C. A., & Gattamorta, K. A. (2014). A comparison of substance use behaviors of Hispanic men by sexual orientation. *Nursing and Health, 2*(1), 9-17. doi: 10.13189/nh.2014.020102

De Santis, J. P., Vasquez, E., Deleon D., & Gonzalez-Guarda, R. (2012). Relationships as risk for HIV infection: High risk sex, substance abuse, and violence among Hispanic men who have sex with men. *Horizonte Enfermeria, 23*(1), 27-39.

Grov, C., & Crow, T. (2012). Attitudes about HIV risk related to the most common place MSM meet their sex partners: Comparing men from bathhouses, bars/clubs, and craigslist.org. *AIDS Education and Prevention, 24*(2), 102-116.

Lo, S. C., Reisen, C. A., Poppen, P. J., Bianchi, F. T., & Zea, M. C. (2011). Cultural beliefs, partner characteristics, communication, and sexual risk among Latino MSM. *AIDS Behavior, 15*, 613-620. doi: 10.1007/s10461-010-9760-6

Ostrow, D. G., Plankey, M. W., Cox, C., Li, X., Shoptaw, S., Jacobson, L. P., & Stall, R. C. (2009). Specific sex drug combinations contribute to the majority of recent HIV seroconversions among MSM in the MACS. *Journal of Acquired Immune Deficiency Syndromes, 51*(3), 349-355. doi: 10.1097/QAI.0b013e3181a24b20

Vazquez, E. P., Gonzalez-Guarda, R. M., & De Santis, J. P. (2011). Acculturation, depression, self-esteem, and substance abuse among Hispanic men. *Issues in Mental Health Nursing, 32*, 90-97. doi: 10.3109/01612840.2010.528169

Well, B. E., Golub, S. A., & Parsons, J. T. (2011). An integrated theoretical approach to substance use and risky sexual behavior among men who have sex with men. *AIDS Behavior, 15*, 509-520. doi: 10.1007/s10461-010-9767-z

Wisconsin HIV Prevention Evaluation Work Group. (2000). *Behavioral risk assessment tool (BRAT)*. Retrieved from http://www.cdc.gov/hiv/topics/evaluation/health_depts/guidance/strat-handbook/pdf/Appendix87.pdf

Contact

b.valdes2@miami.edu

M 11 - Pain-Management Strategies

Pain-Management Challenges in Rural Communities Impacted By Multi-Drug Overdoses

Cathy Campbell, PhD, RN, USA

Abstract

Purpose: The purpose of this study is to identify themes that describe pain management challenges experienced by nurses in a rural Appalachian area of the United States (US) that has been negatively impacted by opioid overdoses. Internationally pain management interventions by nurses includes pain assessment, teaching about pharmacological and non-pharmacological modalities, and the evaluation of treatment effectiveness (Doorenbos, Jansen, Oakes & Wilson, 2013). However, pre-licensure nursing and continuing education curricula do not contain content on how to effectively manage pain in people who concurrently are living with substance abuse or addiction to alcohol or drugs (Hamilton & Watson, 2014). Rural communities in the Appalachian area of the United States have been experiencing an epidemic of accidental overdoses of opioids (Campbell, Boyer, Rovnyak & Campbell, 2012, Fetzer, 2015). Health care providers across settings of care such as the emergency department, medical-surgical acute care unit, or in labor and delivery encounter people who not only have a current or past history of substance abuse, but may also be experiencing pain. Yet we have few studies that describe the challenges that nurses practicing in communities impacted by the health care crisis of accidental overdoses are facing in pain management their practice, and therefore the literature lacks the evidence base to guide nursing practice during this epidemic.

Methods: A secondary data analysis of findings from a study of pain management learning needs (Campbell, Boyer, Rovnyak, & Campbell, 2012) was conducted to identify themes that describe pain management challenges experienced by nurses in rural Appalachia. In the original study 2,136 surveys were mailed to registered nurses in seven counties in rural Appalachia and 295 surveys were returned, for a 13.8% return rate. Respondents were 98% Caucasian, 47%.1 had a BSN or higher degree, 52.9% ADN/Diploma. We received sixty-one different narrative responses to two open-ended questions on the survey completed by the participants in the primary study. They were asked to identify additional learning needs and to tell a narrative about challenges related to pain management from their clinical practice.

Thematic analysis was used to analyze the narrative responses in data.

Results: In the original study 2,136 surveys were mailed to registered nurses in seven counties in rural Appalachia and 295 surveys were returned, for a 13.8% return rate. Respondents were 98% Caucasian, 47%.1 had a BSN or higher degree, 52.9% ADN/Diploma. We received sixty-one different narrative responses to two open-ended questions on the survey completed by the participants in the primary study.

Data analysis revealed three themes related to additional learning needs: pain management of people with addictions (including babies born with neonatal alcohol syndrome), pain management in people with chronic pain (back pain, neuropathy, and arthritis), and alternative and complementary therapies for pain management. Four major themes from the narratives about pain management challenges were identified: managing pain in people with current or past history of abuse to opioids and alcohol; managing pain in people with history of anxiety, depression and schizophrenia, poor nurse-physician collaboration, and pain management at end of life.

Conclusion: Implications for nursing education for pre-licensure students and continuing education for licensed nurses will include collaborating with expert nursing colleagues in psychiatric-mental health nursing to develop educational sessions education with topics such as pain management in people who have history of substance abuse and other mental health issues. Palliative care providers can consult with clinical partners on effective treatments to manage chronic pain. Future research should also include studies to explore how interprofessional collaboration in may improve pain management outcomes.

References

Campbell, C., Boyer, D., Rovnyak, V., & Campbell, L. (2012) Pain management learning needs in rural Appalachia. *Journal of Continuing Education in Nursing*, 43(6), 267-276. DOI: 10.3928/00220124-20111215-01.
Doorenbos, A. Z., Jansen, K., Oakes, R. P., & Wilson, S. A. (2013). *Palliative care for dignified dying: International Classification for Nursing Practice (ICNP) catalogue*. International Council of Nurses. Geneva, Switzerland.
Fetzer, S. (2015). Altruism vs Narcan. *Nursing News*, 39(3), 3-3.
Hamilton, I., & Watson, J. (2014). Managing substance abuse in practice. *Practice nursing*, 25(10), 480-485.

Contact

clc5t@virginia.edu

M 11 - Pain-Management Strategies

Supporting Veterans With Chronic Pain: Utilizing an Evidence-Based Self-Care Model

Joseph F. Burkard, DNSc, MSNA, BSN, RN, CRNA, USA

Abstract

Purpose: The purpose of this EB study was to determine the effectiveness of promoting self-care on pain levels and quality of life among veterans with chronic pain. A review of current chronic pain management policies for veterans in southern California was also conducted. Military veterans with chronic pain are frequently more complex in their presentation than the general population due to challenges of returning to civilian life and the influence of past military service on their pain. National veterans chronic pain levels have been noted to be on average 7.13. Quality of Life noted at 3.7. Conventional pain management methods have been largely dependent on the use of prescriptions, over-the-counter medications, and opioids, which are often ineffective for the management of chronic pain. A biopsychosocial model that has been shown to benefit chronic pain patients is the evidence based self-care model. Buckenmaier and Schoomaker (2014) noted that these initiatives recognize the important role the patient plays in maintaining his or her own health and promote practices that have few side effects compared to pain medications and are relatively easy to implement. Active self-management initiatives allow for a more diverse, patient-centered treatment of complex symptoms, promote self-management, and are relatively safe and cost-effective. The 2010 VA/DoD Clinical Practice Guideline for Management of Opioid Therapy for Chronic Pain states that more than 50% of male VA patients in primary care report chronic pain, which may even be higher in female veterans. Standardizing treatment for those with chronic pain using a multitude of complementary and alternative medicine (CAM) modalities has not occurred. Standardized CAM tools need to be established for all providers in the VHA system to use whether in a pain clinic or a primary care clinic. The VHA has a multitude of resources available to their patients but without a guide and protocol these modalities will be underutilized and chronic pain rates will increase.

Methods: Twenty-one veterans with chronic pain were seen in a primary care setting and received a standardized protocol for addressing chronic pain. This IRB approved standardized protocol included the Pain Medication Questionnaire (PMQ), the Numeric Pain Rating Scale, a self-care chart, and a personal action plan contract. Following the assessment, the provider implemented an educational intervention using a self-care model chart addressing alternative treatments to pain beyond controlled medications that promote self-management. At this time, patients were provided with referrals to appropriate resources offered by the VA. Self-care management was assessed at each visit. QOL data, Numeric Pain Rating Scale scores, and the number of pain medications were collected and tracked over time. Patients were seen monthly over a 6-month period. The PMQ score and the Numeric Pain rating scale were used to evaluate project effectiveness in controlling pain. VA Pain and QOL Benchmark was set at 5.0. SPSS version 23 was used to analyze the results. The paired t-test and ANOVA was used to determine if there was a difference in means from baseline out to six months.

Results: Evaluation of pre/post project implementation data: The Self-Care Model for veterans with chronic pain moderately decreased the veterans pain and increased QOL. The veterans pain decreased on average 1.33 (95% confidence interval, .52, 2.71) and was not statistically significant at $p = .057$. The veterans QOL increased on average 1.63 (95% confidence interval, .96, 3.17) and was statistically significant at $p < .039$. Twenty-one veterans started the program and at six months sixteen were still enrolled (76%). Sixty-one percent were diagnosed with PTSD. Seventy-six percent were enrolled in physical therapy and sixty-one percent started CBT. On average, each patient was on 2.5 medications although the program was able to limit narcotic use to seven patients (43%).

Conclusion: Healthcare providers who are effective in providing self-management can help enable patients to take responsibility for their health, decrease their pain, and improve their quality of life over time. Primary care providers are in a significant position to lead self-management programs. Research shows that self-management is highly recommended in the management of patients with chronic pain. Our program has demonstrated that you can decrease narcotic use and still achieve a higher QOL and

decreased pain levels. Future Studies should include phone and text follow-up to improve compliance and encourage follow-up visits.

References

- Buckenmaier, C., & Schoomaker, E. (2014). Patients' use of active self-care complementary and integrative medicine in their management of chronic pain symptoms. *Pain Medicine*, 15, S7-S8. doi: 10.1111/pme.12384. Accessed October 15, 2013.
- Cosio, D., & Lin, E. (2013). [Effects of a pain education program for veterans with chronic, noncancer pain: A pilot study](#). *Journal of Pain & Palliative Care Pharmacotherapy*, 2013; 27, 340-349. doi:10.3109/15360288.2013.846953.
- Delgado, R., York, A., Lee, C., Crawford, C., Buckenmaier, C., & Shoomaker, E. (2014). Assessing the quality, efficacy, and effectiveness of the current evidence base of active self-care complementary and integrative medicine therapies for the management of chronic pain: A rapid evidence assessment of the literature. *Pain Medicine*, 15, S9-S20. doi: 10.1111/pme.12412
- Kean, N. (2014). Profile of pain in the military. *Practical Pain Management*. Retrieved from <http://www.practicalpainmanagement.com/meeting-summary/profile-pain-military>
- Koenig, A., Kupper, A., Skidmore, J., & Murphy, K. (2014). Biopsychosocial functioning and pain self-efficacy in chronic low back pain patients. *Journal of Rehabilitation Research and Development*, 51, 1277-86. doi: 10.1682/JRRD.2014.02.0047
- Matthias, M., Miech, E., Myers, L., Sargent, C. Bair, & Matthew J. (2012). An expanded view of self-management: Patients' perceptions of education and support in an intervention for chronic musculoskeletal pain. *Pain Medicine*, 13, 1018-1028. doi: 10.1111/j.1526-4637.2012.01433.x
- Sekhon, R., Aminjavahery, N., Davis, C., Roswarski, M., & Robinette, C. (2013). Compliance with opioid treatment guidelines for chronic non-cancer pain (CNCP) in primary care at a veteran's affairs medical center (VAMC). *Pain Medicine*, 2013; 14, 1548-1556. doi: 10.1111/pme.12164.

Contact

jburkard@sandiego.edu

M 12 - Civility in Education and Practice

Upward Violence in Nursing: A Scoping Review of a Phenomenon of Importance for Nursing

Linda J. Patrick, PhD, MSc, MA, BScN, RN, Canada

Alice Pauline Gaudine, PhD, RN, Canada

Lorraine A. Busby, MLS, BA, Canada

Abstract

Purpose: To describe what is known about upward violence in the workplace through a scoping review of the literature. Upward violence includes violence that is directed from staff to people in positions of authority including staff nurses to nurse managers (Branch, Ramsey & Barker, 2013; Gaudine and Lamb 2015). Upward violence may include physical violence and property damage, but it can also be demonstrated through verbal threats and behaviours such as rudeness, socially ostracizing, bullying, mobbing, or passive aggressive behaviours.

The specific objectives of this presentation are: 1) to define and to describe upward violence; 2) to identify related nursing literature about upward violence and other literature to frame key issues through presenting the findings of a scoping review on upward violence; 3) to identify implications for nursing practice and research.

Background: There is a growing body of literature on violence in the workplace including among nurses (e.g., Budin, Brewer & Kovner, 2013; Chen, Ku & Yang, 2012). Recent research in this area includes the widespread prevalence of this phenomenon (e.g., Dumont, Meisinger, Whitacre & Corbin, 2012). Registered nurses have recognized violence in their profession as a major problem since Meissner (1986) first coined the term “nurses eat their young” in her landmark article. Meissner’s work led to recognition of vertical violence, or the violence of senior nurses to new nurses. Since the 1970s, the terms horizontal violence, lateral violence, bullying, incivility, and mobbing have been used to describe the violence of nurses towards other nurses. Traditionally, vertical violence among nurses was viewed as the behavior of nurse managers towards their employees, or the violence of nurse instructors towards their students. This violence can be described as downward violence.

Methods: We will present the findings of a scoping review of the literature that addressed the question “What is known about upward violence in the workplace?” The search strategy included literature on workplace violence, workplace conflict, and 360-degree performance appraisals from 2006 to the present. We also considered legal cases of employees against managers. From this review of the literature, we outline key concepts related to upward violence. We also identify what is known and what is not known about the phenomenon of upward violence.

Results: Upward violence is the violence that nursing students may direct to a nursing instructor, that nurses direct to a nurse manager, or that nursing faculty members direct towards their nursing director or dean. Upward violence has the potential to be a major threat to nurses entering and remaining in leadership positions. Upward violence is contrary to the assumption that vertical violence is directed downward because nurse managers and nurse instructors are in positions of authority and are the ones with the “tools” to cause harm to their subordinates. In reality, vertical violence that is upward can cause harm to nurse leaders and be a significant issue for practice. In today’s context, nurses are often unionized and students are in programs with regulations that protect them.

Conclusion: The results of this scoping review provide working definitions, and conceptual boundaries of upward violence. The research gaps identified are useful to inform future studies. The implications of upward violence for nursing practice and education will be outlined in the presentation.

References

Branch, S., Ramsay, S., Barker, M. (2013) Workplace bullying, mobbing and general harassment: A review. *International Journal of Management Reviews*. 15, 280 - 299. DOI: 10.1111/j.1468-2370.2012.00339.x

Budin, W., Brewer, C., Chao, Y., & Kovner, C. (2013). Verbal abuse from nurse colleagues and work environment of early career registered nurses. *Journal of Nursing Scholarship, 45*,308-316.

Chen, K., Ku, Y., & Yang, H. (2012). Violence in the nursing workplace - a descriptive correlational study in a public hospital. *Journal of Clinical Nursing, 22*, 798 - 805.

Dumont, C., Meisinger, S., Whitacre, M., & Corbin, G. (2012, January). Horizontal violence survey report. *Nursing2012*, 44-49.

Gaudine, A., & Lamb, M. (2015). *Nursing Leadership and Management. Working in Canadian Health Care Organizations*. Toronto: Pearson.

Meissner, J.E. (1986). Nurses are we eating our young? *Nursing, 16*(3), 51-53.

Contact

agaudine@mun.ca

M 12 - Civility in Education and Practice

Perceptions of Self-Reported Civility Among Undergraduate Nursing Students

Abby Grammer Horton, MSN, RN, USA
Norma Graciela Cuellar, PhD, DSN, RN, USA

Abstract

Background: Nearly 62% of students and faculty in nursing education have reported incivility in an academic setting. The majority of the evidence in the literature describes Student Incivility as faculty to student or student to faculty. Few studies have identified student to student. It is uncertain how students perceive their level of civility. Incivility between students can impact participation in the class resulting in failure, poor attrition, stress, anxiety, depression, and lack of self-esteem.

Purpose: The purpose of this study was to identify perceptions of self-reported civility in undergraduate nursing students.

Methods: This was a cross-sectional descriptive study of undergraduate nursing students at a large, 4-year public institution in the Southeastern United States. There were no inclusion or exclusion criteria. An email was sent to all freshmen, sophomores, juniors and seniors enrolled at the College of Nursing asking them to participate in the survey. The *Clark Civility Index for Nursing Students* was used to collect data via Qualtrics. IRB approval was obtained.

Results: 1697 emails were sent to students with a response rate of 252 students. Of this number, 202 entries were analyzed. The mean score of self-reported civility was 88.3 (SD = 7.02). There was a significant relationship between incivility with regard to age ($p = 0.02$) and race ($p = 0.08$). Age was significantly negatively correlated with overall civility score, $r = -0.16$, $p = 0.02$, suggesting that civility scores were generally lower among older individuals. However, further inspection of the data revealed an outlier (9 SDs above the mean on age) that likely biased this result. After removing this individual, the correlation between age and overall civility scores was no longer significant, $r = 0.05$, $p = 0.45$. Married and single individuals did not differ significantly in their reported levels of civility, $t(200) = -0.94$, $p = 0.35$.

Note: The outcome of the test described above may have been affected by the low number of married individuals in the sample ($n = 5$). An analysis of variance (ANOVA) revealed a marginally significant effect of program of study, $F(2, 199) = 2.59$, $p = 0.08$. Tukey post hoc tests indicated that students in the RN-BSN nursing program ($M = 78.00$, $SD = 24.04$) scored lower on the CCI than students in the traditional BSN nursing program ($M = 88.91$, $SD = 6.80$), though this effect was only marginally significant ($p = 0.08$). The pre-nursing group ($M = 88.03$, $SD = 6.75$) did not differ significantly from either of the other two groups. An ANOVA indicated a marginally significant effect of race, $F(3, 198) = 2.29$, $p = 0.08$. However, Tukey post hoc testing did not reveal any significant differences between conditions. Because two of the racial categories were represented by only five or fewer students, race as a variable was recoded into a new variable that contained two categories: (1) Majority group member / White ($n = 180$), and (2) Minority group member / non-White ($n = 22$). A t -test using this recoded variable revealed that minority group members ($M = 91.91$, $SD = 5.57$) reported higher CCI scores on average compared to majority group members ($M = 87.86$, $SD = 7.07$), $t(200) = -2.59$, $p = 0.01$. The Cronbach's alpha is 0.853.

Conclusion: Overall findings were that 98% of the undergraduate nursing students were moderately civil to very civil. These findings seem contradictory to the current literature, which reports student incivility at a rate of nearly 62%. There is scant literature on this topic. Our findings could be due to the lack of awareness regarding what incivility is and that the instrument is not valid in a student population. Limitations of the study are self-reporting and findings are from only one university, which cannot be generalizable. Students need to be aware of their behavior and how it impacts their peers. Students must be empowered to understand what student to student incivility is and be able to intervene when it is experienced by students in their classrooms. The issue of incivility exists, yet students' perceptions at this university are not congruent with the evidence in the literature. It is imperative that students understand how incivility impacts the nursing profession globally.

References

- Clark, C. M., Barbosa-Leiker, C., Gill, L. M., & Nguyen, D. (2015). Revision and psychometric testing of the incivility in nursing education (INE) survey: Introducing the INE-R. *Journal of Nursing Education, 54*(6), 306-315 10p. doi:10.3928/01484834-20150515-01
- D'ambra, A. M., & Andrews, D. R. (2014). Incivility, retention and new graduate nurses: An integrated review of the literature. *Journal of Nursing Management, 22*(6), 735-742 8p. doi:10.1111/jonm.12060
- Davis, K. (2013). Incivility in nursing education. *ASBN Update, 17*(3), 16-17 2p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=107971496&site=ehost-live>

Contact

abby.horton@ua.edu

M 13 - Promoting Health Globally

Re-Engendering Sexual and Reproductive Health (S&RH) Services: Evaluation and Strategy Directions for RH Clinics

Erlinda Palaganas, Philippines

Marian Caterial Sanchez, BA (SocSc), BA, Philippines

Cynthia Dacanay Jaramillo, BA (Psych), BA, Philippines

Abstract

Purpose: Sexual and reproductive health (S&RH) care encompasses a range of information, prevention, treatment, and referral services to safeguard complete physical, mental and social well-being in all matters relating to the reproductive system. Women and men alike have entitlements to accurate and comprehensive education, more so to access affordable and relevant options to meet their sexual and reproductive health needs. Since the adoption of the agenda points of the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW 1979) and later the Program of Action of the International Conference on Population and Development (ICPD 1994) governments and civil society advocates have claim milestones in (1) shifting the paradigm from macro-demographic to human population and rights centered perspectives, (2) recognizing the need for advancing women's empowerment, and (3) setting out a comprehensive range of issues related to sexual and reproductive health (Haslegrave, 2014.)

However, amidst the recognition of S&RH as nexus for social justice and development, the issue of unmet needs among women in developing nations and the delivery of needs-responsive and gender-equitable services remain formidable challenges. Women living in conditions of poverty experience series of wanted, mistimed, and unwanted pregnancies, miscarriages, stillbirths, unsafe menstruation inducements and neonatal and infant deaths (Ravindran and Mishra, 2001.) Likewise, high fertility, reproductive and sexual morbidity and mortality, and unmet reproductive intentions prevail not only among non-users of contraceptions but also ever-users and current users of sexual and reproductive health services. The lack of access to S&RH technologies, the persistence of cultures preventing informed fertility options and decisions, and the inability of providers to contextualize services for clients, women specifically, in the wider context of their socio-cultural, political, and economic predicaments are but a few causes of these continuing concerns (Berer, 2014.) Understanding the extent to which individuals are able to achieve their sexual and reproductive intentions in good health and the identification of factors affecting responsive delivery of sexual and reproductive health care services thereby warrant attention.

Government and non-government organizations have actively spent decades laying down the foundations and actively promoting gender equitable S&RH care in the country. These organizations recognize men and women's equal autonomy on their S&RH lives as well as the gender-differentiated barriers men and women face in accessing development opportunities and entitlements.

This study was designed to systematically capture and utilize client, stakeholders, and literature insights for enhancing institutional relevance and performance. Exploring what entails engendering S&RH care, it is based on the recognition of gender-differentiated needs and the commitment to counteract the constraints and barriers to people, especially women's S&RH entitlements. Specifically, the study aimed to: 1) facilitate institutional resource and performance analysis; 2) examine through literature review the potential methods, models, and materials for enhancing responsiveness and relevance in S&RH program and project implementation; 3) apply the principles of feminist research and elicit RH Clinics stakeholders' perspectives on what constitutes client-centered and gender equitable service delivery; and 4) draft strategy directions for increasing RH Clinics institutional success in S&RH championing in the country

Methods: This descriptive evaluation research made use of multiple data collection methods espousing a feminist perspective. The first component involves the Institutional Capacity Assessment and Scoping study. This involved a systematic review of relevant related literature to guide practice. This component also used the results of the client exit interview findings (2013 and 2014) to evaluate nine (9) RH Clinics

delivery performance; identify RH Clinics result achievement drivers and barriers, situate the RH Clinics standing against competitors, review communication and marketing channels, and outline potential strategies for enhancing service delivery.

The second component is ground data generation through qualitative research methods. It involved generation of data using qualitative research methods such as focus group discussions at three levels (institution, clients and other stakeholders), case studies and key informant interviews. This research is backed by the perspective that the documentation of clients and stakeholders' experiences, knowledge, and perceptions is the primary guidepost for enhancing S&RH services, hence the adoption of the most suitable strategies for data gathering: Focus Group Discussion (FGD) and Key Informant Interview (KII) or Small Group Interview (SGI).

Responses were gathered from the 9 RH Clinics from various parts of the country: 9 FGDs among RH Clinic Staff (total of 40 participants); 9 FGDS among outreach providers (124 participants); 9 FGDS among Female Clinest (94 participants); 9 FGDs among male clients (55 participants) 9 FGDs among RH Clinics partners (59 participants); KIIs among 10 competitors

Results: This study has revealed immeasurable baseline data for evaluating the relevance and effectivity of RH Clinic programs and services. Cross referencing the various perspectives from stakeholders and using the principles of *Client centered S&RH Service Delivery vis-à-vis* the four Elements of the Right to Sexual and Reproductive Health as proposed by the UN-CESCR (2016), namely: Availability, Accessibility, Affordability and Quality of Care. The study highlighted the success and enhancement windows (gaps and challenges) of the RH Clinics programs and services using indicators for the four elements.

Following the recommendations of Malarcher and Shan (2011) on basic care threads or service delivery factors to be considered on enhancing S&RH service provision, a model was developed as an illustrative guide and outline of PSPI's strategy directions. The model *The Social Determinants and Care Threads of Engendered S&RH Service Provision Model* is premised on the following: 1) Any S&RH care initiative must be consciously situated to the socio-cultural, economic, and political milieu of its intended beneficiaries or clients users; 2) There are various organizational factors that affect the design, implementation/delivery, monitoring, and evaluation of S&RH services; 3) Clients or care seekers and their access to S&RH is determined by a combination and/or dynamics of different factors; 4) Between S&RH providers and care seekers, there are service and initiative intermediaries; these links may likewise play the roles of communication and monitoring; and 5) More than plain service provision, the value of care thread is to contribute to interlinked outcomes/impacts. The attainment of these outcomes/impacts determines the success of any S&RH initiative or service programs.

Conclusion: RH Clinics in the Philippines are well-established having sustained their operations for many decades nation-wide complete with essential facilities; having capable and competent human resources and maintaining a steady funding source in carrying out its defined S&RH services and programs. The RH Clinics however must deal with and address particular issues as identified in the study affecting the delivery of S&RH services that would make the institution more responsive and relevant to the needs of its intended clientele such as: 1) look into ways of empowering personnel and democratizing organizational processes that would make feedback mechanisms more institutionalized; 2) Literature scoping provided valuable theories and insights on re-engendering S&RH services; 3) Utilizing the principles of feminist research by drawing insights from client's perspectives, revealed the realities of gender-related concerns confronted RH Clinics. The lack of appreciation of gender-related issues which lead either to possible mishandling women clients on one hand or putting too much bias for women which consequently leads to unnecessary assertion and conflict with their partners is another concern needing appropriate attention. This also oftentimes relegates men to the background who do not get to become actively involved in S&RH concerns reinforcing the common misconception that S&RH issues are merely women's concerns. The delivery of S&RH services requires a gender lens from the service providers; 4) It is recommended that RH Clinics utilize the *The Social Determinants and Care Threads of Engendered S&RH Service Provision Model*.

References

Haslegrave, M. (2014). Sexual and Reproductive Health and Rights in the Sustainable Development Goals and the Post-2015 Development Agenda: Less than a Year to Go. *Reproductive Health Matters*. 2014 Nov; 22 (44): 102-128.

Starbird, E. (2015). *Empowering Youth: Expanding Access to Reproductive Health*. Online source:

<https://blog.usaid.gov/2015/08/empowering-youth-expanding-access-to-reproductive-health-2/>

United Nations Committee on Economic, Social and Cultural Rights (UN-CESCR) (2016) *General Comment No. 22 (2016) on the Right to sexual and reproductive health (article 12 of the International Covenant on Economic, Social and Cultural Rights)*. Online Source:

http://tbinternet.ohchr.org/Treaties/CESCR/Shared%20Documents/1_Global/E_C-12_GC_22_7936_E.doc

Contact

ecpalaganas@yahoo.com

M 13 - Promoting Health Globally

Listen to Me: Noncaregiving Adult Children's Needs From Healthcare Providers

Munira Wells, PhD, RN, USA

Connie Rutan Kartoz, PhD, RN, FNP-BC, USA

Abstract

Purpose: Based on findings from a phenomenological study, the purpose of this abstract is to present the ways in which nurses can assist non caregiving adults to navigate a life-stage that involves independent but aging parents. Extended lifespans, globalization and transnational migration will significantly reshape twenty-first century societies (Horn & Schweppe, 2015; The United Nations, 2015). In the United States, more than half the population may live up to 80 years of age, with much of that time in a relative state of good health (Arias, 2015). Adult children can expect to spend time as equal adults in this non-caregiving relationship with their aging parents. For adults with healthy and moderate to highly functioning, independent parents, this time is not defined by the stress associated with caregiver burden, but it does have its own characteristics that impact upon the emotional and physical health of these aging families. It is important for healthcare systems and specifically nurses to recognize this new aspect of the family life course. As healthy aging is a relatively new phenomenon, little is known about the lived experience of adult children with aging parents. There is however, data to suggest that the quality of the pre-caregiving intergenerational relationship and planning for caregiving can improve clinical outcomes for the aging family during caregiving (Quinn, Clare & Woods, 2012; Fowler & Afifi, 2011).

Methods: A descriptive phenomenological approach was used to analyze interview data obtained from study participants (N=16). After IRB approval, purposive and snow ball sampling yielded sixteen participants who met inclusion criteria (English speaking, non-caregiving adult children with at least one living parent over the age of 65). Upon data saturation, the sample consisted mainly of females (75%), aged 30 to 60s, and living in the east coast of the US. Three of the participants had parents that lived transnationally in Asia (1) and Europe (2). Two in-depth, semi-structured interviews, ranging from 45 to 90 minutes were conducted and transcripts were analyzed independently by the two investigators. Joint review confirmed emerging themes.

Results: Data analysis revealed that despite self-identifying as individuals who were not caregivers, adults did, in fact, provide care to aging parents. While asserting that parents were independent, participants described activities that ranged from minor chores (taking parent shopping) to larger, more time consuming activities (accompanying parent to medical appointments and managing finances). Participants also engaged in a constant, often unconscious, evaluation of changes in parents' functionality and health, resulting in feelings of worry and concern related to potential loss of parental good health and independence. In addition, participants identified shortcomings in a healthcare system that often provides care in silos and communication between parents, healthcare providers and adult children is fragmented or absent. Lack of communication was a particular issue for participants whose parents lived internationally. Adult children want healthcare providers to avoid making assumptions about their aging parents, and to actively acknowledge individual and cultural differences. The creation of a new role of care navigator was raised by several participants. Lastly, the need for health care providers to identify and assist in self-care activities of adults with aging parents emerged.

Conclusion: These findings confirm previous studies that show adult children spend time assessing their parents for possible needs (Fingerman, Sechrist & Birditt, 2013) and also support the idea that definitions of caregiving are variable (Van Durme, Macq, Janmart & Gobert, 2012). The desire for more effective communication suggests that adult children welcome input as they anticipate a potentially stressful demand for care and support of parents. This also raises significant questions of how nurses will communicate with adult children living internationally. As globalization and expanded lifespans are likely to continue, nurses who understand the needs of aging families from a global perspective will be most likely to provide effective anticipatory guidance for this life stage. Confirmation of findings with more globally diverse researchers and participants may provide insights into interventions to reduce strain and improve clinical outcomes in aging families across the globe.

References

- Arias, E. (2015). "United States Life Tables, 2011." *National Vital Statistics Reports: From the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System*, 64 (11): 1–63.
- Fingerman, K. L., Sechrist, J., & Birditt. (2013). Changing views on intergenerational ties. *Gerontology*, 59(1), 64–70. doi: 10.1159/000342211
- Fowler, C., & Afifi, W. A. (2011). Applying the theory of motivated information management to adult children's discussions of caregiving with aging parents. *Journal of Social and Personal Relationships*, 28 (4), 507–35. doi: 10.1177/0265407510384896
- Horn, V., & Scheppe, C. (Eds.) (2015). *Transnational Aging: Current Insights and Future Challenges*. New York, NY. Routledge
- Quinn, C., Clare, L. & Woods, R. T. (2012). What predicts whether caregivers of people with dementia find meaning in their role? *International Journal of Geriatric Psychiatry* 27(11), 1195–1202. doi:10.1002/gps.3773
- United Nations, Department of Economic and Social Affairs, Population Division. 2015. *World Population Ageing*. Accessed October 15, 2016.
http://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2015_Report.pdf
- Van Durme, T., Macq, J., Jeanmart, C., & Gobert, M. (2012). Tools for measuring the impact of informal caregiving of the elderly: A literature review. *International Journal of Nursing Studies*, 49(4), 490–504. doi:10.1016/j.ijnurstu.2011.10.011

Contact

munira.wells@shu.edu

M 14 - Promoting Outcomes in Oncology Patients Cancer Nursing Research in Africa: Scoping the Landscape

Lize Maree, DCur, RN, ANSA, South Africa
Vivien Herbert, MSc (Nsg), RN, South Africa
Agnes A. Huiskamp, MA (Nsg), RN, RM, RPN, South Africa

Abstract

Purpose: The purpose of the study was to perform a scoping review of existing literature on studies conducted in Africa by a nurses and midwives affiliated to an African institution over the past decade, to identify and describe the work completed, identify gaps and define priorities for future research.

Methods: We used a scoping review for our study and used the terms *Africa + cancer nursing* and *Africa + oncology nursing* to search PubMed, CINAHL, Web of Science, Scopus and SA e-publications for literature published between 1 January 2006 to 31 December 2015. Articles were included if it was conducted in an African country with a nurse/midwife affiliated to an African institution as one of the authors. The work also had to be written in English, peer reviewed, have an abstract with a full text available through the university's electronic data bases or interlibrary system. A data extraction sheet was developed to record the name of the journal, the year of the study, the country where the study was conducted, the names of the Africa nurse/midwife author, the study design, the cancers and topics investigated. The titles and abstracts were individually reviewed for inclusion by the authors. All the authors analyzed work which was confirmed through a consensus meeting.

Results: Our search produced 529 articles of which we excluded 427 for either being duplicates or not meeting the inclusion criteria; 57 papers were included in the review. The work was conducted in 8 of the 54 countries in Africa with more than 60% (n=36) in South Africa. The studies were published in 28 journals of which 9 are based in Africa. More than 50% of the articles (n=30) was published in international journals. The number of authors ranged from 1 to 11 (median 4.5) and 17.5% (n=10) of the work had a single author. Eighty four nurses/midwives from Africa authored/co-authored the articles with most (82.1%; n=69) contributing to only 1 article. Only 2 (2.4%) authors contributed to more than 3 papers. The studies were primarily quantitative (36.8%; n=21) while 17 (29.8%) were qualitative and 11 (19.3%) have non-specific designs. Only a small percentage (8.8%; n=5) were intervention and outcomes studies. Cervical cancer was the focus of the majority of studies (57.9%; n=33) followed by breast cancer (17.5%; n=10) with prostate cancer the focus on only one study. Six topics were investigated; primary and secondary prevention of cancer, cancer care, experiences of patients living with cancer, access to cancer care, nurses and nursing practice issues. More than 50% (n=33) of the studies investigated an aspect of primary and secondary prevention with 27 (47.4%) exploring knowledge/awareness/practices. The 12 studies (21.1%) addressing nursing practice mainly investigated cervical cancer screening programs.

Conclusion: In a 10 year review of the cancer nursing research conducted in Africa by Africa nurses/midwives, 57 articles were found. Considering the fact that Africa consists of 54 countries, 57 articles in 10 years seem to be a very low research output. However, the number of studies compare favorable to the 73 found in a review on clinical nursing and midwifery research in African countries conducted over a 10 year period ending in 2014. It was positive to find that most of the work was published in international journals. What is of concern is the large percentage of authors involved in only one study supporting evidence that Africa lacks dedicated cancer nurse scientists and that Africa's nurses contributes poorly to global scientific publications. The cancers investigated do not match the cancer disease profile of Africa. Breast and prostate cancer, the most common cancers in women and men in Africa received little attention whilst cervical cancer, the second most common cancer in women, were the most investigated, possibly because it can be prevented. Other common cancers in both men and women such as liver and colorectal cancer and cancer of the esophagus were not investigated. Studies focusing on symptom management and the family and care giver of the patient also lack. Although studies on knowledge, attitudes and practices can provide baseline data, this field of study is over exhausted and we need to move forward and prioritize developing and testing innovative ways to prevent and detect cancer

early. It was positive to find some work focused on nursing practice which would enable us to start developing evidence for Africa specific cancer nursing practice.

References

Adewole, I., Martin, D. N., Williams, M. J., Adebamowo, C., Bhatia, K., Berling, C., . . . Lawlor, R. T. (2014). Building capacity for sustainable research programmes for cancer in Africa. *Nature Reviews Clinical Oncology*, 11(5), 251-259.

American Cancer Society. (2011). *Cancer in Africa*. Atlanta: American Cancer Society.

Klopper, H., & Uys, L. (2013). *The state of nursing and nursing education in Africa. A country-by-country review*. Sigma Theta Tau Honor Society of Nursing: Indianapolis

Contact

lize.maree@wits.ac.za

M 14 - Promoting Outcomes in Oncology Patients Collaboration and Communication in Pediatric Oncology: A Case for the Clinical Nurse Leader (CNL)

M. Danielle Gunter, PhD, RN, CPN, USA

Abstract

Purpose: The purpose of the study was to determine the types of supportive measures found to be most helpful and realistic for families of children with cancer during the first three months after diagnosis and to identify facilitators and barriers toward the implementation of these measures. Early support interventions improve coping behaviors and facilitate adaptation and have been recommended in adult populations (Chien, Wang, Chien, & Hwang, 2011; Sekse et al., 2014). This pediatric cancer program has tried to sustain supportive programs such as classes and support groups in the past, but has not been able to sustain participation in them. It is unclear why. The hope was by investigating this question, the researcher would be able to identify possible interventions and develop an implementation plan to facilitate familial adaptation during the cancer treatment process.

It has long been felt that the lack of a nurse coordinator or clinical nurse leader was hindering the coordination of care within the program. Other pediatric cancer programs provide for this as an integral part of their healthcare team (Howitt, 2011). Reviewing the patient/family and team member concerns would help validate the need for the provision of this valuable resource. The inclusion of a clinical nurse leader (CNL) in chronic care programs has proven to be an effective way to improve patient care and patient safety outcomes (Bender, Mann, & Olsen, 2011; Coleman, 2013; O'Grady & VanGraafeiland, 2012). The American Association of Colleges of Nursing (2013, p.4) describes the CNL as a person who "...assumes accountability for patient-care outcomes through the assimilation and application of evidence-based information to design, implement, and evaluate patient-care processes and models of care delivery. The CNL is a provider and manager of care at the point of care to individuals and cohorts of patients anywhere healthcare is delivered." This role would be ideal in addressing many of the concerns within this pediatric cancer program due to the level of care coordination required, the number of specialty health care professionals on the team, and the higher need for evidence-based practice integration at the bedside.

Methods: Descriptive single embedded case study of a south Texas children's cancer program using purposive sampling of parents of children with cancer and various members of the health care team. Total sample included 21 participants (15 HCT members and 6 parents). A case study provides a comprehensive view from all perspectives and data sources and does not require control over or manipulation of events. This case study was descriptive in nature because the researcher examined thoughts and feelings rather than looking for a specific cause of those feelings. Multiple sources of data included: demographic questionnaire, recorded interviews, observations of family activities on the unit/clinic, and research field notes. Interviews and observations continued until data saturation, when no new themes or concepts began to emerge. The demographic questionnaire provided descriptive statistics for participants. Interviews were transcribed and N-VIVO-9 software was used to analyze and code concepts and recognize themes by cross-matching across all interviews and field notes.

Results: It was thought the findings would focus on parental needs and perceived barriers, but in fact, the study also revealed underlying concerns within the health care team collaboration and overall resources for the program. Identified themes included: facilitators and barriers of family adaptation and power differentials between team members hindering effective collaboration.

Facilitators included an intact nuclear family, extended family and community support, higher education levels or professional employment that allowed more flexibility with work schedules and larger financial resources. Also, parents that sought out information tended to have more positive perceptions of their treatment experience and thus adapted more easily. Opportunities for sharing between families was reported as helpful after the initial shock from the diagnosis wore off, but no program activities to facilitate this type of interaction existed. Patient education delivered was inconsistent and dependent on large

volumes of reading material and rushed prior to discharge. Education during treatment transitions was nonexistent. Lack of education or communication regarding upcoming changes in the treatment plan led some parents to feel abandoned and increased their distress.

Barriers to adaptation included families with a lower socioeconomic status, single parent families, financial stress, previous psychological concerns such as depression and anxiety, and poor communication regarding medical care expectations completed by parents. There was a perceived difference in levels of psychosocial support offered to different families. These included counseling, case management follow up, and financial support. This led some families to report feeling more isolated when the same services were not offered to them. This was unintentional on the part of the healthcare team and could have occurred during a change in support service personnel (social worker and case manager). However, it did identify a gap in the services provided when these professionals are absent from the team.

Perceived power differentials reported from various members of the team led to delays in available interventions due to fear of repercussions from the providers even when medical orders were not necessary to implement an intervention. Some members of the healthcare team felt they were not allowed to provide the services they could offer until formally consulted by the patient's oncologist even when their services may have been most helpful prior to a formal cancer diagnosis and could be offered without a medical order. All participant members of the healthcare team reported they did not wish this to be the case and wanted to reduce the perceived power differentials to improve the patient/family care experience.

Conclusion: In order to address these concerns a system for early identification of family stress and individualized education needs should be implemented and repeated at key time frames during the treatment for childhood cancer. These time frames include the first two weeks after diagnosis, the two-three months following diagnosis, and at each treatment phase transition period. Repeating education information during the first two weeks is crucial to ensure that key treatment information is retained while parents are still in shock and adjusting rapidly to their child's needs. Parents are most receptive to information after this shock has worn off around two to three months after the diagnosis. This is when parents reported they are ready to learn, both from the staff and from other families going through similar situations. Facilitating family-based activities that allow for sharing coping mechanisms may help encourage adaptation during this period.

In the past, difficulties with team collaboration and communication has caused a breakdown in services offered. A clinical nurse scientist was formerly an integral piece in this process, but the position was decreased to a part time staff educator several years prior to this project. The current resources do not allow for proper mentoring of staff in patient education techniques or for updating the information based on the most recent evidence-based practice. Lack of consistency related to the provision of accurate patient education materials and role modeling the education delivery has led to increased incidence of patient safety concerns. It is recommended that a return of this full time position be provided to serve as a role model to staff and a coordinator of patient education throughout the treatment process.

Decreasing the power differentials and improving communication between team members and helping to identify clear expectations for each member's role within the team will improve the collaboration and coordination of patient care. It will reduce delays and improve safety by adhering to family-centered care guidelines. Making sure information is shared with parents with the appropriate support system available at delivery will help improve trust and communication effectiveness and inclusion within the plan of care. The provision for a full time clinical nurse leader is strongly recommended to serve as a lateral integrator; someone who will support the frontline staff by providing patient education resources, role modeling the education delivery, reviewing quality improvement and safety processes, bringing evidence-based practice to the bedside, and facilitating a focus on team communication and collaboration. Doing so will improve the overall patient care outcomes, satisfaction scores, and increased financial resources to the program. This in turn, can only help improve the strength and quality of the program and enhance the patient/family experience.

References

- American Association of Colleges of Nursing. (2013). Competencies and curricular expectations for clinical nurse leader education and practice. Retrieved October 24, 2016 from <http://www.aacn.nche.edu/cnl/CNL-Competencies-October-2013.pdf>
- Bender, M., Mann, L., Olsen, J. (2011). Leading transformation: Implementing the clinical nurse leader role. *JONA: The Journal of Nursing Administration*, 41(7/8), 296-298.
- Chien, T.W., Wang, W.C., Chien, C.C., Hwang, W.S. (2011). Rasch analysis of positive changes following adversity in cancer patients attending community support groups. *Psycho-Oncology*, 20(1), 98-105.
- Coleman, C. (2013). Integrating quality and breast cancer care: Role of the clinical nurse leader. *Oncology Nursing Forum*, 40(4), 311-314.
- Howitt, M. J. (2011). The family care coordinator: Paving the way to seamless care. *Journal of Pediatric Oncology Nursing*, 28(2), 107-113.
- O'Grady, E.L. & VanGraafeiland, B. (2012). Bridging the gap in care for children through the clinical nurse leader. *Pediatric Nursing*, 38(3), 155-159.
- Sekse, R.J.T., Blaaka, G., Buestad, I., Tengedal, E., Paulsaon, A., & Vika, M. (2014). Education and counselling group intervention for women treated for gynaecological cancer: Does it help? *Scandinavian Journal of Caring Sciences*, 28(1), 112-121.

Contact

gunter@uiwtx.edu

M 15 - Cognitive Impairment Effects on Clinical Outcomes Perceived Cognitive Deficits in Persons With Multiple Sclerosis (MS)

Alexa Stuijbergen, PhD, RN, FAAN, USA
Ashley M. Henneghan, MSN, RN, USA

Abstract

Purpose: Multiple sclerosis (MS), a chronic autoimmune-mediated demyelinating disease of the central nervous system, is estimated to affect the lives of 2.3 million persons around the world. (National MS Society, 2016). As many as 75% of those with MS may experience some cognitive dysfunction, potentially the most disabling symptom for those with MS and their families (Amato et al., 2013). Difficulties with learning and recalling new information, attention, processing speed, and verbal fluency are the most common cognitive deficits reported by those with MS.

Historically, researchers studying those with MS have found either no relationships or weak relationships between cognitive performance measures (neuropsychological tests) and self-report measures of cognitive function (Strober, Binder, Nikelshpur, Chiaravalloti & DeLuca, 2016). In addition, health care providers may question self-reports of cognitive dysfunction because the accuracy of patients' accounts might be confounded by symptoms such as fatigue and depression. Although some have suggested that the weak correlations between self-report and cognitive performance measures indicate that self-reports are not "accurate" depictions of a person's cognitive status, an alternative explanation is that performance and perception might reflect different aspects of cognition. Recent studies with fMRI imaging have shown that self-reported deficits in memory are correlated with structural alterations in the hippocampus of persons with MS (Pardini et al., 2014). This suggests that self-reports of cognitive function do indeed reflect structural and functional changes in the brain.

A better understanding of self-reported cognitive function in persons with MS is necessary as these measures are more useful in clinical settings than neuropsychological assessments which require specifically trained personnel and substantial time to administer. Self-report measures can be given in a short period of time and represent the individual's perception of everyday cognitive function. The Perceived Deficits Questionnaire (PDQ) is one self-report instrument that is used to evaluate cognitive function in persons with MS (Strober et al., 2016). The purpose of this study was to assess the cognitive deficits reported by a community-based sample of persons with MS (N=183) and to explore relationships between the PDQ and other measures of cognitive function in persons with MS.

Methods: Following approval by the Institutional Review Board, data were collected as part of the screening process and baseline data collection for a multi-site randomized clinical trial of a cognitive rehabilitation intervention for persons with MS. Recruitment for the study occurred in three major metropolitan areas in the southwestern United States through contacts with neurologists, self-help groups, and the National MS Society. All potential participants responded to the 20-item PDQ as part of the phone screening for study eligibility and completed the additional measures described below at baseline. Analyses of data included descriptive statistics, internal consistency reliability analysis of the PDQ, and correlational analyses between the PDQ scores and other self-report measures (The PROMIS Short Form v2.0—Cognitive Function Abilities, the Center for Epidemiologic Studies-Depression Scale, the Memory Strategies scale, the Compensatory Cognitive Strategies scale) and a neuropsychological testing battery that included five performance tests of verbal fluency and word finding, verbal learning and memory; nonverbal learning and memory, auditory information processing speed and flexibility and a measure of complex scanning and visual tracking.

The PDQ, is part of the MS Quality of Life Inventory (MSQLI), a health-related quality of life instrument designed specifically for people who have MS. The PDQ's 20 items assess the frequency of different types of cognitive problems that have occurred over the past 4 weeks. Respondents rate each item on a scale of 0 (*never*) to 4 (*almost always*). Total scores can range from 0 to 80, with higher scores indicating greater frequency of cognitive problems.

Results: The average age of the 183 participants was 49.35 years (SD 7.96) and they had been diagnosed with MS for an average of 12.64 years (SD 7.97). The majority (87%) were women and most participants reported they were white (75%), married or living with a significant other (63%), and unemployed (66%). Most were well educated and over half had earned a bachelor's or graduate degree (58%).

The means and standard deviations for each of the 20 PDQ items were ranked in order of the frequency that they were experienced. The most frequently reported cognitive complaints were (1) "I find my mind drifting"; (2) Trouble holding phone numbers in my head even for a few seconds"; and (3) "I forget what I came into the room for". Cronbach's alpha, a measure of internal consistency reliability, was .91 for the PDQ scale. There were significant ($p < .05$) small to moderate correlations between PDQ scores and the measures of self-rated cognitive abilities, depressive symptoms and use of memory and other cognitive strategies, but not to the neuropsychological performance tests.

Conclusion: The assessment of cognitive dysfunction is essential in MS treatment and management, especially because perceived cognitive function is a significant predictor of quality of life (Samartzis, Gavala, Zoukous, Aspiotis & Thomaidis, 2014). The PDQ is a reliable, valid measure of perceived cognitive difficulties in the domains of attention, prospective memory, retrospective memory, and planning/organization, and it can be easily administered. Furthermore, the PDQ is feasible to use in clinical settings because it can be administered in approximately 5 minutes and easily scored. The significant relationships between the PDQ and depressive symptoms and the utilization of compensatory strategies are clinically relevant.

References

- Amato, M. P., Langdon, D., Montalban, X., Benedict, R. H. B., DeLuca, J., Krupp, L. B., . . . Comi, G. (2013). Treatment of cognitive impairment in multiple sclerosis: Position paper. *Journal of Neurology*, 260(6), 1452-1468. doi:10.1007/s00415-012-6678-0
- Honan, C.A., Brown, R.F., & Batchelor, J. (2015). Perceived cognitive difficulties and cognitive test performance as predictors of employment outcomes in people with multiple sclerosis. *Journal of the International Neuropsychological Society*, 21, 156-168. <http://dx.doi.org/10.1017/S1355617715000053>.
- Multiple sclerosis: just the facts. (2016, July). Retrieved from: <http://www.nationalmssociety.org/NationalMSSociety/media/MSNationalFiles/Brochures/Brochure-Just-the-Facts.pdf>
- Pardini, M., Bergamino, M., Bommarito, G., Bonzano, L., Luigi Mancardi, G., & Roccatagliata, L. (2014). Structural correlates of subjective and objective memory performance in multiple sclerosis. *Hippocampus*, 24(4), 436-445. doi:10.1002/hipo.22237
- Samartzis, L., Gavala, E., Zoukos, Y., Aspiotis, A., & Thomaidis, T. (2014). Perceived cognitive decline in multiple sclerosis impacts quality of life independently of depression. *Rehabilitation Research & Practice*, v.2014:128751. doi:10.1155/2014/128751.
- Strober, L. B., Binder, A., Nikelshpur, O. M., Chiaravalloti, N., & DeLuca, J. (2016). The perceived deficits questionnaire: Perception, deficit, or distress? *International Journal of MS Care*, 18(4), 183-190.

Contact

astuifbergen@mail.utexas.edu

M 15 - Cognitive Impairment Effects on Clinical Outcomes

Psychometric Properties of the Problem-Solving Inventory in Caregivers of Persons With Memory Loss

Meihua Ji, MSN, RN, USA
Susan M. Sereika, PhD, MPH, USA
Jeffrey M. Rohay, PhD, MSIS, USA
Judith A. Erlen, PhD, RN, FAAN, USA

Abstract

Background: Having adequate problem solving skills is important for caregivers of persons with memory loss to adjust to the changing needs and behaviors of the care recipient as their cognitive function declines (Berry et al., 2012; Chiu et al., 2015; Sousa et al., 2016). There is limited evidence evaluating problem solving abilities among caregivers of persons with memory loss using validated instruments.

Purpose: The purpose of this study was to evaluate the psychometric properties (reliability, factor structure and validity) of the Problem Solving Inventory (PSI) among informal caregivers of community-dwelling persons with memory loss.

Methods: For this secondary analysis, data from the baseline and 2-month post-baseline assessments of a randomized controlled trial designed to improve informal caregivers' problem solving skills related to medication management of community-dwelling persons with memory loss was used. The 32-item PSI which was originally tested among undergraduate college students with three subscales (problem solving confidence, approach-avoidance style, and personal control) was used to measure caregivers' level of problem solving, with lower PSI total scores indicative of better problem solving. Reliability of the PSI was examined considering internal consistency using Cronbach's alpha as well as test-retest reliability over a 2-month period for control group participants. Construct validity of the PSI was explored using principal component analysis for extraction with varimax rotation to explore the factor structure of the PSI. Pearson correlations between the PSI total score and scores on the Beck Depression Inventory II (BDI), Newest Vital Sign (NVS) for health literacy, as well as Self-Efficacy for Managing Chronic Disease (SEM) was tested at baseline for convergent validity. It was hypothesized that there would be at least a moderate positive association between PSI total score and BDI score; a moderate negative association between PSI total score and total scores of NVS as well as SEM.

Results: Participants (n=78 with complete data) were mainly white (87.2%), female (71.8%), and on average \pm SD 66.5 \pm 12.3 years of age with 14.7 \pm 2.8 years of education. Estimates of internal consistency for the PSI using Cronbach's alpha were 0.92 for the overall total score, and 0.90, 0.82, and 0.84 for the problem solving confidence, approach-avoidance style, and personal control subscales, respectively. Estimates of test-retest reliability over 2 months were 0.562 ($p < 0.001$) for the total score and 0.435 ($p = 0.006$), 0.587 ($p < 0.001$), and 0.559 ($p < 0.001$) for the problem solving confidence, approach-avoidance style, and personal control subscales, respectively, for caregivers in the control group (n=39). Exploratory factor analysis using principal component analysis extraction revealed seven factors for the PSI. Two factors were dropped due to less than three items having loaded on those factors, and a total of 4 items were excluded following exclusion of the two factors as well as considering a factor loading threshold of ≥ 0.40 . As a result, five factors were retained with a total of 28 items, where factors one and two were "personal control" (8 items) and "problem solving confidence" (9 items) as originally identified for the PSI. Most of the items for factor three "proactive approach" (3 items), factor four "avoidance style" (4 items) and factor five "decision processing" (4 items) were included in the approach-avoidance style in the original PSI. Pearson correlations showed a moderate positive relationship between PSI total and BDI total scores ($r = 0.372$, $p = 0.001$), and a moderate negative relationship between PSI total and SEM total scores ($r = -0.408$, $p < 0.001$); however, the association between PSI total and NVS total scores ($r = -0.096$, $p = 0.411$) was not significant.

Conclusion: The 32-item PSI was internally consistent and showed temporal stability over 2 months for measuring problem solving abilities in informal caregivers of persons with memory loss. The extracted

factors for PSI (five factors with 28 items) within this context revealed a somewhat different factor structure compared to the original scale which was tested among undergraduate college students, with more specific factors of “proactive approach”, “avoidance style” and “decision processing” that could be helpful in explaining problem solving behaviors among caregivers of persons with memory loss. The correlation between PSI total score and total scores of BDI as well as SEM showed convergent validity, but not with the NVS total score.

Implication: The PSI has the potential to help healthcare providers more adequately evaluate problem solving behaviors among informal caregivers of persons with memory loss and ultimately aid in identifying interventions to improve clinical outcomes. Given the limitations of having a small and homogeneous sample in the current study, future research should include a confirmatory factor analysis of the identified structure in current study in a larger sample of informal caregivers, the psychometric assessment of the instrument in caregivers for different patient populations, and the examination of concurrent validity using another problem solving instrument.

References

- Berry, J. W., Elliott, T. R., Grant, J. S., Edwards, G., & Fine, P. R. (2012). Does Problem-Solving Training for Family Caregivers Benefit Their Care Recipients With Severe Disabilities? A Latent Growth Model of the Project CLUES Randomized Clinical Trial. *Rehabilitation Psychology, 57*(2), 98–112. <http://doi.org/10.1037/a0028229>
- Chiu, M., Pauley, T., Wesson, V., Pushpakumar, D., & Sadavoy, J. (2015). Evaluation of a problem-solving (PS) techniques-based intervention for informal carers of patients with dementia receiving in-home care. *International Psychogeriatrics, 27*(6), 937–948.
- Sousa, L., Sequeira, C., Ferré-Grau, C., Neves, P., & Lleixà-Fortuño, M. (2016). Training programmes for family caregivers of people with dementia living at home: integrative review. *Journal of Clinical Nursing, 1*–11. <http://doi.org/10.1111/jocn.13266>

Contact

mej61@pitt.edu

M 16 - Enhancing Quality of Patient Care Through Communication

A Systematic Review of the Impact of Intentional Rounding on Patient Safety in Acute Care

Angela Christiansen, PhD, MSc, BSc (Hons), RN, PGDipEd, Australia

Elisabeth Jacob, PhD, RN, FACNM, Australia

Diane Esma Twigg, PhD, MBA, BHLthSc (Nsg) (Hons), RN, RM, FACN, FACHSM, Australia

Lisa Whitehead, PhD, MA, BSc (Hons), RN, Australia

Linda L. Coventry, PhD, MS, BSc, DipAppSc, RN, Australia

Abstract

Purpose: The purpose of this paper is to report on a systematic review of the evidence of the impact of intentional rounding (IR) on patient safety in adult acute healthcare settings.

Methods: A systematic mixed method review was undertaken using the Joanna Briggs Institute (JBI) Reviewers Manual. An electronic search of CINAHL, MEDLINE, EMBASE, COCHRANE, and SCOPUS using key terms 'nursing' AND 'intentional rounding' OR 'hourly rounding' identified 89 English language citations. The titles and abstracts of the papers were reviewed independently by two researchers and 33 were deemed to meet the remit of the review. Following appraisal for methodological quality using the JBI-MASrAR and JBI-QARI nine studies failed to meet the minimum quality threshold and were excluded leaving 12 quantitative studies, 4 qualitative studies and 4 mixed method studies. The papers were published between 2006 and 2016 and reported on studies undertaken in the USA (n=13), Australia (n=5), Iran (n=1) and Saudi Arabia (n=1). Insufficient homogeneity of outcome measures precluded a meta-analysis of data so a narrative synthesis approach was used construct the data into themes.

Results: Overall the methodological quality of the studies was weak. Quantitative designs included quasi-experimental pre-test post-test designs using one, two or three non-equivalent, separate samples design. Information relating to selection bias, study withdrawals and confounding variables were limited. A lack of standardised definitions and the use of a variety of data collection tools further compromised the comparison of study outcomes. Qualitative studies included ethnographic, descriptive and action research designs.

Study findings were contradictory. For example ten studies reported the impact of IR on the incidence of falls involving adults during an acute inpatient episode. Five studies reported a statistically significant reduction in the number of reported falls (Brosey & March, 2015; Dearmon *et al.* 2013; Goldsack *et al.*, 2015; Meade *et al.*, 2006; Saleh *et al.*, 2011) and five studies reported a reduction in reported falls that was not statistically significant. Similarly ten studies reported the impact of IR on patient satisfaction with a focus on nurse responsiveness but only four of these reported a statistically significant improvement in patient satisfaction (Krepper *et al.* 2012; Meade *et al.* 2006; Negarandeh *et al.*, 2014; Tea *et al.*, 2008). Five studies reported on nurse call bell use as an indicator of how well patients' needs were being proactively anticipated and as an indicator of patient satisfaction. However while a significant reduction in call bell use following IR implementation was reported in some studies (Meade *et al.*, 2006; Cann & Gardner, 2012) another found that the total number of call bell use increased significantly in both the study and control groups (Krepper *et al.*, 2012).

The effectiveness of IR was reportedly impeded by low compliance with IR protocols caused in part by competing initiatives, priorities and workloads (Deitrick *et al.*, 2012; Harrington *et al.*, 2013). Staff skill mix, staff patient ratios and staff turnover, unclear accountability lack of leadership support and the difficulty of integrating IR into nurses existing workflow was also identified as compromising the effectiveness of IR (Flowers *et al.*, 2016; Harrington *et al.*, 2013).

Conclusion: This paper highlights a lack of consistent evidence to support or preclude the use of IR to enhance the safety and quality of patient care. The widespread adoption of IR clearly impacts on the processes of care and the capacity of nurses to keep patients safe. However an overly prescribed IR protocol may hinder the critical thinking and surveillance role of nurses by requiring an allocation of time

to be spent all patients regardless of assessment and clinical need. A more rigorous evaluation of IR is therefore needed and this paper makes a number of recommendations in regard to future studies.

References

JBI (2014) Joanna Briggs Institute Reviewers Manual:2014 Edition. The Joanna Briggs Institute, Australia.
Krepper, R., Vallejo, B., Smith, C., Lindy, C., Fullmer, C., Messimer, S., Xing, Y & Myers, K. (2014) Evaluation of a standardised hourly rounding process(SHaRP). *Journal for Healthcare Quality*, **36** (2), 62-69.
Flowers, K., Wright, K., Langdon, R., McIlwrath, M., Wainwright, C. & Johnson, M. (2016) Intentional rounding: facilitators, benefits and barriers. *Journal of Clinical Nursing*, **25** (9-10), 1346-1355.

Contact

a.christiansen@ecu.edu.au

M 16 - Enhancing Quality of Patient Care Through Communication Quality Improvement Initiative Evaluation to Determine Effectiveness of Provider- Patient Communication in a Wound Clinic

Stacy Eva Usher, DNP, CRNP, USA

Abstract

Purpose: The purpose of this clinical project is to improve provider communication skills and, thereby, improve patient health outcomes. This researcher participated in Patient Centered Caring Communication (PCCCI) training. The PCCI tool, however, required evaluation to determine its effectiveness at improving communication between the patient and provider in order to improve health outcomes.

Methods: The project was a face to face provider to patient clinic visit held between the researcher and the patient across a total of three visits over approximately two weeks per patient. The researcher communicated with the patient verbally, teaching through demonstration, at regular clinic visits in a wound care office with the patients and caregiver about wound care. Intervention included researcher use of the PCCCI tool which advocates use of (a) patient-centered communication (b) reflective listening, (c) active listening, (d) relationship building, and (e) PEARLS (partnership, empathy, apology, respect, legitimization, and support) to improve patient-provider communication. Implementation of these communication techniques were objectively measured through researcher use of a Provider Communication Checklist across all three visits. Evaluation of patient-provider communication was evaluated through researcher use of a researcher evaluation form. The wound length, width, depth, and amount of exudate was monitored to assess wound improvement and response to treatment. Data collected was analyzed at the completion of the three office visits. The demographics form and researcher evaluation form were analyzed using SPSS. The demographics and modifying factors were analyzed using SPSS descriptive statistics, frequency distributions to describe and summarize the data. The data was used to assess patient recall of wound care instructions with assessment of how demographics affect patient understanding of the instructions. Outcome measures were patient understanding of wound care and compliance with wound care instructions and home dressing changes. Independent-samples t test and chi-square test of independence were used to analyze relationships between demographics and wound healing. Chi-square test of independence tested whether the variables were independent of each other. Independent-samples t test were used to compare the means of two different groups.

Results: Thirty-five wound patients were assessed in this project. The age range was from 20 to 94 years old with a mean age of 57 years. Fifty-one percent of the patients were male and over 80 percent were college graduates. Eighty-three percent were non-smokers and seventy-one percent of patients were on oral antibiotics. Eighty-six percent had assistance with wound care. Only one out of the thirty-five patients did not have English as a primary language.

Fifty-one percent had no significant past medical history to effect wound healing such as diabetes, PVD, cancer, or other conditions. The other conditions listed that may affect wound healing were obesity, lymphedema, and autoimmune disorders such as Crohns and Ankylosing spondylitis. Eighty percent of the patients had acute wounds from surgery or injury, and twenty percent were from chronic conditions such as diabetes, PVD, or radiation therapy. One hundred percent of the patients or caregivers were able to verbalize the wound care plan correctly on the first visit. On the second visit, 96 percent were able to and four percent were unable to correctly explain the plan of care. Fourteen percent did not answer the question due to no second visit due to healed status, no show, or the follow visit is pending. One hundred percent of the patients or caregivers correctly explained the plan of care for the third office visit. Wound improvement was evaluated as met/not met (with one point assigned for the presence of improvement on each of the following 6 criteria: decreased wound size, improved granulation and wound edges, and no infection, tunneling or undermining. The mean wound improvement for visit number two was 4.92 out of 6 and for visit three 5.45 out of 6. In summary, the patients in this project were primarily status post-acute surgery without significant past medical history to affect wound healing, well educated, English speaking non-smokers.

Independent-samples t test comparing mean scores of the group with wound care assistance and the group without assistance found a significant difference between the means of the two groups ($t(24) = t = 3.944, p < .001$). The mean of the group without assistance was significantly lower ($m = 2.33, sd = .577$) than the mean of the group with assistance ($m = 5.26, sd = 1.251$). Independent samples t-test determined gender in this cohort did not affect wound healing. No significant difference was found ($t(24) = .273, p > .05$). The mean score for men ($m = 5, sd = 1.468$) was not significantly different from the mean of women ($m = 4.83, sd = 1.642$). No significant difference was found in wound healing scores when considering use of tobacco products ($t(22) = -1.583, p > .05$). The mean of the non-tobacco users ($m = 5.1, sd = 1.500$) was not significantly different from the mean of tobacco users ($m = 3.6, sd = .289$).

A comparison of wound healing scores between chronic and acute type of wounds required use of Chi-square test of independence. A significant interaction was found ($\chi^2(4) = 10.87, p < .05$). Sixty percent of the patients having chronic wounds had a wound improvement score of 5-6/6 and 76 percent of those having acute wounds had the same wound improvement score of 5-6/6. No significance was determined for the relationship between past medical history, education level, wound medications, and English as a primary language with wound healing.

Diabetes patients scored 5.25, PVD 3, cancer 2, no PMH 5.29, and other 5.5 out of a possible 6 points. The post-graduate patients scored the highest mean at 5.5 on wound healing, followed by college graduates at 5 point and high school graduates at 4.6. Despite the results not being statistically significant, the higher educated and healthy patients scored higher on wound improvement. A large majority of the patients were English speakers and on antibiotics.

Conclusion: The patients were able to verbalize their wound regimen correctly and list signs and symptoms of wound infection. The two who were not able to at visit number two were on the ends of the age spectrum. One was in the age range of twenties with a new acute wound and the other elderly with a newly diagnosed chronic disease. Every patient across all three visits was able to state the signs of infection except for two on visit number two. There was data for all three patient visits except for five on visit two and seven on visit three because the wound healed, the patient no-showed, or the patient was referred to a higher level of care. The lowest scores for wound improvement were a two out of six points from four patients found on opposite ends of the age spectrum and primarily associated with chronicity of the wound. The low scores all improved on the third visit except for the wound with wound dehiscence. There was no correlation between tobacco past and current use with poor wound healing scores except for a young active duty patient. Diabetes had a delayed affect on wound healing, but the patients all eventually healed. The patients with cancer and PVD had lowest scores for wound improvement. However, the patients with obesity and autoimmune disease scored high on wound improvement. Patients who had assistance with dressing changes scored higher on wound healing scores than the group without assistance. The healing scores for chronic wounds were lower than acute wounds since chronic wounds have an underlying condition that needs to be addressed. The use of PCCCI gave the researcher the confidence and skills to communicate effectively with the patient as evidenced by the patient verbalizing the plan of care correctly and improved wound healing. Evidence supports that effective communication leads to good health outcomes, and this project shows promise being able to support that finding. However, the healthy and well educated military cohort cannot be dismissed as contributors to the high wound healing scores.

The PCCCI assisted the researcher with staying on track with the patient-centered interview. Instead of asking the exhausting list of provider questions, she asked the patients what brought them to the FBCH. She provided open ended questions and let them answer without interrupting. This helped her elicit all the information related to the visit and prevent steering the conversation. In the end, the tools allowed for her to get even more details in a shorter amount of time.

References

Chesanow, N. (2013). Why some patients aren't following your instructions. Retrieved from <http://www.medscape.com/viewarticle/804739>.

Choudhary, A. & Gupta, V. (2015). Teaching communications skills to medical students: introducing the fine art of medical practice. [International Journal of Applied and Basic Medical Research](#), 5(1), S41-S44.

Hirono, I., Hidecki, H., Takahiro, K. (2013) The evolving concept of patient-centeredness in patient physician communication research. *Social Science and Medicine*, 96, 147-153.

Indian Health Service (2015). Patient-provider communication tool-kit. Retrieved from https://www.ihs.gov/healthcommunications/index.cfm?module=dsp_hc_toolkit.

James, J.T. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety*, 9(3), 122–128.

Jordis, M.Z, Christalle, E., Muller, E., Harter, M., Dirmaier, J., Scholl, I. (2014) Measurement of physician-patient communication—A Systematic Review. *PLOS one*, 9 (12), 1-20.

Kennedy, D. M., Fasolino, J. P., & Gullen, D. J. (2014). Improving the patient experience through provider communication skills building. *Patient Experience Journal*, 1(1), 56-60.

Morgan, S. (2013). Miscommunication between patients and general practitioners: implications for clinical practice. *Journal of Primary Health Care*, 5(2), 123–128.

The Joint Commission (2015). *Facts about patient-centered communications*. Retrieved from <http://www.jointcommission.org/>.

Vines, M.M., Dupler, A.E., Van Son, C.R., & Guido, G.W. (2014). Improving client and nurse satisfaction through the utilization of bedside report. *Journal for Nurses in Professional Development*, 30(4), 166-173.

Weir, K. (2012). Improving patient-physician communication: with their expertise in communication, psychologists are identifying new ways to help people become more involved in their own care. *Monitor on Psychology*, 43(10), 36-38.

Contact

stacy.e.usher@gmail.com

N 04 - Communication Care Practices

Communication, Power Distance, and Medication Errors: An Ethnographic Exploration of Cultural Care Practices

Luanne Ruth Linnard-Palmer, EdD, MSN, BSN, USA

Abstract

Purpose: The purpose of this ethnographic research was to capture the experiences of practicing acute care nurses who work in the San Francisco Bay Area where health care environments are richly diverse. The aim of the study was to discover how practicing nurses communicate and negotiate with culturally diverse patients and families. Specifically, the purpose was to discover how nurses navigate through difficult clinical scenarios where families may experience power distance (the feelings of inequality or the extent in which people accept that inequality exists in society) that lead to misunderstandings, lack of full disclosure and ultimately the refusal, delay or limitation of medical treatment, or the development of medical or medication errors.

Methods: Ethnographic methodology was used via in-depth interviews of unlimited length. Interviews were audio-taped and transcribed for content analysis and thematic identification.

Results: Demographics demonstrated the mean age of participants was 53 years, and mean years in nursing practice was 25.8 years. Participants were culturally diverse with Asian, Hispanic, African American and Caucasian descent. Emic extractions, induction processes and empirical formulations (Leininger, 1985) were used to help make connections and identify perceptions, knowledge and language in terms of how people perceived and interpreted their experiences. Based on 33 interviews, the researchers found that power distance contributes to the development of errors. Analysis of the participants' narratives and responses included three major themes: 1) power distance creates barriers to effective communication; 2) understanding the impact of strained communication contributes to errors; and 3) nursing education woefully prepares nurses to assist ethnically and culturally diverse families during difficult clinical scenarios when trust and feelings of inequality interfere with effective and safe care.

Conclusion: Nurses who work with culturally diverse interdisciplinary teams and culturally diverse patients and families must understand that power distance creates barriers to safe care. Cultural perspectives and care practices may not be disclosed to health care providers if patients or their families feel threatened, misunderstood or disrespected. Medical and medication errors can occur if power distance is not identified and families feel supported and listened to. The study has several implications related to practice and education. After analysis, the research team came to consensus that teaching the impact of the role of power distance new nurses is a directive, teaching how individualism/collectivism influences care and communication, and identifying early for the avoidance of potential errors related to strained cultural communication is important in all settings.

References

- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations*. (2nd ed.). Thousand Oaks, CA Sage Publications.
- Hofstede, G., Hofstede, G.J. and Minkov, M. (2005). *Cultures and Organizations. Software of the Mind*. (3rd ed.). New York, NY, McGraw Hill
- Joint Commission Perspectives (2008). *Promoting Effective Communication- Language Access Services in Health Care*, 28, 8-11.
- Leininger, M. (1985). *Qualitative research methods in nursing*. Philadelphia: W.B. Saunders.
- Migliore, L.A. (2011). Relation between big five personality traits and Hofstede's cultural dimension. *Cross Cultural Management: An International Journal*, 18, 38-54.

Contact

linnard@dominican.edu

N 04 - Communication Care Practices

Trust Development Between Patient and Nurse: A Grounded Theory Study

Sharon M. Jones, PhD, RN, CNE, USA

Abstract

Trust is an important factor in the nurse-patient relationship and is part of collaboration in patient-centered care. Interpersonal trust between two people incorporates five key factors: risk, vulnerability, power imbalance, familiarity, and good will (Baier, 1986; De Raeve, 2002; Sellman, 2007). There has been limited research related to the development of trust in the nurse-patient relationship. In a research study related to trust development for the patient in the hospital setting, the researchers examined the patient-provider relationship including physicians and hospital staff but not exclusively the nurse-patient relationship (Hupcey, Penrod, & Morse, 2000). More recently, in a grounded theory study of the development of trust between the nurse and the hospitalized English-speaking Mexican-American patient in the USA, findings indicated that if the patient did not develop trust with the nurse, the patient may be less likely to ask questions or share personal information (Jones, 2015b). This reluctance to confide or share information was seen in previous studies related to culturally congruent care and Mexican American patients (Warda, 2000; Zoucha, 1998). In a follow-up study with Spanish-speaking Mexican American patients in the USA, the researcher again found trust was needed for the patient to be willing to share and, more importantly, the establishment of trust was evident even when a language barrier between the nurse and the patient was present (Jones, 2015a). In both these studies (Jones, 2015a, 2015b), trust with the Mexican American patient was examined because trust is an important Hispanic cultural value (National Alliance for Hispanic Health, 2001) and Hispanics in the USA report lower levels of trust compared to non-Hispanic white patients (Kaiser et al., 2011). However, trust may develop differently for non-Hispanic patients which led to the current study of how trust develops for the non-Hispanic patient in the USA.

Purpose: The purpose of this study was to explain how does trust develops between the non-Hispanic English-speaking patient and the nurse in the hospital setting from the patient's perspective.

Methods: Classic grounded theory (Glaser & Strauss, 1967) was used in this study since the goal is to explain a basic social process, trust. Inclusion criteria for the study were a) non-Hispanic, English-speaking adults, b) hospitalized at least 36 hours on medical-surgical or obstetrics unit, and c) anticipated discharge within the next few days. Patients were excluded if they were a) cognitively impaired (dementia, confusion) or b) admitted to a unit for treatment of a mental health condition. Participants were interviewed face to face in a private setting while hospitalized in the Midwestern United States. The researcher used a semi-structured interview guide and interviews were digitally recorded and transcribed verbatim. Data analysis was done concurrently with data collection using constant comparison, comparing incident to incident (Glaser, 2001). In data analysis, codes were generated from transcript review and then collapsed into categories forming a model of how trust develops and a core category emerged.

Results: Findings from this study led to a model of the development of trust including outcomes presented as categories and the core category. Findings indicated that trust developed through the nurse's initial approach toward the patient including the nurse's attitude. Factors leading to trust included being genuine, being present, and talking personally. Interesting findings in this study were the development of a friendship-like bond between the nurse and the hospitalized patient. Another interesting finding was the vulnerability the patients felt when specific incidents led to trust development and participants referred to the nurse "saving the day". This reflected the nurse acting on patient concerns rather than dismissing concerns. Outcomes of the development of trust included the patient confiding in the nurse, being willing to ask, and making the hospital stay easier.

Conclusion: The development of trust is important for patients in the hospital setting and the nurse can do simple things which leads to trust such as talking personally and acknowledging patient concerns. Although this study was done in the USA with patients having unique cultural values, the model of how

trust develops may be transferable to the nurse-patient relationship in other hospital settings throughout the world and have global implications. The findings are useful to promote the knowledge of how to develop trust with patients which may lead to improved individual patient outcomes and ultimately advance health. Findings from this study and previous studies will be used to build a middle range theory on the development of trust in the nurse-patient relationship with hospitalized patients.

References

- Jones, S. M. (2015a). *Developing trust in the nurse-patient relationship when a language barrier is present*. Paper presented at the 26th Sigma Theta Tau International Nursing Research Congress, San Juan, Puerto Rico.
- Jones, S. M. (2015b). Making me feel comfortable: Developing trust in the nurse for Mexican Americans. *Western Journal of Nursing Research*, 37(11), 1423-1440. doi:10.1177/0193945914541519
- Kaiser, K., Rauscher, G. H., Jacobs, E. A., Strenski, T. A., Ferrans, C. E., & Warnecke, R. B. (2011). The import of trust in regular providers to trust in cancer physicians among white, African American, and Hispanic breast cancer patients. *Journal of General Internal Medicine*, 26(1), 51-57. doi:10.1007/s11606-010-1489-4

Contact

jones240@iusb.edu

N 06 - Gerontological Nursing Care

Developing Clinical Guidelines to Improve the Care of Older People With Diabetes

Trisha Lynette Dunning, PhD, MEd, AM, RN, CDE, ACN-DLF, Australia

Abstract

Background: Diabetes is associated with functional, cognitive, and social changes. Polypharmacy and under-or malnutrition, pain, depression, falls, confusion, delirium and significant medicine-related adverse events including hypoglycaemia are common (Munshi et al. 2016). There are a number of existing guidelines for the care of older people with diabetes but conversations with staff caring for older people with diabetes indicated that such guidelines do not address core components of the care such as sexual health and end of life. There is limited clinical trial evidence to support recommendations and low regard for expert/consensus opinion. Older people with diabetes are often excluded from studies: when they are included they were basically healthy and prescribed none or only one medicine (Bayer & Tadd 2000).

Aim:

- a) Develop a guideline development framework that followed National Health and Medical Research (NHMRC) clinical guideline development recommendations (NHMRC 1998).
- b) Engage key stakeholders (older people with diabetes and health professionals) in the development process.
- c) Determine the value of consensus/expert opinion when developing guidelines CPGs.

Method: We followed the National Health and Medical research council (NHMRC) clinical practice guideline development recommendations. We conducted a structured literature review, appointed an expert advisory group and subjected the draft guidelines to peer-review. In addition to the NHMRC recommendations, we formally evaluated the Guidelines in four small rural and one large metropolitan aged care facilities before they were released into the public domain. Data were collected using anonymous self-completed questionnaires and interviews with staff and older people with diabetes before and nine months after the guidelines were distributed to the care homes and staff used them to plan care. A medical record audit was undertaken to ascertain whether the guidelines were used to plan care. In addition, the guidelines were subjected to external peer review by international experts in the care of older people with diabetes.

Results: Very few randomised controlled trial were identified, therefore most of literature was graded at level 3 or 4. Eighty nine residents: 58% female, 82% had type 2 diabetes, all had at least one diabetes complication. Thirty one staff members, mostly nurses, participated. There was some evidence from the medical record audit that some guidelines influenced care, especially the risk hypoglycaemia and medicine adverse event assessment tools that form part of the guidelines. The advice from the Expert Advisory Group (consensus opinion) and evaluating the guidelines in the clinical settings they were designed for enhanced their value and played a valuable role in the content validity and clinical relevance of the final Guideline, the McKellar Guideline. A key outcome of the staff evaluation was a suggestion to include information about how staff could use the document to plan care. Consequently, an accompanying document, The McKellar Way, which suggests strategies for implementing the Guideline recommendations to personalise care, was developed (Dunning et al. 2013).

Impact and outcomes:

- A suite of information that consists of a philosophical framework to guide care (Dunning et al. 2013),
- Clinically relevant, usable clinical guidelines for managing older people with diabetes: The McKellar Guidelines (Dunning et al. 2013; The McKellar Way (Dunning et al. 2013).
- Awarded the Barwon Healthcare Innovation Award for Excellence in Healthcare.
- Became policy in our health service in a large regional/rural area in 2014.
- The Guidelines are cited in and were the basis for the older person section in the Australian Government National Diabetes Strategy 2016–2020 released on World Diabetes Day, 2015.

- Medical record audits undertaken before the Guidelines were implemented in 2014 and approximately nine months after implementation show changes consistent with Guideline recommendations in residents' care plans, including evidence that care is based on Guideline recommendations and is being personalised.
- Staff is required to attend annual professional development sessions that are based on the Guidelines,
- The Guidelines are being implemented in various other Australian and some international practice settings
- The risk assessment tools in the Guidelines were translated into Norwegian.
- Discussions about translating the Guidelines into Chinese were held with a Chinese geriatrician.
- The Chief investigators mentored beginning researchers to build research capacity.
- Clinical indicators were developed and will be evaluated in a follow up study.

Conclusions: The guideline development process combined several strategies with the NHMRC recommendations, namely key stakeholder engagement throughout the development process, which enabled methodological issues to be addressed. It resulted in clinically relevant guidelines for caring for older people with diabetes that meet stakeholders' needs and have been translated into and changed practice. Combining consensus/expert opinion with clinical evidence engages key stakeholders and contributes valuable practical information not reported in clinical trial.

References

- Bayer A, Tadd W. (2000) Unjustified exclusion of elderly people from studies submitted to research ethics committees for approval: descriptive study. *British Medical Journal* October 21-22.
- Commonwealth Department of Health [Australian National Diabetes Strategy 2016-2020 -...](#)
www.health.gov.au/.../Australian%20National%20Diabetes%20Strategy%202016-2020.pdf
- Dunning T, Sinclair S, Savage S, Duggan N. (2013) A philosophical framework to Guide the care of older People with Diabetes, Deakin University and Barwon Health, Geelong.
- Dunning T, Savage S, Duggan N. (2013) The McKellar Guidelines for Managing Older People with Diabetes .in Residential and Other Care Settings. http://www.adma.org.au/clearinghouse/doc_details/133-the-mckellar-guidelines-for-managing-older-people-with-diabetes-in-residential-and-other-care-settings_9dec2013.html
- Dunning T, Savage S, Duggan N. (2013) The McKellar Way: How to use The McKellar Guidelines for Managing Older People with Diabetes .in Residential and Other Care Settings.
http://www.adma.org.au/clearinghouse/doc_details/189-the-mckellar-way-final_how-to-use-the-mckellar-guidelines.html
- Munshi M, Florez H, Huang E, Kalyani R, Mupanomunda M, Pandya N, Swift C, Tavera T, Haas L. (2016) Management of diabetes in long-term care and skilled nursing facilities: a position statement of the American Diabetes Association 39 (2):308-318.

Contact

trisha.dunning@barwonhealth.org.au

N 06 - Gerontological Nursing Care

Changing Attitudes With a Gerontological Nursing Course

Monica L. Tenhunen, DNP, GNP-BC, ANP-C, USA

Abstract

Purpose: The purpose of the study was to determine baccalaureate nursing student attitudes toward older adults and if a gerontological nursing course changes their attitudes. In 2013, older adults comprised 14.1% of the population and by 2040 are expected to be 21.7% of the population (Agency on Aging, n.d.). The American Association of Colleges of Nursing (AACN) requires nursing programs to provide relevant knowledge about aging and states education needs to address incorporation of attitudes in providing care (AACN, 2010).

Multiple studies indicate nursing students do not desire to work with older adults and that their attitudes about this population influence this desire (Henderson, Kelton, Paterson, Siegloff, & Xiao, 2008; Matarese, Dhurata, & Federic, 2010; Matarese, Lommi, Pedone, Alvaro & De Marinis, 2013; Shen & Xiao, 2012). A systematic review completed in 2013 by Liu, et al., indicated inconsistent attitudes among nursing students regarding older adults and that there were not any consistent predictors of attitude.

Education can increase knowledge on a topic. Mattos, et al. (2015), completed a study that showed the knowledge level of students increased with a course on gerontological nursing but there was no change in attitudes. Another study showed an increase in knowledge along with more positive beliefs about older adults (Baumbusch, Dahlke, & Phinney, 2012). There is limited research in the United States on nursing student attitudes regarding older adults.

As the older adult population increases, nursing education needs to focus on preparing graduates to not only understand the special needs of the population, but also to value positions in care of older adults. This study increases evidence regarding how education can influence attitudes in undergraduate nursing students and could promote the advancement of health for older adults.

Methods: The study includes approximately 55 nursing students in two different cohorts enrolled in an undergraduate baccalaureate-nursing program who consented to participate in the study. The nursing program added a one-semester unit gerontological nursing course to the curriculum, which was not included in the first cohort of students' curriculum. University Institutional Review Board approval was obtained. Instruments included are a demographic survey, Palmore's Facts on Aging Quiz (FAQ) and Kogan's Old People Scale (OPS). Permission was obtained to use both of these scales. The FAQ and OPS were shown to be reliable and valid in previous studies (Mangen & Peterson, 1982; Matarese, et al., 2013; Palmore, 1980; Yen, et al., 2008).

The instruments are completed at four different times during the program for students that have the gerontological nursing course as part of their program. The instruments were completed at the end of the program only for the cohort that did not have the course. Data entry was completed by a trained research assistant and verified by a statistician.

Results: Data analysis using SPSS to determine ANOVA with repeated measures and t-tests to analyze changes in attitudes will be completed for the cohort graduating in December 2016. The 2016 cohort will be compared to the 2015 cohort at the end of their program for further analysis regarding the benefit of the course on influencing attitudes. Results will be compared with other studies to determine consistency of findings.

Conclusion: Limitations of the study include a small sample size, the study was completed in only one university nursing program, and other factors may have influenced the attitudes of the nursing students. Plans are to continue the study with additional cohorts of students and involve another university nursing program for comparison. The results of this study add to the evidence regarding how education influences

attitudes. Educators can use the results to plan and implement teaching to advance future nursing practice.

References

Baumbusch, J., Dahlke, S., & Phinney, A. (2012). Nursing students' knowledge and beliefs about care of older adults in a shifting context of nursing education. *Journal of Advanced Nursing*, 68, 2550-2558. doi: 10.1111/j.1365-2648.2012.05958.x

Liu, Y., Norman, I. J., While, A. E. (2013). Nurses' attitudes towards older people: A systematic review. *International Journal of Nursing Studies*, 30,1271-1282. doi: 10.1016/j.ijnurstu.2012.11.021

Matarese, M., Lommi, M., Pedone, Cl., Alvaro, R., De Marinis, M. G. (2013). Nursing student attitudes towards older people: validity and reliability of the Italian version of the Kogan attitudes towards older people scale. *Journal of Advanced Nursing*, 69(1), 175-184. doi: 10.1111/j.1365-2648.2012.06055.x

Mattos, M. K., Jiang, Y., Seaman, J. B., Nilsen, M. L., Chasens, E. R., Novosel, L. M. (2015). Baccalaureate nursing students' knowledge of and attitudes toward older adults. *Journal of Gerontological Nursing*, 41(7), 46-56. doi: 10.3928/00989134-20150429-01

Shen, J., & Xiao, L. D. (2011). Factors affecting nursing students' intention to work with older people in China. *Nurse Education Today*, 32, 210.223. doi: 10.1016/j.nedt.2011.03.016

Contact

monica.tenhunen@tamuc.edu

N 07 - Global Retention

Perceived Strategies to Decrease Attrition Rates Among Nurses Practicing at Healthcare Institutions in India

Llewellyn Prater, PhD, RN, USA

Shelby L. Garner, PhD, RN, CNE, USA

Leena Raj, MSN, MPhil, India

Abstract

Background: A profound nursing shortage exists in India, where nurses are increasingly out-migrating to practice nursing abroad. A robust nursing workforce is needed to improve health outcomes in India. Until recently, nursing was not considered a profession in India and research suggests nurses historically experienced marginalization and oppression (Johnson, Green, & Maben, 2014). A recent positive shift in the perception of nurses as professionals in India creates a timely milieu in which to give nurses a voice so that they may express their ideas and perceptions (Walton-Roberts, 2015). Strategies to decrease attrition rates among nurses in India could also shape health policy in other countries that may be facing similar shortages.

Purpose: To explore a subset of nurses' perceived strategies to decrease attrition rates among nurses practicing at healthcare institutions in India.

Methods: A qualitative descriptive approach was used. Purposive sampling resulted in 10 participants. First, participants were asked to complete a short written questionnaire to provide information on socio demographics and nursing experience. Participants were then interviewed using face-to-face semi structured, in depth, individual interviews. The interviews started with open-ended questions related to each participant's lived experience as a nurse in India and moved into open-ended questions to solicit their ideas on strategies to decrease attrition rates among nurses in India. Data were collected from November 2014 to March 2015. Interviews were audio recorded and transcribed. A directed content analysis approach was used to derive codes, themes, and subthemes.

Results: Coding and thematic interpretation resulted in three themes and multiple subthemes. Perceived strategies to decrease attrition rates included the need to: 1) implement reasonable remuneration through establishing equitable and aligned salary scales, 2) provide safe and effective environments by standardizing nursing workforce policies, ensuring equipment availability, and offering transportation services for nurses, and 3) recognize nursing as a profession by offering increased opportunities for nurses to become leaders and providing opportunities to recognize the value of nurses in the healthcare workforce.

Conclusion: Participants in this study advocated for change in nursing and workforce policy to start from within the nursing profession towards positive practice environments to increase nursing capacity in India and globally.

References

Johnson SE, Green J, Maben, J. (2014). A suitable job?: A qualitative study of becoming a nurse in the context of a globalizing profession in India. *International Journal of Nursing Studies*, 51(5), 734-743.

doi:<http://dx.doi.org/10.1016/j.ijnurstu.2013.09.009>.

Walton-Roberts M. (2015). International migration of health professionals and the marketization and privatization of health education in India: From push-pull to global political economy. *Social Science Medicine*, 124, 74-382.

doi:[doi.org/10.1016/j.socscimed.2014.10.004](http://dx.doi.org/10.1016/j.socscimed.2014.10.004).

Contact

Lyn_Prater@baylor.edu

N 08 - Improving Health Using Dogs

Man's Best Friend: The Role of Companion Animals in the Lives of the Homeless

Susan K. Lee, PhD, RN, CNE, USA

Pamela Willson, PhD, RN, FNP-BC, CNE, FAANP, VHF, USA

Abstract

Purpose: It is estimated that 28,000 persons are homeless in Texas on any given night (Texas Homeless Network, 2016). Many homeless people have companion animals to fulfill social needs: friendship, while demonstrating unconditional, nonjudgmental love; and satisfying basic needs of love and self-worth (Smolkovic, Fajfar, & Mlinaric, 2012). Over the past 25 years, multiple studies demonstrated human health benefits of relationships with companion animals. Companion animals were thought to play a significant role in effecting change or providing stability to the homeless as there are psychological, physiological, and social benefits associated with having companion animals (Labrecque, & Walsh, 2011; Slatter, Lloyd, & King, 2012). Recent work with homeless veterans and their companion animals successfully demonstrated a high degree of pet attachment displayed by homeless veterans, along with difficulty in finding housing, and the veteran's willingness to refuse opportunities for placement if companion animals were not allowed (Lee & Willson, 2016). According to Pets of the Homeless Organization (2016), two cities in Texas have shelters that accept homeless persons and their companion animals. The purpose of this project, therefore, was to expand previous work with homeless veterans in selected counties to include a sampling of the general homeless population across Texas and to describe homeless shelter administrative policy/practices for companion animals.

Methods: Specific aims were: to determine the experiences of homeless individuals across Texas with companion animals in securing services, and to explore facilitating space for companion animals with homeless shelter administrators in selected locations across Texas. It was believed that homeless participants across Texas would demonstrate high levels of Comfort from Companion Animal Scale scores, would have difficulty finding housing, and would refuse opportunities for placement if companion animals were not allowed. Additionally, it was thought that, as homeless shelter administrators, key informants would be able to describe the strengths, weaknesses, opportunities, and threats of their facility's policy/practices for homeless individuals with companion animals.

For Aim 1, a descriptive mixed method design was used to investigate homeless Texans' experiences with companion animals in securing homeless services. Subjects were recruited over one year through direct recruitment at homeless shelters, facilities offering free food and veterinary care for companion animals of homeless people, at soup kitchens, near churches, and in parks where the homeless congregate. A sample of 60 participants comprised of the accessible population who are male and female, English-speaking, homeless people who had no shelter other than homeless shelters, and who have companion animals, was sought and interviewed until saturation was thought to be reached. Inclusion criteria consisted of participants ages 18 years and above, with the exception of emancipated minors who were younger than 18 years of age. Exclusion criteria included people with homes, or who did not speak English.

When a potential participant indicated an interest in participating in this research project and the inclusion criteria was met, the investigator explained the purpose of the study and the interview process, including the estimated amount of time that would be spent in the interview, the steps to maintain confidentiality and to offer privacy, and how the information collected would be handled. The participant was given an opportunity to ask questions during this time. When the participant indicated he/she had no further questions, that the purpose of the study and role in the interview process was understood, oral and written informed consent form was obtained.

Data collection methods included direct observation; individual, unstructured, face-to-face interviews; and tape recordings, along with completion of a demographic questionnaire and the Comfort from Companion Animals Scale (Zasloff, 1996). The demographic questionnaire included age, sex, marital status, employment/military history, living accommodations, length of time homeless, and history of companion

animal relationship. Interviews were conducted in a public area, yet out of hearing range of other people to protect confidentiality. Interviews were semi-structured with a prepared, modifiable list of broad prompts and questions that were altered as the situation warranted, gaining a better understanding of the origins and nature of issues experienced. The investigator took field notes while conducting taped sessions. The interviews were completed in one conversation, some of which lasted up to one hour.

For Aim 2, a qualitative structured interview process was applied to explore facilitating space for companion animals with homeless shelter administrators in selected locations across Texas. The Facilitator Structured Interview Guide was framed by a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. Homeless shelter administrators and recruitment sites were identified by internet searches of the Texas Homeless Coalition, Texas Homeless Network, and snowballing technique. Locations were sought state-wide to encompass both large and smaller cities (i.e., Amarillo, Austin, Corpus Christi, El Paso, Fort Worth, Houston, Plano, San Antonio, Temple, and Tyler). Homeless participants were offered a \$20 recruitment incentive and administrators were offered an agency donation incentive of \$150. Phenomenological analysis approach was used to code the narratives looking for themes that expressed the meaning that the experience had for the participants.

Results: Data analysis was conducted and each interview was analyzed and compared to previous interviews to reveal repeated themes and categories. Once all interviews were transcribed, compared, and analyzed, no new concepts were observed, and data saturation was felt to be achieved, a central concept was identified.

Conclusion: Homeless persons have a strong, unyielding bond with their animal companions that overrides personal needs. Interviews revealed that the homeless claim companion animals save their lives, help to overcome adversity, factor into the decision-making process to facing a better future, and become the impetus for wanting to move out of homelessness, thus encouraging responsibility. Further, animal companions provide unconditional love and decrease lapses into unsafe behavior, such as that associated with drugs and alcohol.

This project built on past work and was designed to address the access of Texas homeless persons with companion animals to a basic necessity of life—shelter. The benefits of companion animals to the health and welfare of individuals is established and the science will continue to grow with the use of “service animals” and “therapy animals” to improve psychological and physiological health conditions (Henry & Crowley, 2015). Through gained knowledge and understanding from this research, it is hoped policy/practices of services offered homeless persons without terminating the companion animal relationship will be formed- a future that could likely involve a service or therapy animal. As a community and primary care professional, working with culturally diverse, marginalized populations to improve living conditions and health outcomes is an on-going professional obligation and personal desire. There is a shared responsibility of Texans to ensure that men and women who are homeless have access to the quality, timely resources and are allowed to keep their companion animals.

References

- Henry, C. L., & Crowley, S. L. (2015). The psychological and physiological effects of using a therapy dog in mindfulness training. *Anthrozoös*, 28(3), 385-401. doi:10.1080/08927936.2015.1052272
- Labrecque, J., & Walsh, C. A. (2011). Homeless women's voices on incorporating companion animals into shelter services. *Anthrozoos*, 24(1), 79-95. doi:10.2752/175303711X12923300467447
- Pets of Homeless Organization. (2016). Shelters in Texas: McKinney and San Antonio. Retrieved October 9, 2016 at: <https://www.petsofthehomeless.org/get-help/find-locations/#latitude=29.43199230000001&longitude=-98.50594649999998&zoom=5&types%255B%255D=shelters>
- Slatter, J., Lloyd, C., & King, R. (2012). Homelessness and companion animals: more than just a pet? *British Journal Of Occupational Therapy*, 75(8), 377-383. doi:10.4276/030802212X13433105374350
- Smolkovic, I., Fajfar, M. & Mlinaric, V., (2012). Attachment to pets and interpersonal relationships: Can a four-legged friend replace a two-legged one? *Journal of European Psychology Students*, 3(1), pp.15–23. DOI: <http://doi.org/10.5334/jeps.a0>
- Texas Homeless Network. (n.d.). Advocacy. Retrieved October 9, 2016 at: <https://www.thn.org/advocacy>
- Zaslloff, R. L. (1996). Measuring attachment to companion animals: A dog is not a cat is not a bird. *Applied Animal Behaviour Science*, 47, 43-48.

Contact

susan.lee@bon.texas.gov

N 08 - Improving Health Using Dogs

Service Dogs' Influence on Military Veterans' Health: A Qualitative Study

Cheryl A. Krause-Parello, PhD, MSN, BSN, RN, FAAN, USA
Kristie Morales, BA, USA

Abstract

Purpose: Military service members from across the world returning from active duty may be vulnerable to challenges associated with service-connected medical conditions. There is little debate that conditions such as loss of limb(s), traumatic brain injury (TBI) and posttraumatic stress disorder (PTSD), significantly impair a large segment of military veterans (Creamer, Wade, Fletcher, & Forbes, 2011). Invisible wounds such as PTSD and TBI are correlated with an increased risk in developing anxiety, depression, substance use (e.g., alcohol use), and engaging in suicidal ideation (Wisco et al., 2014). This presents unique challenges to veterans, making them a particularly vulnerable population that may contribute to poorer clinical health outcomes. Moreover, many veterans continue to experience PTSD related symptomology and sequela despite receiving standard care. In many of these cases, veterans are turning to alternate assistive interventions, such as the utility of a service dog for visible and invisible wounds (Krause-Parello Sarni, & Padden, 2016).

Methods: The aim of this qualitative study was to elucidate the impact of service dogs on health outcomes for a US veteran population. Service dogs are trained to do work or perform tasks for the benefit of an individual with a disability and can help to assist with tasks needed for daily functioning. This presentation reports the breadth and depth of service dogs for service connected conditions (e.g. PTSD and TBI). In-depth interviews were conducted with veterans ($N = 21$) and analyzed using interpretive phenomenological analysis. The interviews were recorded and transcribed verbatim. Atlas.ti software was used to explore, interconnect, and organize the data in-depth for the presence of reemerging content and meaning. Five superordinate themes emerged from the thematic analysis: Procurement of service dog, psychosocial functioning before service dog, impact of service dog, importance of service dog to veterans' health and reintegration, and issues.

Results: Factors that were related to obtaining a service dog after military service were connected to the symptomology and sequela associated with invisible wounds such as PTSD, anxiety, depression, and TBI. The impact of utilizing a service dog was found to reduce the symptomology associated with invisible wounds, provided psychosocial support, served as a protective mechanism against suicidal ideation and substance use. The service dog also allowed some veterans to reduce or cease psychotropic medications used for depression and anxiety, improving health outcomes and perceived quality of life.

Conclusion: The results substantiated the positive impact on health promotion and clinical outcomes that service dogs provide for veterans; a call to action for change in public policy is needed regarding service dogs as a reimbursable medical expense for invisible wounds.

References

- Creamer, M., Wade, D., Fletcher, S., & Forbes, D. (2011). PTSD among military personnel. *International Review of Psychiatry*, 23(2), 160-165.
- Krause-Parello, C. A., Sarni, S., & Padden, E. (2016). Military veterans and canine assistance for post-traumatic stress disorder: A narrative review of the literature. *Nurse education today*.
- Wisco, B. E., Marx, B. P., Wolf, E. J., Miller, M. W., Southwick, S. M., & Pietrzak, R. H. (2014). Posttraumatic stress disorder in the US veteran population: Results from the national health and resilience in veterans study. *Journal of Clinical Psychiatry*, 75(12), 1338-1346. doi: 10.4088/JCP.14m09328

Contact

Cheryl.Krause-Parello@ucdenver.edu

N 09 - Improving Outcomes in Patients With Neurological Injury Comparison of a Nurse-Driven Mobility Protocol to Multidisciplinary Mobility Protocol for Subarachnoid Hemorrhage Patients

Megan T. Moyer, MSN, ACNP-BC, CNRN, USA

Bethany C. Young, MSN, RN, AGCNS-BC, CCRN, USA

Abstract

Purpose: The presence of invasive neuromonitor devices, such as an external ventricular device (EVD), may be a deterrent to aggressive, early mobilization due to fear of catheter dislodgment, hemorrhage, or inappropriate cerebrospinal fluid drainage (Kocan & Lietz, 2013). These drains and monitor devices have historically required strict bedrest. Extended periods of immobility in intensive care units are linked to acquired medical complications. These complications are detrimental to the patient and can lead to higher economic costs for patients, caregivers, institutions, and third-party payers resulting from prolonged hospital lengths of stay, extended rehabilitation stays, and higher levels of disability. In contrast, early mobilization in the intensive care unit may be associated with improved peripheral and respiratory muscle strength, increased quality of life, more ventilator-free days, decreased delirium, and greater functional independence (Kayambu, Boots, & Paratz, 2013; Brahmhatt, Murugan, & Milbrandt, 2010; Miller, Govindan, Watson, Hyzy, & Iwashyna, 2015). No definition exists in literature for the ideal time of early mobilization in general intensive care units or neurological intensive care units (McWilliams, Atkins, Hodson, & Snelson, 2016). Early mobilization in the neurological intensive care unit has been demonstrated as both safe and feasible. Varying clinical practice guidelines and standards exist for patients with external ventricular devices in the neurological intensive care unit due to the intricacies of each disease process, complexities of developing mobility algorithms, and specialized monitoring required by the staff during the mobility process. This subset of patients in neurological intensive care units with external ventriculostomy drains create an opportunity to develop and implement practice guidelines to implement nurse-driven early mobility.

In January 2016, our Neurointensive Care Unit progressed from mobilizing patients with external ventricular devices (EVDs) only with physical and occupational therapy (Phase I), to utilizing a nurse-driven mobility protocol (Phase II).

Methods: The Phase II EVD Mobility Protocol allowed nurses to independently mobilize subarachnoid hemorrhage patients with EVDs. Patients could remain out of bed with the EVD clamped for a maximum of 3 hours per session. Physical and occupational therapists (PT/OT) continued normal consultation and recommended the safest mobility method for each patient. Standard protocol for the management of Subarachnoid hemorrhage patients was maintained for the duration of the study. Patients with subarachnoid hemorrhage who also had an external ventriculostomy drain and demonstrated tolerance to a 30-minute drain clamping trial were included in this initiative. Patients who were unable to tolerate 30 minutes of drain clamping, exhibited sustained intracranial hypertension (defined by intracranial pressure (ICP) of greater than 20), or whose code status progressed to comfort care or hospice care were excluded. Delayed cerebral ischemia was not an absolute contraindication for mobilization, however if patients were experiencing fluctuating neurologic exams due to fever, infection, medication administration, or delayed cerebral ischemia, mobilization was held for that particular day. Pulmonary and/or cardiovascular instability or patient refusal could also preclude mobility. The nursing and medical teams re-evaluated every patient on a daily basis to determine mobility readiness for that day.

Results: 6/13 patients (46%) were men. Mean age did not differ significantly between Phase I and Phase II [57.1 (27-84) versus 54.8 (19-83); $p=0.67$]. A total of 213 activity sessions took place over 6 months during Phase II, compared with 71 sessions during one year of Phase I. Of 213 sessions, nurses independently completed 135 sessions (63.4%); PT/OT participated in 78 sessions (36.6%). On average, mobility occurred 1.2 days earlier in Phase II [day 5.96 (1-13) versus day 4.75 (2-12); $p=0.32$]. Phase II patients were mobilized an average of 6.7 times (+/-4.7) with their EVD compared with 2.96 times (+/-1.33) in Phase I ($p=0.02$). Mean hospital LOS trended lower in the Phase II group [20.5 days (+/-7.39) versus 24.6 days (+/-8.29); $p=0.14$]. Ventilator days also trended lower in Phase II [6.3 days (+/-3.81)

versus 12.3 days (+/-10.47); p=0.14]. No Phase II patients received a tracheostomy, compared to 16.7% in Phase I (p=0.12). All patients in Phase II were discharged home or to acute rehab (p=0.18).

Conclusion: Nurse-initiated mobilization of patients with EVDs is safe, feasible, and may lead to earlier and more frequent ambulation compared to a therapy-driven protocol. Nurse-driven mobility may be associated with fewer ventilator days, shorter hospitalization, and improved discharge disposition. No major complications were attributable to early mobilization.

The primary goals of this quality improvement initiative were to promote and establish a culture of early, progressive mobility in the Neuro ICU and to demonstrate improved patient outcome. Standardizing the processes by which we mobilize our patients with external ventriculostomy drains allowed for multidisciplinary engagement in the process and embedded a new culture of mobility in our unit. Nurse-driven mobility has allowed physical and occupational therapy to engage in more complex therapy techniques with patients, such as more mobilization with ventilators, and to explore the use of other novel therapy devices.

References

- Brahmbhatt, N., Murugan, R., & Milbrandt, E. B. (2010). Early mobilization improves functional outcomes in critically ill patients. *Critical Care*, 14(5), 321. doi:10.1186/cc9262
- Karic, T., Roe, C., Nordenmark, T. J., Becker, F., Sorteberg, W., & Sorteberg, A. (2016). Effect of early mobilization and rehabilitation on complications in aneurysmal subarachnoid hemorrhage. *Journal of Neurosurgery*, April 8, 1-9. Advance online publication. doi: 10.3171/2015.12.JNS151744
- Kayambu G, Boots R, & Paratz J. (2013). Physical Therapy for the Critically Ill in the ICU. *Critical Care Medicine*, 41(6):1543-1554. doi:10.1097/ccm.0b013e31827ca637.
- McWilliams, D. Atkins, G., Hodson, J, & Snelson, C. (2016). The Sara Combilizer as an early mobilization aid for critically ill patients: A prospective before and after study. *Australian Critical Care*, 2016 Oct 10. Advance online publication. doi: 10.1016/j.aucc.2016.09.001.
- Miller, M., Govindan, S., Watson, S., Hyzy, R., & Iwashyna, T. (2015). ABCDE, but in That Order? A Cross-Sectional Survey of Michigan Intensive Care Unit Sedation, Delirium, and Early Mobility Practices. *Annals of the American Thoracic Society*, 12(7):1066-1071. doi:10.1513/annalsats.201501-066oc.
- Olkowski, B. F., Binning, M. J., Sanfillippo, G., Arcaro, M. L., Slotnick, L. E., Veznedaroglu, E., ... Warren, A. E. (2015). Early mobilization in aneurysmal subarachnoid hemorrhage accelerates recovery and reduces length of stay. *Journal of Acute Care Physical Therapy*, 6(2), 47-55.
- Olkowski, B. F., Devine, M. A., Slotnick, L. E., Veznedaroglu, E., Liebman, K. M., Arcaro, M. L., & Binning, M. J. (2013). Safety and feasibility of an early mobilization program for patients with aneurysmal subarachnoid hemorrhage. *Physical Therapy*, 93(2), 208-215.
- Titsworth, W. L, Hester, J., Correia, T., Reed, R., Guin, P. Archibold, L., ... Mocco, J. (2012). The effect of increased mobility in the neurointensive care unit. *Journal of Neurosurgery*, 116, 1379-1388.

Contact

megantmoyer@gmail.com

N 09 - Improving Outcomes in Patients With Neurological Injury Patient and Facility Characteristics Related to Hypertension Control After a Transient Ischemic Attack (TIA)

Greg Arling, PhD, USA

Fitsum Baye, MS, USA

Jason Sico, MD, FAHA, FACP, USA

Priscilla Arling, PhD, USA

Laura Myers, PhD, USA

Dawn Bravata, MD, FAHA, FACP, USA

Abstract

Purpose: The purpose of this study was to identify patient and facility characteristics associated with hypertension control for TIA patients in the 90 days following discharge from an ED or inpatient setting.

Hypertension is one of the risk factors targeted for better management by the United States Veterans Health Administration (VHA), the largest health system in the nation with 168 VHA Medical Centers and 1,053 outpatient sites of care of varying complexity (VHA outpatient clinics), serving more than 8.9 million Veterans each year. Hypertension control is particularly important after a TIA, as it can be a major factor in preventing a recurrent stroke ([Kernan et al., 2014](#)) or other vascular event.

Hypertension control after a stroke or TIA is often below accepted targets ([Ovbiagele et al., 2011](#)). Prior work in the VHA system found that only 56% of stroke patients had blood pressure (BP) control (<140/90 mmHg) at 6 months post-discharge from their index hospitalization ([Ross et al., 2011](#); [Roumie et al., 2011](#); [Roumie et al., 2015](#)). Those studies found that the quality of care during an inpatient stay was generally unrelated to hypertension control or other risk management quality measures post-discharge for stroke patients. That research included patients with stroke but excluded TIA patients.

Relatively little is known about hypertension management for VHA patients after a TIA. While guidelines for treatment and interventions exist, providers may not systematically counsel patients regarding stroke and TIA prevention ([Schmid, Andersen, Kent, Williams, & Damush, 2010](#)). Interviews conducted in other studies by the authors suggest that TIA-patients care needs may be viewed as less urgent than patients with other disease processes. Specifically, TIA patients may not garner the same amount of attention by care providers as patients diagnosed with a stroke. Both patient and facility factors could contribute to or impede risk factor management for patients with a TIA. Gaining a better understanding of patient characteristics affecting hypertension management could help target patients for interventions. Identifying facility factors could guide system-level changes to improve care.

Methods: We used electronic health record data to select a sample of 3676 patients with a TIA who were cared for in the emergency department (ED) or inpatient setting in 132 VHA facilities from October 2010 to September 2011. Patients with an ICD-9 code of 435.x excluding were classified as having a TIA. For patients who were cared for in the ED only, the ICD-9 code for their ED visit was used; for patients who were admitted, the primary discharge diagnosis code was used. Patients were excluded from the analysis if they did not have valid BP measurements within 90 days of discharge, died during the index ED visit/hospitalization or within 90 days of discharge, were discharged to hospice, or were transferred to a non-VA acute care facility. A sample of 3508 TIA patients from 105 VHA facilities were included in the analyses.

VHA inpatient and outpatient data files were used to identify past medical history, healthcare utilization (e.g., hospitalizations, office visits) and receipt of procedures. Pharmacy Benefits Management (PBM) data were used to identify medications; Corporate Data Warehouse (CDW) data were used for vital signs, laboratory data allergies, orders, and consults. Finally, linked VHA-Centers for Medicare and Medicaid Services (CMS) data were used to identify comorbidity, and hospitalizations in non-VHA facilities.

The outcome variable was BP control at 90 days post-discharge from the index ED or inpatient admission. Control was defined as systolic BP <140 mmHg and diastolic blood pressure <90 mmHg. Other patient characteristics included BP control at discharge from the ED or inpatient setting; demographics of gender, age, marital status, and race (African American); and past medical history of hypertension, hyperlipidemia, sleep apnea, dialysis, and depression. Facility characteristics included VHA stroke center designation of primary stroke center or limited hours stroke facility, urban location, 25 or more stroke admissions per year, and FTE internal medicine staff.

For the outcome of BP control at 90 days we fit a hierarchical general linear model (HGLM) with a logit link function and a facility random effect. Independent variables were BP control at discharge, other patient characteristics, and facility characteristics.

Results: At discharge, 58% of patient has their BP controlled, while at 90 days post-discharge, 78% of patients had their BP controlled. Ninety-five percent of the Veterans were male age. They had a mean age of 69 (SD=12). Fifty-one percent were married and 19% African American. Their past medical history included hypertension (82%), hyperlipidemia (76%), sleep apnea (19%), dialysis (3%), and depression (40%). Thirty-two percent of patients used the ED only and 68% had an inpatient admission, while 63% had a neurologist consult in the ED or inpatient setting. Fifty-nine percent of facilities had a VHA stroke center designation, 91% were in an urban location, 62% had 25 or more stroke admissions per year, and their internal medicine staffs averaged 1.1 FTE/100,000 patient visits.

As expected, patients with uncontrolled BP at discharge were significantly less likely to have BP control at 90 days (Adjusted Odds Ratio [AOR] .36, 95%CI [.30-.44]). Neither black race nor other demographic variables were significantly related to BP control at 90 days. A history of hypertension (AOR .45, 95%CI [.30-.44]) and dialysis (AOR .57, 95%CI [.34-.96]) were associated with absence of BP control; whereas, patients with a history of hyperlipidemia (AOR 1.37, 95%CI [1.09-1.72]), sleep apnea (AOR 1.29, 95%CI [1.00-1.64]), and depression (AOR 1.27, 95%CI [1.04-1.54]) were significantly more likely to have BP control. Neither an inpatient admission (as opposed to ED only) nor having a neurology consult was related to subsequent BP control. Facility characteristics significantly related to BP control at 90 days were a stroke center designation (AOR 1.45, 95%CI [1.08-1.94]), being in the top quintile of FTE internal medicine staff (AOR 1.45, 95%CI [1.08-1.95]), and percentage of all patients with BP control (AOR 1.14, 95%CI [1.03-1.25]).

Conclusion: We expected that patients with a history of hypertension and those with uncontrolled BP at discharge would be more likely to have uncontrolled BP at 90 days post-discharge.

Interestingly, patients admitted to the inpatient setting and those with a neurologist consult were no more likely to have their post-discharge BP controlled than patients seen only in the ED or without a neurologist consult. Risk factor management in the days and weeks after the TIA event may be the deciding factor in hypertension control rather than the setting for care immediately after the event. The role of comorbidities is complex. Patients with multiple conditions, such as a history of hyperlipidemia, sleep apnea, or depression, may have their risk factors managed more intensively after discharge. On the other hand, dialysis patients may be more difficult to manage due to fluctuations in BP due to fluid status. Our findings suggest that post-discharge hypertension management may be best achieved in facilities with a designated stroke center, greater primary care resources (FTE internal medicine) and a track record of better overall hypertension management.

In another arm of the study, we conducted interviews with health care providers at 14 high-volume VHA Medical Centers to inquire about successes and barriers to good TIA care. A major factor that stood out was the presence of an RN stroke coordinator, who was able to bridge the care transition post-discharge. The stroke care coordinator was pivotal in arranging for follow-up care in the stroke clinic, if available, and with the primary care provider.

Our study prompted a multisite intervention in VHA Medical Centers to improve quality of care through coaching and sharing of quality metrics. The intervention is taking advantage of existing VHA infrastructure and applying it to the care of patients with TIA. For example, we have created protocols and

templates for pharmacists who were not previously involved in the care of either stroke or TIA patients and now they are serving as a bridge between the inpatient and outpatient settings. Similar protocols/templates have been developed to guide the post-discharge primary care RN calls to patients. We found that many patients had a history of poor BP control prior to their TIA. These patients may benefit from intensification of medications at discharge followed by appropriate monitoring through primary care ([Roumie et al., 2015](#)).

References

- Kernan, W. N., Ovbiagele, B., Black, H. R., Bravata, D. M., Chimowitz, M. I., Ezekowitz, M. D., . . . Council on Peripheral Vascular, Disease. (2014). Guidelines for the prevention of stroke in patients with stroke and transient ischemic attack: a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke*, *45*(7), 2160-2236.
- Ovbiagele, B., Diener, H. C., Yusuf, S., Martin, R. H., Cotton, D., Vinisko, R., . . . Investigators, Profess. (2011). Level of systolic blood pressure within the normal range and risk of recurrent stroke. *JAMA*, *306*(19), 2137-2144.
- Ross, J. S., Arling, G., Ofner, S., Roumie, C. L., Keyhani, S., Williams, L. S., . . . Bravata, D. M. (2011). Correlation of inpatient and outpatient measures of stroke care quality within veterans health administration hospitals. *Stroke*, *42*(8), 2269-2275.
- Roumie, C. L., Ofner, S., Ross, J. S., Arling, G., Williams, L. S., Ordin, D. L., & Bravata, D. M. (2011). Prevalence of inadequate blood pressure control among veterans after acute ischemic stroke hospitalization: a retrospective cohort. *Circ Cardiovasc Qual Outcomes*, *4*(4), 399-407.
- Roumie, C. L., Zillich, A. J., Bravata, D. M., Jaynes, H. A., Myers, L. J., Yoder, J., & Cheng, E. M. (2015). Hypertension treatment intensification among stroke survivors with uncontrolled blood pressure. *Stroke*, *46*(2), 465-470.
- Schmid, A. A., Andersen, J., Kent, T., Williams, L. S., & Damush, T. M. (2010). Using intervention mapping to develop and adapt a secondary stroke prevention program in Veterans Health Administration medical centers. *Implement Sci*, *5*, 97.

Contact

garling@purdue.edu

N 10 - Maternal Education in Preterm Infants

Behavioral Intervention With Maternal Participatory Guidance Improves Preterm Infant Outcomes

Rosemary C. White-Traut, PhD, RN, FAAN, USA

Abstract

Purpose: This completed randomized controlled trial of 198 premature infants born at 29-34 weeks gestation and their mothers examined the impact of the H-HOPE (Hospital to Home: Optimizing the Preterm Infant's Environment) intervention on infant behavior, infant feeding and growth during hospitalization, mother-infant interaction, and illness visits when the infants reached 6-weeks corrected age (CA). The research was guided by two models: Developmental Science and Adult Learning Theory.

Methods: Mother-infant dyads were randomly assigned to the H-HOPE intervention group or an Attention Control group. H-HOPE is an integrated intervention that included (1) twice-daily infant multisensory stimulation using the ATVV Intervention (auditory, tactile, visual, and vestibular-rocking stimulation) offered prior to feeding and (2) four maternal participatory guidance sessions by a nurse-community advocate team. Infant behavior was measured weekly during hospitalization via the proportion of alert states and the frequency of orally directed behaviors when infants were able to feed orally. Infant feeding was measured weekly during hospitalization by Medoff-Cooper's nutritive sucking apparatus and growth was determined by daily weight gain and weekly length. Mother-infant interaction was assessed after hospital discharge at 6-weeks CA using Barnard's Nursing Child Assessment Satellite Training-Feeding Scale (NCAST, 76 items) and Censullo's Dyadic Mutuality Code (DMC, 6-item contingency scale during a 5-minute play session). Illness visits from hospital discharge through 6 weeks CA were reported by the mothers.

Results: There were no differences between the groups at baseline for any of the dependent variables. The infant behavior data showed that by day 7, the intervention group exhibited a significantly higher mean frequency of orally directed behaviors when compared with the Attention Control group (12.6 vs. 7.1 pre-intervention, $p < 0.10$; 51.8 vs. 33.2 during intervention, $p < 0.10$; and 8.9 vs. 5.3 immediately prior to feeding, $p < 0.05$). Also on day 7, the H-HOPE intervention group exhibited a significantly higher proportion of time spent in an alert state during intervention (0.26 vs. 0.11, $p < 0.05$) and immediately after intervention (0.28 vs. 0.06, $p < 0.01$).

Infant feeding during hospitalization differed between the two groups. A quadratic trend was observed for infant feeding as measured by the number of sucks, the number of sucks per sucking burst, and a sucking maturity index. The intervention group experienced an increasing significantly improved oral feeding by day 7 (Model estimates for group by day: number of sucks - $\beta = 13.69$, $p < 0.01$; number of sucks per sucking burst - $\beta = 1.16$, $p < 0.01$; and the sucking maturity index $\beta = 0.12$, $p < 0.05$). Sucking pressure increased linearly over time, with significant between-group differences reached at day 14 ($\beta = 45.66$, $p < 0.01$). During hospital stay, the H-HOPE group infants gained weight more rapidly over time when compared with infants in the control group ($p = 0.04$) and grew in length ($p = 0.015$) more rapidly than control infants, especially during the latter part of the hospital stay.

After hospital discharge and when the infants reached 6-weeks CA, NCAST and DMC scores for the Control and H-HOPE groups were compared using *t*-tests, chi-square tests and multivariable analysis. Compared with the Control group ($n = 76$), the H-HOPE group ($n = 66$) trended toward higher NCAST scores overall and higher maternal Social-Emotional Growth Fostering Subscale scores and had significantly higher scores for the overall infant subscale and the Infant Clarity of Cues Subscale ($p < 0.05$). H-HOPE group dyads were also more likely to have high responsiveness during play as measured by the DMC (67.6% versus 58.1% of controls). After adjustment for significant maternal and infant characteristics, H-HOPE group dyads had marginally higher scores during feeding on overall mother-infant interaction ($\beta = 2.03$, $p = .06$) and significantly higher scores on the infant subscale ($\beta = 0.75$, $p = .05$) when compared to controls. Infants assigned to the H-HOPE group were also half as likely to have

illness episodes (illness visit to the clinic, emergency department (ED) or hospital readmission) as control infants (OR = 0.46, 95% CI = 0.22, 0.95).

Conclusion: Intervening with both mother and preterm infant during initial hospitalization and the first month following hospital discharge is a promising strategy to support infant behavior, oral feeding, and infant growth, improve mother-infant interaction, and reduce infant illnesses following hospital discharge.

References

Medoff-Cooper, B., Shults, J., & Kaplan, J. (2009). Sucking behavior of preterm neonates as a predictor of developmental outcomes. *Journal of Developmental & Behavioral Pediatrics*, 30(1), 16-22.

Pickler, R. H. (2004). A model of feeding readiness for preterm infants. *Neonatal intensive care: the journal of perinatology-neonatology*, 17(4), 31.

Contact

rwhite-traut@chw.org

N 10 - Maternal Education in Preterm Infants

Development and Evaluation of a Tailored Mother-Infant Interaction Program for Premature Infants

Da Hae Rim, MSN, RN, Korea, Republic of (South)

Hyunsook Shin, PhD, RN, CPNP-PC, Korea, Republic of (South)

Abstract

Purpose: Recently, with the increasing rate of premature babies, the number of programs for promoting mother and infant interaction has been increasing. Positive mother-infant interactions help cognitive and emotional development of premature. Mothers' sensitivity is a very important factor in forming mother-infant interactions well. But, if the mother's sensitivity does not recognize the meaning of the signal sent by the premature infant, it is often emotional difficulties such as burden of care or depression. The health status of premature infants varies from baby to baby. However, previous studies on the mother-infant interaction programs were limited providing individual mother and infant with more effective nursing strategies. Therefore, the purpose of this research is to develop a tailored mother-baby interaction program for premature and to evaluate its effect on the maternal sensitivity.

Methods: This study was completed using two stages of development and evaluation. In the development stage, a tailored mother-infant interaction program was developed based on the Barnard Mother-infant interaction model. The developed program included assessment tools of mother-infant needs and capacity, interpretation procedure, and tailored nursing strategies. In the evaluation stage, we checked the maternal sensitivity before and after the program. A total of 12 premature babies and their mothers participated in this study in 2015. To evaluate the program effect, one-group pretest-posttest design was used.

Results: At the program development stage, methodological research method was used. The mother's competence level and the characteristics of the child (underlying disease, sleep cycle, corrected age, etc.) were identified and the program composition was organized according to the characteristics of the premature and mother. The characteristics of the child were based on the findings checked by the nurses' evaluation. The characteristics of the mother were identified by self-questionnaire based on mother characteristics in Barnard Mother-Infant Interaction Model. The findings from the paired t-test present that the scores of maternal sensitivity among participants significantly increased ($t=-7.62, p<.001$) after completing the developed mother-infant interaction program.

Conclusion: Tailored program depending on the mother-infant need and capacity may facilitate maternal sensitivity leading to promotion of the mother-infant interaction. The program developed through this study is expected to reduce the burden of mothers who are raising premature infants. We recommend future studies address guideline development and training opportunities for nurses and mothers on the tailored process of the mother-infant interaction program.

References

- Bilgin, A., & Wolke, D. (2015). Maternal sensitivity in parenting preterm children: a meta-analysis. *Pediatrics*, 136(1), e177-e193.
- Brett, J., Staniszewska, S., Newburn, M., Jones, N., & Taylor, L. (2011). A systematic mapping review of effective interventions for communicating with, supporting and providing information to parents of preterm infants. *BMJ open*, 1(1).
- Burnham, N., Feeley, N., & Sherrard, K. (2013). Parents' perceptions regarding readiness for their infant's discharge from the NICU. *Neonatal Network: The Journal of Neonatal Nursing*, 32(5), 324-334.
- Chon, M., Ji, E. S., & Lee, S. (2013). Mothers' parenting experience of premature infants: Q methodological approach. *J Korean Acad Nurs*, 43(6), 704-713.
- Flores, M., Glusman, G., Brogaard, K., Price, N. D., & Hood, L. (2013). P4 medicine: how systems medicine will transform the healthcare sector and society. *Personalized medicine*, 10(6), 565-576.
- Gooding, J. S., Cooper, L. G., Blaine, A. I., Franck, L. S., Howse, J. L., & Berns, S. D. (2011). Family support and family-centered care in the neonatal intensive care unit: Origins, advances, impact. *Seminars in Perinatology*, 35(1), 20-28.

Haumont, D. (2014). NIDCAP and developmental care. *Journal of Pediatric and Neonatal Individualized Medicine (JPNIM)*, 3(2), e030240.

Hood, L. P4 Medicine Institute. Retrieved Dec. 10, 2013, from <http://p4mi.org/>

Kaakinen, J. R., Coehlo, D. P., Steele, R., Tabacco, A., & Hanson, S. M. H. (2014). *Family health care nursing: Theory, practice, and research*. FA Davis.

Lustria, M. L. A., Noar, S. M., Cortese, J., Van Stee, S. K., Glueckauf, R. L., & Lee, J. (2013). A meta-analysis of web-delivered tailored health behavior change interventions. *Journal of health communication*, 18(9), 1039-1069.

Möhler, R., Renom, A., Renom, H., & Meyer, G. (2012). Personally-tailored activities for improving psychosocial outcomes for people with dementia in long-term care. *The Cochrane Library*.

Nearing, G. B., Salas, A. A., Granado-Villar, D., Chandler, B. D., & Soliz, A. (2012). Psychosocial parental support programs and short-term clinical outcomes in extremely low-birth-weight infants. *Journal of Maternal-Fetal and Neonatal Medicine*, 25(1), 89-93.

Northouse, L., Schafenacker, A., Barr, K. L., Katapodi, M., Yoon, H., Brittain et al. (2014). A tailored web-based psychoeducational intervention for cancer patients and their family caregivers. *Cancer nursing*, 37(5), 321-330.

Russell, J., Offord, N., Abeyratne, R., & Genever, R. (2015). 38A PRE-OPERATIVE TAILORED ADVICE SERVICE FOR PATIENTS WITH PARKINSON'S DISEASE UNDERGOING ELECTIVE SURGERY AT CHESTERFIELD ROYAL HOSPITAL. *Age and Ageing*, 44(suppl 2), 119-110.

Sayyed, J. S. A., Ali, L. M. G., & Mohamed, E. R. (2012). Effect of Tailored Counseling for Patients Undergoing Hemodialysis upon Their Self-Care.

Seedall, R. B. (2011). John Bowlby—From psychoanalysis to ethology: Unraveling the roots of attachment theory. *Journal of Marital and Family Therapy*, 37(4), 509-509.

Contact

dahaeggu@khu.ac.kr

N 11 - Palliative Care in Education

Using Multicultural Role-Play to Improve End-of-Life Care Education

LaToya Janelle Lewis-Pierre, EdD-CI, MSN, RN, USA

Mary E. Mckay, DNP, ARNP, CNE, USA

Jill Steiner Sanko, PhD, BA, BSN, RN, ARNP-BC, CHSE-A, USA

Maha McCain, MFA, USA

Abstract

Purpose: The purpose of the study was to evaluate the effectiveness of an undergraduate End-of-Life education with simulation. In 2012, the World Health Organization (WHO) reported 56 million deaths worldwide. Furthermore, the 2014 Institute of Medicine report *Dying in America* called for improvements in end-of-life care. Providing dying patients with high-quality family and patient-centered end-of-life care that aligns with the patients' values and informed preferences poses challenges. One aspect of the problem is nursing curricula and clinical rotations often lack educational opportunities that address such challenges related to end-of-life (EOL) care conversations. As a result, many nurses are uncomfortable or ill prepared to carry out appropriate end-of-life conversations.

Simulation-based education presents a realistic way to practice these skills and provide a safe environment to where mistakes can be made in the absence of patient harm (Founds, Zewe, & Scheuer, 2011). Simulation creates a valuable opportunity for students to have authentic experiential experiences that support the development of technical, cognitive, therapeutic, and psychological skills (Roberts & Greene, 2011). End-of-life care simulation experiences, that include a unique blend of promoting competence with therapeutic communication, cultural competence, medication management, nursing interventions, and empathy, can help to better equip nurses to deal with end-of-life care. Standardized patients (SPs) are instrumental in providing realism in scenarios, but SPs can be costly, and difficult to find. To address this problem, we present an innovative approach that utilizes multicultural arts and sciences students enrolled in a theater course that trains them to be SPs. The SPs were culturally representative thus allowing the nursing students to experience a variety of diverse patient care demands that are common in today's healthcare.

This approach also utilizes a unique two-phased debriefing process that allows nursing students to experience immediate in-character feedback at the bedside followed by traditional debriefing in a separate area. The traditional debriefing is replete with a debrief and a reflection of the in-character feedback as well as the scenario action. This approach allows students to reflect on the experience as a whole as well as benefit from the "patient" view of their care.

Methods: Students participating in a theater course were trained to play SPs followed with the more specific training to be able to realistically play the family member of a dying patient. This tactic also allowed for the inclusion of cultural considerations to be woven into the end-of-life scenarios. The scenario presented a woman with Non-Hodgkin's Lymphoma who was brought by the Emergency Medical Services (EMS) to the Emergency Room. The students enter the "scene" to find the SP, playing either the patient's daughter or son, at the bedside. The major objective of the scenario was for the nursing students to provide therapeutic communication as they managed the care of patient and the family as they navigate the end-of-life process.

During the initially run sessions, SP feedback was given as part of the usual debriefing process, with the SP staying in character. However, upon receiving feedback from the nursing students that this approach was not well received, modifications were made to instead include in-character feedback immediately following the end of scenario action at the bedside. Subsequently this was followed with traditional debriefing in a classroom.

Results: Fifty-six participants completed a mixed method study. The Katherine Frommelt (1991) Attitudes toward Care of the Dying (FATCOD-B) survey was administered at two time points (pre/post). Qualitative research questions with content analysis tapped into the participants' attitudes related to the end of life

educational experience. Responses from the nursing students revealed that receiving feedback from a SP was a new experience and something to which they were not initially receptive. Following the change to the two-phased approach, the nursing students' opinions of the overall experience was more positive. They felt more aware of the family members' needs and shifted from a patient-focused care approach toward a family-centered care approach. When asked about their simulation experience, what their thoughts were related to end-of-life, and their feelings related to end of life care, respondents described the scenario as being realistic and a valuable learning opportunity. Participants were also asked "which learning situation had the biggest impact on your thoughts and feelings related to end-of-life care?" Many stated the simulation influenced their thoughts and feelings on end-of-life care; one participant mentioned that when an SP daughter asked "if her mother died" it created a lasting impression.

Conclusion: Preparing to interact with patients and families at the end-of-life requires individuals to be psychologically and physically present in the patient's care. Using SP students was a novel way to provide a rich learning experience and added realism to an end-of-life simulation experience. Realism was further deepened through the integration of SPs from different cultures and genders, another important element that reflected the influence of culture on end-of-life nursing care. While the approach was generally successful, there are important considerations to heed. Both groups of students must understand each other's roles, pre-briefing is vital to inform nursing students that the SPs will provide in-character feedback, and immediate bedside in-character SP feedback is received may be better received than having SPs participate in debriefing. Finally, the debriefing should include a discussion of the bedside feedback to give the opportunity for learners to reflect on receiving feedback from the "patient's" perspective. Creating experiential learning with a multicultural element in simulation is integral toward preparing future nurse for culturally diverse healthcare.

References

- Dying in America: Improving quality and honoring individual preferences near the end of life.* (2014). Washington, D.C.: The National Academies Press. Retrieved November 30, 2016 from <http://www.nationalacademies.org/hmd/Reports/2014/Dying-In-America-Improving-Quality-and-Honoring-Individual-Preferences-Near-the-End-of-Life.aspx>
- Founds, S.A., Zewe, G., & Scheuer, L.A. (2011). Development of high-fidelity simulated clinical experiences for baccalaureate nursing students. *Journal of Professional Nursing* 27 (1), 5-9.
- Frommelt, K. H. (1991). The effects of death education on nurses' attitudes toward caring for terminally ill persons and their families. *American Journal of Hospice and Palliative Medicine*, 8(5), 37-43.
- Roberts, D., & Greene, L. (2011). The theater of high-fidelity simulation education. *Nursing Education Today*, 31 (7), 694-698.
- World Health Organization. (2012). *The Top 10 Causes of Death*. Retrieved November 30, 2016 from <http://www.who.int/mediacentre/factsheets/fs310/en/index2.html>

Contact

llewis@miami.edu

N 11 - Palliative Care in Education

Transforming Nursing Students' Attitudes Toward End-of-Life Care

Pamela L. Mahan, PhD, MA, BS, RN, USA
Helen M. Taggart, PhD, RN, ACNS-BC, USA
Sherry L. Warnock, MSN, RN, USA

Abstract

Purpose: The purpose of this research was to examine the effect of an actual compared to a simulated hospice clinical experience on nursing students' attitudes toward end-of-life care; and.

Methods: A pretest and posttest nonequivalent two-group design consisted of a sample of 65 undergraduate nursing students enrolled in a community health course. All students enrolled in the community health course have one day for hospice experience, and a two-hour orientation from the nurse educator at a local hospice agency. Students enrolled in the first seven weeks were paired with a hospice nurse and conducted home visits. Students enrolled in the second seven-week session participated in two simulated hospice experiences on campus. Thirty-two students were in the experimental group (simulated hospice) and 33 were in the control group (actual hospice). Attitudes toward end-of-life care was measured pre and post intervention with the The Frommelt Attitude Toward Care of the Dying (FATCOD) scale, Form B (Frommelt, 2003).

Results: The findings indicated positive attitude changes toward end-of-life care, and clinically relevant information for the development of a hospice clinical experience. After the clinical hospice experience, both groups appeared to show increases in their mean FATCOD scores possibly indicating a greater comfort with caring for dying patients. Paired t-tests for each group were conducted. The increase in the mean FATCOD score for the control group, 8.6 (SD = 9.4), was statistically significant ($p < 0.001$) indicating the students in the control group did experience a significant rise in their positive attitudes toward end of life care, on average. The increase in the mean FATCOD score for the experimental group was significantly smaller, 1.7 (SD = 11.4), and was not statistically significant ($p = 0.42$). Thus the students in the experimental group had little to no change in their mean FATCOD score indicating their positive attitudes toward end of life care was virtually unchanged

Conclusions: The findings have important implications for incorporating didactic and clinical components of end-of-life care throughout the undergraduate nursing curriculum. The clinical hospice experience can increase student comfort with caring for dying patients and families. The greatest increase in comfort with when caring for dying or end-of-life patients was from actual hospice clinical experiences. Since this is not always available, simulated experiences provide an acceptable substitute. The end-of life clinical can be a transformative experience allowing nursing students to develop greater compassion and increased decision-making skills when caring for the dying patient. Further research is needed to evaluate the efficacy of a hospice clinical compared to a simulated hospice experience.

References

- American Nurses Association Center for Ethics and Human Rights. (2016). Position statement: Nurses' roles and responsibilities in providing care and support at the end of life Silver Spring, MD.: ANA. Retrieved from <http://nursingworld.org/MainMenuCategories/EthicsStandards/Ethics-Position-Statements/EndofLife-PositionStatement.pdf>.
- Frommelt, K. (2003). Attitudes toward care of the terminally ill: An educational intervention. *American Journal of Hospice and Palliative Care*, 20, 13-20.
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). The NCSBN national simulation study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5(2) Supplement.
- Pullis, B. (2013). Integration of end-of-life education into a community health nursing course. *Public Health Nursing*, 30, 463-467.

Contact

pamela.mahan@armstrong.edu

N 12 - Preventing Childhood Obesity

The Impact of Feeding and Parenting Guidance on the Prevention of Child Obesity

David McCormick, MD, ., USA

Elizabeth Reifsnider, PhD, FAAN, FAANP, WHNP-BC, PHNCS-BC, USA

Michael Todd, PhD, ., USA

Lucy Reyna, BA, CCHW, USA

Irma Pecina, AA, CCHW, USA

Abstract

Purpose: The purpose of this study was to test an intervention, guided by public health nursing practice and delivered by community health workers, to prevent the development of obesity in infants and young children who are at risk of obesity because of maternal body size, income status, and ethnicity. We followed the Institute of Medicine's (IOM) 2011 report on early childhood obesity prevention policies, which recommended five approaches to preventing obesity: assess, monitor, and track growth from birth to age 5; increase physical activity and decrease sedentary behavior in young children; support breastfeeding and be responsive to children's feeding cues; limit screen time; and promote age-appropriate sleep for young children.

Methods: We recruited 150 high-risk pregnant Mexican-American women from the Houston Texas Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and followed them and their infants from birth to age 3. The research design used was randomized clinical trial with two groups; the intervention group received 9 home visits by a community health worker across 2 years while the control group received nutrition education from the WIC clinic staff. The content delivered during the home visits was manualized but adapted to address specific issues such as overfeeding or physical play space. Children and mothers in both groups received measurement home visits from a data collector blinded to group assignment. Measures collected focused on anthropometrics for child and mother, diet recalls, home environment, sleep quality and quantity, maternal stress, and food insecurity.

Results: Compared with non-intervention controls, infants in the intervention group grew on a healthier weight-for-length trajectory from birth to age 24 months. Statistically significant improvements in preventing excessive weight gain were attributed independently to breastfeeding and to the educational intervention provided by the community health workers. Mothers in our study who breastfed for at least 2 months were thinner at 6 months postpartum than mothers who did not breastfeed, even non-exclusively, for 2 months.

Conclusion: Major changes in the diet occur from birth to 18 months and dietary patterns are set by age two years. Additionally, the first 2 years of life are a critical time period where parents can help their child to establish healthy patterns that may well last a lifetime and could help curb the obesity trend. Community Health Workers are effective in public health research, especially with low-income or racially and ethnically diverse populations. Conducting home visits is an effective method of data collection that minimizes the burden on subjects. Many low-income parents have difficulties maintaining regular well-child visits due to transportation barriers, lack of work flexibility, language differences, and lack of childcare for their other children. A community-based participatory research (CBPR) approach enhances researchers' ability to recruit and retain subjects. Our CBPR approach is effective for recruiting and retaining participants and leads to improved health outcomes in studies with Hispanics. To our knowledge, our application is unique in its use of CBPR to study child obesity in partnership with WIC, which serves a low-income, racially/ethnically diverse population. Our innovative use of an ecological model allows us to study multilevel, intersecting influences on childhood obesity. Use of the ecological approach will enable researchers to view the complex environment surrounding children holistically to identify those factors of greatest significance to child obesity.

References

Davis SM, Myers OB, Cruz TH, Morshed AB, Canaca GF, Keane PC, O'Donald ER. (2016). CHILE: Outcomes of a group randomized controlled trial of an intervention to prevent obesity in preschool Hispanic and American Indian children. *Preventive Medicine*, 89,162-168. doi:10.1016/j.ypmed.2016.05.018.

Hohl SD, Thompson B, Krok-Schoen JL, Weier RC, Martin M, Bone L, McCarthy WJ, Noel SE, Garcia B, Calderón NE, Paskett ED. (2016). Characterizing Community Health Workers on Research Teams: Results From the Centers for Population Health and Health Disparities. *American Journal of Public Health*. 106(4),664-670. doi:10.2105/AJPH.2015.302980.

Reifsnider E, McCormick DP, Cullen KW, Szalacha L, Moramarco MW, Diaz A, Reyna L. (2013). A randomized controlled trial to prevent childhood obesity through early childhood feeding and parenting guidance: rationale and design of study. *BMC Public Health*. 13:880. doi:10.1186/1471-2458-13-880.

Tette EMA, Sifah EK, Nartey ET. (2015). Factors affecting malnutrition in children and the uptake of interventions to prevent the condition. *BMC Pediatrics*. 15. doi:10.1186/s12887-015-0496-3.

World Health Organization. Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems. WHO. <http://www.who.int/workforcealliance/knowledge/resources/chwreport/en/>. Accessed October 14, 2016.

Contact

elreifsn@gmail.com

N 12 - Preventing Childhood Obesity

Smart Nutrition and Conditioning for Kids (SNACK): An Interprofessional Approach to Nutrition and Physical Education

Tracy J. Perron, PhD, RN, CNE, CSN, USA
Tami L. Jakubowski, DNP, CPNP-PC, CSN, USA
Anne Farrell, PhD, USA

Abstract

Purpose: The purpose of SNACK was to increase the fitness and health of elementary school age children and to empower parents and caregivers to encourage healthy food choices. SNACK was developed in response to the 2010 Childhood Obesity Study recognizing a 49% childhood obesity rate in Trenton, New Jersey. Lifestyle influences contributing to childhood obesity and Type 2 diabetes mellitus include poor food choices, inadequate access to healthy foods, decreased physical activity and insufficient access to safe play environments. SNACK provided nutrition lessons to second grade students in an urban and urban rim elementary school during regularly scheduled physical education class. SNACK included physical activity and health education in the areas of fitness, healthy eating, and healthy lifestyles. The implementation of SNACK was aimed at reducing the risks for obesity and Type 2 diabetes in school age children. The overarching premise was that if children and parents/guardians are reached at an early age before lifestyle choices are ingrained: healthy behaviors can be formed to potentially reduce the incidence of chances they will face obesity and type 2 diabetes. It is important to engage parents/caregivers to encourage healthy food choices and increased physical activity at home as well as in the school to maximize health benefits to children.

Methods: An interprofessional collaborative model (IPC) in conjunction with the Coordinated School Health Program provided guidelines for the establishment of a diverse multidisciplinary group to improve the health of urban/urban rim children. The intervention was performed twice a week in physical education class for 8 weeks. Pre and post Fitnessgram fitness tests (FIT) were completed by each child. Pre and post study nutritional knowledge assessments were completed by each child. Nutrition lesson plans were developed to educate the children on healthy eating in a fun, interactive manner during physical education class. Video links were provided on the participating schools' websites to inform parents of the nutrition content being addressed during the SNACK program.

Results: The SNACK program afforded participants with opportunities to share ideas from their discipline with members of the interprofessional team to positively impact all participating members. The College of New Jersey School of Nursing, Health, and Exercise Science developed new and stronger partnerships with urban and urban rim schools. Undergraduate majors observed faculty and other professionals' model continued learning, interest in their discipline and in those of others while collaborating with peers. Fitnessgram fitness test (FIT) scores improved for all fitness tests for both the experimental and control groups in both schools ($p < .05$). Significant differences between groups was found in 4 areas of FIT testing: PACER, push-up, curl-ups, and long jump ($p < .05$). CATCH (Coordinated Approach to Child Health) nutritional knowledge improved overall with the experimental group in both schools ($p < .05$). The CATCH Healthy Choices survey improved with the experimental groups in both schools ($p > .05$). Videos may have encouraged parents to include healthier food choices into their family meals or spurred conversation with their children about healthy food habits. SNACK elementary school students and their parents found the program to be informative and fun.

Conclusion: A coordinated school health program (CSHP) can be implemented to meet the needs of the whole child and maximize the positive effects on student, schools, and communities while integrating cooperation of multiple disciplines. The FIT program is one example of an approach to improving fitness levels with minimal time and resources. SNACK an interdisciplinary approach to early intervention that teaches children how improve their fitness, nutrition and overall health.

References

ASCD, Centers for Disease Control and Prevention (CDC) (2012). *Whole school, whole community, whole child: A collaborative approach to learning and health*. Alexandria, VA: ASCD.

Institute of Medicine (2012). *Accelerating progress in obesity prevention: Solving the weight of the nation*. Washington, DC: The National Academies Press.

Interprofessional Education Collaborative Expert Panel (IPEC) (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington DC: Interprofessional Education Collaborative.

New Jersey Student Learning Standards. (Accessed August 24, 2016). Retrieved from New Jersey Student Learning Standards <http://www.state.nj.us/education/cccs/>.

Robinson L.E., Stodden D.F., Barnett L.M., Lopes V. P. Logan, S.W., Rodrigues, L.P. & D'Hondt, E. (2015). Motor competence and its effect on positive developmental trajectories of health. *Sports Med Sports Medicine*. 45(9), 1273-1284. doi:10.1007/s40279-015-0351-6.

Rodrigues L.P., Stodden D.F., & Lopes V.P. (2016). Developmental pathways of change in fitness and motor competence are related to overweight and obesity status at the end of primary school. *Journal of Science and Medicine in Sport*. 19(1):87-92. doi:10.1016/j.jsams.2015.01.002.

Wright K, Norris K, Giger J.N., & Suro Z. (2012). Improving healthy dietary behaviors, nutrition knowledge, and self-efficacy among underserved school children with parent and community involvement. *Childhood Obesity* 8(4):347-356. doi:10.1089/chi.2012.0045.

Contact

perront@tcnj.edu

N 13 - Enhancing Patient Care With the Use of Technology

Mobile App to Prevent Depression in the Dominican Republic: Sociocultural Adaptations and International Collaborations

Tariana V. Little, MS, USA
Susan Caplan, PhD, FNP-BC, USA
Adrian Aguilera, PhD, USA
Ester R. Shapiro, PhD, USA
Angelina Sosa Lovera, MPH, Dominican Republic
Patricia Reyna, PsyD, Dominican Republic
Jenny Arianny Sánchez Castillo, BA, Dominican Republic
Pak Chau, USA

Abstract

Purpose: Globally, depression is among the most significant contributors to burden of disease (Whiteford et al., 2013). The rapid increase of mobile phone use in low-and-middle income countries provides an opportunity to leverage technology-based interventions to improve global health (mHealth) (World Health Organization (WHO), 2011). This study builds on previous research and ongoing collaboration with the Dominican Ministry of Public Health on mental health stigma and mental health service needs in the Dominican Republic (DR), which found unmet mental health care service needs, particularly in terms of access to care, affordability of treatment, and stigma (Caplan, Little, Reyna, Sosa Lovera, Garces-King, Queen, & Nahar, 2016). Nearly 85 percent of the population in the DR has cell phones (WHO, 2011), thus mHealth is a feasible alternative to address some limitations of face-to-face mental health service delivery. However, research is needed about methods to socioculturally adapt mHealth interventions for mental health in low-resource settings (Farrington, Aristidou, & Ruggeri, 2014), specifically in terms of incorporating voice in mHealth and the many ramifications of the use of voice. We report on findings related to the sociocultural adaptation of an evidence-based face-to-face cognitive behavioral therapy (CBT) delivered through a mobile application (app) to treat depression among Dominican patients.

Methods: With ongoing collaboration with mental health professionals in the DR and the United States, the face-to-face CBT program was modified for use in the app. Modifications were designed to compensate for the absence of therapist/patient live interaction by incorporating daily salutations and dichos (short parables or instructive comments. These modifications were piloted among a convenience sample of 24 interview participants (14 patients and 10 clinic staff in different capacities). The validated Spanish language Patient Health Questionnaire (PHQ-9), a depression measure was administered to patients and clinic staff in a primary care clinic in Santo Domingo, DR to identify a purposive sample of subgroup of respondents who had symptoms of depression. All three interviewers were Spanish-speakers with substantial experience working with Dominican populations; one was trained in psychology and from the DR. Semi-structured individual interviews were used to assess demographics, mental and physical health, use of mental health care, and use of mobile phones and applications for health behaviors. Participants offered structured feedback on the content of the sample messages, their voice gender preferences (woman vs. man), and emotional resonance with their mental health needs. Additionally, participants provided feedback on the length, wording, clarity, and comprehension of the audio messages. Qualitative interview questions were iteratively changed as participant perspectives contributed new areas of inquiry, such as questions about safety concerns in publicly using a cellphone in the DR. Survey data were reviewed and systematically analyzed by the investigators using descriptive techniques. Our study was approved by the Rutgers Institutional Review Board.

Results: Most participants had a mean age of 37 years and were women (n=17). One-fourth of all participants scored at least “moderate” depression symptoms. Some patient participants and a few clinic staff disclosed mental health challenges, and a limited subset reported previous use of mental health resources, including face-to-face therapy. Overwhelmingly, participants preferred in-person therapy over medications. Early all participants had cell phones, predominantly smart phones, and almost all reported interest in mobile application therapy due to its convenience, privacy, and affordability. Regarding mobile

application features, most participants reported a preference for the female voice because they perceived a woman's voice to be more calming and reassuring than a man's voice, who was perceived as more emotionally detached. Almost all participants responded that the sample of audio messages could be helpful to manage life stress. Both patient and clinic staff participants found the recording on meditation to be relaxing but expressed concern about the culturally-implied religiosity of the word "meditation," and proposed a substitute word, "relaxation." Most participants preferred informal salutations in the messages, and said that they would like to receive cell phone messages multiple times daily or weekly. There were differences between patient and medical doctors (a subset of the clinic staff) as to the appropriateness of some of the recommended treatment strategies. Specifically, doctors felt that the use of humor in one of the audio messages would be ineffective, which was a reflection of provider conceptions of patients with depression as being incapable of responding to humor. Patient participants were in general interested in and responsive to the humor message. Lastly, a number of modifications that were suggested by participants were incorporated into the final contents of the app.

Conclusion: Our findings from participants in a low-resource clinic in urban DR reveal strong enthusiasm for using a mobile application to provide preventative cognitive behavioral strategies for symptoms of depression. Participant feedback informed the further sociocultural and linguistic adaptation of the mobile app. The subsequent proof-of-concept study will be conducted in spring 2017 to assess acceptance, feasibility, perceived helpfulness, and preliminary depression outcomes among Dominican primary care patients. Study findings address gaps in the literature pertaining to specific qualitative aspects of voice-based mHealth interventions and the methodology of sociocultural adaptation of mHealth mental health interventions (Farrington, Aristidou, & Ruggeri, 2014) across diverse settings and target groups (WHO, 2011), particularly in Latin America (Janevic et al., 2016).

References

1. Caplan, S., Little, T.V., Reyna, P., Sosa Lovera, A., Garces-King, J., Queen, K., & Nahar, R. (2016). Mental health services in the Dominican Republic from the perspective of health care providers. *Global Public Health*, 29: 1-15. <http://dx.doi.org/10.1080/17441692.2016.1213308>
2. Farrington, C., Aristidou, A., & Ruggeri, K. (2014). mHealth and global mental health: Still waiting for the mH2 wedding? *Globalization and Health*, 10, 17. <http://doi.org/10.1186/1744-8603-10-17>
3. Janevic, M. R., Aruquipa Yujra, A. C., Marinec, N., Aguilar, J., Aikens, J. E., Tarrazona, R., & Piette, J. D. (2016). Feasibility of an interactive voice response system for monitoring depressive symptoms in a lower-middle income Latin American country. *International Journal of Mental Health Systems*, 10, 59. <http://doi.org/10.1186/s13033-016-0093-3>
4. Whiteford, H.A., Degenhardt, L., Rehm, J., Baxter, A.J., Ferrari, A.J., Erskine, H.E., ... & Vos, T. (2013). Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet*, 9;382(9904):1575-86. doi: 10.1016/S0140-6736(13)61611-6
5. World Health Organization (2011). *mHealth: New horizons for health through mobile technologies: Based on the Findings of the Second Global Survey on eHealth (Global Observatory for eHealth Series, Volume 3)*. World Health Organization. ISBN: 978-92-4-156425-0. Retrieved from http://www.who.int/goe/publications/goe_mhealth_web.pdf

Contact

tarianavlittle@live.com

N 13 - Enhancing Patient Care With the Use of Technology

Patient Care Technology: Where the Patient Meets the Nurse

Belinda M. Toole, PhD, RN, CCRN, CCNS, USA

Abstract

Purpose: Technology and technological device use has proliferated. Globally we are connected, often more to devices than each other (Rosen, 2012; Turkle, 2011). This reliance on technology in daily life has also led to an imperative to incorporate technology and device use in healthcare (Weitz, 2013).

Historically, a key component of nursing practice is the holistic, humanistic relationship between the nurse and the patient. More recently, there has been a movement to embrace patient and family centered care in healthcare delivery (Kitson, Marshall, Bassett, & Zeitz, 2013). Yet technology has an allure and presence, which may influence the interactions between patients and care providers (Barnard & Sandelowski, 2001). Qualitative studies provide perspectives from patients and nurses and describe technology and device use paradoxically – providing a sense of security and reassurance but also an awareness of dependency and distraction (Kongsuwan & Locsin, 2011; Locsin & Kongsuwan, 2013; Price, 2013; Stayt, Seers, & Tutton, 2015; Tunlind, Granström, & Engström, 2015).

The purpose of the research study was to examine how patient care technology mediates the interpersonal relationship between the patient and the nurse during care delivery in the acute care setting. The conceptual framework for the study was derived from three mid-range theories: Locsin's Technological Competency as Caring in Nursing (2005); Swanson's The Structure of Caring (1993); and Kostovich's Model of Nursing Presence (2012). Study aims were to quantitatively describe the levels of nurse technological competency as caring, patient perceptions of caring and nurse presence, and to examine the relationships among demographic variables and the study variables. Secondly, the study qualitatively explored nurses' and patients' perceptions of technological device use in care delivery.

Methods: Following Institutional Review Board approval, a non-experimental, concurrent, mixed-methods design was used to address the research aims. The setting was a community adult acute care hospital in the southwestern United States. Participant recruitment occurred in early 2014. Quantitative convenience sampling resulted in 112 nurse and 115 patient participants, and qualitative purposive sampling recruited a subset of 23 nurses and 15 patients. Quantitative data was obtained from three instruments. Nurse technological competency as caring was measured using the Technological Competency as Caring in Nursing Instrument (TCCNI; Locsin, 1999; Parcels & Locsin, 2011). The TCCNI is comprised of 25 items on a 0-100 mm dichotomous visual analogue scale (strongly disagree = 0; strongly agree = 100). The TCCNI has a Cronbach's alpha of 0.81 (Locsin, 1999) and a S-CVI/Ave of 0.96 (Parcels & Locsin, 2011). Patient perceptions of caring were measured using the Caring Behaviors Inventory (CBI), a 24-item, 6-point Likert scale (1 = never to 6 = always). The CBI produces an overall score and four subscale scores (assurance of human presence, professional knowledge and skill, respectful deference to others, and positive connectedness). The CBI has a reported Cronbach's alpha of 0.96 (Wu, Larrabee, & Putman, 2006). Patient perceptions of nurse presence were measured with the Presence of Nursing Scale, a 25-item, 5-point Likert scale (1 = never, 5 = always) instrument with a Cronbach's alpha of 0.95 (Kostovich, 2012). Qualitative data was derived from semi-structured interviews using a consistent set of six exploratory patient questions and four exploratory nurse questions. Data was analyzed using SPSS, Version 22 and by first and second cycle thematic coding.

Results: Nurse participants were predominantly female (83.9%), white (56.3%) with a mean age of 34.88 years, and with a Bachelor's Degree in Nursing (80.2%) and 9.42 mean years of nursing experience. Overall nurses rated their technological competency as caring high ($M=87.72$, $SD = 7.56$). There were no significant differences related to demographic variables and TCCNI scores except for the variable of race. Asian nurses (29.5% of participants) scored themselves higher than whites ($p = .002$).

Although 115 patients were initially recruited, a notable amount of missing data resulted in analysis of only patients who had complete data on both instruments ($n=87$). Final sample patient participants had a

mean age of 58.9 years, were male (54.0%), white (66.7%), and had a college (47.1%) or post-graduate education level (18.4%). Patient subjects were admitted for medical (55.2%) rather than surgical reasons, and had a 9.92 day mean length of stay when the data was collected. Patients' rated perceptions of caring behaviors ($M = 5.44$, $SD = .58$) on a 6-point scale. Examining relationships based on demographic variables, patient perceptions of caring differed significantly by gender and pain. Male patients rated overall caring behaviors significantly higher ($M = 5.56$, $SD = .47$, $p = .040$) than females ($M = 5.29$, $SD = .66$). Patients in pain rated positive connectedness ($M = 4.94$, $SD = .92$, $p = .047$) lower than those without pain ($M = 5.30$, $SD = .74$). Patients' perceptions of nurse presence were high ($M = 115.82$, $SD = 10.55$), and there was a positive relationship between age and presence scores ($r[85] = .295$, $p = .006$).

Qualitatively three themes were associated with device use for both patients and nurses: safety, learning, and balance. Both groups felt technological devices provided a safety net. Learning associated with the device varied by group. Patients learned about devices by observation or provider explanations, whereas nurses described learning in operational terms -- to achieve competency in device use and skill in troubleshooting. Balance in technological use was described as achieving an equilibrium between patient and device focus and was dependent on the care context and viewpoint of the operator or receiver. For patients (receivers), technological device use provided a sense of safety and expedited the process of care delivery. However, patients viewed devices negatively when the devices were used brusquely or without explanation. Nurses also appreciated the inherent safety measures provided by devices but were frustrated by the time required for both initial learning and subsequent troubleshooting when devices malfunctioned. Both nurses and patients felt operationalization of devices signified a measure of skill, not only in machine use, but also in how devices were integrated into the care delivery process.

Conclusion: Globally, technology and technological device use is pervasive in general society and healthcare. The goal of nursing is to provide humanistic and holistic care, but interpersonal interactions can be influenced by device use. In this study, technological device use in care delivery created a presence, which was perceived as positive or negative depending on the care context and how the device was operationalized. Nurses, and all healthcare providers, should be aware of how patients perceive device use and then integrate these new methodologies and devices as adjuncts to patient centered care.

References

- Barnard, A., & Sandelowski, M. (2001). Technology and humane nursing care: (ir) reconcilable or invented difference? *Journal of Advanced Nursing* 34(3), 367-375. doi: 10.1046/j.1365-2648.2001.01768.x
- Kitson, A., Marshall, A., Bassett, K., & Zeitz, K. (2013). What are the core elements of patient-centered care? A narrative review and synthesis of the literature from health policy, medicine and nursing. *Journal of Advanced Nursing*, 69(1), 4-15. doi: 10.1111/j.1365-2648.2012.06064.x
- Kongsuwan, W., & Locsin, R. C. (2011). Thai nurses' experience of caring for persons with life-sustaining technologies in intensive care settings: a phenomenological study. *Intensive and Critical Care Nursing*, 27(2), 102-110. doi:10.1016/j.iccn.2010.12.002
- Kostovich, C. T. (2012). Development and psychometric assessment of the presence of nursing scale. *Nursing Science Quarterly*, 25(2), 167-175. doi: 10.1177/0894318412437945
- Locsin, R. C. (2005). *Technological competency as caring in nursing: A model for practice*. Indianapolis, IN: Sigma Theta Tau International.
- Locsin, R. C., & Kongsuwan, W. (2013). Lived experience of patients being cared for in ICUs in Southern Thailand. *Nursing In Critical Care*, 18(4), 200-211. doi:10.1111/nicc.12025
- Papastavrou, E., Efstathiou, G., Tsangari, H., Suhonen, R., Leino-Kilpi, H., Patiraki, E., . . . Merkouris, A. (2012). Patients' and nurses' perceptions of respect and human presence through caring behaviours: A comparative study. *Nursing Ethics*, 19(3), 369-379. doi: 10.1177/0969733011436027
- Parcells, D. A., & Locsin, R. (2011). Development and psychometric testing of the Technological Competency as Caring in Nursing Instrument. *International Journal For Human Caring*, 15(4), 8-13.
- Patiraki, E., Karlou, C., Efstathiou, G., Tsangari, H., Merkouris, A., Jarosova, D., . . . Papastavrou, E. (2014). The relationship between surgical patients and nurses characteristics with their perceptions of caring behaviors: A European survey. *Clinical Nursing Research*, 23(2), 132-152. doi: 10.1177/1054773812468447
- Price, A. M. (2013). Caring and technology in an intensive care unit: an ethnographic study. *Nursing in Critical Care*, 18(6), 278-288. doi:10.1111/nicc.12032
- Rosen, L. (2012). *iDisorder*. New York: Palgrave Macmillan.
- Sossong, A., & Poirier, P. (2013). Patient and Nurse Perceptions of Caring in Rural United States. *International Journal for Human Caring*, 17(1), 79-85.

Stayt, L. C., Seers, K., & Tutton, E. (2015). Patients' experiences of technology and care in adult intensive care. *Journal of Advanced Nursing*, 71(9), 2051-2061. doi:10.1111/jan.12664

Swanson, K. M. (1993). Nursing as informed caring for the well-being of others. *Image: Journal of Nursing Scholarship*, 25(4), 352-357.

Tunlind, A., Granström, J., & Engström, Å. (2015). Nursing care in a high-technological environment: Experiences of critical care nurses. *Intensive & Critical Care Nursing*, 31(2), 116-123. doi:10.1016/j.iccn.2014.07.005

Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. New York: Basic Books.

Weitz, R. (2013). *The sociology of health, illness, and health care: a critical approach*. (6th ed.). Boston: Wadsworth Cengage Learning.

Wu, Y., Larrabee, J. H., & Putman, H. P. (2006). Caring Behaviors Inventory: a reduction of the 42-item instrument. *Nursing Research*, 55(1), 18-25.

Contact

belinda.toole@sharp.com

N 14 - Promoting Well-Being in the Workforce

Promoting Health and Well-Being: A Review of the Effectiveness of Interventions to Prevent Workplace Bullying

Patricia Gillen, PhD, RN, RM, United Kingdom
Marlene Sinclair, PhD, RN, RM, RNT, United Kingdom
George Kernohan, PhD, United Kingdom
Cecily Begley, PhD, RGN, RM, RNT, FFNRCSI, Ireland
Ans Luyben, PhD, RM, United Kingdom

Abstract

Globally, research about bullying in workplaces including healthcare institutions has been shown to reduce the physical and mental health of employees. Generally, employees who have been bullied have lower levels of job satisfaction, higher levels of stress and are more likely to leave their job with the effects of bullying considered to be more devastating than all other types of workplace stress put together 1. A recent survey by the Trade Union Congress in the UK 2 identified that 46% of those who responded had reported that bullying had negatively affected their performance at work and their mental health. In the US, a 70% rate of exposure to bullying behaviour was recorded among 212 registered nurses 3 with bullied novice nurses' reporting a negative impact on their ability to manage their workload4.

To date, most research has focused on how to manage bullying once it has happened, rather than preventing it. Indeed those who have been bullied choose to leave their job rather than face up to the bully 5. At a time when recruitment and retention of staff is particularly challenging, it is important to know what can be done to prevent bullying.

Purpose: To review of the effectiveness of workplace interventions in preventing bullying in the workplace using a Cochrane Systematic Review approach.

Methods: We searched a wide range of databases and found 19,544 references of which 125 were considered to be of some relevance. More detailed reading, and data extraction, excluded all but five studies that reported on the effectiveness of interventions to reduce the incidence of workplace bullying. The outcomes of bullying such as workplace absenteeism were also explored.

Results: Two studies reported on organisational interventions that consisted of policy measures and stress management and measured bullying as incivility 6-7. One of the studies also showed a reduction in incivility and absenteeism. An expressive writing task 8, showed a reduction in the amount of bullying. Cognitive behavioural therapy was used with employees who had a learning disability, and showed a reduction in bullying 9. The overall effects of these interventions were small. One study evaluated education and policy interventions in combination, across five organisations, resulting in a small non-significant increase in bullying 10.

Conclusion: This review showed that organisational and individual interventions can prevent bullying in the workplace but, like many interventions to address complex phenomena, the evidence is of very low quality. We suggest that the small effects of interventions in large populations might represent stronger outcome in small subsets of those who suffer in silence from bullying in the workplace. More focussed studies are needed with better outcome measurement to evaluate the effect of all preventive interventions.

References

1. Hogh A, Mikkelsen EG, Hansen AM. Individual consequences of workplace bullying/mobbing. In: Einarsen S, Hoel H, Zapf D, Cooper CL, editor(s). *Bullying and Harassment in the Workplace: Developments in Theory, Research and Practice*. 2nd edition. Boca Raton: Taylor & Francis Group, 2011:107-28.
2. Trade Union Congress (2016) Bullying at work- Guidance for Safety Representatives <https://www.tuc.org.uk/workplace-issues/health-and-safety/bullying/bullying-work-guidance-safety-representatives> [Accessed 5/12/2016]

3. Vessey JA, Demarco RF, DiFazio R. Bullying, harassment, and horizontal violence in the nursing workforce: the state of the science. *Annual Review of Nursing Research* 2010; 28:133-57.
4. Berry P, Gillespie GL, Gates D, Schafer J. Novice nurse productivity following workplace bullying. *Journal of Nursing Scholarship* 2012; 44(1):80-7.
5. Royal College of Midwives (2016) *Why Midwives Leave Revisited* London: Royal College of Midwives
6. Osatuke K, Moore SC, Ward C, Dyrenforth SR, Belton L. Civility, Respect, Engagement in the Workforce (CREW): Nationwide Organization Development Intervention at Veterans Health Administration. *The Journal of Applied Behavioural Science* 2014; 45:304-410.
7. Leiter MP, Spence Laschinger HK, Day A, Gilin Oore D. The impact of civility interventions on employee social behavior, distress, and attitudes. *Journal of Applied Psychology* 2011; 96(6):1258-74.
8. Kirk BA, Schutte NS, Hine DW. The Effect of an Expressive-writing Intervention for Employees on Emotional Self-Efficacy, Emotional Intelligence, Affect, and Workplace Incivility. *Journal of Applied Social Psychology* 2011; 41(1):179-95.
9. McGrath L, Jones RSP, Hastings RP. Outcomes of anti-bullying interventions for adults with intellectual disabilities. *Research in Developmental Disabilities* 2010; 31:376-80.
10. Hoel H, Giga SI, with Contributions from Brian Faragher. *Destructive Interpersonal Conflict in the Workplace: The Effectiveness of Management Interventions*. British Occupational Health Research Foundation (BOHRF) 2006; 1-85.

Contact

patricia.gillen@southerntrust.hscni.net

N 14 - Promoting Well-Being in the Workforce

Nursing Workforce Well-Being and Quality of Life: Predictions and Recommendations

Lin Perry, PhD, RN, Australia

Robyn Gallagher, PhD, RN, Australia

Christine Duffield, PhD, MHP, BScN, RN, FACN, FAAN, Australia

David W. Sibbritt, PhD, Australia

Xiaoyue Xu, PhD, RN, Australia

Abstract

Purpose: A person's quality of life (QoL) is defined by their goals, standards and concerns, especially in their cultural context. It is a subjective summary measure of wellbeing, reflecting 'complete physical, mental, and social well-being' (WHO 2006). All aspects of an individual's life contribute and, for those who are members of a workforce, work life makes a sizable contribution, especially for full time workers. Links have been demonstrated between QoL and job satisfaction, and increased QoL and job satisfaction in nurses improves job performance and reduces turnover, directly influencing the quality of healthcare they deliver (Milosevic et al. 2011), and in turn reducing costs to healthcare providers (Duffield et al. 2014).

How a person feels about their job relates to individual goals and expectations and hence to QoL. Some influences on work life quality of life and/ or job satisfaction are well-recognised, such as workplace violence, bullying and harassment, workplace stress and burnout (Bartram et al. 2012; Budin et al. 2013), psychosocial work factors such as job strain, psychological job demand, decision latitude/ authority and job control. The occupational pressures associated with the nursing profession are increasingly recognised and affect all ages; the problems of stress and distress, compassion fatigue, burnout, absenteeism and staff turn-over are globally significant. Irrespective of the job satisfaction reported, for nursing this has been linked to working conditions, environment and culture; to job stress, role clarity and content, organizational and professional commitment. However, these factors differ with differing work settings.

Individual health can also be influential, including on intention to leave (Perry et al. 2015); chronic, non-cancer and musculoskeletal pain have all been associated with reduced QoL, as have chronic diseases such as diabetes. Increased weight leads to poorer health but does not necessarily affect QoL. Given the diversity of potential individual and workplace influences, we sought to identify:

- To what extent health and workforce characteristics influence nurses' and midwives' quality of life, and how this compares to that of the Australian general population;
- What recommendations can be drawn for future interventions to promote QoL and job satisfaction for nurses and midwives?

Methods: This was an online cross-sectional survey including the Short Form-12 version 2 (Sanderson & Andrews, 2002) as a measure of QoL, calculated using the QualMetrics algorithm. This paper describes these nurses' and midwives' quality of life and compares this to that of the Australian general population (Avery et al. 2004).

Participants were nurses and midwives employed in New South Wales were recruited through the email mailing list of the NSW Nurses and Midwives Association (the NSW nursing and midwifery professional body) and by snowball distribution through professional groups and networks between May 2014 and February 2015.

The survey instrument comprised a mixture of validated instruments and items examining demographic information, workforce, health, job satisfaction and quality of life, using the Medical Outcomes Survey Short Form-12 (which produces separate physical and mental component scores: PCS and MCS). Taking a 'mental health day' (MHD) as sickness absence, anecdotally a common phenomenon in Australia, was

determined by asking how many sick days were taken in the previous 12 months and then, “How many of these sick days would you classify as ‘mental health days?’” [6]

Sample characteristics were reported using descriptive statistics. Demographic, workplace, work and health-related potential predictive variables were analysed in relation to quality of life and job satisfaction using univariate and multivariate regression models.

Approval was granted by South Eastern Sydney Local Health District and University of Technology Sydney Human Research Ethics Committees. Study details were available on the survey webpage and informed consent was presumed with submission of a completed online questionnaire.

Results: Nursing and midwifery participants

Of 5,446 completed questionnaires, 405 (7.4%) were excluded due to missing data or non-NSW practice. SF-12 physical and mental component scores could be calculated for 4,592 (91.1%) of survey respondents. These participants had mean age 48 (SD 11.5, range 18-78) years; 65.8% were 45 years of age and older. Most (87.7%) were female, worked full-time (53%) and shift work (53.1%) including night shifts; almost three quarters (70.6%) were employed in foundational roles (Registered Nurse/ Clinical Nurse Specialist grades); the majority were metropolitan (65.7%) and hospital-based (59.6%). These nurses were well-educated; most (64%) had at least a Bachelor degree and 39% had postgraduate qualifications. Overall their average working week was 34 hours, but 39% reported working more than 40 hours in an average week.

Health and Quality of life: General health was overall rated at median score 2 (‘very good’) but 14.6% self-rated their health as only fair – very poor. Chronic disease diagnoses and symptom frequency have been reported elsewhere (Perry et al 2016) but with an overall median of one diagnosis each, 17.7% of participants reported 3 or more diagnoses.

Overall, these nurses reported an average SF-12 physical component score of mean (SD) 51.7 (8.1) and mental component score of 48.6 (9.6). Age and sex-matched scores were not dissimilar to Australian normative values (Avery et al. 2004) but for all ages and both sexes nurses’ and midwives’ physical component scores tracked somewhat higher and mental component scores lower than population values.

Predictive factors: We used multiple linear regression with forced entry of demographic, health and work-related variables for the SF-12 physical and mental component dependent variable scores, separately. Thirteen variables explained 41.5% of variability in physical component scores. Working in a foundational versus other role, any workplace injury or admission to hospital in the previous year, any diagnosed mood disorder, increasing numbers of chronic disease diagnoses and prescribed medications, greater frequency and severity of recent pain and sleep disorder, being post-menopausal, having a higher Body Mass Index and being a current smoker all predicted lower physical component scores. Those who took more sick days identified as ‘mental health’ days had higher physical component scores ($F=47.481$, $df28$, $p<.001$).

Twelve variables explained 41.6% of variability in mental component scores. Higher mental component scores were predicted by increasing age and job satisfaction, working office hours rather than shift work and part-time rather than full-time, taking fewer ‘mental health’ sick days, having a higher Body Mass Index and working in a non-hospital setting. Any workplace abuse or mental health diagnosis, greater numbers of ill-health symptoms, increasing frequency of pain in the last four weeks and sleep problems were all associated with lower mental component scores ($F=49.865$, $df28$, $p<.001$). Two scores were borderline significant: being post-menopausal and experiencing any workplace injury.

Conclusion: Health is an important influence on nurses’ and midwives’ quality of life. Given the impact of QoL both for workforce wellbeing and in support of care quality, interventions to support workforce wellbeing are needed. These findings indicate new recommendations for policy and practice. Including a focus on foundational staff, interventions might entail occupational health services to complement primary healthcare for earliest detection and initiation of treatment for chronic disease including pain management and mental health disorders; addressing workplace injury rates; health education and promotion initiatives

encompassing sleep hygiene, healthy eating, menopause management and smoking cessation; site-based initiatives to provide and promote healthy food choices in cafeterias and facilities to store, heat and eat home-cooked food on the premises; roster flexibility.

These recommendations for policy and practice capitalise on study findings to promote quality of life and hence quality of care and longevity in the health workplace.

References

- Avery J, Dal Grande E, Taylor A. 2004. Quality of life in South Australia as measured by the SF-12 Health Status Questionnaire : population norms for 2003: trends from 1997-2003. Population Research and Outcome Studies Unit, Department of Human Services, South Australia. March 2004. ISBN 0 7308 9329 4.
- Bartram, T., Casimir, G., Djurkovic, N., Leggat, S. G. and Stanton, P. (2012), Do perceived high performance work systems influence the relationship between emotional labour, burnout and intention to leave? A study of Australian nurses. *Journal of Advanced Nursing*, 68: 1567–1578. doi: 10.1111/j.1365-2648.2012.05968.x
- Budin WC, Brewer CS, Chao Y-Y, Kovner C. 2013. Verbal Abuse from Nurse Colleagues and Work Environment of Early Career Registered Nurses. *J Nurs Scholarsh Off. Publ. Sigma Theta Tau Int. Honor Soc. Nurs. Sigma Theta Tau* 45, 308–316. doi:http://dx.doi.org.ezproxy.lib.uts.edu.au/10.1111/jnu.12033
- Duffield CM, Roche MA, Homer C, Buchan J, Dimitrelis S. 2014. A Comparative Review of Nurse Turnover Rates and Costs Across Countries. *J Adv Nurs* 70, 2703–2712. doi:10.1111/jan.12483
- Milosevic M, Golubic R, Knezevic B, Golubic K, Bubas M, Mustajbegovic J. 2011. Work Ability as a Major Determinant of Clinical Nurses' Quality of Life. *J Clin Nurs* 20, 2931–2938. doi:10.1111/j.1365-2702.2011.03703.x
- Perry L, Gallagher R, Duffield C, Sibbrett D, Nicholls R. 2016 Does nurses' health affect their intention to remain in their current position? *J Nurs Management* 24(8):1088-1097. doi: 10.1111/jonm.12412
- Sanderson K, Andrews G. 2002 The SF-12 in the Australian population: cross-validation of item selection. *Aust NZ J Public Health* 26, 4, 343-5
- WHO 2006 at http://www.who.int/governance/eb/who_constitution_en.pdf

Contact

Lin.Perry@uts.edu.au

N 15 - Simulation Education for Entry-Level Nurses

Impact of High-Fidelity Simulation on Teaching Medical Nursing

Yaohua Gu, MSN, RN, China

Zhijie Zou, MSN, RN, China

Yanqun Liu, PhD, RN, China

Abstract

Purpose: The purpose of this study was to examine the High-Fidelity Simulation to improve disease-related knowledge level of junior students in a Bachelor of Science in Nursing program and to explore the students evaluation on High-Fidelity Simulation.

Methods: The study used a within-group, pre-post test design with twenty-three students of a nursing school in central city in the People's Republic of China. Students were divided into four groups of five to six students. Facilitated by the same teacher, the four groups performed simulations in four different days. For each group, three simulation scenarios with high-fidelity simulator were implemented. In each group, students alternated to practice as the nurses in three scenarios. At the end of the simulations, every student performed as the nurse and the observer. The three scenarios were designed based on the case of a patient with Chronic Obstructive Pulmonary Disease (COPD). The objectives of the simulations were to take care of the COPD patient with acute exacerbation and perform individualized health education. COPD-related knowledge questionnaires were used to measure the knowledge level before and after the simulations. The Student Satisfaction and Self-confidence in Learning Scale (13 items), the Simulation Design Scale (20 items) and the Educational Practices in Simulation Scale (16 items) were completed at the end of the simulations to measure students' perception of High-Fidelity Simulation.

Results: The student knowledge increased significantly from pretest to posttest. All the simulation scales are five-Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The means and standard deviation of the three scales were 4.28 ± 0.45 , 4.32 ± 0.44 and 4.39 ± 0.50 respectively.

Conclusion: In this study, High-Fidelity Simulation can significantly improve the disease-related knowledge of junior BSN students. High-Fidelity Simulation received relatively high scores for students' satisfaction and self-confidence. Student perceived high-fidelity simulation as an effective teaching strategy. However, further study is needed to explore the specific way it integrates with baccalaureate curriculum.

References

Williams, D. M., Brooks, A., Lee, L., Watts, P., & Moss, J. (2014). Using High-fidelity Simulation to Prepare Advanced Practice Nursing Students. *Clinical Simulation in Nursing*, 10(1): e5-e10.

Groom, J. A., Henderson, D., & Sittner, B. J. (2014). NLN/Jeffries Simulation Framework State of the Science Project: Simulation Design Characteristics. *Clinical Simulation in Nursing*, 10(7): 337-344.

Contact

xixigu@whu.edu.cn

N 15 - Simulation Education for Entry-Level Nurses

Integrating Simulation-Based Education Into the Healthcare Setting: Newly Licensed Nurses Learn to Transition

Kelly L. Rossler, PhD, RN, CHSE, USA

Katherine Hardin, MSN, RN-BC, USA

Marygrace Leveille, PhD, RN, ACNP-BC, USA

Abstract

Purpose: Transitioning from pre-licensure student into the role of the practicing nurse can be an overwhelming experience to a newly licensed registered nurse. It is anticipated the novice nurse will be prepared to enter the clinical practice setting ready to work within the scope of practice of a licensed registered nurse (American Nurses Association, 2015). In the healthcare industry, nurse internship programs are recognized as a standard process to acclimate the novice nurse to the practice setting. Yet, teaching-learning methodologies are constantly evolving to inform entry into practice success (Pfaff et al., 2014; Rush et al., 2013). It is crucial to identify teaching-learning methodologies which can positively and directly impact the transition of a newly licensed registered nurse into clinical practice. Human patient simulator mannequins have evolved to address both the educational needs and practice initiatives of pre-licensure nursing students (Kardong-Edgren et al., 2012; Katz et al., 2010). As an experiential teaching-learning strategy, human patient simulation has the capacity to promote this necessary transition. Yet, outcome measures connecting transition to practice in a formal nurse internship program with human patient simulation are still lacking in the literature (Ying et al., 2014; Zigmont et al., 2015). The purpose of this project was to explore graduate nurse interns' perceptions of the addition of simulation-based education into a nurse internship program to promote transition into the clinical practice setting.

Methods: Simulation-based education was incorporated into an existing graduate nurse internship program at a university medical center in Northern, Texas. A Hermeneutic phenomenology research design was used to address the research questions. A non-probability, purposive convenience sample of graduate nurse interns' hired into either the medical-surgical, telemetry, or critical care essentials internship during the summer of 2016 participated in the research study. Study procedures commenced after Institutional Review Board approval. Participants attended five simulation-based education sessions coinciding with the didactic theory portion of the internship for each practice unit. The simulation-based education sessions were facilitated by a Certified Healthcare Simulation Educator and were designed to follow the recognized International Nursing Association for Clinical Simulation and Learning *Standards of Best Practice: Simulation* guidelines (INACSL, 2013; 2015). The setting was a simulation education room located on the study site. A total of 25 participants completed all study processes.

Results: Qualitative data was collected during individual participant face-to-face interviews. Qualitative data was explored using the procedural steps outlined by Streubert and Carpenter (2011) as naïve reading, structural analysis, and interpretation of the whole aligning with hermeneutic phenomenology. Rigor was maintained by following the guidelines of credibility, dependability, confirmability, and transferability. Data saturation was achieved with the participant sample size. The two overarching themes of *Gaining Comfort with Relationships* and *Talking it Out* emerged from the qualitative analysis.

Conclusion: The incorporation of a simulation-based education program into the existing graduate nurse internship has the potential to enhance the successful transition of the graduate nurse intern into the practice setting. Outcomes such as improvement of self-confidence in practice, successful role socialization, and effective communication are essential and universal acquisitions for newly licensed nurses to achieve. Research findings support the advancement of simulation science within the healthcare industry. In addition, findings demonstrate the need to conduct research not only focused on transition into practice, but also to determine the optimal capacity to integrate simulation-based education into the curricula of existing nurse training and internship programs.

References

Kardong-Edgren, S. Willhaus, J., Bennett, J., & Hayden, J. (2012). Results of the National Council of State Boards of Nursing national simulation survey: Part II. *Clinical Simulation in Nursing*, 8, e117-e123. doi: 10.1016/j.ecns.2012.01.003

Katz, G. B., Peifer, K.L., Armstrong, G. (2010). Assessment of patient simulation use in selected baccalaureate nursing programs in the United States. *Simulation in Healthcare*, 5, 46-51, doi: 10.1097/SIH.0bo13e318balf46

Pfaff, K. A., Baxter, P. E., Ploeg, J., & Jack, S. M. (2014). A mixed methods exploration of the team and organizational factors that may predict new graduate nurse engagement in collaborative practice. *Journal of Interprofessional Care*, 28, 142-148. doi: 10.3109/13561820.2013.851072

Rush, K. L., Adamack, M., Gordon, J. Lilly, M., & Janke, R. (2013). Best practices of formal new graduate nurse transition programs: An interactive review. *International Journal of Nursing Studies*, 50, 345-356. <http://dx.doi.org/10.1016/j.ijnjustu.2012.06.009>

Spector, N. (2015). The National Council of State Boards of Nursing's Transition to Practice Study: Implications for Educators. *Journal of Nursing Education*, 54, 119-120. doi: 10.3982/01484834-20150217013

Contact

Kelly_Rossler@baylor.edu

N 16 - Surgical Pain Management

Effect of Paravertebral Block on the Outcomes of Patients Undergoing Video-Assisted Thoracic Surgery

Myra I. Torres, MSN, RN-BC, PCCN, USA

Linda A. Minnich, BSN, RN, CPAN, USA

Abstract

Purpose: The purpose of this study was to determine if there was a relationship between the introduction of paravertebral block pre-operatively and patient's post-operative pain scores, length of urinary catheter use and length of hospital stay.

Methods: The study design is retrospective data collection of 40 patients undergoing Video-Assisted Thoracic Surgery (VATS) with wedge resection at a small community hospital in Northern California between March 2013 and March 2015. The decision on whether to apply paravertebral block was based on surgeon preference. All patients included in the study received the usual surgical pain regimen of systemic opioids. At the Post-anesthesia care unit, all patients receive systemic opioids using patient controlled analgesia (PCA) until post-op day 2.

Half of the patients (control group) did not receive the paravertebral block, while the other half received paravertebral block pre-operatively. Those who received paravertebral block had a continuous infusion from the pre-operative period up to 48 hours after surgery.

Convenience sampling was used. No patient was identified by name or MRN number. Permission to study was granted by the hospital nursing research committee Wilcoxon signed-rank test was used.

Results: VATS patients who received paravertebral blocks reported lower pain scores from the afternoon of post-op day 2 until post op day 4 ($p=0.04$ on post-op day 2, $p=0.006$ & $p=0.08$ on day 3, $p=0.03$ & 0.06 on day 4), had earlier urinary catheter removal ($p<0.001$) and had shorter length of stay ($p=0.0017$) compared to patients who did not receive paravertebral blockade. Patients had no demographic differences other than average body mass index (BMI), which was higher in the treatment group ($p=0.006$) and may have contributed to a surgeon's decision on whether or not to use paravertebral blockade.

Conclusion: The study shows that paravertebral blockade in patients who are undergoing thoracic surgery with wedge resection can have beneficial patient outcomes such as decreased pain levels, shorter urinary catheter use and decreased hospital length of stay. All of these, in turn, may be factors in increasing patient satisfaction, preventing device-related infection, increasing hospital reimbursement and decreasing hospital costs.

References

- Piraccini, E.A. Preto Jr., R.M. Corso and G. Gambale. Analgesia for Thoracic Surgery: The Role of Paravertebral Block. *HSR Proceedings in Intensive Care and Cardiovascular Anesthesia* 2011; 3(3): 157-160.
- Sahu A, Kumar R, Hussain M, Gupta A, Raghwendra KH. Comparisons of single-injection thoracic paravertebral block with ropivacaine and bupivacaine in breast cancer surgery: A prospective, randomized, double-blinded study. *Anesthesia, Essays and Researches*. 2016;10(3):655-660. doi:10.4103/0259-1162.191109. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5062188/>
- Parikh, R., Sharma, K., Guffey, R. & Myckatyn, T. (2016). Preoperative Paravertebral Block Improves Postoperative Pain Control and Reduces Hospital Length of Stay in Patients Undergoing Autologous Breast Reconstruction After Mastectomy for Breast Cancer. *Annals of Surgical Oncology*. 2016 (23), pages 4262- 4269.
- Yeung JHY, Gates S, Naidu BV, Wilson MJA, Gao Smith F. Paravertebral block versus thoracic epidural for patients undergoing thoracotomy. *Cochrane Database of Systematic Reviews* 2016, Issue 2. Art. No.: CD009121. DOI: 10.1002/14651858.CD009121.pub2.
- Coopery, S., Specht, M., Warren, L., Smith, B., Winograd, J., & Fleischmann, K. (2013). Use of Preoperative Paravertebral Block Decreases Length of Stay in Patients Undergoing Mastectomy Plus Immediate Reconstruction. *Annals of Surgical Oncology*. 2013 (20), pages 1282-1286.

Contact

MYRA.TORRES.RN@GMAIL.COM

N 16 - Surgical Pain Management

Transforming Practice With Scripted Messages: Improving Pain Management in Outpatient Surgical Patients

Lanell M. Bellury, PhD, RN, AOCNS, OCN, USA

Abstract

Purpose: Outpatient surgeries are increasingly common because of patient convenience, lower cost, and reduced stress but most patients experience pain postoperatively requiring nursing attention to pain management (Mitchell, 2015; Subramanian et al., 2014). Scripting, recommended for consistent, targeted communication with patients, has limited evidence to support its use (Alaouf et al., 2015; Monterroso et al., 2013). The purpose of this study was to explore the effect of providing scripted messages related to pain management in the outpatient surgical setting on self-reported pain control and patient satisfaction in outpatient surgical patients. Additionally, the feasibility of practice change research in clinical settings was examined. The findings may assist others interested in the conduct of clinical research and adds to the body of knowledge around the effectiveness of scripted messages delivered by nurses.

Methods: A retrospective record review pre and post a practice change intervention evaluated implementation of a pain management scripted message delivered at two time points (preoperatively and postoperatively). Intention to treat analysis was used to compare patient reports of pain control and patient satisfaction with care 48 hours post-discharge from outpatient surgical procedures. Feasibility of data collection and measurement issues were also explored.

Results: 231 records (98 pre-intervention; 133 post-intervention) were analyzed. The sample included 144 (62%) male and 156 (68%) married with mean age 57.6 (SD=16.1) years. The large majority (90%) received general anesthesia and the most common surgical procedures were urologic (24%), colorectal (17%), and laparoscopy (13%). A Mann-Whitney U test indicated patient reported pain control was statistically significantly greater for the post intervention group (Mean rank=62.66) than for the pre-intervention group (Mean Rank = 51.95), $U=1258$, $p=0.015$. A large number of missing data related to the standard of care post-op phone calls (54% missing) and receipt of the intervention (47% receiving the script at time two).

Conclusion: While it is encouraging that even the small dose of scripting had a significant effect on postoperative pain control, the feasibility issues related to data collection and intervention fidelity will require considerable resources to surmount. Practice change is a complex process requiring sensitivity to work and patient flow especially in specialty care units. Overcoming resistance to change when evidence is not robust is challenging and may be especially difficult related to scripting, which is often perceived as a mandated intrusion into the nurse-patient relationship.

References

- Alaloul, F., Williams, K., Myers, J., Jones, K., & Logsdon, M. (2015). Impact of a script-based communication intervention on patient satisfaction with pain management. *Pain Management Nursing, 16*(3), 321-327. doi:10.1016/j.pmn.2014.08.008
- Mitchell, M. (2015). Home recovery following day surgery: A patient perspective. *Journal of Clinical Nursing, 24*, 415-427. doi:10.1111/kocn.12615
- Monterroso, E. C., Frongillo, E. A., Gonzalez de Cossio, T., Bonvecchio, A., Villanueva, M. A., Thrasher, J. F., & Rivera, J. A. (2013). Scripted messages delivered by nurses and radio changed beliefs, attitudes, intentions, and behaviors regarding infant and young child feeding in Mexico. *The Journal of Nutrition, 143*, 915-922. doi:10.3945/jn.112.169235.
- Subramanian, P., Ramasamy, S., Ng, K.H., Chinna, K., and Rosli, R. (2014). Pain experience and satisfaction with postoperative pain control among surgical patients. *International Journal of Nursing Practice, 19*(12), 1236-1241. doi:10.1111/ijn.12363

Contact

bellury_lm@mercer.edu

N 17 - Telehealth

What Do Nurses Ask About? A Review of Nursing Questions in a Brazilian Telemedicine System

Jacqueline E. Brixey, MSc, MA, BJ, BA, USA

Juliana J. Brixey, PhD, MPH, MSN, RN, USA

Abstract

Purpose: Across the globe, nurses are often on the front lines for health care delivery in places where physicians are scarce or nonexistent, such as in rural areas or urban slums [2]. For example, the constitution of Brazil guarantees free public healthcare to every citizen, however, many doctors and specialists are concentrated in the large coastal cities of the country, with populations in the rural interiors drastically underserved by health care professionals [3]. The Health Ministry of Brazil implemented the Programa Telessaúde Brasil Redes to combat this issue by providing health support, advice from specialists, and permanent health education via telemedicine. Telemedicine can connect any member of the health care team across the continuum of care to enhance outcomes. This connection can entail submission of asynchronous questions via online systems for expert consultation.

Rede NUTES is an extension of the Programa Telessaúde Brasil Redes based in the northeastern state of Pernambuco in Brazil. Rede NUTES offers telehealth services to its 80 municipalities by offering web seminars, telecare service, and second opinions on submitted questions via their online submission system for other health care professionals [7]. Data from the Rede NUTES submitted questions were analyzed and explored using big data methods to gain insights into how and for what Brazilian nurses utilized the system, as well as gain new understanding from the questions that nurses answered.

Methods: Step 1 was to explore and analyze the data, questions submitted by nurses, nurse technicians, and the two categories combined were identified and isolated from the complete data set to understand ratios of how often nurses and nurse technicians were using the Rede NUTES system in comparison to their peers. Questions that were answered by nurses at Rede NUTES were also queried from the general data to review the frequency of responses given by this group of users.

In step 2, the questions were reviewed by calendar months. This visualized usage trends over the course of a year for questions both submitted and responded to. A histogram was created to visualize this trend.

Step 3 entailed determination of question themes per calendar each month. For example, a spike in gynecology questions dealing with pregnancy was typically followed by a corresponding increase in obstetrics questions nine months later. By visualizing question topics and clustering those topics in a timeline, it was possible to understand trends in the data for nurses. These question topic clusters were compared to the questions submitted and answered by the other medical professionals utilizing the online question system.

In the final step, the data were reviewed for lexical relationships using Linguistic Inquiry and Word Count (LIWC) program in Portuguese [6]. LIWC returns values on dimensions such as number of self-references, level of positivity, and number of cognitive words.

Results: As stated in [2], the nurses and nurse technicians in Pernambuco are indeed on the frontlines of serving their communities. Nurses and nurse technicians submitted the most questions to Rede NUTES out of any of the health practitioner categories for two out of the three years reviewed (38% in 2010 and 32% in 2011), and in all three years combined (36%). Furthermore, in the majority of the months in the years reviewed, nurses and nurse technicians submitted the largest percent of the questions from any health care practitioner category, submitting 92% of all questions in December of 2012. The top question topics across submitted concerned cardiology, gynecology, obstetrics, pediatrics, and dentistry for all three years. In 2012 and 2013, the top question theme dealt with electrocardiograms, while

Another notable result was that nurses also answered the most questions during the three years reviewed. Questions that were responded to followed a similar thread as to those that were submitted, with specialized nurses responding to the majority of questions dealing with obstetrics, gynecology, and pediatrics, with the top question theme dealing with hypertension.

Conclusion: Exploratory data analysis is the first step in using big data for future experiments [8]. It allows researchers to detect mistakes in the data that could skew machine learning results, while also checking intuitions about relationships in the data. Future work on this data set will explore relationships in the data for other medical fields.

While asynchronous online telemedicine applications to obtain expert counsel such as Rede NUTES offers positive features, likewise negative features must be acknowledged. There are legitimate causes for concern over privacy and protection of data. Likewise, as many people fear receiving a break-up text, so should bad news of a diagnosis be conveyed in person. Future research should work to mitigate these concerns while enhancing positive outcomes.

References

1. Driessen, J., Castle, N. G., & Handler, S. M. (2016). Perceived Benefits, Barriers, and Drivers of Telemedicine From the Perspective of Skilled Nursing Facility Administrative Staff Stakeholders. *Journal of Applied Gerontology*, 0733464816651884.
2. Hahn, J. A. (2015). Global Health Care: Implications for Nursing. *GSTF Journal of Nursing and Health Care (JNHC)*, 3(1).
3. Iwaya, L. H., Gomes, M. A., Simplicio, M. A., Carvalho, T. C. M. B., Dominicini, C. K., Sakuragui, R. R., ... & Håkansson, P. (2013). Mobile health in emerging countries: A survey of research initiatives in Brazil. *International journal of medical informatics*, 82(5), 283-298.
4. Kruse, C. S., Bouffard, S., Dougherty, M., & Parro, J. S. (2016). Telemedicine Use in Rural Native American Communities in the Era of the ACA: a Systematic Literature Review. *Journal of medical systems*, 40(6), 1-9.
5. Kvedar, J. C. (2015). Telemedicine Is Vital to Reforming Health Care Delivery. *Harvard Business Review*.
6. Pennebaker, J. W., Francis, M. E., and Booth, R. J. (2001). *Linguistic inquiry and word count: Liwc 2001*. Mahway: Lawrence Erlbaum Associates
7. Sanches, L. M. P. (2013). *Telessaúde: sistema de busca de casos clínicos para apoio à Estratégia Saúde da Família* (Doctoral dissertation, Universidade Estadual de Campinas. Faculdade de Ciências Médicas).
8. Seltman, H. J. (2012). Experimental design and analysis. *Online at: [http://www. stat. cmu. edu/, hselman/309/Book/Book. pdf](http://www.stat.cmu.edu/hselman/309/Book/Book.pdf)*.

Contact

brixey@usc.edu

N 17 - Telehealth

Factors Associated With the Successful Implementation of Telehealth in a Retail Health Clinic

Elizabeth Ornelas, DNP, RN, FNP-BC, USA

Marlaine Skaggs, MSN, RN, FNP-C, USA

Abstract

Purpose: The purpose of this presentation is to identify the factors that influence adoption of telehealth in a retail health clinic setting.

Methods: A cross-sectional design was employed to address project aims. Nurse practitioners and licensed vocational nurses from four southern California counties completed an online Likert scale survey in fall 2014, which included demographic items as well as a telehealth adoption tool adapted from the Instrument to Measure Perceptions of Adopting an Information Technology Innovation (Benbasat & Moore, 2014). This instrument measures five diffusion of innovations theory (DIT) constructs (relative advantage, compatibility, trialability, observability, complexity) as well as result demonstrability, voluntariness, and image (Benbasat & Moore, 2014). Three open-ended questions were also included. The DIT and Promoting Action on Research Implementation in Health Services model (PARiSH) provided theoretical and conceptual foundations for this project (Rycroft-Malone, 2013).

Results: A convenience sample of sixty-three nurses from the retail health organization completed the survey (response rate 68%). Of these, 43% worked in high-adoption counties (regions achieving 77% of all telehealth visits). High adopters and low adopters (those underutilizing the innovation of telehealth) did not differ in terms of years of experience, levels of education, and months on telehealth at baseline.

Two questions related to the construct of voluntariness were significantly associated with telehealth adoption. For the question, "Although it might be helpful, using telehealth is compulsory in my job," there was a ten-fold difference between high adopters and low adopters ($\chi^2 = 18.911$, $p < .0001$). For the question, "My boss requires me to use telehealth," the high adopters were five times as likely to agree with this statement as the low adopters. Clearly, there was a difference between high and low adopters in the views related to voluntariness.

The construct of voluntariness assumes that adoption could be viewed either as voluntary or compulsory, and that there may be a higher adoption rate if a person is free to choose whether to use it or not (Rogers, 2002). In this sample, all the nurses were informed that telehealth was a mandatory requirement for employment. However, 91.9% of the low adopters believed it to be "voluntary" rather than mandatory. Freedom of choice provides the adopter with control and the desire, therefore, to achieve success.

Furthermore, the company may "expect" an employee to use an innovation, but the employee's perception may be that it is "voluntary," as the example above shows. The fact that the company believes it to be compulsory does not ensure that the employee will view it in the same way. In addition, the literature suggests that voluntariness may be perceived differently by individuals of certain social statuses, which may depend on one's professional role within an organization (Benbasat & Moore, 2014; Rogers, 2003).

Two items reflecting compatibility were statistically associated with telehealth adoption. Both questions reflect an individual's perception that telehealth is consistent with their needs, current existing beliefs or values, and past experiences (Rogers, 2002). Although these quantitative results yielded a negative compatibility, the qualitative responses (discussed below) showed the opposite. Low adopters were three times as likely to disagree with the statement ($\chi^2 = 5.360$, $p = 0.024$), "I think that using telehealth fits well with the way I like to work," and four times as likely to disagree with the statement, "Using telehealth fits into my work style," as high adopters.

Within the qualitative data, the free-text questions provided insight into other aspects of compatibility. The perceived loss of patient contact that occurs with telehealth was viewed as a barrier to adoption. Several nurses stated that they felt patient interaction was compromised during a visit. However, in a telehealth visit, the patient becomes an active participant in their care, thus improving interactions and communication. When the patient can visualize his/her own disease process via pictures, numbers, or trends on a screen, s/he may become more visually aware of his/her own health, and this may improve adherence to their treatment regimen (Rogers et al., 2011). This can increase both clinicians' and patients' satisfaction, improve daily work flow, as well as reduce the health-care dollars spent.

Conclusion: To improve the adoption of telehealth in the future, it is important to identify strategies to improve perceived voluntariness. One suggestion is to have managers regularly visiting low-adoption clinics to ensure that telehealth is being offered to all the appropriate patients, as per company protocols. Due to the logistical constraints that managers face, however, they might consider appointing telehealth champions—both LVNs and NPs—who excel in the operation of telehealth (based on excellent customer service scores and on practice in a high-adoption region). According to Bradshaw and Lowenstein (2014), students respond best to clinicians who exhibit passion for their work, including commitment, trust, collaboration, caring, and achievement.

The Diffusion of Innovations theory suggests that early adopters have more positive perceptions of innovations than the non-adopters (Rogers, 2002). Since diffusion is a process by which an innovation is communicated through certain channels over time among members of a social system, the messages being communicated require attention (Rogers, 2002). This diffusion or spread of messages also introduces an element of uncertainty both to the individuals and the organization as they must digest new ideas that represent proposed innovations. Innovations spread at different rates and it is the characteristics of an innovation, as perceived by the individuals in the social system, that truly influence the rate of adoption.

In this project, the idea that it is an individual's choice to utilize telehealth, despite the company's expectation, was a strong predictor of adoption. It is important to recognize the construct of compatibility to continue to nurture team support (between the LVNs and NPs) and to monitor the compatibility of work flow. Based on the evidence gathered, successful implementation strategies can be developed and generalized to other similar settings.

References

- Benbasat, I., & Moore, G. (2014). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, 2(3), 192-222.
- Bradshaw, M.J., & Lowenstein, A.J. (2014). *Innovative teaching strategies in nursing*. (6th ed.). Boston, MA: Jones & Bartlett Learning Books.
- Rogers, E. (2002). Diffusion of preventative innovations. *Addictive Behaviors*, 27, 989-993.
- Rogers, E. (2003). *Diffusion of innovations* (5th ed.). New York: The Free Press/ Simon & Schuster.
- Rogers, A., Kirk, S., Gately, C., May, C., & Finch, T. (2011). Established users and the making of telecare work in long term condition management: implications for health policy. *Social Science and Medicine*, 72, 1077- 1084. doi:10.1016/j.socscimed.2011.01.031.1084.
- Rycroft-Malone, J. (2004). The PARIHS framework- for guiding the implementation of evidence based practice. *Journal of Nursing Care Quality*, 19(4), 297-304.

Contact

Lizziefnp@csu.fullerton.edu

O 10 - Global Concerns for Cancer Clinical Trials

Informed Consent Practice in Cancer Clinical Trials in Taiwan

Chi-Yin Kao, PhD, RN, Taiwan
Mei-Chih Huang, PhD, RN, Taiwan

Abstract

Purpose: To understand the current informed consent process in cancer clinical trials in Taiwan.

Methods: Using semi-structured interview guides to interview clinical research nurses and cancer patients. Content analysis was used to analysis the data.

Results: 10 clinical research nurses and 10 cancer patients were interviewed from three medical centers in Taiwan. From clinical research nurses' practice, informed consent of cancer clinical trials normally happen on a very stressful situation for patients after they were informed bad news regarding their cancer progression by physicians. If the patient is not ready for the informed consent, clinical research nurses normally explain the trial information to family members first and let family members discussed with patients. Therefore, family member is an important role in patient decision making under Taiwanese culture context. In order to achieve patient understanding, informed consent is a continuous communication process for clinical research nurses. Both clinical research nurses and patients reported that trust physician, a hope for personal benefits, no standard treatment options, financial considerations, and special care services are the main reasons for patients to enroll in a cancer clinical trial. Fear of possible risks and adverse effects of study drugs, time investment and travel, and frequent tests were repeatedly addressed as the main barriers to trial participation. More than 70% of patients reported that they made the decision to attend a trial treatment and signed the consent form directly after informed consent. Over 50% of participants mentioned that the language of the consent form was too hard to understand and after they finished reading, they still did not understand the information. Clinical research nurses indicated that patient misunderstanding/poor understanding of clinical trial, trust of recommendation from their physician and different opinions with physicians are the dilemmas of informed consent.

Conclusion: Information, comprehension and voluntariness are three essential elements of the consent process. However, our interview study indicated that patients receive a trial treatment is because they are under the pressure of disease progression and choose to trust their physician's recommendation, not based on understanding of trial information. Further research could be conducted to improve patient autonomy and understanding of cancer clinical trials.

References

- Gibbs, C. L., & Lowton, K. (2012). The role of the clinical research nurse. *Nursing Standard*, 26(27), 37-40.
- Jefford, M., Mileskin, L., Matthews, J., Raunow, H., O'Kane, C., Cavicchiolo, T., . . . Reynolds, J. (2011). Satisfaction with the decision to participate in cancer clinical trials is high, but understanding is a problem. *Support Care Cancer*, 19, 371-379.
- Miller, S. M., Hudson, S. V., Egleston, B. L., Manne, S., Buzaglo, J. S., Devarajan, K., . . . Meropol, N. J. (2013). The relationships among knowledge, self-efficacy, preparedness, decisional conflict, and decisions to participate in a cancer clinical trial. *Psycho-Oncology*, 22(3), 481-489.

Contact

chiyinkao@mail.ncku.edu.tw

O 10 - Global Concerns for Cancer Clinical Trials

Impact of Health Literacy on Clinical Trial Enrollment for Breast Cancer Patients

Jessica Keim-Malpass, PhD, RN, USA
Christine Kennedy, PhD, RN, PPCNP-BC, FAAN, USA
Shayna Showalter, MD, USA
Aubrey Doede, MSN, RN, USA

Abstract

Purpose: Health literacy, or the ability to obtain, appraise and integrate health-related knowledge, is recognized by the Institute of Medicine as an integral component of high-quality health care. In adults, limited health literacy can be a critical indicator of adverse health outcomes such as: diminished health-related knowledge, increased measures of morbidity, poor adherence to medication regimens, and high utilization of health care resources. It is estimated that 20 - 36% of all adults in the United States have limited health literacy, and that the prevalence rises to closer to 50% among those who are also from a low income background. DeWalt and colleagues have demonstrated that adult patients with limited health literacy are less likely to participate in shared medical decision-making and adults with limited health literacy are more likely to experience shame, low self-esteem, and limited social support. With a renewed focus on patient-centered approaches, limited health literacy can diminish patient engagement in care and autonomy in self-care management.

Health literacy has been understudied in cancer, where patients must navigate difficult health care decisions and self-care management. Therapeutic clinical trials remain a predominant aspect of cancer care delivery and is the gold standard for developing new medical treatments and translating biomedical discoveries. A key barrier to participation in clinical trials is the process of randomization, and how the treatment and side effects of the treatment are explained during the clinical trial consent process and very little previous research has focused on health literacy as a critical component of this process. Therefore, the purpose of this prospective correlational study was to determine if patient's level of health literacy predicts the decision to enroll in a clinical trial among breast cancer patients.

Methods: From June 2015 through September 2016 a health literacy questionnaire was administered to all new breast cancer patients and all breast cancer patients seen in follow-up. The health literacy questionnaire is a valid and reliable 3-item self-report screening tool with ranges in score from 3-15 (higher scores represents lower health literacy). Pertinent clinical outcomes related to the diagnosis and treatment was obtained for all patients with a health known health literacy score. Enrollment of a clinical trial was designated as a yes/no dichotomous outcome variable and included chemotherapy, radiation, and surgical clinical trials pertinent to the breast cancer diagnosis. Descriptive statistics were calculated to describe health literacy and patient characteristics, and a multivariate logistic regression was calculated to determine the relationship of health literacy on decision to enroll in a clinical trial.

Results: 512 breast cancer patients were included in this analysis. Among these women, 12.1% of the patients were identified as having the lowest level of health literacy (limited health literacy) and 13.5% were identified as having marginal health literacy. 12.9% of the study population were enrolled in a clinical trial (n=66). In logistic regression, there was no statistical significance in the relationship between health literacy and enrollment in a clinical trial ($p = 0.09$).

Conclusion: Health literacy is not well defined in the breast cancer patient population and the health literacy-specific aspects of the clinical trial informed consent process have been understudied. Our findings did not demonstrate a relationship between health literacy and enrollment in a clinical trial. One limitation to our findings was that chemotherapy, radiation and surgical clinical trials were included in the same outcome variable. Each of those clinical trials has various risk/benefit profiles and future study is warranted investigating the relationship of health literacy to individual trial types. Nurses play a key role in understanding a patient's health literacy and offering tailored educational and shared decision-making support.

References

- DeWalt, D., Berkman, N., Sheridan, S., Lohr, K., & Pignone, M. (2004). Literacy and Health Outcomes: A Systematic Review of the Literature. *Journal of General Internal Medicine*, 19, 1228–1239.
- Institute of Medicine. (2011). *Innovations in Health Literacy: Workshop Summary*. (C. Vancheri, Ed.). Washington, D.C.: The National Academies Press.
- Kitson, A., Marshall, A., Bassett, K., & Zeitz, K. (2013). What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing. *Journal of Advanced Nursing*, 69(1), 4–15. <http://doi.org/10.1111/j.1365-2648.2012.06064.x>
- Krieger, J. L., Neil, J. M., Strelakova, Y. A., & Sarge, M. A. (2017). Linguistic Strategies for Improving Informed Consent in Clinical Trials Among Low Health Literacy Patients. *Journal of the National Cancer Institute*, 109(3), djw233. <http://doi.org/10.1093/jnci/djw233>
- Nielsen-Bohlman, L., Panzer, A. M., Hamlin, B., & Kindig, D. A. (n.d.). Health Literacy A Prescription to End Confusion.
- Sarkar, U., Schillinger, D., López, A., & Sudore, R. (2011). Validation of self-reported health literacy questions among diverse English and Spanish-speaking populations. *Journal of General Internal Medicine*, 26(3), 265–71. <http://doi.org/10.1007/s11606-010-1552-1>
- Wolf, M. S., Williams, M. V., Parker, R. M., Parikh, N. S., Nowlan, A. W., & Baker, D. W. (2007). Patients' shame and attitudes toward discussing the results of literacy screening. *Journal of Health Communication*, 12(8), 721–32. <http://doi.org/10.1080/10810730701672173>

Contact

jlk2t@virginia.edu

O 11 - Palliative Care Simulation

Assessing Interprofessional Palliative Care Movie Simulation and Debriefing: A Multisite, Multinursing Track Perspective

Mary Val Palumbo, DNP, MSN, BS, APRN, GNP-BC, USA

Kathleen Marie-Anne Huun, PhD, MSN, MS, BS, BSN, RN, USA

Abstract

Simulation has become commonplace in undergraduate nursing programs and “opens doors for students to experience today’s complex and challenging patients and it enhances their critical thinking skills” (Davis, Kimble, & Gunby, 2014, p. 149). In addition, a focus on inter-professional (IP) education/collaboration has also become a constant thread due to the imperatives issued by health service policy makers and educational accrediting bodies. According to Saylor, Vernoooy, Selekman, and Cowperthwait (2016), “simulation focusing on palliative care is an effective modality to promote IPE beyond acute care and crisis scenarios” (p. 129).

Providing the opportunity for traditional undergraduate nursing students to participate in simulation and collaboration on interprofessional patient care is nothing short of a scheduling and time management nightmare. The problem is compounded when distance (fully online) undergraduate, baccalaureate nursing completion (BNC) students (LPN to BSN and RN to BSN) are factored into the mix. Thus, a means to offer an opportunity for various tracks of undergraduate nursing students (multi-site) to receive simulation and an interprofessional collaboration experience was requisite. As such, a novel means to equitably facilitate learning gave rise to the use of an *Interprofessional Palliative Care Movie Simulation*.

“Video-recorded simulation is a teaching technology that allows one to present reality under controlled conditions, both of the environment and the individuals involved, which in turn favors learning” (Cardoso et al., 2011, p. 709). Likewise, video/movie simulation can be accessible via online access as is needed for online students in the BNC program, or as an in class presentation for face-to-face traditional undergraduate nursing students. As palliative care practice readily depicts rich examples of interprofessional team work, a carefully developed movie portraying end of life team care of a patient with amyotrophic lateral sclerosis (ALS) was chosen. This movie had been scripted from audio recordings of students responses during an actual simulation of end-of-life care for a patient with ALS and his husband. The movie was filmed using standardized patient actors playing the patient, husband, sister and the student healthcare providers. The use of standardized patients in simulation “provide rich clinical experiences for undergraduate nursing students” (Sideras, McKenzie, Noone, Markle, Frazier, & Sullivan, 2013, p. 425). The movie is segmented into five scenes; the first four include assessment of patient and family needs by nursing, physical therapy, primary care provider, social work and speech language pathology; the final act is a death scene.

Purpose: Although evidence supports simulation and the use of video technology, an interconnection of the two and the delivery of complex inter-professional collaborative care content calls for an investigation into the success of these measures to facilitate learning. As such, the purpose of the investigation is to 1) assess student satisfaction and self-confidence in learning using the *Interprofessional Palliative Care Movie Simulation* and 2) compare online discussion board debriefing with an in person post movie simulation debriefing.

Methods: The National League for Nursing (NLN) Student Satisfaction and Self-Confidence in Learning survey was utilized for assessment. This 13 item tool utilizes a five point scale. Reliability has been “tested using Cronbach’s alpha: satisfaction = 0.94; self-confidence = 0.87” (“Description of Available Instruments,” 2016). Questions from a previously developed tool (University of Vermont) based on the Interprofessional Competency Domains of 1) Values/Ethics, 2) Roles/Responsibilities, 3) Interprofessional Communication, and 4) Teams/Teamwork were also utilized. The tool had been reviewed by faculty in each discipline providing content validity. Reliability of the survey instrument was not tested or established.

The distance students accessed the movie simulation assignment via their online learning platform. The students asynchronously viewed the movie simulation and answered debriefing questions via discussion board format. At the close of the discussion board, the students were given access to Qualtrics links for the NLN survey and the IP competency survey. The traditional undergraduate students, participating in person, completed the NLN survey and the IP competency survey after the conclusion of a synchronous movie viewing and debriefing completed in one continuous group session.

Results: The traditional undergraduate nursing students (n=82) who participated “in person” were 89% female and 11% male, 3% Hispanic, 91% White/Caucasian, 6% Asian and 1% Black/African American. The average age was 23 years. The BNC students (n = 25) who participated online were 96% female, 4% male, 76% White/Caucasian, 4% Asian, and 16% Black/African American. The age of these non-traditional students ranged from 24 to 54 years. All students were in their senior year.

Regarding the teaching methods used in this simulation, 94.39% of respondents agreed or strongly agreed that the methods were helpful and effective. When grouped as questions regarding satisfaction in learning, the results of respondents answering agree or strongly agree were 94.54% (RNs), 91.90% (LPNs), and 86.56% for traditional nursing students. Likewise, for questions regarding self confidence in learning, the results of respondents answering agree or strongly agree were 92.05% (RN), 84.17% (LPN), and 79.12% for traditional nursing students.

One question in particular that revealed the most undecidedness or disagreement was: “It is the instructor’s responsibility to tell me what I need to learn of the simulation activity content during class time.” The results of respondents answering agree or strongly agree were 54.54% RN, 40% LPN, and 40.74% for traditional nursing students. These results are considerably different from the overall favorable impression of all other survey questions. And, in contrast to this question, students responded positively to a similar question, “It is my responsibility as the student to learn what I need to know from this simulation activity.” The results of respondents answering agree or strongly agree were 100% RN, 100% LPN, and 89.75% for traditional nursing students.

In regards to self confidence in learning, statements that revealed the most undecided or disagreement were: “I am confident that I am mastering the content of the simulation activity that my instructors presented to me” (UNDECIDED, 20.99% and DISAGREE 3.66% of traditional nursing students only); and “I am confident that this simulation covered critical content necessary for the mastery of medical surgical curriculum” (UNDECIDED, 18.18% RN, 13.33% LPN, 17.28% traditional and DISAGREE, 6.67% LPN, 6.54% traditional).

In regards to the debriefing methods used (face-to-face interaction or online discussion board), the response was extremely favorable and students felt they were able to express their thoughts in a manner conducive to learning. Specifically, in response to the question, “I expressed my knowledge and opinion during the case discussion” results of respondents answering agree or strongly agree were 100% RN, 100% LPN, and 97.53% for traditional nursing students.

Five questions regarding interprofessional collaboration were utilized. Overall 85% of undergraduate nursing students felt they learned about interprofessional team work following the simulation. Students overwhelmingly indicated that they would forge relationships with other healthcare professionals to improve care for elders with 100% RN, 100% LPN, and 97.56% traditional nursing students responding agree or strongly agree. Likewise students recognized the necessity of utilizing a healthcare team to provide care for patients at the end of life with 100% RN, 93.33% LPN, and 97.53% traditional students responding agree or strongly agree.

Conclusion: All tracks of undergraduate students reported acceptance of the responsibility for their learning and are comfortable with the use of simulation even when it involves watching a previously recorded simulation. Student responses show that this format is a useful means to allow for online simulation (via a movie) and shows evidence of satisfaction (mode of simulation) and self-confidence in learning and perceived competency in the interprofessional palliative care of a patient. Thus, at least for this pilot survey various tracks of nursing students (multi-site) learning via differing formats (online versus

face-to-face) may have direct benefit from this educational modality. This finding is helpful as the logistics for and cost of simulation for large groups of interprofessional students is considerable.

A significant amount of literature supports the use of simulation for enhancing critical thinking. Thus, the development of specific (level appropriate) video case study simulations may broaden the teaching strategies available to bring simulation to students of nursing and other interprofessional disciplines. Thus, the use of a movie simulation (based on health concepts/case scenarios) appropriate to the level of learning can reach a wide audience outside of a simulation lab whether a distance or local student.

Recommendations for Future Research: As more nursing education is delivered using an online format, innovative online simulation activities which expose students to interprofessional practice must also be continually developed, implemented, and evaluated. The use of faculty developed medical movie simulation scenarios in conjunction with other technological advances such as virtual clinics, video conferencing, and mobile robotic telepresence have and may continue to open up new avenues for interprofessional simulation education albeit, this type of innovative pedagogy must be further evaluated and disseminated. In addition, these modalities can be utilized synchronously or asynchronously whether online distance student or face-to-face campus student. Consistent evaluation of interprofessional practice competency domains must also be included in all educational activities. Likewise continued evaluation of movie simulation as a modality of simulation is recommended in nursing as well as in other disciplines. As an additional measure, multi-site, multi-educational mode (face-to-face and online) comparisons are encouraged.

References

- Cardoso, A., Moreli, L., Braga, F., Vasques, C., Santos, C., & Carvalho, E. (2012). Effect of a video on developing skills in undergraduate nursing students for the management of totally implantable central venous access ports. *Nurse Education Today*, 32(6), 709-713. doi:10.1016/j.nedt.2011.09.012
- Davis, A., Kimble, L., & Gunby, S. (2014). Nursing faculty use of high-fidelity human patient simulation in undergraduate nursing education: A mixed-methods study. *Journal of Nursing Education*, 53(3), 142-150. doi: 10.3928/01484834-20140219-02
- Description of Available Instruments. (2016). *National League for Nursing*. <http://www.nln.org/professional-development-programs/research/tools-and-instruments/descriptions-of-available-instruments>
- Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, DC: Retrieved from https://www.aamc.org/download/186750/data/core_competencies.pdf
- Saylor, J., Vernoony, S., Selekman, J., & Cowperthwait, A. (2015). Interprofessional education using a palliative care simulation. *Nurse Educator*, 41(3), 125-129. doi:10.1097/nne.0000000000000228
- Sideras, S., McKenzie, G., Noone, J., Markle, D., Frazier, M., & Sullivan, M. (2013). Making simulation come alive: Standardized patients in undergraduate nursing education. *Nursing Education Perspectives*, 34(6), 421-425.

Contact

mary.palumbo@med.uvm.edu

O 11 - Palliative Care Simulation

A Patient's Last Breath: An Analysis of Hospice Clinical vs. Hospice Simulation Experiences

Stephanie M. Jeffers, PhD, MSN, BSN, RN, USA

Abstract

Purpose: The literature has shown that registered nurses continue to feel inadequately prepared to address end-of-life issues, due to a lack of education on the process of dying and how to manage patient symptoms, cultural considerations and an awareness of their own attitudes and values about death (Al Qadire, 2014; Cui, Shen, Ma, & Zhao, 2011). In addition, pre-licensure nursing programs have been slow to integrate end-of-life care into their curricula. In those pre-licensure nursing programs that do offer courses on end-of-life care, student outcomes include positive attitudes toward dying patients and a positive influence on the students regarding the philosophy of palliative care, as the teaching strategies of the courses were geared toward the affective domain. Students who completed courses on end-of-life care reported feeling increased sympathy and empathy towards their patients, and they found an end-of-life care course to be an essential part of the nursing curriculum (Hold, Blake, & Ward, 2015). In several studies, students noted that the curriculum contributed to their personal and professional development (Ballesteros, Centeno, & Arantzamendi, 2014; Conner, Loerzel, & Uddin, 2014).

There is a dearth of research examining nursing students' experiences in a hospice or palliative care unit. This may be due to several factors including barriers to acquiring hospice as a clinical site or assigning a dying patient to a student. These barriers may include staff, patient, family or faculty comfort level and/or lack of knowledge to teach end-of-life concepts (Doucette, et al., 2014; Jeffers, 2014).

This study had two purposes. The first was to compare two teaching strategies, hospice simulation and hospice clinical, to outcomes resulting from teaching undergraduate nursing students about end-of-life nursing care. The second purpose of this study was to strengthen understanding of the attitudes and perceptions of nursing students caring for dying patients and their families in both simulated and hospice clinical settings.

Methods: This investigator used both descriptive comparative and qualitative descriptive designs. Fourth year nursing students enrolled in a Medical-Surgical Nursing III course participated in the study (n=151). Prior to the study, Institutional Review Board approval was obtained from the university and participants were provided with an informed consent form detailing the purpose of the study.

Data collection involved three instruments. First, the investigator used a demographic questionnaire developed by the principal investigator for this study to collect information such as the participant's age, gender, experience with caring for dying patients in a clinical setting, experience with the loss of a family member or friend, ethnicity and religion. Second, to assess student attitudes about providing care, the investigator administered the Frommelt Attitude Toward Care of the Dying Scale (FATCOD) as a pretest prior to the simulation or clinical and a posttest after simulation or clinical. Finally, the investigator used a third instrument, a reflection journal administered before and after the hospice simulation or clinical experience. This reflection journal provided qualitative data pertaining to students' feelings and experiences related to the assigned teaching strategy.

Students were randomly divided into two groups: hospice simulation and hospice clinical. The students assigned to simulation participated in a scenario about an actively dying man in hospice. After the simulation, students were debriefed, explored their perceptions of end-of-life care and discussed their feelings regarding the simulation.

Participants in the hospice clinical experience attended a hospice clinical site, with an adjunct clinical instructor. The students participated in family planning meetings with the interdisciplinary team, communicated with patient, family and interdisciplinary team, and provided care for the dying patient as needed. The students debriefed about the experience in clinical post-conference.

Quantitative data analysis was conducted using descriptive statistics, including independent and paired t-tests. Thematic analysis of the reflection journals was conducted. Key phrases and themes were identified and the major themes were described.

Results: Findings include changes in student attitudes towards the dying patient and end-of-life care, in both groups. Prior to the hospice simulation or clinical experience, students reported feeling anxious caring for a dying patient or a patient who has just died. After the hospice simulation or clinical, students reported feeling more comfortable discussing end-of-life preferences with the patient and interdisciplinary team. Thematic analysis of the qualitative data offers student insights about the care of a dying patient in both a clinical setting and a simulation setting.

Conclusion: The results of this study demonstrate the benefit of a hospice clinical experience for pre-licensure nursing students which is supported by the literature (Chmura, 2016; Spicer, Heller, & Troth, 2015). The data support an improvement in overall attitudes towards the dying patient in both clinical and simulation settings. Students in both groups reported a preference for learning about end-of-life care in a clinical setting, rather than in a simulation. This study contributes to the advancement of nursing science and improvement of end-of-life care by highlighting an additional teaching strategy for end-of-life education. Further research is needed on the inclusion of hospice clinical settings for pre-licensure nursing students.

References

- Al Qadire, M. (2014). Nurses' knowledge about palliative care: A cross sectional survey. *Journal of Hospice and Palliative Nursing*, 16, (1), 23-30.
- Ballesteros, M., Centeno, C. & Arantzamendi, M. (2014). A qualitative exploratory study of nursing students' assessment of the contribution of palliative care learning. *Nurse Education Today*, 34, (6), e1-e6.
- Chmura, J. (2016). Dedicated education unit model in hospice and palliative care setting. *Nurse Educator*, 41, (1), 25-28.
- Conner, N., Loerzel, V., & Uddin, N. (2014). Nursing student end-of-life care attitudes after an online death and dying course. *Journal of Hospice and Palliative Nursing*, 16, (6), 374-382.
- Cui, J., Shen, F., Ma, X. & Zhao, J. (2011). What do nurses want to learn from death education? A survey of their needs. *Oncology Nursing Forum*, 38, (6), e402-e408.
- Doucette, E., Killackey, T., Brandys, D., Coulter, A., Daoust, M., Lynsdale, J., Taylor, E., Pinsonneault, F. & Shamy-Smith, E. (2014). Silent Witnesses: Student nurses' perspectives of advocacy and end-of-life care in the intensive care unit. *Canadian Association of Critical Care Nurses*, 25, (4), 17-21.
- Hold, J., Blake, B. & Ward, E. (2015). Perceptions and experiences of nursing students enrolled in a palliative and end-of-life nursing elective: A qualitative study. *Nurse Education Today*, 35, 777-781.
- Jeffers, S. (2014). Nurse faculty perceptions of end-of-life education in the clinical setting: A phenomenological perspective. *Nurse Education in Practice*, 14, (5), 455-460.
- Spicer, S., Heller, R. & Troth, S. (2015). Hospice clinical experiences for nursing students: Living to the fullest. *Journal of Christian Nursing*, 32, (1), 46-49.

Contact

sieffers@mail.widener.edu

O 12 - Global Sexual Health

Peruvian, Spanish, and American Nursing Faculty Attitudes to Caring for People Living With HIV/AIDS

Juan M. Leyva-Moral, PhD, MSc, BN, RN, Spain

Patrick Albert Palmieri, DHSc, EdS, PGDip(Oxon), MBA, MSN, RN, CPHQ, CPHRM, FISQua, FACHE, FAAN, USA

David Moriña-Soler, PhD, MS, Spain

Sandra Cesario, PhD, MS, BSN, RNC, FAAN, USA

Maria Feijoo-Cid, PhD, BSN, BA, RN, Spain

Patricia Noemí Piscocoya-Angeles, MNS, BSN, BSM, RN, RM, Peru

Nataly Julissa Membrillo-Pillpe, MSc(c), BSN, RN, Peru

Joan E. Edwards, PhD, MN, BSN, RNC, CNS, FAAN, USA

Abstract

Introduction: Nurses acquire knowledge from biological, psychological and social sciences, with a special emphasis in the human sciences resulting in the ontological conception of caring. At the same time, nurses have their own personal beliefs, attitudes, and experiences which can impact their perceptions about patients as well as the way they care for them. Importantly, some perceptions about patients result in negative caring behaviors that produce stigmatization, solace, and hopelessness among others. If these perceptions are identified early, preventive and transformative interventions can be implemented to improve patient care and quality of life. The literature provides evidence that fears and misunderstanding persist among nurses and nursing students towards caring for People Living with HIV (PLHIV); however, research about faculty attitudes towards caring for PLHIV is almost nonexistent (Leyva-Moral et al., 2016).

Background: As there are more than 33 million PLHIV (UNAIDS, 2015), understanding nurse perceptions about caring for PLHIV is an important area for research to inform evidence-based practice. In global studies about perceptions and caring, nurses still report negative perceptions about caring for PLHIV. For example, Turkish nursing students have negative attitudes about caring for PLHIV; preferring not work with these patients because they fear being infected (Bektaş & Kulakaç, 2007; Nazik, Arslan, Özdemir, & Apay, 2012). Thai nursing students recognize their insecurity about caring for PLHIV. Perceiving high risk of HIV infection, the students are preoccupied with exceeding the level of universal precautions when interacting with PLHIV (Earl, 2010). Also, fear for caring for PLHIV is identified amongst nursing students in the United States, South Africa, Singapore, Sweden and the United Kingdom. They express negative homophobic behaviors, avoidance conduct, non-compassionate care, and rejection (Atav, Sendir, Darling, & Acaroglu, 2014; Pickles, King, & Belan, 2009, 2012). Yet, there are locations, such as Berlin, where nursing students report positive attitudes about caring for PLHIV (Lohrmann et al., 2000). The collective personal experience of this research team believes nursing faculty have attitudinal aspects similar to those indicated by the student literature but objective data to affirm this hypothesis is absent. Thus, the objective of this study is to identify the attitudes of caring for PLHIV among nursing faculty.

Methods: This was a multi-center cross-sectional study. Data was collected using an anonymous web-based version of the validated Healthcare Provider HIV/AIDS Stigma Scale (HPASS) (Wagner, Hart, Mcshane, Margolese, & Girard, 2014). This is Likert scale instrument with 30 items, explores 16 prejudices, 11 stereotypes, and 6 discriminations. A Spanish version of the HPASS, produced with a forward and reverse translation, and expert content, culture, and language validation, was used in Spanish-speaking countries. Sociodemographic data were also collected. This study was approved by the Texas Woman's University Institutional Review Board (Protocol# 19213 / Approval# FWA00000178). Four colleges of nursing participated in the study: Two from Peru, one from Spain, and one from the United States. The scale score ranged from 35 points to 175, with a lower score indicating better attitudes. Generalized linear modeling (McCullagh & Nelder, 1989) was used for data analysis. This technique is a more flexible generalization of ordinary linear regression, permitting the evaluation of

associations between response variables of several kinds (scores in our case) and potential explanatory variables (importance of religion, gender, age, university and highest level of studies).

Results: A total of 119 valid questionnaires were collected for a general response rate of 89.1%. The mean participant age was 49.8 years (SD=12.3) with an average of 14.8 years of teaching experience (SD=12.1). The majority of the American and Spanish faculty (55.00%) hold doctoral degrees while the majority of Peruvian hold Master degree (55.55%). Only 11.11% of the Peruvian faculty hold a doctoral degree. The effect of the potential to explicate variables “importance of religion”, “gender”, “age”, “university” and “highest level of studies” over total score and stereotyping, prejudices and discrimination subscales was analyzed by means of generalized linear models. In relation to the total score for the Stigma scale, very low importance of religion was significantly associated with lower scores ($p = 0.009$), or positive attitudes about caring for PLHIV. Also related to the total score, Peruvian faculty had higher total scores ($p = 0.008$ and $p = 0.012$ respectively) which equates to negative attitudes about caring for PLHIV. No other explicative variables showed a significant association to the total score. A positive attitude for not discriminating was associated with very low importance of religion on the discrimination subscale ($p = 0.010$, $p = 0.001$ and $p = 0.002$ respectively). With respect to the stereotype subscale, the faculty indicating very low importance to religion had lower scores ($p = 0.049$); with an observed higher tendency to stereotype for the older faculty ($p = 0.003$). Regarding the prejudice scale, only the faculty indicating very little importance to religion reported significantly lower scores ($p = 0.014$).

Conclusions: The Spanish and American faculties were more highly educated than the Peruvian faculty. Attitudes about caring for PLHIV were mainly positive among nursing faculty although religiosity seemed to significantly influence discriminatory and prejudice attitudes. The Peruvian faculty were more influenced by religion than were the American and Spanish faculties. Also, the Peruvian faculty scored higher on the discrimination and stereotype scales than the other faculties. The implication of this study is that religion negatively influences the attitude about caring for PLHIV. The limitations of this study were a limited sample size, and the diversity of participant faculties.

Recommendations: Future research should explore the relationship of religiosity to caring for PLHIV. An educational intervention may be appropriate to improve the care of PLHIV by those faculties highly influenced by religion. Cultural diverse and population health practices in HIV/AIDS need to be studied to determine the impact on both the caregiver and the person receiving care.

References

- Leyva-Moral, JM., Terradas-Robledo, R., Feijoo-Cid, M., de Dios-Sánchez, R., MestresCamps, L., Lluva-Castaño, A., Comas-Serrano, M. (2016). Attitudes to HIV and AIDS among students and faculty in a School of Nursing in Barcelona (Spain): a cross-sectional survey. *Collegian. The Australian Journal of Nursing Practice, Scholarship and Research* (in press). <http://dx.doi.org/10.1016/j.colegn.2016.10.006>
- Nazik, E., Arslan, S., Özdemir, F., & Apay, S. (2012). Turkish nursing students' attitudes about patients living with HIV/AIDS. *Sexuality and Disability, 30*(4), 433-439. <http://doi.org/10.1007/s11195-012-9281-5>
- Ozakgöl, A. A., Sendir, M., Atav, A. S., & Kızıltan, B. (2014). Attitudes towards HIV/AIDS patients and empathic tendencies: A study of Turkish undergraduate nursing students. *Nurse Education Today, 34*(6), 929-933. <http://doi.org/10.1016/j.nedt.2013.10.018>
- Pickles, D., King, L., & Belan, I. (2012). Undergraduate nursing student's attitudes towards caring for people with HIV/AIDS. *Nurse Education Today, 32*(1), 15-20. <http://doi.org/10.1016/j.nedt.2011.01.008>
- Joint United Nations Programme on HIV/AIDS. (2015). *How AIDS changed everything*. Geneva, Switzerland: Author. Retrieved from http://www.unaids.org/sites/default/files/media_asset/MDG6Report_en.pdf
- Wagner, A. C., Hart, T. A., Mcshane, K. E., Margolese, S., & Girard, T. A. (2014). Health care provider attitudes and beliefs about people living with HIV: Initial validation of the Health Care Provider HIV/AIDS Stigma Scale (HPASS). *AIDS & Behavior, 18*(12), 2397-2408. <http://dx.doi.org/10.1007/s10461-014-0834-8>

Contact

juanmanuel.leyva@uab.cat

O 12 - Global Sexual Health

Determining Knowledge, Attitudes, and Beliefs About Pre-Exposure Prophylaxis (PrEP) Among Transgender Men

Stefan Rowniak, PhD, RN, FNP, USA

Chenit Ong-Flaherty, DNP, MSN, AB, RN, APHN-BC, CNL, USA

Nancy Selix, DNP, FNP-C, CNM, CNL, USA

Niko Kowell, BA, USA

Abstract

Purpose: The United States has witnessed a real shift in HIV prevention practices over the past several years. The prevention techniques that had been employed since the beginning of the epidemic have focused on behavior change. This meant the promotion of condoms for safer sex and engaging high-risk individuals in intensive behavior change counseling, among other interventions. The current shift has been away from individual behavioral approaches to more community-based biological approaches that include testing and immediate treatment and the lowering of the community viral load to ensure that transmission is significantly decreased (Centers for Disease Control and Prevention, 2012, 2014b; San Francisco Department of Public Health, 2014).

The biological intervention that has engendered some of the most interest is pre-exposure prophylaxis (PrEP). The iPrEx study demonstrated that with the daily use of emtricitabine and tenofovir disoproxil fumarate (FTC-TDF), also known as Truvada, participants had a 44% lower rate of infection with HIV compared to those who received placebo. In the same study, those participants who had detectable blood levels of the drug had a 92% lower rate of infection with HIV as compared to those without detectable levels. This suggests an even greater protection for those who are able to take the drug on a daily basis (Centers for Disease Control and Prevention, 2012, 2014b, 2014c; Cohen, Liu, Bernstein, & Philip, 2013).

Since the results of the study were reported, the US Food and Drug Administration approved the emtricitabine and tenofovir combination for PrEP in 2012. Though uptake of PrEP among providers has been slow throughout the country, in locations such as San Francisco, the Health Department and other health providers have been engaged in active promotion of PrEP in a campaign to “get to zero” with regard to new HIV infections (San Francisco Department of Public Health, 2014).

One of the most important questions with regard to PrEP is at whom should the promotion and use of PrEP should be aimed. The iPrEx study recruited primarily men who have sex with men (MSM). This makes perfect sense since MSM have been documented as the population most profoundly impacted by HIV since the epidemic began. Also young MSM of color represent the only group demonstrating increasing incidence of HIV in the US (Centers for Disease Control and Prevention, 2014a).

HIV disproportionately affects transgender women on a worldwide basis (World Health Organization, 2015). Currently there are attempts to actively recruit more transgender women into PrEP programs in San Francisco and throughout California. However, there has been little attention paid to transgender men as being at risk for HIV and also as candidates for PrEP. Several studies have demonstrated that there are transgender men who are the sexual partners of gay men, identify as gay men, and are embedded within the gay male community thus having the same risks for HIV as non-transgender gay men (Rowniak & Chesla, 2012; Rowniak, Chesla, Rose, & Holzemer, 2011; Sevelius, 2009). The lack of inclusion of transgender men in the discussions and promotion of PrEP has meant that not only are many medical providers overlooking transgender men as PrEP candidates, many in the community of transgender men have not understood how PrEP may be relevant to their lives and health. The purpose of this study was to examine the knowledge, attitudes and beliefs of transgender men (trans men) regarding pre-exposure prophylaxis (PrEP) for HIV

Methods: Three focus groups of trans men were conducted with a trans male facilitator for a total of 21 participants. Each of the primary researchers attended one of the focus groups. They took field notes during the session and wrote up their impressions of the focus groups within 24 hours. All focus groups

were recorded and then transcribed. Transcripts were placed in the Atlas.ti computer program and a thematic analysis was conducted comparing each focus group to the others.

Results: Six themes were identified; a lack of adequate information about PrEP and possible side effects, the economic realities for trans men, finding a trans competent provider, trans male sexuality, the importance of contraception, and condom use.

Conclusion: Despite identified risk, many trans men still lack adequate information regarding PrEP. There exist significant barriers to PrEP access for trans men including economic hardship that is impacted by a person's transgender status and a lack of cultural competent providers for transgender people. Also, participants commented how many providers avoid important discussions regarding sexuality. As a result, most stated that their medical providers assumed that the participants had female sex partners and did not know that they had gay male sex partners and were therefore at risk for HIV infection and appropriate for PrEP. Interestingly, most participants reported a high level of condom use and stated they would continue to use condoms even if they were taking PrEP. This could, in part, be explained by the concern voiced over the risks of pregnancy and the need for contraception. There is a need for PrEP education and outreach to the trans male community. The education of healthcare professionals must include competency in working with transgender populations, which includes an understanding and appreciation of the variabilities in transgender sexuality. More research is needed with regard to interactions between PrEP, testosterone, and hormonal contraception.

References

- Centers for Disease Control and Prevention. (2012). *CDC Statement on FDA Approval of Drug for HIV Prevention*. Retrieved from http://www.cdc.gov/hiv/prep/pdf/CDC_FDA_Approval_Truvada.pdf.
- Centers for Disease Control and Prevention. (2014a). Diagnoses of HIV Infection and AIDS in the United States and Dependent Areas, 2009. Retrieved from <http://www.cdc.gov/hiv/topics/surveillance/basic.htm>
- Centers for Disease Control and Prevention. (2014b). *Preexposure Prophylaxis for the Prevention of HIV Infection in the United States - 2014 A Clinical Practice Guideline*. Retrieved from www.cdc.gov/hiv/pdf/PrEPguidelines2014.pdf.
- Centers for Disease Control and Prevention. (2014c). PrEP for HIV Prevention. Retrieved from <http://www.cdc.gov/Features/stop-hiv-prep/>
- Cohen, S. E., Liu, A. Y., Bernstein, K. T., & Philip, S. (2013). Preparing for HIV pre-exposure prophylaxis: lessons learned from post-exposure prophylaxis. *American Journal of Preventive Medicine*, *44*(1 Suppl 2), S80-85. doi:10.1016/j.amepre.2012.09.036
- Rowniak, S., & Chesla, C. (2012). Coming out for a third time: Transmen, sexual orientation, and identity. *Archives of Sexual Behavior*. doi:10.1007/s10508-012-0036-2
- Rowniak, S., Chesla, C., Rose, C. D., & Holzemer, W. L. (2011). Transmen: the HIV risk of gay identity. *AIDS education and prevention : official publication of the International Society for AIDS Education*, *23*(6), 508-520. doi:10.1521/aeap.2011.23.6.508
- San Francisco Department of Public Health. (2014). Getting to Zero in San Francisco. Retrieved from <https://www.sfdph.org/dph/files/hc/HCAgen/HCAgen2014/December%202/Buchbinder%20HC%20G2Z%2025%20Nov%202014%20draft.pdf>
- Sevelius, J. (2009). "There's no pamphlet for the kind of sex I have": HIV-related risk factors and protective behaviors among transgender men who have sex with nontransgender men. *Journal of the Association of Nurses in AIDS Care*, *20*(5), 398-410. doi:S1055-3290(09)00104-6 [pii] 10.1016/j.jana.2009.06.001
- World Health Organization. (2015). *Transgender people and HIV*. Geneva, Switzerland: WHO Press.

Contact

srowniak@usfca.edu

O 13 - Community-Based Health Promotion

Strengthening the Evidence for Community-Based Wellness: An Academic-Practice Approach to Support Evaluation and Dissemination

Vicki L. Simpson, PhD, MSN, RN, CHES, USA

Abstract

Purpose: Chronic diseases remain a public health challenge, with 49.8% of the US population diagnosed with at least one chronic condition in 2012 and 11.7% diagnosed with three or more chronic conditions (Ward, Schiller, & Goodman, 2014). Additionally, in 2010 treatment of chronic diseases accounted for 86% of US health care costs (Centers for Disease Control and Prevention [CDC], 2016). Chronic diseases are generally very complex and require the generation of evidence to support the design of effective strategies for use by public health practitioners. The purpose of this study was to evaluate the effectiveness of a community-based wellness program offered by a local grassroots coalition in a rural, Midwest, largely Hispanic county to address chronic disease prevention and management. This county ranks 66/92 counties in Indiana in relation to health outcomes. The coalition began providing services to this vulnerable population in 2014 at a variety of sites including manufacturing, low-income housing, service, and faith-based institutions. Monthly health screenings and education as well as referrals to local resources are provided to address the multiple determinants which underlie chronic disease development. An academic-community partnership between a nurse researcher and the community-based coalition was created with the support of a collaboratively developed clinical and translational sciences grant. The grant provided support to enhance data collection, evaluate program outcomes, and disseminate evidence of best practices. Across the US, many community-based programs such as this one are supporting population health improvements and addressing health disparities, however these programs are often not evaluated with the rigor necessary to establish evidence of effectiveness nor are results disseminated for use by other communities. Academic-practice partnerships offer the ability for collaboration between nurse researchers and communities to support design and testing of such programs to develop practice-based evidence for dissemination (Ammerman, Smith, & Calancie, 2014).

Methods: A community-based participatory research approach (CBPR) was used to guide this repeated measures descriptive study to evaluate an existing community based wellness program provided by a community coalition. The CBPR approach was used to support equal engagement of community partners in the research. This approach is useful in rural settings to identify best practices to meet the needs and characteristics of rural populations (Young-Lorian et al., 2013). After receipt of the grant, multiple meetings were held between the nurse researcher and coalition members and providers. These meetings resulted in development of: 1) a research protocol, 2) an enhanced data collection system, 3) questions to more formally capture data concerning lifestyle behaviors, and 4) increased use of technology to easily capture data for analysis. Data from the screenings and lifestyle behavior questionnaires was collected over an 11-month period, de-identified and sent to the researcher for analysis. During the grant period, the academic researcher and coalition providers communicated frequently with several meetings to discuss any issues or concerns.

Results: In the 11-month time frame, 1,169 health screenings were completed for 457 unique individuals and three new sites were added. 23.02% of the individuals participated in at least two screenings and 12.03% participated in five or more screenings. The population was 67.18% female with a mean age of 50.33 years (SD 17.18) ranging from 38.38 (SD 11.08) to 68.56 (SD 14.26) across the sites served. Mean BMI was 30.26 (SD 6.43) with 33.62% of the population classified as overweight, 32.54% obese, and 6.29% extremely obese. A diagnosis of diabetes was reported by 11.06% of the population; 42.08% had a diabetes risk score indicating high risk for diabetes. Hypertension was also prevalent in the population attending the screenings with 42.08% classified as pre-hypertensive and 34.49% classified as hypertensive. Data related to lifestyle behaviors and intent to adopt healthy lifestyle behaviors captured changes related to smoking, diet and exercise. Of the 79 smokers who completed tobacco use surveys, 4 individuals reported efforts to quit smoking. 6.78% of the population reported making dietary and activity changes during the program including portion control and a decrease in "sugary" substances as well as increasing activity or joining Weight Watchers. 10.38% of the visits resulted in referrals to a variety of

programs and providers including Diabetes Prevention Programs, Tobacco Cessation, clinics/physicians, prenatal programs and healthcare navigators. Additionally, information gathered during the screenings resulted in the provision of personalized education to 7.44% of the population. During meetings, program providers also shared evidence of policy, systems and environmental (PSE) changes occurring at several of the screening sites secondary to this wellness program including: 1) creation of lower cost healthier food items in the site cafeteria, 2) provision of information concerning health insurance in Spanish as well as English, 3) provision of awards to employees who adopted healthier behaviors, and 4) creation of smoke-free policies. To document the PSE changes occurring, the nurse researcher and coalition staff collaborated to successfully obtain a second grant to continue collection of data at the individual level and to design a protocol to capture PSE changes as they occur. There were many benefits and challenges during this project. The most significant challenge was related to data collection. Participants, particularly at the worksite settings did not have time to complete the lifestyle behavior surveys, while others had difficulty using the iPads to complete the surveys. Program staff had difficulty adapting to the excel worksheet to enter data, preferring paper and pencil entry of the data. Multiple errors were present in the data sent to the researcher, requiring extensive work to create a database valid for analysis. Benefits included the ability for providers to quickly identify those at risk via the enhanced excel-based data collection tool, allowing for on-the-spot education and referrals. This tool also provided support for analysis of changes over time and linkage to data from the behavioral surveys for analysis. Finally, the ability to aggregate the data collected to provide an overall view of the population being served has been useful to support the need for such a program in this community.

Conclusion: This study generated data which supported program impact and effectiveness. While there is not yet enough data to demonstrate gains at the individual level due to the long-term nature of the behavior change process, multiple PSE changes have been noted. This program is reaching vulnerable populations in the county including Hispanics, low-income elderly and the uninsured, allowing the ability to provide education, support and access to resources to successfully prevent or manage chronic disease. The academic-practice partnership has successfully created a strong relationship to support program evaluation at multiple levels as the second grant period begins. As well, the use of a CBPR approach in this project has helped to identify a community-based wellness program that is helping to reduce health disparities for the population. Currently, the nurse researcher and coalition providers are developing a toolkit for dissemination to support program replication in other communities.

References

- Ammerman, A., Smith, T. W., & Calancie, L. (2014). Practice-based evidence in public health: improving reach, relevance, and results. *Annual Review of Public Health, 35*, 47-63.
- Centers for Disease Control and Prevention (2016). Chronic disease overview. Retrieved from www.cdc.gov.
- Drahota, A., Meza, R. D., Brikho, B., Naaf, M., Estabillo, J. A., Gomez, E. D., ... & Aarons, G. A. (2016). Community-academic partnerships: a systematic review of the state of the literature and recommendations for future research. *The Milbank Quarterly, 94*(1), 163-214.
- Glasgow, R. E., Vinson, C., Chambers, D., Khoury, M. J., Kaplan, R. M., & Hunter, C. (2012). National Institutes of Health approaches to dissemination and implementation science: current and future directions. *American Journal of Public Health, 102*(7), 1274-1281.
- Katigbak, C., Foley, M., Robert, L., & Hutchinson, M. K. (2016). Experiences and lessons learned in using community-based participatory research to recruit Asian American immigrant research participants. *Journal of Nursing Scholarship, 48*(2), 210-218.
- Ward, B., Schiller, J., & Goodman, R. (2014). Multiple chronic conditions among US adults: a 2012 update. *Preventing Chronic Disease, 11*, E62.
- Young-Lorion, J., Davis, M. M., Kirks, N., Hsu, A., Slater, J. K., Rollins, N., ... & McGinnis, P. (2013). Rural Oregon community perspectives: introducing community-based participatory research into a community health coalition. *Progress in Community Health Partnerships: Research, Education, and Action, 7*(3), 313-322.

Contact

vsimpson@purdue.edu

O 13 - Community-Based Health Promotion

Participatory Rural Appraisal for Community Assessment of Health Needs in Rural Haiti: A Pilot Study

Amy L. Knowles, PhD, MPH, RN, USA
Penelope Lynn Neal, PhD, MSN, CPNP, USA

Abstract

Purpose: The country of Haiti has a population of 10 million people and is the poorest country in the Western Hemisphere. The nation ranks 168 out of 187 on the Human Development Index (WHO.int; MidwivesforHaiti.org). While there has been limited research in Haiti, the majority of previous work focuses on specific disease topics, such as Human Immunodeficiency Virus (HIV) transmission and prevention (Conserve et al., 2014). What is missing from the literature is a comprehensive review of the significant health issues affecting Haitians, especially in the rural areas, and an opportunity of empowering the locals to participate in identifying their greatest health challenges and prioritizing their health needs. The purpose of this study was to gain a better understanding of the comprehensive health needs of a rural village in Haiti. Knowledge gained from this study will be utilized for the development of a community health nursing program, which will embed healthcare workers into remote Haitian communities.

Methods: The Conceptual Model for Partnership and Sustainability in Global Health served as the framework for this study (Leffers & Mitchell, 2010). The Participatory Rural Appraisal (PRA) methodology, as endorsed by the World Health Organization as a best practice (Loewenson et al., 2014), was utilized to identify particular health needs of the community and develop strategies and priorities for health needs and interventions. This type of participatory action research generates knowledge of a social system with the aim of bringing about change (Sethi & Belliard, 2009).

Results: Results from the PRA mapping, scoring, transect walk and focus group discussions were analyzed for trends and themes. Findings from this study prioritize the overall health and community needs as determined by the community members. A desire for mutual goal setting and community ownership of strategies to improve health was discovered. Additionally, sustainable partnerships with mutual health and education goals are needed to optimize the health of the community.

Conclusion: This research provided partnerships with community leaders to empower them to identify and develop strategies to address their own health needs. This completed pilot study will be replicated into other rural communities and knowledge gained from this community assessment will be used to assist in training of community health nurses. A follow-up PRA of the selected community will be conducted after a community health nurse initiative has been embedded in the region to determine effectiveness of the program.

References

- Leffers, J. & Mitchell, E. (2010). Conceptual model for partnership and sustainability in global health. *Public Health Nursing, 28*(1), 91-102.
- Loewenson, R., Laurell, A., Hogstedt, C., D'Ambruso, L., & Shroff, Z. (2014). Participatory action research in health systems: a methods reader; TARSC, AHPSR, WHO, IDRC Canada, EQUINET, Harare
- Sethi, S. & Belliard, J. (2009). Participatory health assessment in Haiti: Practical tools for community empowerment. *Progress in Community Health Partnerships: Research, Education, and Action, 3*(3), 257-264.
- Midwives for Haiti (2016). Why Haiti? Retrieved February 17, 2016 from <http://midwivesforhaiti.org>
- World Health Organization (2016). Haiti. Retrieved from February 24, 2016 from <http://who.int/countries/hti>

Contact

alknowles@king.edu

O 14 - Psychological Health in Minority Women

Caught in the Middle: Intersectionality and Mental Health Among Asian Indian Women

Semran K. Mann, MPH, CHES, USA

Lisa R. Roberts, DrPH, MSN, RN, FNP-BC, CHES, USA

Susanne Montgomery, PhD, MPH, USA

Abstract

Purpose: Our aim was to explore intersectional tensions affecting Asian-Indian immigrant women's mental health.

Mental health is a serious and globally prevalent health care issue, though certain groups—such as immigrants—are specifically vulnerable to experiencing negative mental health consequences. Immigration alone is known to cause stress that can affect mental health, yet literature is lacking on AI immigrant mental health needs and preferences for care in the US. However, recent studies have identified AI women, both English and those with Punjabi language preference, to be at high risk of experiencing mental health issues (Roberts, Mann, Montgomery 2016; Roberts, Mann, Montgomery, 2015). The confluence of immigration stress and gender discrimination from within the community and the dominant society predisposes AI immigrants, especially women, to mental health issues. Within the US, AI immigrants are one of the fastest growing minority groups, with many residing in California, including Punjabi AI immigrants (Chandra, Arora, Mehta, Asnaani, & Radhakrishnan 2015).

AI women are particularly vulnerable to experiencing mental health challenges. In addition to typical immigration related stressors such as language barriers, adjusting to minority status and facing discrimination, learning to navigate different education and health care systems, and finding employment, women must also contend with gendered roles, family structure, and intergenerational tensions to a greater extent than their male AI immigrant counterparts. Gender role related factors, such as fertility expectations, shaped by prevailing cultural norms have also been associated with mental health issues (Singh & Bhayana 2015). Thus, AI immigrant women face conflicting social values (Indian vs US), and the combined intersectional effects of gender, race, and class and as a result experience multiple tensions putting them at risk for mental health issues.

In our current era of global migration, using the socio-historical understanding that an intersectional framework provides, of the issues faced by a vulnerable subgroup of AI immigrant women is particularly relevant to addressing the pressing mental health needs.

Methods: A community-engaged research approach was used to guide the research design and data collection. As part of a larger study, “Understanding HER PAIN” and in collaboration with Sikh community members, we used convenience sampling, to recruit male and female participants to complete an anonymous survey during events at Gurdwaras (Sikh churches) in Central California. Quantitative data analyses for this paper were conducted with female respondents only ($N= 217$) and used SPSS 24. For model building purposes, we conducted correlations between independent variables which included standard demographics, a set of intersectionality variables, and depression and anxiety, with our dependent variable, attitudes towards women. Using only significant variables, in addition to mental health variables, we then ran hierarchical linear regression models exploring the additive contribution of these independent variables. Qualitative data collected to contextualize our population's experiences (which were audio recorded, transcribed verbatim, and coded using grounded theory methods), were then aligned with quantitative results.

Results: Survey language preference, years spent in the United States, education, living jointly with family, integration, number of live births, ability to choose family planning methods, and negative religious coping were significantly correlated with attitudes towards women. Block 1 included education, years in the US, survey language, and living in a joint family, and explained 14% of the model variance; only language was significant. When negative religious coping and integration were added in block 2, 22% of

the variance was explained and language, integration, and negative religious coping were significant. In block 3 we added reproductive variables (live births and choosing family planning methods), which accounted for 29% of the variance. Language, integration, live births and choosing family planning methods remained significant. In the final block, depression and anxiety were added; 33% of the variance was explained, and language, integration, live births, choosing family planning methods, depression, and anxiety were significant. Emerging themes highlighted the intergenerational expectation differences for gendered roles, and conflicts experienced between sociocultural expectations and dominant society.

Conclusion: The aim of intersectional analysis is to reveal meaningful distinctions and similarities in order to overcome discriminations and put the conditions in place for all people to fully enjoy their human rights. Nurses involved in direct patient care who understand these tensions affecting the women they serve can be more effective in clinical care provided. It is critical to note that cultural values supersede language proficiency and generational status. Our findings clearly show that there is more to the story than may be readily apparent. Taking time to allow patients to express preferences and concerns will enhance communication and quality of care for culturally diverse women.

References

- Chandra MR., Arora, L., Mehta, UM., Asnaani, A., & Radhakrishnan, R. (2015). Asian Indians in America: The influence of values and culture on mental health. *Asian Journal of Psychiatry*, doi: 10.1016/i.aip.2015.09.011.
- Roberts, LR., Mann, SK., Montgomery, SB. (2016). *Depression, a hidden mental health disparity in an Asian-Indian immigrant community. International Journal of Environmental Research and Public Health*, 13(1), doi: 10.3390/ijerph13010027.
- Roberts, LR., Mann, SK., Montgomery, SB. (2015). Mental and sociocultural determinants in an Asian-Indian community. *Family and Community Health: the Journal of Health Promotion and Maintenance*, 39(1), 31-39.
- Singh, MD., & Bhayana RM. (2015). Straddling three worlds: stress, culture and adaptation in south asian couples. *Contemporary Family Therapy*, 37, 45-57.

Contact

lroberts@llu.edu

O 14 - Psychological Health in Minority Women

Psychological Stress and Acculturation Impact on Health Promotion Lifestyle Behaviors' Adoption Among Arab American Women

Kholoud Hardan-Khalil, PhD, RN, USA
Ahlam Jadalla, PhD, RN, USA

Abstract

Purpose: to explore the association of perceived stress, acculturation, and health promoting behaviors among a group of Arab American Women (AAW) in Southern California.

Methods: A survey study using self-report explored AAW health promoting lifestyle behaviors. The survey was available in Arabic and English languages, participants responded to the questionnaire based on their language preference. Participants responded to the Psychological Stress Measure (PSM-9) (Lemyre & Tessier, 2003), Acculturation Rating Scale of Arab- American II (ARSAA II) (Jadalla & Lee, 2013), and the Health Promotion Lifestyle Profile II (HPLP II) (Walker & Hill-Polerecky, 1995). The PSM-9 consists of 9 items measured on likert scale from 1= not at all to 8= extremely. ARSAAII consists of 30 items, the study sample factor analysis gave two main factors; Arabic acculturation factor (ARF) and American acculturation factor (AMF), the responses are measured on likert scale 1 = "not at all" to 5= "Extremely often, or almost always". The HPLP II consists of 52 items, it is designed to measure the patterns and frequency of self-reported health-promoting behaviors in six areas: health responsibility (HR), physical activity (PA), nutrition (NU), interpersonal relations (IPR), spiritual growth (SG), and stress management (SM). The scale responses are rated on a 4-point Likert-type scale "1 = never, 2 = sometimes, 3 = often, 4 = routinely". Descriptive, comparison, and correlational analyses were employed through the Independent samples t-test and Pearson's Product-Moment Correlations.

Results: A total of 265 women participated, of those 65% responded to the Arabic version of the survey, the participants had age range between 18 and 80 years ($M = 38$, $SD = 13$). The length of residency in the U.S. ranged between 1- 47 years ($M = 15$, $SD = 10.15$). The majority of the participants were Muslim (95.5%), while Arabic was considered the mother tongue by 93% of participants, only 70 % reported that Arabic was their primary spoken language at home. women completed the Arabic version of the survey reported lower levels of psychological stress compared to women who responded in English language ($M = 36.31$, $SE = .740$) $t(265) = -3.485$, $p < .01$. Significant correlation found between Acculturation American Factor (AMF) and health promotion lifestyle behaviors II (HPLP II) $r = .279$, $p < 0.01$, spiritual growth (SG) $r = 0.262$, $p < 0.01$, physical activity (PA) $r = 0.326$, $p < 0.01$, interpersonal relations (IPRs) $r = 0.302$, $p < 0.01$, nutrition (NU) $r = 0.122$, $p < 0.05$, and stress management $r = 0.168$, $p < 0.01$. Additionally, significant correlations were found between Acculturation Arabic Factor (ARF) and health promotion lifestyle behaviors II (HPLP II) $r = .185$, $p < 0.01$, spiritual growth (SG) $r = 0.191$, $p < 0.01$, health responsibility (HR) $r = 0.241$, $p < 0.01$, interpersonal relations (IPRs) $r = 0.226$, $p < 0.01$, nutrition (NU) $r = 0.122$, $p < 0.05$, and stress management $r = 0.167$, $p < 0.05$. ARF was negatively correlated with psychological stress measure $r = 0.167$, $p < 0.01$. A significant correlations were found between the participants' length of residency in the U.S. and their responses on HPLP II, PA, SG, and IPRs, $r = 0.190$, 0.181 , 0.177 , 0.238 (265) $p < 0.01$ respectively. However, Physical activity found to be negatively correlated with women completed the Arabic version survey.

Conclusion: Among Arab American women, psychological stress, acculturation and length of residency influence their engagement in healthy lifestyle behaviors. More studies are needed to assess sources and types of stress among AAW. The findings of this study highlight the need for nurses and other health providers to consider the cultural and psychological factors when designing or implementing health promotion and disease prevention programs.

References

Jadalla, A., & Lee, J. (2013). Validation of Arabic and English versions of ARSMA-II Acculturation Rating Scale. *Journal of Immigrant and Minority Health*. doi: 10.1007/s10903-013-9889-2

Levesque, A. , & Li, H. (2014). The relationship between culture, health conceptions, and health practices. *Journal of Cross-Cultural Psychology, 45*(4), 628-645.

Peterman, J., Silka, L. , Bermudez, O. , Wilde, P. , & Rogers, B. (2011). Acculturation, education, nutrition education, and household composition are related to dietary practices among Cambodian refugee women in lowell, ma. *Journal of the American Dietetic Association, 111*(9), 1369-1374.

Torres, L., Driscoll, M. W., & Voell, M. (2012). Discrimination, Acculturation, Acculturative Stress, and Latino Psychological Distress: A Moderated Mediation Model. *Cultural Diversity & Ethnic Minority Psychology, 18*(1), 17–25. <http://doi.org/10.1037/a0026710>

Contact

kholoud.khalil@csulb.edu

O 15 - Infant Safety Interventions

Parental Readiness for Infant Safe-Sleep Interventions

Kimberly T. Hodges, DNP, RN, NE-BC, USA

Abstract

Purpose: Infant safe sleep practices and the reduction of Sudden Unexplained Infant Deaths (SUID) is a public health priority in the United States and throughout the world. According to the American Academy of Pediatrics (AAP) (2016), Sudden Infant Death Syndrome (SIDS) is the leading cause of death in children between one month and one year of age, occurs without warning, and is associated with an episode of sleep. The Centers for Disease Control and Prevention (CDC) states approximately 3,500 SUID events occur each year in the United States (2016). The gap in the literature lies in researching parental readiness in executing safe sleep behaviors after discharge from the hospital.

Parents of well newborn and neonatal intensive care (NICU) infants have been studied to identify parental readiness to follow safe sleep guidelines after hospital discharge. Gelfer, Cameron, Masters and Kennedy (2013) studied infants discharged from the NICU to determine if modeling safe sleep practices during the hospital stay would provide a positive influence on parental behaviors regarding safe sleep post discharge. After providing a safe sleep crib card, educational programming for nurses and parents and auditing safe sleep compliance in the NICU setting, parental compliance for safe sleep behaviors post discharge increased by nearly 60% (Gelfer et al.). This study implied parental readiness is influenced by safe sleep observations witnessed in the hospital.

In a longitudinal study conducted by Knight, Webster, Kemp and Comino (2013) 159 mothers were surveyed for readiness to provide safe sleep environments. A higher level of maternal education was associated with identification of two or more SIDS risk reduction strategies in the study (Knight et al., 2013). A review of the literature reveals that parents, specifically ones of certain ethnicities, races, and educational levels, do not provide safe sleep environments during the first year of the infant's life (Knight et al., 2013). A gap in the literature lies in identification of which factors impact parental readiness to execute infant safe sleep behaviors after discharge from the hospital.

This prospective descriptive study identified behavioral perceptions and readiness factors of parents to abide by infant safe sleep practices upon discharge from the hospital in conjunction with implementation of a standardized infant safe sleep education toolkit. The purpose of the study was to identify factors impacting parental readiness to execute infant safe sleep practices related to infant sleep environments in an urban Maternity Center.

Methods: Icek Ajzen's Theory of Planned Behavior (2006) served as the conceptual framework guiding this study. The survey used the Theory of Planned Behavior concepts to survey parental perceptions of executing infant safe sleep guidelines in the first year of the infant's life. Approval for this exempt research study was obtained from the a Midwestern university Institutional Review Board.

The sample included mothers delivering well newborns at an urban Midwestern hospital. Well newborns were defined as stable term (> 37 gestational weeks) or late preterm (34 to 36 gestational weeks) infant admitted to the well newborn unit after delivery and remaining under the care of a well newborn physician until discharge to home from the well newborn unit. Inclusion criteria for the study included the following: mothers must be 18 years of age or older; not incarcerated; gave birth to a well newborn admitted to the Well Newborn Nursery (not admitted to and/or discharged from the Neonatal Intensive Care Unit). Mothers giving birth to an infant receiving care in the Neonatal Intensive Care Unit were also omitted from the study.

After completion of the initial pilot study, the main prospective descriptive study was conducted from January 1st until April 30th, 2016. The study was developed and conducted at a large 700-licensed bed Midwestern hospital on the Mother-Baby unit. The hospital is a Level One Trauma Center and is Magnet designated. The Mother-Baby unit is a 28-bed unit caring for approximately 3,700 infants born annually.

An informational flyer was given to each eligible mother in the Mother-Baby unit describing the study, the topic and investigator's contact information (N= 792). Participants were given the option to opt out of the survey. Surveys were collected by the nursing team upon completion and placed in the locked box on the nursing unit.

The Theory of Planned Behavior (TPB) survey template is a free tool developed by Izek Ajzen and was utilized in the main study to create an infant safe sleep survey. The initial pilot study (n=35) was conducted in August 2015 to determine the constructs for infant safe sleep as related to the theoretical components. Using the results of the pilot study, the initial survey was constructed and tested for reliability. Cronbach's Alpha for the following sections is reported as Section One (Behavioral Beliefs) = 0.708; Section Two (Normative Beliefs) = 0.719; Section Three (Control Beliefs) = 0.751.

The initial draft for the 23-item survey was tested for content and face validity. A panel of five maternal-child medical and nursing experts reviewed the survey for content validity with an 80% return rate that generated feedback regarding the survey content. Additionally, a group of ten patients on the Mother-Baby unit reviewed the survey for face validity. Survey feedback for face validity produced a 100% return rate. The consensus of the patient group was that they understood the theme of the survey to be safe infant sleep and the survey questions described preparing to have safe infant sleep.

The instrument consisted of 23 items designed to analyze Theory of Planned Behavior framework. The main topics addressed in the survey include opinions of infant safe sleep behavioral beliefs, infant safe sleep normative beliefs, and infant safe sleep control beliefs. All items listed in the main survey were generated from the initial pilot study. The participant answered each question using a Likert scale of one to seven.

Demographics of the study sample and correlation of TPB components were calculated from the survey results. Spearman Rho correlation factor was utilized to calculate correlation and level of significance for the data results was reported as $p < 0.01$. The Statistical Package for Social Sciences, version 23, was used to examine statistical findings.

Results: One hundred fifty mothers completed the survey with a completion rate of 18.9%. A relationship between the behavioral beliefs of infant safety and maternal attitude towards infant safety ($r = .406$, $n = 150$, $p < 0.01$) was noted in the survey results. A second association between behavioral beliefs of improved health for infant and maternal attitude towards improved health for the infant ($r = .448$, $n = 150$, $p < 0.01$) was also established in the results. Additional relationships between normative beliefs of the significant other ($r = .461$, $n = 145$, $p < 0.01$) and control beliefs for limiting caregivers ($r = .472$, $n = 146$, $p < 0.01$) were calculated from the data.

The findings from this study revealed significant relationships between behavioral beliefs of the safety of the infant, improved health for the infant and attitudes towards those beliefs. Participants reported positive attitudes towards desiring safety and improved health for the infant. When identifying safe sleep practices as components, Fowler, Evans, Etchegaray, Ottenbacher and Arnold (2013) found parental preference as a barrier to safe sleep with parents reporting they felt safer with the infant in bed with them. The study signifies a need for health professionals to speak to current AAP 2016 recommendations for room sharing instead of bed sharing for the safety of the infant.

Normative beliefs revealed a relationship between safe sleep behaviors and the influence of maternal significant others. The thoughts and influence of a significant other had the most impact of predicting readiness for providing safe sleep behaviors after discharge from the hospital. Control beliefs disclosed three relationships, however the strongest of the three control behavior constructs was limiting caregivers for the infant. The results found a moderate relationship between limiting caregivers for the infant and being successful in following infant safe sleep behaviors.

When discussing infant safe sleep content with parents, several themes should be included in the delivery for optimal readiness to execute the behaviors. The importance of complying with infant safe sleep

behaviors for a positive impact on the infant's health and safety is a motivational factor to enhance readiness for the behaviors. Including the mother's significant other in delivery of the educational component allows for influential people in the mother's life to understand the significance of safe sleep behaviors. Supporting methods to reduce multiple caregivers for the infant in the first year of life or providing means to educate various caregivers regarding infant safe sleep guidelines may support readiness to perform the behaviors.

Conclusion: Factors that affect ability to execute safe sleep behaviors include beliefs of infant safety and improved health. Including key individuals in educational delivery, such as the mother's significant other, can also influence readiness to execute safe sleep behaviors. Healthcare professionals should provide methods to communicate infant safe sleep guidelines to multiple caregivers or ways to reduce the number of caregivers in the first year of life to support readiness for infant safe sleep behaviors.

References

- Ajzen, I. (2006). The theory of planned behavior. Retrieved from <http://people.umass.edu/aizen/tpb.diag.html#null-link>
- American Academy of Pediatrics. (2016). Reducing sudden infant death with "back to sleep." Retrieved from <https://www.aap.org/en-us/advocacy-and-policy/aaphealthinitiatives>
- Centers for Disease Control and Prevention. (2016). Sudden unexplained infant death and sudden infant death syndrome. Retrieved from <http://www.cdc.gov/sids/data.htm>
- Fowler, A. J., Evans, P. W., Etchegaray, J. M., Ottenbacher, A., & Arnold, C. (2013). Safe sleep practices and sudden infant death syndrome risk reduction: NICU and well-baby nursery graduates. *Clinical Pediatrics*, 52(11), 1044—1053.
- Gelfer, P., Cameron, R., Masters, K., & Kennedy, K. A. (2013). Integrating "back to sleep" recommendations into neonatal icu practice. *Pediatrics*, 131(4), 1264- 1270.
- Knight, J., Webster, V., Kemp, L., & Comino, E. (2013). Sudden infant death syndrome in an urban Aboriginal community. *Journal of Paediatrics and Child Health*, 49(12), 1025-1031.

Contact

khodges3@iuhealth.org

O 15 - Infant Safety Interventions

Change in Caregiving Activities in Preterm Infants Over the First 14 Days of Life

Debra Brandon, PhD, RN, CNS, FAAN, USA

Ashlee Vance, MA, BSN, RN, USA

Abstract

Purpose: High-risk term and preterm infants are some of the most vulnerable to an altered microbiome due to the atypical Neonatal Intensive Care Unit (NICU) environment of care following birth. Infants typically develop their microbiome in close contact with the mother and the home environment. Research on the impact of microbial colonization on the health of preterm infants has grown significantly recently (DiBartolomeo & Claud, 2016). Yet, most of the research to date has focused on how the mode of delivery, use of antibiotics, and environmental surfaces of the NICU could impact the microbiome. How specific health caregiving activities in the NICU impacts the development of the preterm infant's microbiome is largely unknown (Hartz, Bradshaw, & Brandon, 2015). Understanding the nature of caregiving that could influence the microbiome is a critical first step. Therefore, the purpose of this study was to describe the frequency and change in caregiving activities of extremely low birthweight infants over the first 14 days of life that have the potential to alter the development of the skin, gut and pulmonary microbiome.

Methods: A longitudinal multiple case study design was used to examine caregiving interventions. Infants were videotaped over the first 14 days of life while receiving care in their incubator in a Level IV NICU. Observational coding of the frequency and length of caregiving activities was conducted using Observer XT ver. 11.5. Development of the coding schema over five iterations resulted in 26 caregiving codes. Four coders were trained to 80% Kappa reliability. The case history of each of the five extremely preterm infants were established to examine major events across the first 14 days of life including respiratory support, feeding status, medications, severity of illness and major diagnoses.

Results: The five infants contributed 817 hours of data over 54 days. Descriptive statistics were used to calculate frequency and percent of each of the 26 categories per day. All 26 categories were discussed and categorized based upon the category's relationship to infant skin, gut, or pulmonary systems. Consensus for placement of each caregiving activity categorization was obtained between the authors. Some of the caregiving activities were not present. Skin caregiving activities coded included *infant touch*, *diaper changing*, *cleansing*, and *infant removal from the incubator*. Gut caregiving activities included oral care, oral or nasal pharynx suctioning, nasal gastric or oral gastric tube, and pacifier placement. Pulmonary caregiving activities included endotracheal placement (ETT) and ETT suctioning.

Across the five infants, the average number of times an infant was touched each day ranged from 58.9 to 122.8 times. The co-occurrence of case history events and changes in the frequency of caregiving activities were also explored. The number of times touched per day was highly variable across the first 14 days of life and associated with the infant's severity of illness. While hands in the incubator mirrored the *infant touch* frequency they were typically more *hands in the incubator* than touch time across the 14 days of life. Across the first 14 days of life routine caregiving activities were more consistent across time. For example, the mean number of *diaper changes* were 2-4 per day and the mean number of *oral care* events were 1-3. These caregiving activities were consistent over time. The frequency of other caregiving activities was associated with rarer procedural events. For example, *cleansing* activities were associated with placement of percutaneous inserted central catheters. Therefore, these caregiving activities did not have a pattern of change over time, rather they co-occurred with procedural events.

Conclusion: Caregiving activities for extremely low birthweight infants were easily grouped into skin, gut, and pulmonary categories with the potential to influence the developing microbiome. Over the first 14 days of life caregiving activities that were more routine such as diaper changes were consistent over time while other activities such as infant touch was associated with infant severity of illness or procedural events. These findings provide beginning description of events that should be mapped with microbiome development. Routine caregiving activities such as oral care may influence gut microbiome while the

frequency of infant touch can influence the skin. Future research should map microbiome development of the skin, gut, and pulmonary systems in relationship to specific caregiving. Modifiable caregiving strategies should be considered based upon the microbiome.

References

Hartz, L.E., Bradshaw, W. & Brandon, D.H. (2015). Potential NICU Environmental Influences on the Neonate's Microbiome: A Systematic Review. *Advances in Neonatal Care*. 15(5): 324-335.

DiBartolomeo, M.E & Claud, E.C. (2016). [The Developing Microbiome of the Preterm Infant](#). *Clin Ther*. 38(4), 733-9.

Contact

debra.brandon@duke.edu

O 16 - Symptoms and Treatment of Cancer

Global mHealth Interventions for Self-Management of Symptoms Following Breast Cancer Treatment

Mei R. Fu, PhD, RN, FAAN, USA

Abstract

Purpose: Breast cancer-related lymphedema (hereafter, lymphedema), an abnormal accumulation of lymph fluid in the ipsilateral body area or upper limb, remains an ongoing major health problem affecting more than 40% of 3.1 million breast cancer survivors in the United States. Lymphedema is a cardinal sign of an impaired lymphatic system. Impairment in lymphatic system leads to a chronic disease state with multiple associated symptoms that require ongoing symptom management. Similar to risk reduction and management of other chronic diseases (e.g. diabetes and prediabetes), proactive and preventive education on signs and symptoms of lymphedema and risk reduction activities is essential for early identification and treatment of lymphedema. Yet, this proactive approach to risk reduction is not a standard of care for those at risk for developing lymphedema associated with breast cancer treatment. Sadly, this leads to patients at risk for lymphedema self-diagnosing lymphedema and seeking professional help only after visible swelling is present. This reduces the opportunity for early identification and treatment which is associated with better patient outcomes. More importantly, the experience of lymphedema symptoms is a cardinal sign of an early stage of lymphedema in which changes cannot be detected by current objective measures of limb volume or lymph fluid level. Without timely assessment and intervention in this early disease stage, lymphedema can progress into a chronic condition that no surgical or medical interventions at present can cure. mHealth can be broadly defined as the use of information and communication technology that is accessible to patients or healthcare professionals via mobile technology to support the delivery of patient or population care or to support patient self-management. Patient-centered care related to lymphedema symptom management is often inadequately addressed in clinical research and practice. mHealth plays a significant role in improving self-management, patient-clinician communication, and access to health information. *The-Optimal-Lymph-Flow* mHealth system is a multi-language, patient-centered, web-and-mobile-based educational and behavioral mHealth interventions focusing on safe, innovative, and pragmatic electronic assessment and self-management strategies for lymphedema symptoms.

The purpose of this presentation is to describe the development and test of TOLF system to evaluate reliability, validity, and efficacy of mHealth assessment as well as usability, feasibility, acceptability and efficacy of mHealth interventions for self-management of lymphedema symptoms among the end-user of breast cancer survivors.

Methods: The development of *TOLF* was guided by the Model of Self-Management for Symptoms and designed based on principles fostering accessibility, convenience, and efficiency of mHealth system to enhance training and motivating assessment of and self-management for lymphedema symptoms. Test of TOLF was accomplished by conducting a psychometric study to evaluate reliability, validity, and efficiency of the electronic version of Breast Cancer and Lymphedema Symptom Experience Index, a usability testing and a pilot feasibility testing of mHealth self-management interventions.

Results: Findings from the psychometric study with 355 breast cancer survivors demonstrated high internal consistency of the electronic version of the instrument: a Cronbach's alpha coefficient of 0.959 for the total scale, 0.919 for symptom occurrence, and 0.946 for symptom distress. Discriminant validity of the instrument was supported by a significant difference in symptom occurrence ($z=-6.938$, $p<0.000$), symptom distress ($z=-5.894$, $p<0.000$), and total scale ($z=-6.547$, $p<0.000$) between breast cancer survivors with lymphedema and those without it. Findings of usability testing showed that breast cancer survivors were very satisfied with the mHealth **self-management** interventions: 90% rated the system having no usability problems; 10% noted minor cosmetic problems: spelling errors or text font size. The majority of participants 96.6% strongly agreed that the system was easy to use and effective in helping to learn about lymphedema, symptoms and self-care strategies. Feasibility testing demonstrated that a 12-week one group intervention using TOLF had significantly positive effects on less pain ($p=0.031$), less

soreness ($p=0.021$), less aching ($p=0.024$), less tenderness ($p=0.039$), fewer numbers of lymphedema symptoms ($p=0.003$), and improved symptom distress ($p=0.000$) at 12 weeks after intervention. Themes from the qualitative data included empowerment, high quality information, loving avatar simulation videos, easy accessibility, and user-friendliness.

Conclusion: mHealth is important for delivery of quality nursing care globally. TOLF system using the electronic version of the instrument is able to assess patients' lymphedema symptoms with high reliability and validity. Thus, patients can report their lymphedema symptoms anywhere and anytime globally. Findings of psychometric testing on the ability of TOLF system to collect health, clinical, research data support the reliability and validity of electronic instruments administered by TOLF system. Findings of testing on TOLF system have provided evidence for breast cancer survivor's acceptance, usability and feasibility of TOLF system to enhance self-care strategies for lymphedema symptom management. TOLF provides a much-needed mHealth system for advancing the science of self-management for lymphedema symptoms and a foundation for transformation of healthcare from reactive and hospital-centered to preventive, proactive, evidence-based, patient-centered and focused on well-being rather than disease, the very important core of nursing care.

References

1. Paskett ED, Naughton MJ, McCoy TP, *et al.* The epidemiology of arm and hand swelling in premenopausal breast cancer survivors. *Cancer Epidemiol Biomarkers Prev* 2007;16; 775-782. PMID: 17416770 DOI: 10.1158/1055-9965.epi-06-0168
2. Armer J, & Stewart B. Post-breast cancer lymphedema: Incidence increases from 12 to 30 to 60 months. *Lymphology*, 2010;43(3), 118-122.
3. American Cancer Society (ACS). *Breast Cancer Facts & Figures 2015-2016*. Atlanta, 2016: American Cancer Society, Inc.
4. Fu MR, Axelrod D, Cleland CM, *et al.* Symptom reporting in detecting breast cancer-related lymphedema. *Breast Cancer: Targets & Therapy*, 2015;7; 345-352. DOI: <http://dx.doi.org/10.2147/BCTT.S87854> PMID: 26527899
5. Fu MR, Deng J, Armer J. Putting evidence into practice: Cancer-related lymphedema. *Clin J Onco Nurs*. 2014;18(s6): 68-79. doi:10.1188/14.cjon.s3.68-79. PMID: 25427610.
6. Shi S, Lu Q, Fu MR, *et al.* Psychometric properties of the breast cancer and lymphedema symptom experience index: the Chinese version. *Euro J Oncol Nurs*, 2015. pii: S1462-3889(15)00076-9. doi: 10.1016/j.ejon.2015.05.002. [Epub ahead of print] PMID: 26071198
7. Fu MR, Ridner SH, Hu SH, *et al.* Psychosocial impact of lymphedema: a systematic review of literature from 2004 to 2011. *Psycho-oncology* 2013;22: 1466-1484. PMID: 23044512 DOI: 10.1002/pon.3201
8. Fu MR, Chen CM, Haber J, *et al.* The effect of providing information about lymphedema on the cognitive and symptom outcomes of breast cancer survivors. *Ann Surg Oncol* 2010;17: 1847-1853. PMID: 20140528
9. Fu MR, Axelrod D, & Haber J. Breast cancer-related lymphedema: information, symptoms, and risk reduction behaviors. *J Nurs Schol*, 2008;40(4), 341-348. PMID: 19094149
10. Finkelstein J, Knight A, Marinopoulos S, *et al.* Enabling patient-centered care through health information technology. *Evidence Report/Technology Assessment*. 2012; (206):1-1531.
11. Shortliffe EH, Sondik EJ. The public health informatics infrastructure: anticipating its role in cancer. *Cancer Causes & Control* : CCC. 2006;17(7):861-869.
12. [Wantland DJ](#), [Portillo CJ](#), [Holzemer WL](#), *et al.* The effectiveness of Web-based vs. non-Web-based interventions: a meta-analysis of behavioral change outcomes. *J Med Internet Res*. 2004 Nov 10;6(4):e40.
13. Fu MR, Axelrod D, Guth, A, *et al.* Proactive approach to lymphedema risk reduction: a prospective study. *Ann Surg Oncol* 2014; 21(11), 3481-3498. PMID: 24809302 DOI: 10.1245/s10434-014-3761-z
14. Ridner, SH, Fu, MR, Wanchai, A, *et al.* Self-Management of Lymphedema: A Systematic Review of Literature from 2004 to 2011. *Nurs Res*, 2012;61(4), 291-199. PMID: 22565103 DOI: 10.1097/NNR.0bo12e21824f82b2.
15. Zaidan OF, Callison-Burch C. Feasibility of Human-in-the-loop Minimum Error Rate Training. *Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing*, 2009; pages 52–61, Singapore, 6-7 August 2009.

Contact

mf67@nyu.edu

O 16 - Symptoms and Treatment of Cancer

Hope and Symptom Interference Predicting Quality of Life in Colorectal Cancer Survivors: A Pilot Study

Yi-Chen Huang, MSN, RN, Taiwan
Ya-Jung Wang, PhD, RN, Taiwan

Abstract

Background: Colorectal cancer is the third cause of cancer incidence and fourth cancer mortality in Taiwan. Early detection and chemotherapy improve patients' survival. However, patients still suffer from side effects from cancer and its treatment. Evidence indicated that hope helps cancer patients in a better adaptation.

Purpose: The aims of this pilot study was to preliminarily explore relationship among hope, symptom interference, and quality of life in Taiwanese colorectal cancer population; as well as to shape the study in a better design for a further study.

Methods: This is a descriptive, correlational study with a preliminary result. We recruited patients with colorectal cancer, aged 20 years and more, and received at least one cycle of chemotherapy. Study instruments included Total Neuropathy Score- clinical version, Patient Neurotoxicity Questionnaire, Herth Hope Index (HHI), MDASI-Taiwan Form for Cancer Treatment - Colorectal cancer and Taxane. Data analysis applied mean, standard deviation, frequency, percentage, Pearson's correlation and linear regression.

Results: A total of 40 patients with a mean age of 60.1 years were included in this pilot analysis. Twenty-two of participants were male and 75% of them were with PN. Results indicated patients' hope significantly and positively predicted their QOL in this sample ($\beta=.383$; $R^2=.147$; $p<.05$). In addition, symptom severity ($\beta=-.667$; $R^2=.445$; $p<.001$) and symptom distress ($\beta=-.76$; $R^2=.578$; $p<.001$) significantly and negatively predicted QOL in Taiwanese patients with colorectal cancer.

Conclusion: Results of this pilot study suggested that the prevalence of PN was relatively high and those with PN had a declined QOL. We also found symptom severity and symptom distress interfered patient's QOL in the present study. However, hope is an inner power to support patients with cancer, to overcome their symptom interference, and to advance their QOL. The preliminary findings help researchers to modify the further study design and to confirm the instruments matched the study population.

References

- Argyriou, A. A., Marmiroli, P., Cavaletti, G., & Kalofonos, H. P. (2011). Epothilone-induced peripheral neuropathy: a review of current knowledge. *Journal of Pain and Symptom Management*, 42(6), 931-940. doi: 10.1016/j.jpainsymman.2011.02.022
- Binner, M., Ross, D., & Browner, I. (2011). Chemotherapy-induced peripheral neuropathy: Assessment of oncology nurses' knowledge and practice. *Oncology Nursing Forum*, 38(4), 448-454.
- Cavaletti, G., Cornblath, D. R., Merkies, I. S., Postma, T. J., Rossi, E., Frigeni, B., . . . Group, C. I-PeriNomS. (2013). The chemotherapy-induced peripheral neuropathy outcome measures standardization study: from consensus to the first validity and reliability findings. *Annals of Oncology*, 24(2), 454-462. doi: 10.1093/annonc/mds329
- Cavaletti, G., Frigeni, B., Lanzani, F., Piatti, M., Rota, S., Briani, C., . . . Zanna, C. (2007). The Total Neuropathy Score as an assessment tool for grading the course of chemotherapy-induced peripheral neurotoxicity: comparison with the National Cancer Institute-Common Toxicity Scale. *Journal of the Peripheral Nervous System*, 12(3), 210-215.
- Griffith, K. A., Markeies, I. S., Hill, E. E., & Cornblath, D. R. (2010). Measures of chemotherapy-induced peripheral neuropathy: a systematic review of psychometric properties. *Journal of the Peripheral Nervous System* 15, 314-325.
- Lema, M. J., Foley, K. M., & Hausheer, F. H. (2010). Types and epidemiology of cancer-related neuropathic pain: the intersection of cancer pain and neuropathic pain. *Oncologist*, 15 Suppl 2, 3-8. doi: 10.1634/theoncologist.2009-S505
- Toftagen, C., McAllister, R. D., & McMillan, S. C. (2011). Peripheral neuropathy in patients with colorectal cancer receiving oxaliplatin. *Clinical Journal of Oncology Nursing*, 15(2), 182-188. doi: 10.1188/11.CJON.182-188

Contact

echuang@vghtpe.gov.tw

O 17 - Educational Learning Environment

Diverse Educational Strategies Enhance Multigenerational Learning in the Classroom and Workplace

Joyce I. Karl, DNP, MS, BSN, RN, ANP-BC, COHN-S, USA
Oralea Pittman, DNP, APRN, FNP-BC, FAANP, USA

Abstract

Purpose: This presentation will examine similarities and differences among generations and how diverse educational strategies can be developed for the multigenerational classroom or workplace. It will also discuss how traditional, interactive, and problem-based intergenerational activities may benefit all participants.

Review of Literature: In the classroom, three generations are often present among the faculty and students; baby boomers, Generation X, and millennials (Generation Y). Although it is important to avoid assumptions about individuals, each group has values and skills which are different. Baby Boomers prefer structured learning. Hard work is the way to earn respect and advancement in the workplace (Gallo, 2011; Gillispie, 2016).

As learners, Generation X want to know the relevance of information and the most efficient way of learning it. They are independent and skeptical. Their respect must be earned (Gallo, 2011; Gillispie, 2016).

Millennials prefer learning with technology to reading from textbooks. They understand the half-life of knowledge is short, and want quick feedback. They learn best in active environments where they can practice what they are learning (Gallo, 2011; Gillispie, 2016).

Educational strategies for multigenerational, multicultural cohorts promote reciprocal exchange of knowledge among participants so they can learn together and from each other. Instructors should explore their own generational identity/awareness and facilitate the same in students to enhance intergenerational communication, respect, learning, decision-making and conflict management (Sánchez & Kaplan, 2014). Content should start simple and build in complexity. Learning activities must be designed for growth in the cognitive, affective and psychomotor domains. Problem-based learning strategies help students translate knowledge into practice and achieve professional clinical competencies (Distler, 2015). Student-centered approaches such as the flipped classroom have shown mostly positive or neutral outcomes compared with traditional approaches (Betihavas, Bridgman, Kornhaber, & Cross, 2016; Gillispie, 2016; Robinson, Scollan-Koliopoulos, Kamienski, & Burke, 2012)

Summary: Multiple teaching techniques are essential for successful intergenerational learning: traditional, active, cooperative and collaborative. Lectures and readings may still be appropriate for some content; but podcasts/webcasts, audio books, and e-books are also good options. Low stakes, self-reflection assignments and case-based or literature-based sessions as written assignments or blogs are appropriate for all learners. Attention grabbers such as guest speakers from the field, audience response systems, YouTube videos, Wikis, games, or video vignettes can enhance multigenerational engagement. Harnessing virtual and simulated activities using standardized patients and/or interprofessional teams with peer and faculty feedback together with actual clinical experiences shows promise for successful, competent nursing and advanced practice nursing graduates. We will share our experience utilizing several of the suggested strategies with nurse practitioner and interprofessional health students.

Implications for Practice: Intergenerational differences in learning styles and work styles are present in nearly every professional classroom, preceptorship, and practice. Understanding and appreciating the different attitudes and skills that different generations and professions bring to the relationships can increase student, faculty, and employee confidence and self-efficacy as they learn new skills from each other.

References

- Betihavas, V., Bridgman, H., Kornhaber, R., & Cross, M. (2016). The evidence for 'flipping out': A systematic review of the flipped classroom in nursing education. *Nurse Education Today*, 38, 15-21 7p. doi:10.1016/j.nedt.2015.12.010
- Distler, J. W. (2015). Online nurse practitioner education: Achieving student competencies. *Nurse Practitioner*, 40(11), 44-49. doi:10.1097/01.NPR.0000472249.05833.49
- Gallo, A. (2011). Beyond the classroom: Using technology to meet the educational needs of multigenerational perinatal nurses. *Journal of Perinatal & Neonatal Nursing*, 25(2), 195-199. doi:10.1097/JPN.0b013e3182163993
- Gillispie, V. (2016). Using the flipped classroom to bridge the gap to generation Y. *The Ochsner Journal*, 16(1), 32-36.
- Robinson, J., Scollan-Koliopoulos, M., Kamienski, M., & Burke, K. (2012). Generational differences and learning style preferences in nurses from a large metropolitan medical center. *Journal for Nurses in Staff Development*, 28(4), 166-171.
- Sánchez, M., & Kaplan, M. (2014). Intergenerational learning in higher education: Making the case for multigenerational classrooms. *Educational Gerontology*, 40(7), 473-485. doi:10.1080/03601277.2013.844039

Contact

karl.3@osu.edu

O 17 - Educational Learning Environment

A Systematic Literature Review of the Effect of Culture on Learning

Christine L. Sommers, MN, RN, CNE, Indonesia

Abstract

Purpose: Teaching in a culturally congruent manner is important to the nursing discipline. Cultural norms and ways of learning influence learning expectations, which may influence the development of critical thinking skills, clinical reasoning, and clinical judgment in nursing students. The purpose of this presentation is to describe a systematic literature review on the impact of culture on learning, including teaching and curricular implications. This review examined literature in healthcare, education, and social sciences. The examination concluded that culture does affect learning. To best prepare nursing graduates to provide safe and effective patient care that meets complex healthcare needs globally, it is imperative that nurse educators teach in a culturally congruent manner.

Background: Different cultural groups demonstrate and define critical thinking in different ways (Tian & Low, 2011). Some even struggle with related concepts, such as questioning those considered experts or authority figures, questioning published literature, and asking questions in class. In a literature review related to problem-based learning methods to promote critical thinking among nursing students from differing cultures, the researcher found scant data in nursing scholarship that examined the relationship between culture and learning (Sommers, 2014). The researcher concluded that in order for nurse educators to prepare nursing graduates to meet patient care needs globally, they need to teach in a culturally congruent manner, and therefore, need to know more about how culture affects learning (Sommers, 2014).

Learning style preferences vary with individuals' cultural values (Holtbrügge & Mohr, 2010). Approaches to learning are embedded in the learner as socio-cultural issues and the learners' background shapes and influences approaches to learning (Brown, Ward-Panckhurst, & Cooper, 2013). Therefore, it is vital that nurse educators understand the needs of ethnically diverse students to develop culturally sensitive and supportive educational environments in nursing education (Veal, Bull, & Miller, 2012).

Methods: The PubMed, CINAHL, ERIC, PsychINFO, and ProQuest databases were searched for papers published between 2010 and 2015. The search was limited to articles and dissertations that accessible in the English language. Inclusion criteria included a description of how learning was affected or related to culture and a description of a particular viewpoint or particular audience. Varied combinations of the search terms culture, learning theory, learning approach, learning behavior and student were used. The initial search identified 206 papers. Once duplicates were removed and full text reviewed, 31 papers met the criteria. An additional two papers were added during a secondary search for a total of 33 papers reviewed.

Results: Thematic analysis identified four major themes that describe the effect of culture on learning: a) occurrence of surface learning among non-Western students, b) the effect of previous educational experiences on learning, c) the effect of cultural values on learning, and d) teaching strategies to promote learning. The five teaching strategies identified to promote learning were a) maintain awareness, b) respect culture, c) provide support programs, d) utilize technology, and 5) develop reflective practices.

Conclusion: As there is an effect of culture on learning, nursing educators need to consider culture when teaching, not to change core outcomes of a program, but to culturally contextualize teaching styles, assessments, and activities so that students successfully achieve the core outcomes. Students from different cultures have different perspectives; how they learn and process information is also different; therefore, culturally appropriate evaluation systems should be used to evaluate the learning (Henze & Zhu, 2012). Since learning is closely linked with culture, different cultures have different norms related to critical thinking, roles of students and instructors, and learning styles.

Furthermore, how students previously learned greatly influences current learning preferences and expectations. It is important to recognize and respect students' different cultural backgrounds and expectations regarding learning to assist the students in meeting the objectives and expectations of a unique curriculum that may involve new ways of learning. This will include adapting teaching methods but not essential learning outcomes of the curriculum. Adapting the teaching methods will include additional coaching and instruction to students, culturally contextualizing the teaching method, being aware of one's own cultural learning norms, and using a variety of teaching methods and styles to meet different learning style preferences.

More research is needed regarding how culture affects learning in nursing education and what teaching practices work best in nursing education with students with diverse cultural backgrounds. To meet the challenging, complex, and unpredictable demands of today's healthcare needs globally, nurse educators must be prepared to recognize that culture does affect learning and be willing to adapt and develop teaching strategies for use with diverse cultures that promotes critical thinking, clinical reasoning, and clinical judgment. The themes from the literature on culture and learning, as well as the themes relevant to teaching strategies that promote cultural congruence, provide faculty direction for self-assessment and a review of the curriculum to promote cultural congruence.

References

- Brown, A. N., Ward-Panckhurst, L., & Cooper, G. (2013). Factors affecting learning and teaching for medicines supply management training in Pacific Island Countries--a realist review. *Rural Remote Health, 13*(2), 2327.
- Henze, J., & Zhu, J. (2012). Current research on chinese students studying abroad. *Research in Comparative and International Education, 7*(1), 90-104.
- Holtbrügge, D., & Mohr, A. T. (2010). Cultural determinants of learning style preferences. *Academy of Management Learning & Education, 9*(4), 622-637.
- Sommers, C. L. (2014). Considering culture in the use of problem-based learning to improve critical thinking - is it important? *Nurse Education Today, 34*(7), 1109-1111. doi: 10.1016/j.nedt.2014.03.010
- Tian, J., & Low, G. D. (2011). Critical thinking and Chinese university students: A review of the evidence. *Language, Culture, and Curriculum, 24*(1), 61-76.
- Veal, J. L., Bull, M. J., & Miller, J. F. (2012). A framework of academic persistence and success for ethnically diverse graduate nursing students. *Nursing Education Perspectives, 33*(5), 322-327.

Contact

christine.sommers@uph.edu

P 09 - Enhancing Education Through Storytelling Using Digital Stories to Increase Nurse Educator Cultural Competence in Ontario, Canada

Patricia Bradley, PhD, MEd, RN, Canada

Abstract

Purpose: To share the preliminary results of the Internationally Educated Nurses (IEN) project (funded by Ontario Ministry of Citizenship and Immigration (2014-2017) on Digital Storytelling (DST) as a tool to increase nurse educator cultural competence.

Digital Storytelling has been identified as a deep learning tool in education in general and in nursing education in particular (Benmayor 2008, Barrett 2006, Dip 2014, Haigh et al 2011, Miller et al 2015). Through stories, learners embrace the nature of issues, community and cultural contexts, or raise awareness about differences (Billings 2016, Clausen et al 2014, Oermann 2015).

Addressing the health care needs of the culturally diverse country such as Canada requires new models to educate healthcare providers and educators. Using Digital Stories is one approach to increase cultural competence in educators and students. This study used Digital Storytelling for nursing faculty professional development. A model of Digital Storytelling was developed and used in the project and will be shared with participants.

Methods: This paper uses a qualitative method to explore the learning experience and awareness of faculty participants about cultural diversity after viewing digital stories. These 24 internationally educated nurse developed stories (with images, voice and music) describe the experience of learning to transition into the Canadian healthcare setting.

Results: The faculty participants realized that they were not fully aware of the complexity the internationally educated nursing students were facing. In addition the faculty realized that they lacked awareness of their own cultural competency and communication skills. The analysis of the stories led to themes that are guiding further faculty development. In addition the process of DST making is an emotional one for student participants when they revisited their most memorable moments in the journey to become a registered nurse in Canada. In the creation of the stories students expressed that they felt more powerful and motivated to fight for a better future. Students expressed that they "found their voice."

Conclusion: The results showed that DST indeed is powerful tool to improve cultural competency of the participants. This study is a unique approach to cultural competence as a majority of studies focus on the measuring or assessment tools of cultural competence (Kardong-Edgren et al 2010, Wilkinson 2012). Some studies have focused on how to teach cultural competence using simulation (Jeffreys 2015, Long 2012, Truong et al 2014). This study approached the need for educators to be culturally competent in addressing when teaching diverse students. In the presentation we will discuss analysis methods of DST as well as DST as a tool to enhance cultural competency. We will share lessons learned about using the DST process to enhance cultural competence and future research plans.

References

1. Dip, J. M. R. B. P. (2014). Voices from the heart: the use of digital storytelling in education. *Community Practitioner*, 87(1), 28.
2. Billings, D. M. (2016). Storytelling: A Strategy for Providing Context for Learning. *The Journal of Continuing Education in Nursing*, 47(3), 109-110.
3. Oermann, M. H. (2015). Technology and teaching innovations in nursing education: Engaging the student. *Nurse educator*, 40(2), 55-56
4. Jeffreys, M. R. (2015). *Teaching cultural competence in nursing and health care: Inquiry, action, and innovation*. Springer Publishing Company.

Contact

bradley@yorku.ca

P 09 - Enhancing Education Through Storytelling

Using Storytelling to Teach SBAR as a Crucial Conversation Skill to Improve Patient Safety

Gwen Sherwood, PhD, RN, FAAN, ANEF, USA
Jen-Huei (Vicky) Yeh, BSN, RN, USA

Abstract

Purpose: The Quality and Safety Education for Nurses (QSEN) project (Cronenwett et al., 2007) has defined six competencies 1) patient-centered care, 2) teamwork and collaboration, 3) evidence-based practice, 4) quality improvement, 5) safety, and 6) informatics to have collaborative ready practitioners. Effective team communication is an essential attribute of the teamwork and collaboration competency to coordinate care amidst the complexity of care environments, yet most health care curricula fail to provide effective teaching strategies. In part this is because we have insufficient evidence as to what and how to teach these competencies to promote safe quality care (Cronenwett et al., 2007).

Story, as narrative pedagogy, is reported as a powerful change agent in developing a new mindset for healthcare quality and safety. Narrative pedagogy applies experiential learning theory in helping learners work within concrete situations (story) to apply what they know from previous situations and providing a context for applying new knowledge. Knowing how to speak up is a critical communication skill. The study evaluated use of a story based education intervention to help learners know how to observe, identify and analyze practice situations for gaps in care, and then compose a standardized communication to another health professional using I-SBAR (Foronda et al., 2015). The aims of the study were to better understand the use of story in teaching effective crucial communication about a critical event using I-SBAR from the learner's perspective, assess effective team communication about a critical event using I-SBAR, and examine the link between team communications using I-SBAR and previous work experience. Participants were recruited from students enrolled in a Health Services Improvement course in a school of nursing.

Methods: The study was determined exempt following IRB review. Participants in a senior level Health Services Improvement Practicum watched a 15 minute video theory burst on crucial team communication, had a brief review of I-SBAR (Identity-Situation, Background, Assessment, Recommendation) (Foronda et al, 2015), listened to a 4 minute recorded story from the StoryCare® online collection of a critical clinical incident requiring physician communication, and completed a three part online exercise: 1) composed an I-SBAR communication to another team member, 2) completed an online self-assessment 15-item checklist to rate how well their I-SBAR met stated criteria, 3) completed four reflective questions using a Likert scale about story as an instructional strategy and four demographic questions. Data analysis was done by descriptive statistics.

Results: Participants (N=43) self-assessed their own I-SBAR with the 15 items. Four items were correctly completed by all participants: caller identity, reason for the call, patient interventions, and potential reason for patient current condition. The four lowest scored items (less than 30% of participants correctly included) were admission date, vital signs, level of consciousness, and repeat back physician orders/responses. On the Likert survey, 85% of participants rated the use of story as satisfactory/very satisfactory, reported they would be able to apply the concepts of crucial conversation to respond to other professionals, they could transfer the I-SBAR skill to other situations, and rated use of story as an effective teaching strategy compared to other methods. Participants' health related work experience ranged from 0 – 12 years but did not have a statistically significant link to their I-SBAR scores.

Conclusion: Much attention has been given over the past decade to the demand to improve quality and safety outcomes in health care. Communication is a leading cause of health care errors that contribute to adverse events. Education is a key strategy increase awareness, knowledge, and skills of health care providers to improve patient outcomes. By examining the results of this study, we can begin to develop more strategic learning activities to prepare learners for the dynamics of real world practice in a low

stakes learning environment. This study also offers an efficient and effective online approach for teaching skills.

References

- Atherton, J. S. (2013). Learning and Teaching: Stories Tales and Myths in Teaching (online: UK) retrieved 1 March 2016 from <http://www.learningandteaching.info/teaching/narrative.htm>
- Cronenwett, L., Sherwood, G., Barnsteiner, J., Disch, J., Johnson, J., Mitchell, P., Sullivan, D. T., & Warren, J. (2007). Quality and Safety Education for Nurses. *Nursing Outlook*, 55(3), 122-131.
- Foronda, C. L., Alhusen, J., Budhathoki, C., Lamb, M., Tinsley, K., MacWilliams, B., Daniels, J., Baptiste, D. L., Reese, K. K., & Bauman, E. (2015). A mixed-methods, international, multisite study to develop and validate a measure of nurse-to-physician communication in simulation. *Nursing Education Perspectives*, 36(6), 383-388. doi: 10.5480/15-1644
- Foronda, C. & Bauman, E. (unpublished). *ISBAR Interprofessional Communication Rubric*. Unpublished rubric. Institute of Medicine (2003, April). *Health professions education: A bridge to quality*. Retrieved [from](http://www.iom.edu/Reports/2003/health-professions-education-a-bridge-to-quality.aspx) <http://www.iom.edu/Reports/2003/health-professions-education-a-bridge-to-quality.aspx>
- Ironside, P., & Cerbie, E. (2012). Narrative teaching strategies to foster quality and safety. In G. Sherwood & J. Barnsteiner (Eds.), *Quality and safety in nursing: A competency approach to improving outcomes*. Hoboken, NJ: Wiley-Blackwell.

Contact

gwen.sherwood@unc.edu

P 10 - NCLEX Success

The Relationships Among Standardized Exam Results, Remediation Time, and Licensure Success

Susan C. Mills, PhD, RN, USA

Pamela Williams, PhD, RNC, USA

Darrell Spurlock, PhD, RN, NEA-BC, ANEF, USA

Abstract

Purpose: The purpose of this study was to explore the relationships among standardized exam scores, time spent on exam specific remediation, and licensure exam results using data from three years of senior classes.

Background: Preparing pre-licensure nursing students for a rapidly changing health care environment requires that students are able to think critically and synthesize data from multiple sources. A curricular revision in one program prompted the foundation of a constructivist approach to helping students synthesize knowledge from previous and concurrent courses. The four knowledge synthesis courses incorporate an inquiry based approach that includes students working in small groups to actively participate in problem solving. Case studies and assignments in these courses reflect theoretical and clinical concepts that correlate with what is being taught during the semester and utilize previous learning. Faculty members teaching in this program have structured medical surgical, pathophysiological, and specialty concepts to tie together in the knowledge synthesis courses. A secondary objective of the knowledge synthesis courses is to help students begin to utilize standardized tests to identify areas of weakness and gaps in knowledge. With the help of faculty members students formulate a plan for remediation as a means of preparing for licensure examination.

In the first semester of their junior year, students review the licensure exam categories alongside concepts of care and case studies that reflect what they are studying in their other nursing courses. Test taking skills and methods to reduce test anxiety are discussed and practiced. The second semester of the junior year continues the focus on testing that incorporates weekly medication calculation questions designed to strengthen the student's calculation knowledge. The students also self-identify their learning needs with exercises that have them reflecting on their emotional intelligence, testing decision making and integration of material learned in concurrent courses. Their second standardized test in the curriculum has a focus on the care of the older adult and draws on information that was presented during both semesters of their junior year.

In the senior year the objective of the utilization of standardized examinations is to support students in identifying areas of weakness. Students are encouraged to use test specific remediation to improve grades. This is done by using two versions of a custom built comprehensive exam that is given at the beginning and end of the first semester. Based on the score of the first exam students are motivated to complete test specific remediation on areas of weakness as part of their course grade. In the second semester of the senior year students begin and end the semester with a standardized comprehensive exit examination. The students are encouraged to remediate but test specific remediation is not part of their course grade. The emphasis in the second semester continues to be the identification of areas of weakness and filling in concept and content gaps through the use of active learning strategies including several simulation scenarios, small group case studies, and presentations.

Methods: This retrospective, descriptive, correlational research study utilized descriptive and correlational statistics to identify relationships among three years (2014-2016) of senior nursing students' data ($N = 364$) including: two custom comprehensive exam scores, two exit exam scores, time spent in test specific remediation, and licensure exam results. Descriptive statistics provided means for standardized test scores, time spent on test specific remediation, score improvement, and licensure success on first attempt. Analysis of Variance (ANOVA) and correlation analysis were used to explore relationships among graduation year, and student success on licensure exam with standardized test scores and time spent in test remediation that accompanied the standardized exam.

Results: The results of the study demonstrated several important relationships for consideration in planning curricula and student preparation for licensure examination. When comparing mean test scores from students who passed (86.6%) versus those who failed (13.4%) the licensure exam on the first attempt, statistically significant differences in means scores were found for custom comprehensive exam scores ($F = 26.44$, $df = 1, 362$, $p < .001$) and exit exam scores ($F = 31.61$, $df = 1, 365$, $p < .001$). The exam most strongly correlated with licensure exam passing was the first administration of the exit exam in the spring of the senior year ($r_{pb} = .282$, $p < .001$), followed closely by the first custom comprehensive exam administered at the beginning of the senior year ($r_{pb} = .261$, $p < .001$). Time spent in test-specific remediation was positively, weakly correlated with test score improvement ($r = .173$, $p = .001$) in the fall semester, but remediation time in the spring semester (between the first and repeat administrations of the exit exam) was not associated with exit exam score improvements. Interestingly, over the three year period, we saw a significant increase in student time spent on test-specific remediation (1 hr 44 minutes in 2014 to 3 hrs 48 minutes in 2016) while mean test score improvements remained relatively stable as did licensure pass rates on the first attempt.

Conclusion: The results of our study are significant to educators interested in preparing pre-licensure students for licensing examinations. Identifying at risk students early on, developing a plan for addressing knowledge gaps and building confidence in their test taking skills may help them be more successful on their first attempt at the licensing exam. We incorporated curricular changes aimed at helping students to synthesize both current and previous knowledge in the hope that we would improve critical thinking skills. Originally, courses like this were only included in our senior year curriculum. Expanding the course concept to the junior year was an attempt to help students be more successful in testing throughout the nursing program.

The use of standardized exams has allowed us to help build student's comfort level and confidence with test taking. Students in the first semester of their senior year take an exam that is very similar at the beginning and end of the semester. This is a purposeful curricular design to help students identify gaps in knowledge, remediate on test specific concepts, and retest. Students who use this opportunity wisely are successful. The statistical correlation in this study demonstrates that a significant majority of our students were able to increase their score.

Time spent in test specific remediation is a small part of what we do to help prepare students for test success. It is a measurable variable that allows us a glimpse of how much time students spend preparing for testing. There are limitations to measuring time spent on remediation: although we can quantify time spent remediating through computerized tracking, we have no clear idea of the quality of the remediation. Additionally, students have the option to download study materials and study them at a later time. Therefore it is possible that we are not capturing all of the time spent on test-specific remediation. Another limitation is that we only looked at time spent on the custom comprehensive and exit exam remediation. Students were encouraged to spend some time remediating in other exams depending on their weak areas.

The fact that we had a limited number of students who were unsuccessful on licensure pass on their first attempt is good. However, this small number makes it much more difficult to identify what makes the difference for student success on licensure pass rates. This leaves us to speculate on what we, and nursing faculty in other programs, can do to truly ensure licensure exam success. We implemented a curricular change that incorporates a constellation of strategies to synthesize knowledge, build test taking comfort and confidence, identify areas of weakness, and develop a plan for remediation. This study allowed us to discover the impact of a few of those changes and to begin to ascertain the areas in which the time is well spent. Going forward, we will continue to motivate students to spend time in course specific remediation throughout the senior year as opposed to only in the fall semester. We will also keep the custom examination in the fall semester, as it has a strong correlation with student success. Identifying this correlation also allows us to implement additional efforts aimed at students who perform poorly on this exam to help them continue to prepare for licensure exam success.

References

Horton, C. H., Polek, C., & Hardie, T. L. (2012). The relationship between enhanced remediation and NCLEX success. *Teaching & Learning in Nursing*, 7, 146-151. doi: <http://dx.doi.org/10.1016/j.teln.2012.06.002>

Langford, R. & Young, A. (2013). Predicting NCLEX-RN success with the HESI exit exam: Eighth validity study. *Journal of Professional Nursing*, 29, (2S), S5-S9. doi: <http://dx.doi.org/10.1016/j.profnurs.2012.06.007>

Lauer, M. E. & Yoho, M. Y. (2013). HESI exams: Consequence and remediation. *Journal of Professional Nursing*, 29, (2S), S22-S27. doi: <http://dx.doi.org/10.1016/j.profnurs.2012.06.007>

Lavandera, R., Whalen, D. M., Perkel, L. K., Hackett, V., Molnar, D., Steffey, C., Hershon, I. R., Rafalko, S., Little, D. J. & Harris, J. (2011). Value-added of HESI exam as a predictor of timely first-time RN licensure. *International Journal of Nursing Education Scholarship*, 8, (1), 1-12. doi: 10.2202/1548-923X.2152

Strout, K., & Haidemenos, K. (2016). Eight remediation strategies to improve test performance. *Nursing 2016*, 46, (4), 21-22. doi: 10.1097/01.nurse.0000481435.17425.88

Contact

prwilliams@mail.widener.edu

P 10 - NCLEX Success

Nursing Students and NCLEX-RN® Success: Impact of a Standardized Review Course on Outcomes

Rosema Pine, PhD, RN, BC, USA

Barb Schreiner, PhD, APRN, CPLP, USA

Abstract

Purpose: Success on the NCLEX-RN® has widespread ramifications for students, nursing schools and employers. The stakes are high related to first time pass rates and review of the literature verified that student preparation for entry into practice is of great concern to nurse educators and schools nationally and globally (Wells, 2003; Higgins, 2004; Crow et al 2004; Davenport, 2007; Siffert & McDaniel, 2007; and Carrick, 2011); graduating seniors, and employers (Beeman, P., & Waterhouse, J., 2003; Spencer, J., 2006; Pine, 2007; Silvestri, L., Clark, M. & Moonie, S., 2013; Atemafac, J., 2014).

The purpose of this retrospective correlational pilot study was twofold. The first was to determine which characteristics of a standardized NCLEX –RN® Review Course impact NCLEX-RN® success. Are the characteristics, class size, course placement, mandatory attendance, and confidence level associated with NCLEX-RN® success? The second purpose was to describe the positioning within the curriculum of the standardized NCLEX Review Course and its relationship to the timing of the Exit Exam. Findings contribute to the identification of those variables that contribute to success on NCLEX-RN® when participating in an NCLEX® Review Course. Knowing which factors may contribute to success is helpful to schools of nursing in the formulation of innovative curriculum design to support nursing student success in the NCLEX-RN®.

There is limited research on the effect of standardized review courses on successful NCLEX-RN® or standardized exam outcomes. Success is a complex phenomenon. Corrigan-Magaldi, Colalillo, & Molloy, (2014); Crow (2004) and Ashley and O'Neill (1991) found review courses to be one of the statistically significant interventions for NCLEX® success. Requiring mandatory attendance at review courses seems to be a successful strategy (Mills, et al, 2001; Norton, et al, 2006). Ross, et al, (1996) identified that low participation at optional attendance standardized review courses resulted in lower standardized test scores. Lack of confidence was cited as a factor influencing NCLEX failure (Farquhar, 2014) while high self-efficacy expectations showed a positive correlation with NCLEX success (Silvestri, 2010; Silvestri, Clark & Moonie, 2013). While it is difficult to isolate class size from other variables, such as ineffective teaching methods and impact on grades or achievement, the educational literature suggests mixed results on class size and impact on grade or achievement (Robb, 2012; Hattie, 2009; Kokkelenberg, Dillon, & Christy, 2008; Arias & Walker, 2004; Mitchell & Beach, 1990).

Methods: This exempt study was approved by the IRB of Texas Woman's University Protocol #17690. A retrospective correlational research design was used and the DV was measured by first time passage of NCLEX-RN®. The independent variables included: a) required attendance at a standardized review course, b) class size, c) positioning of standardized exit exams (E2), d) timing of the course in relation to graduation, and e) confidence. The standardized NCLEX-RN® Review course emphasizes memory retrieval by reviewing key concepts related to commonly occurring disorders and health needs. It highlights mental rehearsal by helping the students practice critical thinking and test taking strategies and analysis and builds confidence through faculty/student interaction and repetition to support retention. In order to achieve these purposes, the students who attended the standardized NCLEX-RN® Review Course answered a post-course questionnaire measuring satisfaction and confidence. Deans or Directors were invited to respond to two questionnaires: demographic and scoring tool.

Results: Results revealed that mandatory attendance is associated with statistically significant higher scores on a standardized E2 ($p < .01$). A chi-square test of independence demonstrated no difference in NCLEX success between those required to attend a LRC and those who were not required ($X^2(1, N=746) = .1783, p = .674$). Students attending courses with smaller class sizes (<60 students) scored significantly higher on the Exit Exam ($X = 919.1$) than those attending larger classes (>60 student) ($X = 831.5$). There

was no difference in NCLEX outcomes. The percent of students passing NCLEX was the same regardless of class size ($X^2 = .003$, $p = .958$). Students passed NCLEX at statistically higher rates when the standardized exams were offered after the review course rather than before the review course ($p < .01$). The timing of the review course conferred benefit on NCLEX outcomes. More students passed NCLEX when the course was offered 1-9 weeks prior to graduation compared to students who attended a review the week of graduation or 12 weeks before graduation (1, N= 497) ($X^2 = 29.22$, $p < .01$). There was a statistically significant improvement in self-reported confidence among students enrolled in the standardized review course.

Conclusion: While limited research is available to determine the effectiveness of strategies used to improve NCLEX-RN success, a comprehensive standardized review course is appropriate to help students understand the testing process, develop test-taking skills, increase content knowledge, improve critical thinking abilities, and gain confidence. Future research is recommended on identifying confounding variables associated with class size and intent to prepare post-graduation

References

- Corrigan-Magaldi, M., Colalillo, G., & Molloy, J. (2014). Faculty-Facilitated Remediation: A Model to transform at-risk students. *Nurse Educator*, 39(4), 155-157. doi:10.1097/NNE.0000000000000043
- Roa, M., Shipman, D., Hooten, J., & Carter, M. (2011). The costs of NCLEX-RN failure. *Nurse Education Today*, 31(4), 373-377. doi:10.1016/j.nedt.2010.07.009
- Silvestri, L.A., Clark, M.C. & Moonie, S.A. (2013) Using logistic regression to investigate self-efficacy and the predictors for National Council Licensure Examination success for baccalaureate nursing students. *Journal of Nursing Education and Practice*, 3, 21-34. <http://dx.doi.org/10.5430/jnep.v3n6p21>

Contact

rosiepine1@gmail.com

P 11 - Patient Education in Oncology Patients

Feasibility of a Breast Health Education Intervention for Vietnamese-American Immigrant Women

Connie Kim Yen Nguyen-Truong, PhD, RN, PCCN, USA

Nisreen Pedhiwala, MS, BA, USA

Vananh Nguyen, MPH, CPH, USA

Cang Le, BS, USA

Tuong Vy Le, MS, BS, USA

Christine Lau, MA, CACDI, USA

Junghee Lee, PhD, MSW, USA

Frances Lee-Lin, PhD, RN, OCN, CNS, USA

Abstract

Purpose: The purpose of this pilot study was to assess the feasibility and acceptability of an adapted education intervention with targeted cultural and health belief messages (Early Care for Health – Vietnamese Women’s Breast Health Program [Early Care for Health]) to increase mammography screening among Vietnamese American (VA) immigrant women. The study was approved for human participation by the university institutional review board.

Asian Americans are a heterogeneous group and come from over 50 different countries and speak more than 100 languages (Gomez et al., 2013). VA immigrant women may have different cultural health beliefs and practices than other racial ethnic groups that significantly influence cancer risks and outcomes (Solanki, Ko, Qato, & Calip 2016). Previous researchers’ findings support the need to study groups separately. During the last 15-20 years, while breast cancer rates are declining in non-Hispanic American women, unfortunately, the rates are increasing among Asian-American women (Gomez et al., 2013). Furthermore, the incidence rates are significantly increased among VA immigrant women at 1.2% (95% CI = 0.1 to 2.2) per year (Gomez et al., 2013); and mammography screening rates (64%) are well below the national Healthy People 2020 (n.d.) goal of 81.1% (Pourat, Kagawa-Singer, Breen, & Sripipatana, 2010). VA immigrants encounter language, cultural, and economic barriers to preventive health care (McCracken et al., 2007). For example, VA immigrant women believe that breast cancer is only a concern when symptoms arise (Nguyen, Barg, Armstrong, Holmes, & Hornik, 2007). In addition, VA immigrants believe that looking for problems will invite new troubles into their lives. These suggest that VA immigrants need a compelling reason to seek a health care provider. Nguyen and colleagues (2010) found that VA immigrants were less likely compared to White and African Americans to report engaging in cancer information seeking. Researchers found that multiple intervention strategies that were culturally tailored were more likely to be effective at increasing mammography screening rather than singular non-tailored interventions among VA immigrant women (Lu et al., 2012). However, intervention intensity was difficult to determine because exposure to each of the multiple strategies was not tracked consistently. Therefore, the long-term sustainability is questionable (Lu et al., 2012). We previously developed and tested Early Care for Health (formerly known as the Targeted Breast Health Educational Program) among Chinese American immigrant women (Lee-Lin, Menon, Leo, & Pedhiwala, 2013; Lee-Lin, Nguyen, Pedhiwala, Dieckmann, & Menon 2015). The multi-component culturally targeted approach, which included targeted cultural and health belief messages delivered in an interactive education group that used power point media followed by individual counseling, was effective at increasing mammography screening at 3 months in a pilot study and at 6 and 12 months in a randomized controlled trial (n= 300) (Lee-Lin et al., 2013; 2015).

Methods: In our one- group pre- and post-test design, we recruited 40 VA immigrant women, aged 50 years and older, who had no personal history of breast cancer, had not had a mammography screening within the past 12 months, could understand and read Vietnamese or English, and were associated with/recruited from one Asian community-based organization as well as from the VA community in the Portland, Oregon metropolitan area, United States of America. We followed the American Cancer Society (ACS) 2015 screening guidelines (Oeffinger et al., 2015) since the ACS is most commonly followed by health care providers (Kwon et al., 2013). The Asian community-based organization is a trusted place

“...where health and other information is sought and given” (Lee-Lin et al., 2013, p 363) and this recruitment approach has been successfully used by others (Nguyen and colleagues, 2010). In keeping with the exploratory nature, we based our sample size on our previous similar exploratory pilot study with Chinese American immigrant women (80% power and alpha level of 0.1). We adapted and modified Early Care for Health, which consists of two parts: an interactive group teaching (discussion) that used power point media followed by individual counseling session after 10 days to help women to overcome barriers to mammography screening. Topics for the interactive group teaching included: breast cancer incidences and mortality rates, risks for breast cancer, the process required/used to obtain mammography screening, perceived benefits of obtaining a mammography screening, and how to overcome perceived common barriers, and perceived cultural barriers, to obtain mammography screening. The materials also contained culturally relevant graphics such as photos of older and younger VA women having a mother, daughter, and grandmother conversation and Asian landscapes, and a breast cancer survivor story. We translated health messages into Vietnamese using a translation team approach. This was similar to our previous translation team approach (Nguyen-Truong et al., 2014), which included VA bilingual and bicultural community members and an academic investigator who first translated independently, and then discussed translation decisions as a team to resolve ambiguities. The translation team approach successfully captured meanings within the context of the discussion versus a strictly literal translation. A baseline survey included questions on mammography screening and breast cancer knowledge and measures on the following independent variables: perceived susceptibility, perceived benefits, perceived common barriers, and perceived cultural barriers (crisis orientation, modesty, use of Eastern/Asian medicine, family support). This information was collected from participants prior to the interactive group teaching, and again 12-weeks post-intervention. At baseline, we also asked each participant to identify major barriers that prevented her from obtaining mammography screening within the past 12 months. At 12-weeks post-intervention, we asked participants about mammography screening completion and determined if they were at the pre-contemplation, contemplation, or action stage (outcomes variables). We used a paired t test to compare mean differences and performed logistic regression analysis to determine related independent variables with the outcome variables.

Results: Of the 69 VA women who were eligible for the study, 40 agreed to participate, for a response rate of 58%. The sample ranged from aged 50 to 80 years old (mean = 67 years old), mean age of 53 years old (SD = 11.7) when immigrated to the United States, and a mean of 14 years (SD = 9.2) having lived in the United States. Most participants are currently married (58%, n = 23); with some high school education (33%, n = 13); not employed (78%, n = 31); have a total household income less than \$15,000 (72%, n = 28); have health insurance (75%, n = 30); and do not speak English (38%, n = 15). Most participants have a regular health care provider (78%, n = 31). Thirty-nine women attended the interactive group teaching intervention. Participants identified the following reasons as top barriers to mammography screening: no reason (n = 17) followed by had no insurance or because of cost (n = 7), perceived they did not need to have a mammogram because they were over age 60 (n = 5), and did not have symptoms or did not think they would develop breast cancer (n = 3). Post-intervention survey results were encouraging: 75% (n = 30) of participants reported having obtained a mammography screening (action stage), of which 20% (n = 8) were in the pre-contemplation stage and 55% (n = 22) were in the contemplation stage at baseline. Of the 25% (n = 10) of participants who did not complete a mammography screening, one participant improved one stage from pre-contemplation to contemplation, seven remained the same stage, and one moved backward one stage from contemplation to pre-contemplation. The attrition rate was low with only one woman (3% of sample) lost to follow-up for a 98% (n = 39) completion rate. Ninety percent of participants judged Early Care for Health to be acceptable (e.g., cultural appropriateness of the content). Mean scores for the following variables significantly increased at post-test: breast cancer knowledge (t[39] = -14.72, p < .001), perceived susceptibility to developing breast cancer (t[39] = -2.69, p < .05), perceived benefits to mammography screening (t[39] = -4.39, p < .001), and perceived breast cancer and mammography benefits (t[39] = -4.09, p < .001). We found that crisis orientation towards mammography screening in pre- to post-test score difference was significantly positively associated with mammography screening completion (OR = 12.59, 90% confidence interval [CI] = 1.38-115.16) and stage in improvement (OR = 11.03, 90% CI = 1.34-91.05), whereas, older age was significantly negatively associated with both outcome variables (OR = .71, 90% CI = .57-.90; OR = .76, 90% CI = .62-.94 respectively) as well as modesty (OR = .04, 90% CI = .00-.45; OR = .04, 90% CI = .00-.45 respectively).

Conclusions: We achieved good feasibility, a good response rate, and very low attrition (Bowen et al., 2009). We also achieved acceptability of the program (Wahab, Menon, & Szalacha, 2008). Our pilot study findings are relevant to the congress themes and objectives because it is on health promotion and cancer disease prevention; based on theory and evidence-based research; a multi-component, culturally targeted educational program, which used power point media technology to deliver an interactive group teaching followed by individual counseling to improve access and remove barriers; and a strong interprofessional research team. This promising intervention can also be adapted for other Asian groups.

References

- Gomez, S. L., Noone, A.-M., Lichtensztajn, D. Y., Scoppa, S., Gibson, J. T., Liu, L., ... Miller, B. A. (2013). Cancer Incidence Trends Among Asian American Populations in the United States, 1990–2008. *JNCI Journal of the National Cancer Institute*, 105(15), 1096–1110. doi: [10.1093/jnci/djt157](https://doi.org/10.1093/jnci/djt157)
- Healthy People.gov. (n.d). Healthy People 2020 Objective Target Areas and Page Numbers. Retrieved from <http://www.healthypeople.gov/2020/topicsobjectives2020/pdfs/HP2020objectives.pdf>
- Kwon, H. T., Ma, G. X., Gold, R. S., Atkinson, N. L., & Wang, M. Q. (2013). Primary Care Physicians' Cancer Screening Recommendation Practices and Perceptions of Cancer Risk of Asian Americans. *Asian Pacific Journal of Cancer Prevention*, 14(3), 1999–2004.
- Lee-Lin, F., Menon, U., Leo, M.C., & Pedhiwala, N. (2013). Feasibility of a targeted breast health education intervention for Chinese American immigrant women. *Oncology Nursing Forum*, 40(4), 361-372.
- Lee-Lin, F., Nguyen, T., Pedhiwala, N., Dieckmann, N., & Menon, U. (2015). A breast health educational program for Chinese American women: 3- to 12-Month postintervention effect. *American Journal of Health Promotion*, 29(3), 173-181. doi: 10.4278/ajhp.130228-QUAN-91
- Lu, M., Moritz, S., Lorenzetti, D., Sykes, L., Straus, S., & Quan, H. (2012). A systematic review of interventions to increase breast and cervical cancer screening uptake among Asian women. *BMC Public Health*, 12, 413. doi: [10.1186/1471-2458-12-413](https://doi.org/10.1186/1471-2458-12-413)
- Nguyen-Truong, C. K. Y., Leo, M., Lee-Lin, F., Gedaly-Duff, V., Nail, L., Gregg, J., Le, T. V., & Tran, T. (2014). Adaptation and testing of instruments to measure cervical cancer screening factors among Vietnamese immigrant women. *Journal of Transcultural Nursing*, 1-10. doi: 10.1177/1043659614524245
- Oeffinger, K. C., Fontham, E.T., Etzioni, R., Herzig, A., Michaelson, J. S., Shih, Y. T., ... Wender, R. (2015). Breast cancer screening for women at average risk: 2015 Guideline update from the American Cancer Society. *Journal of American Medical Association*, 314(15), 1599-1614. doi:10.1001/jama.2015.12783
- Solanki, P. A., Ko, N. Y., Qato, D. M., & Calip, G. S. (2016). Risk of cancer-specific, cardiovascular, and all-cause mortality among Asian and Pacific Islander breast cancer survivors in the United States, 1991–2011. *SpringerPlus*, 5, 82. doi: [10.1186/s40064-016-1726-3](https://doi.org/10.1186/s40064-016-1726-3)

Contact

c.nguyen-truong@wsu.edu

P 11 - Patient Education in Oncology Patients

Innovative Use of Electronic Tablets for Newly Diagnosed Cancer Patient Education

Patricia L. Petroulias, PhD, RN, USA

Abstract

Purpose: The purpose of this study was to test the use of an electronic tablet as a tool to provide coaching to newly diagnosed cancer patients for peripherally inserted central catheter (PICC) maintenance to minimize infection and occlusion complications. PICC occlusion and infection often occur because of poor maintenance techniques, specifically inadequate aseptic techniques when manipulating the line, failing to flush lines properly, and/or not using the locking solution recommended for a specific device. (Ferroni et al., 2014). Using the pulsatile flushing technique with normal saline is a simple and effective technique to create turbulence inside the line to prevent catheter occlusion and decrease bacterial colonization (Camp-Sorrell, 2011, Ferroni et al., 2014, INS, 2016). Effective patient and caregiver education is necessary to ensure infusion therapy safety and decrease the risk of PICC-related complications (INS, 2016). Patients and caregivers must be able to perform the tasks of PICC maintenance and know when to contact a healthcare provider if complications arise. Management of PICCs, as well as patient and family education using electronic tablets, is in the scope of nursing practice and the standards of practice for the Oncology Nursing Society (ONS) and Infusion Nurses' Society (INS). The INS (2016) recommended guidelines for patient/caregiver education for PICCs include device description, reason for placement, aseptic technique, basic device flushing, dressing and injection cap change, level of discomfort the patient may experience, site assessment for adverse outcome symptoms, potential complications, along with prevention and management of complications. As healthcare costs continue to escalate and home care benefits are being reduced, this study has significance to nursing. Patients who learn about self-care at home, away from the distractions of the healthcare environment, can be more involved in their care. By shifting the learning environment to the patients' homes or environments of choice, the intervention can take place in a patient-controlled environment. Integrating technology into healthcare practices can provide an innovative way to assist patients and nurses manage complex health conditions. Because of the volume and complexity of the information, patients have described self-care education as unhelpful, excessive, and frightening (Coffey et al., 2016). Patients feel overwhelmed and, therefore, their retention of this critical information is severely limited (INS, 2016; Coffey et al., 2016).

Methods: This study proposed a new strategy for patient and caregiver education – a comprehensive educational intervention using electronic tablets to reduce the incidence of PICC line occlusion and infection in the adult outpatient population. Combining technology and educational theory can provide repetition and self-paced learning for patients who are learning self-care techniques to manage their PICC lines. Using an electronic tablet to detail the steps required for flushing their PICC lines could help patients master the process better than receiving the standard method of patient education. The researcher had created the video for flushing PICC lines and uploaded it to YouTube. Therefore, the intervention for this project was a coaching session with the researcher who is an infusion nurse, along with providing the patient with a video on an electronic tablet that outlined the steps of flushing. The tablet was taken home to provide a demonstration that could be replayed as needed. In addition, a nurse could use voice and audio calls, such as *Facetime* or *Skype*, to coach the patient through the process. It was believed that as patients became more proficient at flushing their PICC lines, the negative outcomes of occlusion and infection should be minimized. To determine the efficacy of using electronic tablets as an instructional delivery method for patient and caregiver education, a pilot study was conducted.

Results: A sample of 11 newly diagnosed cancer patients were asked to participate in the study. The ages of the subjects ranged from 38 to 88 years old, with a mean age of 66.64 ($SD = 13.37$) years. Four participants (36.4%) were female and seven (63.6%) were male. Of the 11 patients who were initially enrolled in the study, leukemia was the most frequent diagnosis (3), ovarian (2) and pancreatic (2) cancers and 1 participant each with breast, bone, stomach or lung cancers. After reviewing the informed consent form with the researcher, they completed a short demographic survey. The patients and their

caregivers met with an infusion nurse who provided the standard education on flushing their PICC lines. They then met with the researcher who instructed them on using a tablet to access YouTube and Facetime applications. Each patient was sent home with an electronic tablet. Shortly after, the researcher contacted the patient/caregiver to provide interactive coaching on flushing their PICCs. The patients/caregivers were encouraged to contact the researcher if they encountered any difficulties when flushing their PICC lines. The infusion nurses at the clinic where they were receiving treatment monitored the infection and occlusion rates for the 11 patients. None of the patients experienced infection or occlusion complications with their PICC lines, although one patient experienced thrombophlebitis, which required removal of the PICC line. There were no occlusive outcomes in the pilot study participants. The national reported PICC occlusion rates varied from 14 to 36% (Barrier et al., 2013; Dougherty, 2014). There were no PICC line associated infections in the pilot study participants. The national reported PICC line associated infection rate in outpatients was 0.5% (Chopra et al., 2013). The outcomes for occlusion and infection in the study population were better than outcomes in national samples.

Conclusion: Previous research has demonstrated that electronic platforms for patient education improve interactive capabilities and support communication needs beyond the outpatient setting (Sawyer et al., 2016). The pilot study of oncology patients with newly inserted PICC lines demonstrated the positive effects of the use of technology to provide remote patient education and coaching in decreasing adverse patient outcomes of PICC occlusion and infection. Developing applications for electronic tables and smart phones to help with patient education can help overcome some of the visual and auditory problems associated with printed materials. The use of an electronic tablet to provide this type of education while the patient and caregiver are in their home environment can provide opportunities for coaching, reviewing, and reinforcing self-care treatments that can improve health outcomes.

References

- Barrier, A., Williams, D. J., Connelly, M., & Creech, C. B. (2012). Frequency of peripherally inserted central catheter complications in children. *The Pediatric infectious disease journal, 31*(5), 519-521. doi: 10.1097/INF.0b013e31824571b0
- Chopra, V., O'Horo, J., Rogers, M., Maki, D., & Safdar, N., (2013) The risk of bloodstream infection associated with peripherally inserted central catheters compared with central venous catheters in adults: A systematic review. *Infection Control and Hospital Epidemiology, 34*(9), 908-919. doi: 10.1086/671737
- Coffey, L., Mooney, O., Dunne, S., Sharp, L., Timmons, A., Desmond, D., ... & Gallagher, P. (2016). Cancer survivors' perspectives on adjustment-focused self-management interventions: a qualitative meta-synthesis. *Journal of Cancer Survivorship, 1*-23. doi: 10.1007/s11764-016-0546-3
- Dougherty, L. (2014). Frequency, Diagnosis, and Management of Occlusive and Mechanical PICC Complications. In S. Sandrucci & B/ Mussa (Eds.). *Peripherally Inserted Central Venous Catheters*, (pp. 85-94). New York: Springer.
- Ferroni, A., Gaudin, F., Guiffant, G., Flaud, P., Durussel, J. J., Descamps, P., ... & Merckx, J. (2014). Pulsative flushing as a strategy to prevent bacterial colonization of vascular access devices. *Medical Devices (Auckland, NZ), 7*, 379-383. doi: 10.2147/MDER.S71217
- Infusion Nurses Society (2016). *Infusion Nursing Standards of Practice*. Norwood, MA: Wolters Kluwer
- Sawyer, T., Nelson, M. J., McKee, V., Bowers, M. T., Meggitt, C., Baxt, S. K., ... & Locke, S. C. (2016). Implementing electronic tablet-based education of acute care patients. *Critical Care Nurse, 36*(1), 60-70. doi: 10.4037/ccn2016541

Contact

petroulias@oakland.edu

P 12 - Preventing Injury and Infection in Resident Care

Urinary Incontinence in the Nursing Home Resident: Exploring CNA Caregivers' Attitudes and Beliefs Regarding UI

Roxellen Anntoinette Auletto, DNP, RN, MSN, MLA, ANP-BC, PNP, USA

Abstract

Purpose: The primary objective of this qualitative study was to elicit the attitudes and beliefs of CNA's towards UI in a long term care facility. A greater understanding of how CNA's view UI in this patient population can then position both nursing and CNA's to effectively identify, prevent, and coordinate plan of care for the reversal of UI.

Methods: Focus group methodology was utilized to answer the research question, "what are the attitudes and beliefs about urinary incontinence among a sample of CNA's working in a long- term care facility?" Data collection was in the form of semi-structured focus group interviews. Interviews were audio taped and transcribed verbatim. The group facilitator served as note taker capturing observations of the group during the interviews, noting body language, facial expressions and group interactions. The researcher served as the moderator, focusing on group dialogue, dynamics, and participation utilizing the semi-structured interview questions as prompts to facilitate and maintain CNAs engagement in the focus group.

Results: Five themes emerged from the data. 1) "We're stretched too thin"; 2) "No one asks our opinions, but we are the ones who know what's going on"; 3) "Incontinence: It's just what happens when you get old"; 4) "Some of them do this out of spite," and 5) "Preventing incontinence: It's everyone's job." Although research exists examining differences in attitude and understanding regarding UI among registered nurses, licensed practical nurses, and certified nursing assistants working in skilled nursing homes before and after study interventions, studies focusing solely on CNAs could not be found.

Conclusion: Although the five themes identified during the study may not seem novel or surprising, they represent the feelings of a growing body of healthcare providers whose voices can no longer be ignored. CNAs role in long term care will continue to require more responsibility, education, and leadership. It is unrealistic to think that their involvement can be limited to caregiving alone. If we are to address the issues of understaffing, feelings of unimportance in their role as CNAs, and lack of understanding as to why the elderly become incontinent, active engagement of the primary caregivers is essential.

References

- Ehlman, K., Wilson, A., Dugger, R., Eggleston, Coudret, N., & Mathis, S. (2012). Nursing home staff members' attitudes and knowledge about urinary incontinence: The impact of technology and training. *Urologic Nursing*, 32(4), 205-213.
- Skotnes, L. H., Hellzen, O., & Kuhry, E. (2013). Perceptions and barriers that influence the ability to provide appropriate incontinence care in nursing home residents: Statements from nursing staff. *Open Journal of Nursing*, 3, 437-444. Retrieved from <http://dx.doi.org/10.4236/ojn.2013.36059>
- Xu, D. & Kane, R. L. (2013). Effect of urinary incontinence on older nursing home residents' self-reported quality of life. *Journal of the American Geriatrics Society*, 61(9), 1473-1481. doi:10.1111/jgs.12408

Contact

rauletto01@aol.com

P 12 - Preventing Injury and Infection in Resident Care

Describing Avoidable Transfers and Decisions to Transfer Residents From Long-Term Care to Emergency Departments

Judith Spiers, PhD, RN, Canada

Rowan El-Bialy, MSc, Canada

Kaitlyn C. Tate, BScN, RN, Canada

Patrick B. McLane, PhD, MA, Canada

Greta G. Cummings, PhD, RN, FCAHS, FAAN, Canada

Abstract

Purpose: Long term care residents (LTC) are typically frail elderly, who can suffer from iatrogenic effects of unnecessary or avoidable transitions to the emergency department (ED). Although most transfers of LTC residents via ambulance to the ED are necessary, our prior research shows that healthcare providers consider around 20% of transfers to be potentially avoidable. The purpose of this two-phase, mixed-methods study was to: define avoidable transitions, identify factors that influence decisions to transfer or not, and identify modifiable attributes of avoidable transitions.

Methods: Phase 1 involved in-depth individual and focus group interviews in 6 LTC facilities in Alberta, Canada. The sample consisted of 71 Registered Nurses (RNs), Licensed Practical Nurses (LPNs), Healthcare Aides, managers, and family members of LTC residents, in addition to 9 regional Emergency Medical Services (EMS) Personnel. Thematic analysis of 25 interviews and 19 focus groups followed. In Phase 2, an online survey was administered to staff and physicians in 18 LTC facilities and regional EMS personnel (N=351) to verify the findings of Phase 1. Descriptive analysis was undertaken of the survey data completed by the working sample: 50 RNs and physicians in an ED; 137 paramedics and EMTs; 142 RNs, LPNs, and administrators in LTCs; and 22 LTC Medical Directors.

Results: The results led to an inductively developed conceptual definition of avoidable transfers. The identification of primary factors contributing to avoidable LTC-ED transfer decisions included: healthcare providers' lack of familiarity with residents, a shortage of diagnostic and treatment resources in LTCs, limitations in the staff-family relationship, and varied interpretations of the Advance Care Planning policy. Emergent themes included: fear of liability; staff & family relationships; interpreting Goals of Care Designations; knowing the resident; healthcare provider's critical thinking & response to ambiguity; limited diagnostic & treatment options in LTC; access to a second opinion.

Conclusion: The implications of these findings lead to recommendations for changes to policies and the development of decision-making guidelines regarding LTC-ED transitions.

References

Trahan L, Spiers J, Cummings GG. (2016). Decision to Transfer Nursing Home Residents to Emergency Departments: A Scoping Review of Contributing Factors and Staff Perspectives. *Journal of the American Medical Directors Association*, 17(11), Nov 2016, 994-1005. doi: [10.1016/j.jamda.2016.05.012](https://doi.org/10.1016/j.jamda.2016.05.012)

Saliba, D., Kington, R.S., Buchanan, J. et al, Appropriateness of the decision to transfer nursing facility residents to the hospital. *J Am Geriatr Soc*. 2000;48:154-163.

Contact

jaspers@ualberta.ca

P 13 - Creating Nursing Competence Using Simulation

Use of Standardized Patients (SPs) With Disabilities in an Undergraduate Nursing Program

Bette A. Mariani, PhD, RN, RN, USA
Suzanne C. Smeltzer, EdD, MS, RN, ANEF, FAAN, USA
Colleen Meakim, MSN, CHSE, USA
Jennifer G. Ross, PhD, RN, CNE, USA
Elizabeth Petit de Mange, PhD, RN, FNP, USA

Abstract

Purpose: People with disability (PWD) report having negative encounters with nurses due to a lack of knowledge, negative attitudes, and a lack of communication skills necessary to interact effectively with PWD. Generally undergraduate programs dedicate little to no attention on the care of PWD. This research team addressed this gap through the integration of a program of simulation across the curriculum where PWD were used as standardized patients. The purpose of this study was to explore undergraduate nursing students' attitudes towards people with disability and their feelings about their interactions with PWD before and after participating in a program of simulation using standardized patients with disability.

Methods: A pretest-posttest mixed methods design was used to answer the following questions: 1) Will participating in a program of simulation including standardized people with disability (SPWD) influence students' attitudes toward people with disability; 2) Will participating in a program of simulation including standardized people with disability influence students' perceptions of their interactions with people with disability; and 3) What was students' experience with standardized patients with disability. After consenting to participate, students completed a brief demographic survey, the Attitudes Towards Disabled Persons (ATDP) Scale, (Form A) and the Interactions with Disabled (IDP) Persons Survey in their freshman year, prior to participating in simulations with SPWD, and then again just prior to graduation after completing the program of simulation with SPWD. The posttest survey also included five open-ended questions to allow students to comment on their reaction to the simulations, the value of the experience, and their recommendations on continuation of the program of simulation with SPWD.

Results: There was no statistically significant difference in the pretest and posttest results on the Attitudes Towards Disabled Persons (ATDP) Scale (Form A) and the Interactions with Disabled (IDP) Persons surveys for undergraduates who participated in the program of simulation with SPWD; however, analysis of the open-ended questions resulted in four categories of themes and subthemes, which were: cognitive, emotional, behavioral, and interpretive themes.

Conclusions: While the surveys did not reflect statistically significant differences, in the open-ended questions, the students overwhelmingly indicated that they valued this experience of interacting with SPWD and recommended continuing the program. This study contributes to a gap in nursing education in improving healthcare experiences for PWD.

References

- Brault, M. (July 2012). Americans with disability: 2010. Household economic study: Current population report. U.S. Department of Commerce Economics and Statistics Administration U.S. Census Bureau. Accessed on: July 18, 2016 from <http://www.census.gov/prod/2012pubs/p70-131.pdf>
- Smeltzer, S. C., Avery, C. & Haynor, S. (2012). Interactions of people with disabilities with nursing staff during hospitalization. *American Journal of Nursing*, 112(4),30-37.
- Smeltzer, S.C., Mariani, B., Ross, J.G., Meakim, C., Petit de Mange, E., Bruderle, E. & Nthenge, S. (2015) Perceptions of persons with disability of their experience as standardized patients in an undergraduate nursing program. *Nursing Education Perspectives*. 36(6), 398-400.
- Smeltzer, S.C., Robinson-Smith, G., Dolen, M.A., Duffin, J. & Al-Maqbali, M. (2010). Disability-related content in nursing textbooks. *Nursing Education Perspectives*. 31(3), 148-155.

Contact

bette.mariani@villanova.edu

P 13 - Creating Nursing Competence Using Simulation

Does a Culturally Infused High-Fidelity Human Simulation (HFHS) Scenario Accurately Depict the Culture?

Ruth E. Irwin, PhD, RN, USA

Abstract

Purpose: The United States (U.S.) is rapidly becoming a multi-cultural, pluralistic society. The U.S. Census current U. S. Census (2010) reported that 72% of the US population origins were from White European ancestry, 14% from African ancestry, 17.3 % from Hispanic Ancestry, 4.8% from Asian Ancestry and 0.9% Native American ancestry. The U.S. Census (2010) projects for the year 2020, 53% will be from White European decent and there will be a threefold increase in the Hispanic American and Asian American population. Providing culturally competent care in the 21st century is critical to excellent patient outcomes. This study sought to determine the outcomes of teaching a culturally infused nursing process to Foundation of Nursing students in an Associate Degree Nursing program. Nurse Educators usually write simulation scenarios to teach patient care and procedure skills. Opportunities to expose students from predominately white communities to cultural variations varies with in the US. Simulation scenarios with a cultural component provide a valued learning experience for students. The U.S. Department of Labor, Bureau of Labor Statistics (2016) reports that 81.9% of the 3 million licensed Registered Nurses identify themselves as white. The American Association of Colleges of Nursing (AACN) Enhancing Diversity in the Nursing Workforce (2015) recognizes the need to recruit people from diverse backgrounds into the nursing profession to educate our students in diversity and culture. Nurse Educators need to employ qualitative methods to evaluate the cultural component, ensure the objectives of the simulation are met, and disseminate their findings. The need for inclusive educational practices will also be congruent with the National League for Nursing (NLN) Outcomes and Competencies for Graduates of nursing programs (2010) recommendations for education programs graduate outcomes for inclusion of "the uniqueness, dignity, diversity, freedom, happiness, and holistic well-being of the individual within the larger family, community, and population. The nurse helps the individual in efforts to reclaim or develop new pathways toward human flourishing" (pg. 33). These data support the need to incorporate culturally infused human simulations into nursing program curriculums. However, Nurse Educators need to change the processes of writing and the evaluation of the culturally infused simulations. Representatives from the culture need to be participants in the development and evaluation of simulations to ensure a true representation of the culture or ethnic group.

Methods: A quantitative, quasi-experimental, 2 x 2 factorial design was used to measure two points in time with a pre-test and post-test to measure student performance on the use of the nursing process in one point in time and at the end of the course. Four groups of students were randomized and taught the nursing process: Group #1 - case study and concept mapping; Group #2 - case study, concept mapping with a pocket reference; Group #3 - case study, two hours HFHS, concept mapping with a pocket reference; or Group #4 - four hours of HFHS, concept mapping with a pocket reference. The Simulation Design Scale (SDS) was used to measure the perceptions of the four student groups for the design elements.

Results: The National League for Nursing (NLN) PAX-RN entrance examination had a significant correlation with students' passing onto the second semester in a nursing program ($p < .001$). The four-hour group (Group #4) mean was significantly lower on both the importance of the objectives and information and importance of fidelity design elements ($p < .05$). This suggests that as time in a simulation increases more attention to these elements is required. There was not a significant difference between the four study groups on the Nursing Process or the Assessment Technology Institute (ATI) RN Fundamentals 2010 Assessment Form B examinations individual scores. Two sub-categories on the ATI were significant. Planning was significantly higher for fall 2012 (Groups 2, 3, and 4) cohort ($p = .024$) and analysis/diagnosis was almost significant for fall 2011 (Group 1) cohort ($p = .054$). The results for Factorial Groups were not significant. The ATI results of students were the same without regard to the Factorial Group assigned in relation to instructor employment status of full time versus part time.

Nurse Educators are challenged to provide students with opportunities to care for diverse ethnic populations when the community and student population are predominately white (Irwin, 2013). Consideration was given in this study for recognizing differences in patient populations (National League for Nursing, 2010). The simulation exposed students to a patient situation requiring them to care for a migrant worker, from Mexico with English as a second language. A professional fluent in both English and Spanish recorded the vocals for the simulation. The patient was a field worker with heat exhaustion who was of Mexican heritage. The occupation is irrelevant. What matters is he is a migrant worker, from Mexican heritage. The importance is the simulation gave beginning nursing students the opportunity to experience the "other" by infusing culture into the scenario. Textbooks that describe culture were used to develop the scenario. Students were required to use listening skills and etiquette to understand the patient's responses based upon this textbook information. Cultural considerations were included that anticipated response to the assessment questions students might ask (Zoucha & Zamarripa, 2008). However, the researcher did not recognize the need to evaluate if in fact the simulation was correct for the Mexican culture. Representatives from the portrayed culture were not included in the evaluation process. This discovery sheds new light on the way Nurse Educators are composing cultural simulations.

Conclusion: It is not sufficient to just make changes in a nursing curriculum without a plan to evaluate the impact on program outcomes. However, this study was focused on learning of the nursing process and the presence and importance of the design elements of simulation. In reflecting back on the study, the researcher identified a missing element: the need to evaluate the simulation for the cultural presence or accuracy of portrayal using qualitative research methods. This discovery could influence how Nurse Educators proceed in the development of culturally infused simulation scenarios. No evidence of this concept was found in the nursing literature. This researcher is recommending Nurse Educators have representatives of the cultural group being portrayed in the simulation to participate in the development and evaluative phases of writing the simulation.

References

- American Association of Colleges of Nursing. (2015). Fact sheet: Enhancing diversity in the Nursing workforce. Retrieved from <http://www.aacn.nche.edu/media-relations/diversityFS.pdf>
- Irwin, R. E. (2013). The evaluation of teaching the nursing process using traditional lecture, campus laboratory, clinical, and the addition of high fidelity human simulation (HFHS) unfolding scenarios (Doctoral dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3558178).
- Irwin, R. E. (2016). Using the NLN/Jeffries simulation framework: Evaluation of a simulation scenario for the conceptual component of design elements, *Nursing Education Perspectives*, 37(6), p 325-327. Doi: 10.1097/01.NEP.0000000000000073.
- Jeffries, P. R., (Ed.). (2012) *Simulation in nursing education from conceptualization to evaluation* (Second Edition). New York: New York: the National League for Nursing.
- National League for Nursing. (2010). *Outcomes and competencies for graduates of practical/vocational, diploma, associate degree, baccalaureate, master's, practice doctorate, and research doctorate programs in nursing*. New York, New York: Author.
- United States Census Bureau, U.S. Department of Commerce Economics and Statistics Administration. (2010). Overview of Race and Hispanic origin: 2010 Census Briefs. Retrieved: <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>.
- Zoucha, R., & Zamarripa, C. A. (2013). People of Mexican heritage. In Purnell, L. D., *Transcultural health care a culturally competent approach* (Fourth Edition) (pp. 374-390). Philadelphia: F. A. Davis Company.

Contact

irwinr@duq.edu

P 14 - Public Health Promotion

Exploring Water, Sanitation, and Hygiene Practices in Gatteau, Haiti

Diana Lyn Baptiste, DNP, MSN, RN, USA

Teresa A. Pfaff, MPH, MSN, BSN, BA, RN, APHN-BC, CPH, USA

Sabianca Delva, BSN, RN, USA

Casey McCormick, MPH, USA

Evi Dallman, MSN, BSN, RN, USA

Ruthly François, BS, MSPH, USA

Abstract

Purpose: Haiti is the poorest country in the Western Hemisphere. Located in the Western Caribbean, Haiti is populated by more than 10 million people, sharing the island of Hispaniola with the Dominican Republic. More than 75% of Haitian residents are living on less than two dollars a day and almost 56% on less than one dollar a day. Haitians have limited access to resources such as health care, food, and clean water. The country lacks adequate infrastructure and is highly dependent on non-governmental organizations (NGOs) for public health, schools, and roads. Every year, Haitians die from diseases associated with inadequate water supply, especially with the high prevalence of cholera with mortality rates ranging from 19.1 to 39.4/1,000 person-years between 2010-2011 from the cholera epidemic.

The Gatteau villages in Haiti are composed of several communities in the southwestern mountainous region, where access to basic resources such as food, durable shelter and clean drinking water remains scarce. With only 69% of the population having access to an improved water source, Haiti is the most underserved country in the western hemisphere in terms of water and sanitation infrastructure. The purpose of this presentation is to describe the current state of water sanitation and hygiene (WaSH) in communities surrounding Gatteau, to identify gaps in knowledge for researchers, and to inform feasible interventions to improve water sanitation for residents these areas.

Methods: Our multidisciplinary team, consisting of faculty and students from a school of nursing, public health, and a water institute, have been working collaboratively with a local NGO and community members to address two critical components to community health: sustainable sanitation and water resources. Our team has initiated a three-pronged approach to review the literature surrounding hand washing treatment, hygiene and sanitation. We have conducted data collection through community assessments to better understand some of the barriers and opportunities for sustainable WaSH projects to improve health. All of these initiatives are expanding on the work that the local NGO has been conducting with their Sanitation Community Development Project. Currently the NGO that serves the Gatteau villages has a community promoter program in operation. In this program, two members from each community receives training and reinforcement in basic WaSH practices based on the Center for Affordable Water and Sanitation Technology (CAWST) education materials. All community promoters reside within the communities they serve. The promoter program employs the "train-the-trainer" model for community education. Promoters attend classes at the NGO headquarters where they receive instruction on the 32-page booklet, written in 5th grade level written in their native language of Haitian Kreyol.

Results: After visiting seven water sources in the Gatteau villages, we discovered that small streams were the only type of water sources supplying the villages. One stream would serve as the main water source for up to five communities. Water came from various sources, most of which were not clean. Most started at the side or opening of the river and few rivers were full enough to create a current. There seemed to be three designated functional sections for the water sources. At the top of the stream, women and children collected water with jugs and buckets. Some were washing their feet, bathing and laundering in the inferior section. Cattlemen would allow their livestock to urinate and defecate from the same water source even though they are fenced off to prevent eutrophication and pollution.

Conclusion: We found that water sources in this area are scarce. Community members, usually women and children, commute anywhere from 15 minutes to one hour from their home to retrieve water multiple times a day and transport jugs and heavy containers on their heads. Research has shown that domestic

water carrying is associated with detrimental health effects. During the assessment, we rapidly discovered a connection between poor water access and WaSH practices in Gatineau including: common (and uncommon) water treatment methods, and sanitation and hygiene beliefs and practices among Haitians living in these rural villages. Further research is necessary to improve water quality, sanitation, and health in low-resource countries like Haiti.

References

- Crocker, J., Shields, K. F., Venkataramanan, V., Saywell, D., & Bartram, J. (2016). Building capacity for water, sanitation, and hygiene programming: Training evaluation theory applied to CLTS management training in Kenya. *Social Science & Medicine* (1982), 166, 66–76. <http://doi.org/10.1016/j.socscimed.2016.08.008>
- Gelting, R., Bliss, K., Patrick, M., Lockhart, G., & Handzel, T. (2013). Water, Sanitation and Hygiene in Haiti: Past, Present, and Future. *The American Journal of Tropical Medicine and Hygiene*, 89(4), 665–670. <http://doi.org/10.4269/ajtmh.13-0217>
- Luquero, F. J., Rondy, M., Boncy, J., Munger, A., Mekaoui, H., Rymshaw, E., ... Ciglenecki, I. (2016). Mortality Rates during Cholera Epidemic, Haiti, 2010–2011. *Emerging Infectious Diseases*, 22(3), 410–416. <http://doi.org/10.3201/eid2203.141970>
- World health organization. Countries; Haiti. . <http://www.who.int/countries/hti/en/>. World Health Organization (WHO). A global brief on hypertension: silent killer, global public health crisis. Updated 2015. Accessed June 5th, 2015.

Contact

dbaptis1@jhu.edu

P 14 - Public Health Promotion

Evaluating the Use of an Evidence-Based Test for Tuberculosis Screening

Gema M. Morales-Meyer, DNP, MSN/MPH, RN, CRRN, APHN-BC, CNS, USA

Abstract

Purpose: According to the World Health Organization, tuberculosis continues to be one of the top ten leading causes of death around the world. The Tuberculin Skin Test (TST), developed in the early 1900s, has been the primary test for Tuberculosis (TB) screening throughout the world. Despite its long term use, the TST has long been known for having its limitations. One limitation is the high number of false positive results due to an interaction with Bacillus-Calmette-Guerrin (BCG) vaccine, reactions to non-tuberculosis mycobacterial infections and interpreter bias while reading the results. A second limitation is the need for two visits to obtain results. Compliance due to poor patient follow-up for skin test readings is especially problematic among high risk populations such as the homeless.

In 2006, a new blood test for TB screening called Interferon Gamma Release Assays (IGRA) was developed and identified by the Centers for Disease Control as an evidence based practice in screening for tuberculosis. The sensitivity of the IGRA test ranged from 76% to 90% compared to a TST which showed a sensitivity of 63% to 71%. A greater difference was demonstrated in the specificity of IGRA which ranged from 92% to 100% compared to the TST which ranged from 66% to 88%. As a result of the higher specificity, screening with an IGRA results in having fewer false positive results because there is no interpreter bias, no interaction with BCG and it does not respond to non-tuberculosis mycobacterial infections. This results in more accurate screening, clinical efficiencies and improved patient outcomes. Despite the research, adoption of IGRA for tuberculosis screening has been limited by a number of barriers including cost, lack of education of the new test and lack of nursing adoption.

Methods: Promoting the transformation of knowledge and practice to advance global health and nursing is a critical component to ensuring evidence based screening for Tuberculosis. This presentation will report the evaluation of the implementation of IGRA in a large metropolitan public health department as evidence based practice for public health nursing. The ultimate goal was to improve secondary prevention screening for tuberculosis, create efficiencies and ensure better patient outcomes. The evaluation was made up of three components: a) usage of IGRA in the field, b) comparison of latent TB infection rates pre and post IGRA implementation with chi square analysis and c) cost analysis including an impact of cost for screening with TST and IGRA.

Results: Usage of IGRA tests in the field setting were overall successful and showed a steady monthly inclined trend from 68 tests in January 2014 to 589 tests in the month of December 2014. Upon a more detailed review the results showed a trend of 5 sites who were slow to adopt the new evidence based practice. Barriers to implementation were primarily based on nursing staff knowledge, attitudes and behaviors and included: staff perception in safety of administering the test, lack of experience in venipuncture and refusal to change practice. The second component of the evaluation showed a statistically significant decrease ($p < .0001$) of Latent Tuberculosis Infection (LTBI) rates from 21.7% in 2012 where there was no use of IGRA compared to a 13.1% in 2014 when IGRA was implemented. This reduction in LTBI rates resulted in cost savings to the organization of \$21,288 for every 1,000 contacts screened due to a reduction of persons needing chest x-ray and 9 month preventive treatment for LTBI.

Overall, the evaluation showed that adoption of evidence based practices can vary in different settings and barriers need to be identified and addressed in order to ensure compliance. TB infection rates decreased after IGRA implementation providing improved patient outcomes and cost effectiveness occurred during the screening process through a reduction of LTBI treatment as less false positives occurred.

Conclusion: Evidence based practice is an essential component of improving nursing practice and improving patient outcomes. Despite its benefits, nurses have struggled to implement evidence based practices and an evaluation component proved critical to ensuring adoption of this practice across all

settings. Implications for the nursing profession include the ability to effectively implement an evidence based practice that will screen patients with an evidence based test for tuberculosis and therefore ensure accurate results for improved patient outcomes.

References

Centers for Disease Control (2011). *Tb elimination: Interferon Gamma Release Assay (IGRAs)- Blood test for TB infection*. Retrieved from <http://www.cdc.gov/tb/publications/factsheets/testing/IGRA.pdf>

Jin, J. (2016). Screening for latent tuberculosis: The us preventive services task force has published updated recommendations on screening for latent tuberculosis infection in adults. *JAMA, the Journal of the American Medical Association*, 316(9), 1004.

World Health Organization. (2013, October). *Tuberculosis. Fact sheet no. 104*. Retrieved from <http://www.who.int/mediacentre/factsheets/fs104>

Contact

gema.meyer@yahoo.com

P 15 - Sleep Disturbances

Prevalent Sleep Disordered Breathing and Obstructive Sleep Apnea (OSA) Despite Treatment for Acromegaly

Christine G. Yedinak, DNP, MN, BSN, RN, GradDipEd, FNP-BC, USA

Abstract

Purpose: Acromegaly is a rare disease usually associated with a pituitary adenoma which secretes excess growth hormone. Characteristically, this results in hypertrophy of pharyngeal soft tissue, craniofacial deformations, macroglossia and thickening of the upper airway predisposing the patient to sleep disordered breathing (SDB) and obstructive sleep apnea (OSA) (Ramos-Levi & Marazuela, 2016). Estimates vary, but 40-80% of patients diagnosed with acromegaly have also been found to have OSA compared to 5% of the general population (Galerneau et al., 2016). SDB has been associated with cardiovascular disease (Powlson & Gurnell., 2015) which is the most common cause of mortality for patients with acromegaly carrying a mortality risk 4.6 times higher than that of the general population (Mestron et al., 2004; Sherlock et al., 2014). Patients with sleep apnea report decreased quality of life associated with daytime sleepiness, fatigue, mood disturbance and depression and decline in cognitive function and executive functions (Devita et al., 2016; Silva et al., 2016; Nutt et al., 2013).

Acromegaly is an insidious progressive disease that often goes unrecognized for an estimated average of 4-10 years (Melmed, 2009). A diagnosis of SDB and OSA frequently occurs well in advance of a diagnosis of acromegaly but goes unrecognized as etiologic for OSA. However, sleep apnea may also go undiagnosed or untreated both prior to and post treatment of acromegaly. Although theoretically soft tissue hypertrophy is reversible post treatment (Powlson & Gurnell., 2015), there is little data to support the prevalence of resolution or the persistence of SDB or OSA post normalization of growth hormone levels.

This study was to evaluate the prevalence of a diagnosis of OSA versus the prevalence of patients meeting criteria for SDB or OSA pre and post treatment for acromegaly who presented to a single institution.

Methods: Fifty two patients diagnosed with acromegaly (23 Males/29 Females) were interviewed pre and post treatment of acromegaly as per clinic standard of practice. Patients were identified who had an historical diagnosis of obstructive sleep apnea. Patients without a prior diagnosis were evaluated to determine if their current symptoms would meet criteria for further assessment for obstructive sleep apnea using the STOP BANG questionnaire and the Epworth Sleepiness Scale with scores in the moderate to high risk range. This process was repeated post treatment when growth hormone levels were normalized. This may have occurred after either or both surgical and medical treatments. Statistical analysis included descriptive analysis, paired and independent *t* test, cross tabs analysis (Chi squared, likelihood ratio and linear by linear association) using PASW 18. This study was IRB approved.

Results: Of the 52 patients meeting criteria for acromegaly, 17 patients (32.7%, 7 Females/10 Males; mean age 51.2 years) presented with a diagnosis of sleep apnea prior to being diagnosed with acromegaly. However, a further 15 patients (28.8%, 9 females/6 males; mean age 44.5 years) met criteria indicating moderate to high risk for SDB or OSA. Together, a total of 35 patients (61.5%) met criteria for SDB or OSA. Post-treatment, 6/17 patients (35.3%, 4 females/2 males) reported resolution of OSA diagnosis after disease remission. One of the 6 patients, a female, continued to meet criteria for OSA. Of those patients meeting criteria for OSA pre-treatment, 4 were newly diagnosed with OSA after treatment and 4 continued to meet criteria for OSA and were referred for polysomnography. Linear by linear association indicated increasing age was associated with a higher likelihood of meeting criteria or having a diagnosis of OSA ($p=0.04$) but age was not a significant factor in those diagnosed with OSA at either time-point. There was no significant difference between genders for patients diagnosed with OSA at presentation (χ^2 , $p=0.19$) however, males were more likely to have a diagnosis of OSA after treatment for acromegaly ($p=0.04$). There was no gender difference with respect to those meeting criteria for OSA after treatment.

Conclusion: Both genders are known to be equally affected by acromegaly (Melmed 2009). In the general population males with higher BMI have been found to have more severe OSA (Galerneua et al., 2016). Among patients screened for both OSA and acromegaly in a large cohort of 775 patients Galerneua et al found a 0.35% incidence of undiagnosed acromegaly. However, this study suggests that younger age patients presenting with OSA may be at higher risk and perhaps should be screened for acromegaly.

Given the morphologic changes to the airway associated with acromegaly, it seems reasonable to assume that in contrast to the general population, males and females with acromegaly would be equally affected by OSA. Likewise there is no reason to believe that the regression of soft tissue swelling with disease remission should occur differentially by gender. Although this study found no gender difference in those diagnosed with OSA at presentation, post treatment there were significantly more males than females with persistent OSA. However, overall there was no significant difference in the prevalence of OSA or those meeting criteria for SDB or OSA despite 'cure' of acromegaly. Persistent risk may be associated with factors such as increased BMI post normalization of IGF-1 or other factors yet to be determined.

Both males and females should be evaluated for sleep apnea during physical examinations. The diagnosis of SDB or OSA may be a symptom requiring further etiologic evaluation particularly in young and female patients. Patients diagnosed with acromegaly, both males and females, regardless of age should be reassessed for SDB and OSA post treatment for acromegaly despite normalization of growth hormone levels. Further validation of these findings in larger acromegaly patient populations is needed.

References

- Ramos-Levi , A.M & Marazuela , M. (2016). Sleep apnea syndrome in acromegalic patients: can morphological evaluation guide us to optimize treatment? *Endocrine*. 51(2):203-4.doi: 10.1007/s12020-015-0787-3.
- Galerneua, L-M., Pepin, J-L., Borel, A-L., Chambre,O. , Sapene,M., Stach,B.,& Caron, P. (2016). Acromegaly in sleep apnoea patients: a large observational study of 755 patients. *European Respiratory Journal* ,**48**:1489-1492
- Powilson,A.S. ,& Gurnell,M. (2016). Cardiovascular Disease and Sleep-Disordered Breathing in Acromegaly. *Neuroendocrinology*. 103(1):75-85. doi: 10.1159/000438903.
- Melmed, S. (2009) Acromegaly pathogenesis and treatment. *Journal of Clinical Investigation*, 119, 3189-3202.
- Mestron, A., Webb, S.M., Astorga, R., Benito, P., Catala, M., Gaztambide, S., Gilabert, M., (2004) Epidemiology, clinical characteristics, outcome, morbidity and mortality in acromegaly based on the Spanish Acromegaly Registry (Registro Espanol de Acromegalia, REA). *Eur J Endocrinol*, 151, 439-446.
- Sherlock, M., Reulen, R.C., Aragon-Alonso, A., Ayuk J, Clayton RN, Sheppard MC,.....Stewart,P., (2014) A paradigm shift in the monitoring of patients with acromegaly: last available growth hormone may overestimate risk. *J Clin Endocrinol Metab*, 99, 478-485.
- Devita, M., Montemurro ,S., Ramponi ,S., Marvisi M., Villani, D., Raimondi ,M.C, Mondini S. (2016).Obstructive sleep apnea and its controversial effects on cognition. *Journal of Clinicalical Experimental Neuropsychology*.15:1-12.
- Silva, G.E., Goodwin, J.L., Vana ,K.D., & Quan, S.F .,(2016). Obstructive Sleep Apnea and Quality of Life: Comparison of the SAQLI, FOSQ, and SF-36 Questionnaires. *Southwest Journal of Pulmonary Critical Care*. 3(3):137-149.
- Dutt, N., Janmeja, A.K.,Prasanta Raghav Mohapatra, P.R., & Anup Kumar Singh,A.K., (2013). Quality of life impairment in patients of obstructive sleep apnea and its relation with the severity of disease. *Lung India*. 30(4): 289–294. doi:10.4103/0970-2113.120603

Contact

yedinakc@ohsu.edu

P 15 - Sleep Disturbances

Sleep Disturbances Experienced by Military Burn Survivors

Linda H. Yoder, PhD, MBA, RN, AOCN, FAAN, USA

Patricia A. Carter, PhD, RN, CNS, USA

Abstract

Purpose: Military men and women may suffer from burn injuries because of their military duties. Due to advances in burn care, many service members survive their injuries. Following discharge, military burn survivors continue to experience sleep disturbances; however there is a lack of understanding of sleep disturbances in this population after discharge from the military burn center. The purpose of this study was to examine subjective reports of sleep disturbances as experienced by military burn survivors over time.

Methods: In this descriptive longitudinal study, data were gathered at 5 time points: burn center discharge; 3, 6, 12, and 18 months post-discharge. Sleep specific data were collected from questions on the: Burn Specific Health Scale-A (BSHS-A; 1 item), Post-Traumatic Distress Check List- Military (PCL-M; 2 items), and Center for Epidemiologic Studies Depression Scale (CESD; 4 items); participants also completed demographic and clinical history forms. Data were analyzed using measures of central tendency and repeated measures ANOVA. Cronbach's alpha was used to determine reliability of the sleep questions as a "measurement tool." The sleep questions also were factor analyzed using exploratory principal components analysis (unrotated).

Results: Seventy-eight service members enrolled in the study with 64 remaining at 18 months-for a total of 349 participant surveys collected over time. The participants were primarily Army (74%), enlisted service members (96%) with an average of 62 months of military service. Most service members were Caucasian (69%), males (n=97%) with a mean age of 25 years, at least a high school education or GED (56%); 45% were married and they had an annual income of \$40,000 or less (78%). They presented with thermal burns and polytrauma resulting from combat injuries and accidents with a mean total body surface area burned = 24%; the average length of stay in the burn unit was 44 days (median = 17 days). Patients reported persistent sleep disturbances that included: nightmares (50%); insomnia (71%); hypersomnia (31%) and excessive daytime sleepiness (63%). These sleep disturbances continued during the 18 month post-discharge period. There were no statistically significant improvements in their sleep over time. Cronbach's alpha for the sleep questions was .87 and when the seven sleep questions were factor analyzed, all seven questions loaded on one component, Sleep, which explained 60% of the variance (eigenvalue 4.169). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .83 and Bartlett's Test of Sphericity was significant ($p < .000$; $df = 21$).

Conclusions: These patients were relatively young and in good physical health prior to sustaining a burn injury. Participants' sleep disturbances remained relatively consistent over this 18 month study post-discharge. This lack of improvement indicates a need for interventions that can improve sleep, decrease nightmares, and decrease excessive daytime sleepiness. Understanding burn patients' sleep disturbances assists with interpretation of burn rehabilitation progress and psychosocial needs. The seven questions used to measure sleep in this sample came from instruments commonly used with military and civilian patients. The reliability and factor analysis results indicated that these seven questions can be used to measure sleep without needing to use another instrument specifically designed for sleep measurement. This ultimately decreases the clinical and research burden for the patients.

Grant Information: This study was funded by the TriService Nursing Research Program.

References

- Pedersen, E. R., Troxel, W. M., Shih, R. A., Pinder, E., Lee, D., & Geyer, L. (2015). Increasing resilience through promotion of healthy sleep among service members. *Military Medicine*, 180(1), 4-6. doi:10.7205/MILMED-D-14-00264
- Lande, R. G., & Gragnani, C. (2013). Sleep trends of active-duty service members referred for psychiatric care: A descriptive study. *Journal of the American Osteopathic Association*, 133(2), 144-150.

Contact

lyoder@mail.nur.utexas.edu

P 16 - Technologies to Influence Palliative Care

A New Kind of Team! A Nurse-Led Technology-Enabled Interprofessional Palliative Home Care Model

Lorie Donelle, PhD, MA, BA, BScN, RN, Canada
Sandra Regan, PhD, MScN, MA, BScN, RN, Canada
Richard Booth, PhD, MScN, BScN, RN, Canada
Mickey Kerr, PhD, Canada
Josephine McMurray, PhD, Canada
Catherine Ward-Griffin, PhD, MScN, RN, Canada
Deborah Fitzsimmons, PhD, Canada
Sarah Ibrahim, MN, BScN, RN, Canada
Selma Tobah, MSc, Canada

Abstract

Purpose: Community-based care is an important area where innovative models of practice may assist patients to remain in their home rather than being admitted to institutional-based care. This is particularly important in addressing the growing number of older adults who wish to “age in place” (Special Senate Committee on Aging, 2009). As health human resource shortages continue, difficulty recruiting and retaining community-based providers are impacting the delivery of home care services (Zeytinoglu et al., 2009). Innovative use of technology may transform how healthcare workers communicate and practice together within home care settings; improve equitable health care delivery for clients and their families; and shape policy and planning of health human resources.

In response to the shortage of nurses available to provide palliative home care, the home care provider in South West Ontario, Canada, led an innovation team comprised of service provider organizations, a software / technology provider, and health care providers in the development and implementation of a new model of palliative home care – the eShift model of palliative home care (eShift) (Ralph et al. 2016; South West Community Care Access Centre, 2011). The eShift model combines communication and documentation technology with novel utilization of health human resources to meet patient needs for palliative care in the home. The core of the eShift model of care is the pairing of a remotely located directing registered nurse and personal support worker in the technician role in the home along with the eShift technology and supported by a large team of healthcare and technology providers. *The aims of this study were to:* 1) develop a theoretical framework explaining the structure, process and outcomes of the eShift model of care; 2) identify and measure the process and outcomes of care; and 3) conduct an economic analysis of the model.

Methods: We conducted a three-year mixed methods study (Creswell & Clark, 2011) of the eShift model from pilot to full scale-up across the region. We conducted 29 individual interviews and five focus groups with 31 participants for a total of 60 nurses, personal support workers, physicians, nurse practitioners, allied health, and decision-makers. A content analysis of the interviews was conducted using NVivo 10 qualitative software program which informed the development of a theoretical framework based on Donabedian’s structure, process, outcomes of care (Donabedian, 2005). We then began to test the model and developed an online survey using both standardized instruments and researcher developed questions to measure the structure, process and outcomes of the eShift model. The online survey was conducted with all nurses, personal support workers and care coordinators working in the eShift model (n= 143). Data were analyzed using SPSS 20 and descriptive and inferential statistics were generated.

Results: This presentation will specifically focus on the findings related to perspectives on team within the technology-enabled model of home care. The technology in this model was positioned as an enabling factor for team work within the eShift model. The focus on patient care practices enabled by the implemented technologies was thought to facilitate the transformative changes to palliative care in the home setting. While the core members of the eShift health team were the remotely located directing registered nurse and the personal support worker in the home, the larger health care team reflects the evolution of technology enabled palliative home care which includes the visiting nurse, primary care

providers (physician, nurse practitioner), palliative care specialists, the care coordinator, and information technology support and design personnel. Participants described the importance of the collaborative relationship with the technology provider from early model development right through to implementation of the model of care. The eShift model of care has been influential in transforming team work. The eShift model of care supported the development of a strong virtual relationship and coaching and mentoring between the directing registered nurse and the personal support workers. We used the Interprofessional Socialization and Valuing scale (King et al. 2010) to measure self-perceived ability to work with others. Mean scores for nurses (m-54.1; SD -7.29) and personal support workers (m- 55.8; SD-6.1) were high; findings also indicate high job satisfaction, high empowerment, and high work engagement.

Conclusion: Overall the eShift model supported enhanced interprofessional collaboration through technology enabled communication and documentation systems. Findings suggest that the technology provider can play an important role in the interprofessional team; a finding absent in the current literature. Nurses and personal support workers reported high rates of interprofessional collaboration, mentoring, and feeling valued. Rather than hinder care processes, technology was seen as an enabler to communication among the team and contributed to enhanced relationships among and between providers of care.

References

- Creswell, J.W., & Plano Clark, V.L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.
- Donabedian, A. (2005). Evaluating the quality of medical care. *Milbank Quarterly*, 83(4), 691-729.
- King, G., Shaw, L., Orchard, C. A., & Miller, S. (2010). The interprofessional socialization and valuing scale: A tool for evaluating the shift toward collaborative care approaches in health care settings. *Work*, 35(1), 77.
- Royackers, A., Regan, S., & Donelle, L. (2016). The eShift model of care: Informal caregivers' experience of a new model of palliative home care. *Progress in Palliative Care*. DOI: 10.1179/1743291X15Y.0000000006
- South West Community Care Access Centre. *eShift: An innovative approach to serving complex clients in the community*. London, ON: Author; 2011.
- Special Senate Committee on Aging. *Final report: Canada's aging population: Seizing the opportunity*. Ottawa: ON: Author; 2009.
- Zeytinoglu I, Denton M, Davies S, Plenderleith JM. (2009). Casualized employment and turnover intention: Home care workers in Ontario, Canada. *Health Policy*, 91(3):258-68.

Contact

ldonelle@uwo.ca

P 16 - Technologies to Influence Palliative Care

Utilizing Clinical Decision Support Within the Electronic Health Record to Screen for Palliative Care

Tanja Baum, PhD, RN, USA
Ruth A. Bush, PhD, MPH, USA
Caroline Etland, PhD, RN, USA
Cynthia D. Connelly, PhD, RN, FAAN, USA

Abstract

Purpose: Timelier referral to palliative care services (PCS) within the acute care setting is a health care priority. End-of-life consumes a disproportionate share of healthcare dollars with studies indicating PCS can save hospitals approximately \$1.3 million annually, for every 500 consults completed. Strategies to increase timelier referral are needed. Integration of electronic clinical decision support and utilization of triggers to identify individuals who may benefit from palliative care, using an algorithm embedded with the electronic health record (EHR) may facilitate this identification, but lacks empirical support.

The purpose of this research was to utilize variables available in the electronic healthcare record (EHR) of palliative care patients receiving PCS in the acute care setting to identify triggers which could be used to identify individuals who should be referred for PCS.

Specific Aims:

Aim 1: Characterize EHR data related to palliative care consultations among severely and chronically ill patients in the acute care.

Aim 2: Examine the relationships between the list of clinical EHR data, select demographics, in a sample of palliative care patients

Methods: A descriptive, correlational study using de-identified retrospective data, collected from January 1, 2013 to December 31, 2015. An institutionally derived list of variables was used to provide a foundation for clinical decision support and patient identification integrated into the Cerner EHR system. Data were derived from three hospitals of a large multi-community healthcare system in San Diego County. Descriptive and inferential statistical analyses conducted using SPSS version 23.

Results: A randomized sample yielded 694 palliative care patients seeking acute care treatment at one of the three hospitals. Of these 51.7% were male, 65.4% White, 36.7% Christian, 80.8% English speaking, 49.7% Medicare recipients, 51.4% declared themselves as a 'do-not-resuscitate' and 97.6% were seen by a palliative care nurse. Significant associations were found between race/ethnicity/code status ($X^2 = 11.311$, $p .02$), language/presence of advance directive ($X^2 = 13.845$, $p .008$), and change of code status/loss of responsiveness ($X^2 = 15.129$, $p < .001$).

Conclusion: Using a large sample, a number of statistically significant demographic, physiologic, and clinical variables were found that to identify individuals suitable for timely referral to palliative care services. The integration of an EHR-based trigger system can aid not only nursing, but the interdisciplinary team to identify and refer potential palliative care patients in a timelier manner. The findings lay an important foundation for increased refinement of electronic clinical decision support within the EHR.

References

- Abernethy, A. P., Wheeler, J. L., & Bull, J. (2011). Consumer health informatics: Development of a Health Information Technology-Based Data System in Community-Based Hospice and Palliative Care. *American Journal of Preventive Medicine*, 40(Supplement 2), S217-S224. doi:10.1016/j.amepre.2011.01.012
- Aldridge, M. D., Hasselaar, J., Garralda, E., van der Eerden, M., Stevenson, D., McKendrick, K., . . . Meier, D. E. (2016). Education, implementation, and policy barriers to greater integration of palliative care: A literature review. *Palliative Medicine*, 30(3), 224-239. doi:10.1177/0269216315606645
- Callaway, C. (2012). Timing is everything: When to consult palliative care. *Journal of the American Academy of Nurse Practitioners*, 24(11), 633-639. doi:10.1111/j.1745-7599.2012.00746.x

Ford, D. W. (2014). Palliative care consultation needs in United States intensive care units. Another workforce shortage? *American Journal of Respiratory And Critical Care Medicine*, 189(4), 383-384. doi:10.1164/rccm.201401-0039ED

Grudzen, C. R., Hwang, U., Cohen, J. A., Fischman, M., & Morrison, R. S. (2012). Characteristics of Emergency Department Patients Who Receive a Palliative Care Consultation. *Journal of Palliative Medicine*, 15(4), 396-399 394p. doi:10.1089/jpm.2011.0376

Hocker, J. D., Khan, A., Singh, M., Hook, M. L., Simpson, M., Malsch, A., . . . Malone, M. L. (2015). Can the Electronic Health Record Identify Vulnerable Older Adults in Need of a Palliative Care Assessment in the Hospital Setting? *Journal of the American Geriatrics Society*, 63(7), 1479-1481 1473p. doi:10.1111/jgs.13547

Moja, L., Kwag, K. H., Lytras, T., Bertizzolo, L., Brandt, L., Pecoraro, V., . . . Bonovas, S. (2014). Effectiveness of Computerized Decision Support Systems Linked to Electronic Health Records: A Systematic Review and Meta-Analysis. *American Journal of Public Health*, 104(12), e12-e22. doi:10.2105/AJPH.2014.302164

Contact

tanjabaum@sandiego.edu

P 17 - The Student/Faculty Relationship

Academic Factors That Contribute to Nursing Students' Persistence: Pre-Program Support

Cecil Flores, PhD, RN, CNE, USA

Abstract

Purpose: In the first decade of the 21st century, Texas experienced a 20.6% increase in population growth (Texas State Data Center, 2012). If the projections for 2020 are correct, another three to eight million people will reside in Texas, straining the infrastructure of the state and having an impact on the need for nurses and healthcare providers. Nationally, the need for registered nurses (RNs) is expected to grow by more than 500,000 (American Association of Colleges of Nursing, 2014)

While the need to educate RNs is apparent, the persistence rates for nursing students in enrolled pre-licensure RNs programs have remained relatively constant at 69% from 2007 to 2011 (TCNWS, 2012). Many contributing factors have been identified as predictors to program success (Jeffreys, 2012; Shelton 2012). Few researchers have focused solely on academic factors that impact nursing student persistence (NSP). The purpose of this study was to identify academic factors associated with support provided prior to nursing school admission and NSP

Methods: Descriptive correlational. The 14-item Academic Factors that Impact Nursing Student persistence survey was emailed through a Qualtrics link to 93 deans and program directors of Texas RN programs. Inclusion criteria included completing nursing school within the Texas Higher Education Coordinating Board persistence guidelines. Pre-licensure student characteristics were described and odds ratios were calculated to determine the association between academic support and pre-licensure NSP.

Results: 39 deans/directors participated (41.9% response rate) with 33% completion rate (n=31). Positive associations were found when introductory courses were taught: Students were 2.9 times more likely to persist (OR=2.9; 90% CI: 2.79 -3.01) when math skills were taught and 2.54 times more likely to persist (OR= 2.54; 90% CI: 2.46, 2.63) when study skills were taught. When academic advisors were available to assist students, students were 2.3 times more likely to persist (OR= 2.31; 90% CI: 2.36-2.36).

Conclusion: Pre-program support was associated with NSP. Of the five pre-program support items, four were associated with NSP. When students had access to academic advisors and were provided with introductory courses that taught math skills, study skills, and critical thinking skills, they were more likely to persist and graduate at the 85% benchmark. Identifying factors that promote NSP, then providing students with these resources may increase the number of registered nurses.

References

- Jeffreys, M. R. (2012). *Nursing student retention: Understanding the process and making a difference*. Springer: New York
- Rosseter, R. J. (2014). Nursing shortage fact sheet. American Association of Colleges of Nursing
- Shelton, E.N. (2012) A model of nursing student retention. *International journal of nursing education scholarship* 9 (1) 1-16. Doi. 10.1515/1548-923X.2334
- Snively, T. M.. (2016) A brief economic analysis of the looming nursing shortage in the United States *Nursing Economics*. 34(2) 98-100.
- Texas Center for Nursing Workforce Studies [TCNWS]. (2012). 2012 update on student admission, enrollment and graduation trends in professional nursing programs. Retrieved from <http://www.dshs.state.tx.us/chs/cnws/Nursing-Education-Reports/>

Contact

cflores@uta.edu

P 17 - The Student/Faculty Relationship

Exploring Faculty-Student Relationships and Their Implications for Persistence in African American Senior Nursing Students

Yolanda M. Nelson, EdD, RN-BC, USA

Abstract

Purpose: This research explores the lived experiences of African American female nursing students and examines how faculty-student interactions may influence persistence of minority students. Little research exists which examines the interaction between faculty and their African American female nursing students. Combined with the current research and the lack of diversity within the profession of nursing, it is critical to unlock the mysteries as to why there is an inadequate representation of African American nurses within the profession of nursing. Utilizing the lens of the Black Feminist Thought perspective in conjunction with Tinto's Theoretical Model of Student Retention, the focus was to gain further insight into and to discover if a relationship exists between faculty involvement and the persistence of African American female nursing students. Improved awareness regarding persistence will empower educators to direct future efforts toward interventions that positively influence and facilitate successful program completion for minority nursing students (Loftin et. al, 2012).

Methods: This study used a phenomenological approach to analyze faculty-student interactions as well as student responses from journals, focus groups, and interviews. Applying a phenomenological approach seeks to describe the meaning attributed to several individuals regarding their lived experience(s) of a concept or phenomenon (Creswell, 2013). This particular approach attempts to understand people's perspectives and understanding of a particular situation (Van Manen, 1990). This study focused on the aspects which all participants have in common. The study consisted of three phases: Phase I entailed observing a heterogeneous group of baccalaureate nursing students and nursing faculty in order to document behaviors. Phase II contained interviews of African American senior nursing students to learn about their lived experiences. Lastly, Phase III consisted of a focus group discussion and follow-up interviews with a heterogeneous group of nursing students. A qualitative analysis of the transcribed focus group and interview data was utilized to identify themes discovered among the statements given by participants. Review of the interview transcript in its entirety was completed and the interview transcript was read a second time prior to coding.

The components were grouped into thematic categories. In addition, textual, verbatim examples from the interview and focus group's transcribed texts were included to highlight and clarify key concepts. All relevant data were coded throughout the document, which allowed the categories to emerge freely from the interview and focus group discussion data. The thematic categories were generated through the identification of similar types of responses. The final step involved a comprehensive review and interpretation of the data to provide the conclusions of the analysis. NVivo 10® qualitative analysis software was used to aid in the coding and the emergence of themes and patterns from the data by assisting in the classification, sorting and arranging of information, and tracking the frequency of occurrences across the interview and focus group data.

Results: The researcher used findings from the observations, interviews, and a focus group. The themes that were identified were the following: personal perseverance, supportive network, caring attitude, mentorship, and faculty-student interactions. The reactions regarding current faculty-student relationships were mixed. In describing their overall experiences with faculty, student participants used words ranging from approving terms like "positive," "friendly," and "helpful," to more negative ones like "initially intimidating," "cold," and "discriminatory." Some described having a personal connection with a professor while others noted that the professors lacked any personal connection with their students. Some participants also witnessed faculty favoritism towards certain students. Interview and focus group participants noted how imperative it was to have a support team that included advisors, mentors, and role models. Participants also stressed the importance of developing a faculty-student relationship. Some interview participants elaborated on this faculty-student connection, saying that helped them to feel less isolated or intimidated and actually boosted their self-confidence. This validates Fries-Britt & Turner's

(2002) notion that educators must create institutional support systems, so that African American students may have the opportunity to develop the personal confidence that will “propel them toward academic pursuits” (p. 326).

Conclusion: While shortages have occurred in health care throughout history, experts are discovering that the rising nursing shortage is uniquely serious (nd., 2011). Not only is there a shortage, but there is a major concern with the lack of diversity within the profession of nursing. The following recommendations are essential for consideration: (a) the incorporation of mandatory training with nursing faculty to incorporate and define a faculty-student relationship; (b) the inclusion of workshops to help faculty become mentors to various ethnic backgrounds; (c) annual evaluations of faculty regarding their professional relationships with students; (d) forming a yearly “get to know” workshop for students and faculty; (e) mandating that students have a weekly 1:1 meeting with an assigned nursing faculty member; and lastly, (f) providing workshops to African American nursing students that would feature African American leaders as guest speakers who can offer insight into leadership, advancement, and keys to success.

Moreover, this research can assist the nursing profession as well as higher education institutions in the development of faculty-student relationships to empower the success of African American nursing students. Additionally, this research can allow institutions to reflect, make needed changes regarding faculty-student interactions, and assist in promoting and retaining African American nursing students. Nursing faculty can be positive influences on students who seem to be discouraged or overwhelmed. Faculty can shape new, positive mental models by illustrating a welcoming approach towards students (Bull, Fitzgerald, & Veal, 2012). It is essential to create a safe learning environment in which students communicate in ways that respect diverse views and are appreciative of students as individuals (Bull, Fitzgerald, & Veal, 2012). Interactions between faculty and students have enduring effects on learning as well as professional development.

References

- Bull, M. J., Fitzgerald, J. & Veal, J. L. (2012). A framework of academic persistence and success for ethnically diverse graduate students. *Nursing Education Perspectives*. 33(5). 322-327.
- Creswell, J.W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.
- Fries-Britt, S. & Turner, B. (2002). Uneven stories: successful black collegians at a black and white campus. *The Review of Higher Education*. 25(3). 315-330.
- Loftin, C., Newman, S.D., Dumas, B.P., Gilden, G., & Bond, M. L. (2012). Perceived barriers to success for minority nursing students: an integrative review. *International Scholarly Research Network. ISRN Nursing*. Vol 2012. 1-9.
- Simmons, L. D. (2010). Student retention and persistence in higher education: an overview of college student retention and persistence.
- Van Manen, M. (1990). *Researching lived experience: human sciences for an action sensitive pedagogy*. London, Ontario: Althouse. Retrieved from <http://www.researchproposalsforhealthprofessionals.com/phenomenology.htm>

Contact

ynelson31@gmail.com

Q 07 - Global Perceptions of Pain Management

Clinical Decision-Making Regarding the Management of Pain: Differences Between Novice, Intermediate, and Expert Nurses

Igal Zlatkin, MA, BA, RN, Israel

Yulia Gendler, MSc, BA, RN, Israel

Abstract

Purpose: Nursing pain management is closely related to decision making-process, which includes continuous estimate, intervention, monitoring the effect of treatment, identifying the need for changes and alternative treatment. It is generally assumed that education and practical experience increases accuracy in decision-making. Benner presented an extensive theory that suggests five levels of proficiency that nurses pass in acquisition and development of skills from novice to expert. However, this theory does not examine strategies of decision making during these stages. The purpose of the study: (1) to identify the cognitive processes used by nurses when making pain management decisions and the factors which have an influence on these processes. (2) to examine the difference between novice, intermediate and expert nurses, in their decision making about pain management.

Methods: The subjects constitute a non-random sample of 65 registered nurses working in surgical wards in two academic teaching medical centers located in Israel. The study received approval from both hospitals' institutional review boards. The study is based on three tools: the self-assessment questionnaire of participants' pain management knowledge and skills; vignettes describing common situations which require nurse's decision making followed by questions examining basis of the decision; script concordance test evaluating decision making in common clinical situations. The tools were designed by the researches and validated by expert judgment.

Results: The decision regarding pain management of expert nurses were mostly based on their experience and intuition, while novices and intermediates relied on guidelines or colleagues' advises. In comparison to novice, expert nurses reported that the decision making process was easier for them ($\alpha=0.013$). Significantly better decision making was found among the nurses with Master degree ($F=7.15$, $\alpha=0.005$) and among nurses who have participated in pain management educational programs ($\alpha=0.02$). No association was found between seniority in a surgical ward and accuracy in decision making. The findings were consistent with vignettes and script concordance test.

Conclusions:

There is a substantial difference in the decision making regarding pain management between novices, intermediates and experts, both in quality of the decision and the cognitive process of the decision making. Well-developed guidelines may assist no novice to improve their decision making skills. The script concordance test seems to be an effective tool in evaluating nurses' clinical decisions. This study emphasized the benefit of nurses' higher education and participation in clinical educational programs

References

Bjork, I. T. & Hamilton, G. A. (2011). Clinical decision-making of nurses working in hospital settings. *Nursing Research and Practice*, 1-8. Deschenes, M.F., Charlin, B., Gagnon, R. & Goudreau, J. (2011). Use of Script Concordance Test to Assess Development of Clinical Reasoning in Nursing Students *The Journal of Nursing Education*, 50(7), 381-7. Subramanian, P., Allcock, N., James, V., Lathlean, J. (2011). Challenges Faced by Nurses in Managing Pain in a Critical Care Setting, *Journal of Clinical Nursing*, 12, 1254-1262

Contact

igalzl@gmail.com

Q 07 - Global Perceptions of Pain Management Knowledge, Attitudes, and Practices of Nurses on Pain Assessment and Management in Manila, Philippines

Florence Roselle B. Adalin, BSN, Philippines
Josefina A. Tuazon, DrPH, MN, RN, USA
Misha Louise A. Delariarte, BSN, RN, Philippines
Fabbette Laire B. Lagas, BSN, Philippines
Sarah Emanuelle S. Mejia, BSN, Philippines
Lika P. Mizukoshi, BSN, Philippines
Irish Paullen E. Palomeno, BSN, Philippines
Danica Pauline G. Ramos, BSN, Philippines
Gibrienne Alistaire C. Ramos, BSN, Philippines

Abstract

Purpose: Nurses' knowledge and attitude on pain greatly affect their ability to assess and manage it. The Pain Society of the Philippines recognized the inadequacy and inaccessibility of data on the knowledge, skills, and attitude of nurses about pain management in the country. This study aims to describe the level of knowledge and attitude (KA), and current practices of nurses on pain assessment and management; and determine the relationship of nurses' KA with years of experience, training on pain management, and clinical area of practice.

Methods: A survey research design was employed. Four hospitals were selected through purposive sampling. Coordination was done among the two public and two private hospitals to gather data from Medical-Surgical and Intensive care unit (ICU) nurses. A total of 235 nurses participated in the study. The tool was a combination of the Nurses' Knowledge and Attitude Survey Regarding Pain (NKASRP) and Acute Pain Evidence Based Practice Questionnaire (APEBPQ), with self-report questions on non-pharmacologic pain management. The data obtained was analysed using descriptive statistics and two sample T-tests for the clinical areas and training; and Pearson product correlation to identify relationship of level of knowledge and attitude with years of experience.

Results: The mean knowledge and attitude (KA) score of the nurses was 47.14%. Similar studies such as that of Yava et al (2013) from Turkey had a reported mean correct answer rate of 39.65%, and 50.5% in Taiwan (Lai et. al, 2003). Majority answered 'most of the time' or 'all of the time' on 84.21% of practice items on assessment, implementation of non-pharmacologic interventions, evaluation and documentation. Three of 19 practice items describing morphine and opioid administration in special populations were only done 'a little of the time'. Non-pharmacologic interventions used were deep breathing exercises (79.66%), massage therapy (27.54%), and ice therapy (26.69%). There was no relationship between knowledge scores and years of clinical experience ($p = 0.05$, $r = -0.09$). Moreover, there was not enough evidence to show a difference in nurses' knowledge and attitude scores in relation to presence of training ($p = 0.41$) or areas (Medical-Surgical or ICU) of clinical practice ($p = 0.53$). This study showed a homogenous sample in terms of years of experience; therefore, no generalizations may be derived from the population.

Conclusion: The nurse's role in effective pain management is significant. Nurses are expected to possess adequate knowledge and attitude and adhere to evidence-based practices in pain management. With pain controlled and managed accordingly; the patient's quality of life is preserved. Findings of the study suggested that the level of knowledge and attitude of nurses on pain assessment and management is suboptimal. There was no relationship between nurses' knowledge and attitude and years of experience in this study. Nurses were also noted to use non-pharmacologic interventions in adjunct to pharmacologic treatment. Inadequate pain management is related to lack of knowledge, apprehension on side effects, restricted opioid use, and absence of pain management in the curricula of medical and nursing schools in developing countries (IASP, 2011). In this study, the results may have been influenced by non-prioritization of pain management in the Philippine Health Care Setting as noted by Tamalayan in 2012.

Further research may seek to determine the relationship of training, clinical area, and other variables such as pain perception and experience among nurses. It is recommended that further studies look into in the nursing curriculum on pain education, formulate culture-specific pain management protocols, and create a matrix for assessment for knowledge and attitudes; and implementation of evidenced- based practices in the country.

References

- Al-khawaldeh, O., Al-Hussami, M., & Darawad, M. (2013). Knowledge and attitudes regarding pain management among Jordanian nursing students. *Nurse Education Today*, 1-7. Retrieved from http://www.researchgate.net/publication/235520531_Knowledge_and_attitudes_regarding_pain_management_among_Jordanian_nursing_students
- Al Qadire, M. & Al Khalaileh, M. (2014). Effectiveness of educational intervention on Jordanian nurses' knowledge and attitude regarding pain management. *British Journal of Medicine & Medical Research*, 4(7), 1460–1472.
- Al Qadire, M. & Al Khalaileh, M. (2014). Jordanian nurses' knowledge and attitude regarding pain management. *Pain Management Nursing*, 15(1), 220–228.
- Attitude [Def. 4 & 9]. (2015). In *Medical Dictionary Online*, Retrieved April 2015, from <http://medical-dictionary.thefreedictionary.com/attitude>
- Assessment and Management in Critically ill Intubated Patients in Jordan: A Prospective Study. *International Journal of Health Sciences*, Qassim University. 8(3):287-298 . Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4257364/pdf/ijhs-8-3-287.pdf>
- Barr, J., Fraser, G. L., Puntillo, K., Ely, E. W., Gélinas, C., Dasta, J. F., ... & Coursin, D. B. (2013). Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit: Executive summary. *Am Health Syst Pharm*, 70(1), 53-58.
- Craig, J. (2014). *Nursing Knowledge and Attitudes toward Pain Management*. Retrieved May 2016, from http://digitalcommons.gardner-webb.edu/nursing_etd/8/
- Department of Health (2012). *Rules and Regulations Governing the New Classifications of Hospitals and Other Health Facilities in the Philippines*. Retrieved May 2015 from <http://www.ro3.doh.gov.ph/files/Hospital%20Licensing%20Section/policies%20and%20guidelines/ao2012-0012%20Rules%20and%20Regulations%20governing%20new%20classification%20of%20hospitals%20%26%20other%20health%20facilities.pdf>
- Famakinwa, T. T., Oyeniran, Y. A., & Bello, B. D. (2015). Post-operative pain assessment and management among nurses in a teaching hospital in ILE-IFE. *International Journal of Basic, Applied and Innovative Research*, 3(4), 100-105.
- Glowacki, D. (2015). Effective Pain Management and Improvements in Patients' Outcomes and Satisfaction. *Critical care nurse*, 35(3), 33-41.
- Gropelli, T., & Sharer, J. (2013). Nurses' perceptions of pain management in older adults. *Medsurg nursing: official journal of the Academy of Medical-Surgical Nurses*, 22(6), 375.
- Hadjistavropoulos, T., Kaasalainen, S., Williams, J., & Zacharias, R. (2014). Improving pain assessment practices and outcomes in long-term care facilities: A mixed methods investigation. *Pain Management Nursing*, 15(4), 748-759.
- Hennessee, P. (2012). *Knowledge and Attitudes of Nurses Toward Pain Management*. Gardner-Webb University
- Karahan, A. Y., Kucuksarac, S., Soran, N., Ordahan, B., Tekin, L., & Basaran, A. (2014). Nurse's knowledge of neuropathic pain. *Neurology international*, 6(3).
- Khoza, S & Tjale A. (2014) Knowledge, attitudes and practices of neonatal staff concerning neonatal pain management. *Curationis* 37(2), Art. #1246, 9 page. Retrieved from: <http://www.curationis.org.za/index.php/curationis/article/view/1246/1484>
- Kiekkas, P., Gardeli, P., Bakalis, N., Stefanopoulos, N., Adamopoulou, K., Avdulla, C., & Konstantinou, E. (2015). Predictors of Nurses' Knowledge and Attitudes Toward Postoperative Pain in Greece. *Pain Management Nursing*, 16(1), 2-10.
- Kipkorir, C. (2012). Knowledge and attitudes of nurses towards pain management among the elderly: a case study of registered nurses from the local healthcare centers, Kokkola
- Kishner, S. (2014). Pain Assessment. *Medscape* Retrieved from: <http://emedicine.medscape.com/article/1948069-overview>
- Knowledge [Def. 1 & 2]. (2015). In *Merriam Webster Online*, Retrieved March 2015, from <http://www.easybib.com/reference/guide/apa/dictionary>
- Latchman, J. (2014). Improving Pain Management at the Nursing Education Level: Evaluating Knowledge and Attitudes. *Journal of the advanced practitioner in oncology*, 5(1), 10.
- Lindsey, P. L., & Jenkins, S. (2013, January). Nursing students' clinical judgment regarding rapid response: The influence of a clinical simulation education intervention. In *Nursing forum* (Vol. 48, No. 1, pp. 61-70).

Manwere, A., Chipfuwa, T., Mukwamba, M. M., & Chironda, G. (2015). Knowledge and attitudes of registered nurses towards pain management of adult medical patients: a case of Bindura Hospital. Retrieved May 2015, from Merskey, H., & Bogduk N. (Eds.). (2012). IASP Taxonomy. International Association for the Study of Pain. Retrieved March 2015, from www.easybib.com/reference/guide/apa/website

Miller, A.J. (2012). Hospice Nurses- Attitudes and Knowledge about Pain Management. University of South Florida Scholar Commons. Retrieved April 2015, from <http://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=5361&context=etd>

Morgan, B. D. (2014). Nursing attitudes toward patients with substance use disorders in pain. *Pain Management Nursing*, 15(1), 165-175.

National Cancer Institute. (2014). Pain—for health professionals (PDQ®) Retrieved from Pain Management [Definition 1]. (2012). In MedicineNet Online, Retrieved April 2015, from

Rasu, R. S., Sohraby, R., Cunningham, L., & Knell, M. E. (2013). Assessing chronic pain treatment practices and evaluating adherence to chronic pain clinical guidelines in outpatient practices in the United States. *The Journal of Pain*, 14(6), 568-578.

Silvera, N., (2015). DOH Initiatives on Regulation: New Classification of Hospitals and Other Health Facilities in the Philippines. Retrieved April 2015 from <http://adpcn.org/downloads/New%20Classification%20of%20Hospitals%20and%20Other%20Health%20Facilities%20in%20the%20Philippines.pdf>

Training [Def. 1]. (2015). In Medical Dictionary Online, Retrieved April 2015, from <http://medical-dictionary.thefreedictionary.com/training>

Twycross, A., Forgeron, P., & Williams, A. (2015). Paediatric nurses' postoperative pain management practices in hospital based non-critical care settings: A narrative review. *International journal of nursing studies*, 52(4), 836-863.

Vaajoki A (2013). We have to take Pain Definition, Pain Management, and the Results of Non-pharmacological Studies Seriously. *Altern Integ Med* 2: 134. Retrieved from

Woldehaimanot, T. E., Saketa, Y. J., Mulatu, A., Zeleke, H. A. G., & Woldeyohanes, T.R. (2014). Pain knowledge and attitude: a survey among nurses in 23 health institutions in Western Ethiopia. *Gaziantep Medical Journal*, 20(3), 254-260.

Wysong, P. R. (2014). Nurses' Beliefs and Self-Reported Practices Related to Pain Assessment in Nonverbal Patients. *Pain Management Nursing*, 15(1), 176-185.

Yava, A., Cicek, H., Tosun, N., Ozcan, C., Yildiz, D., Dizer, B., (2013) Knowledge and Attitudes of Nurses about Pain Management in Turkey. *International Journal of Caring Sciences* September-December 2013 Vol 6 Issue 3

Years of Experience [Def. 1]. (2015). In MacMillan Dictionary, Retrieved March 2015, from

Zoëga, S., Ward, S. E., Sigurdsson, G. H., Aspelund, T., Sveinsdottir, H., & Gunnarsdottir, S. (2014). Quality Pain Management Practices in a University Hospital. *Pain Management Nursing*

Contact

fbadal@up.edu.ph

Q 08 - Innovative Teaching Strategies

Utilization of Innovative Teaching Strategies Following a Nursing Education Certificate Program in Guyana

Deborah Salani, DNP, PMHNP-BC, ARNP, NE-BC, USA

Mary E. Mckay, DNP, ARNP, CNE, USA

Abstract

Purpose: The purpose of this presentation is to showcase the utilization of non-traditional teaching strategies by Guyanese nursing tutors after the completion of a hybrid nursing education certificate program. The country of Guyana has been struggling with a severe nursing shortage; hence, the government expanded the enrollment capacity for the Guyana Schools of Nursing. The Guyanese nursing students' success rate in passing the national licensure exam has been less than optimal. In an effort to improve the nursing shortage and success rate on the board exam, the Guyana Ministry of Health, Pan American Health Organization, and the World Health Organization formed a collaboration with the School of Nursing and Health Studies to provide a Nursing Education Certificate Program for the nursing tutors. This dynamic program provided tutors with the skills and knowledge to facilitate lifelong learning to educate nursing students in the classroom and clinical settings. The program provided focused coursework in the areas of educational learning theory, curriculum and instructional design, teaching strategies and evaluation of student performance and instructional design. In Guyana, nursing students have been educated using traditional methods. This program emphasized the use of innovative teaching strategies such as simulation; case studies and gaming or on-line application that faculty may use to promote learning. Traditional pedagogies used in the classroom often creates passive learning (Tedesco-Schneck, 2013), however, usage of innovative strategies support critical thinking and encourages students to become more involved in the learning process (Gipson, 2013). Simulation is an educational strategy used by many nursing programs. According to Aebersold & Tschannen (2013), simulation is an effective method for improving competency in an area. Simulation may be utilized to educate nurses for new procedures, communication processes, and skills. Simulation may include a life size doll, role playing or usage of high-fidelity and virtual simulator. Case study teaching methods have been extolled for promoting student engagement and critical thinking skills (Freeman Herreid & Schiller, 2013). Another effective teaching strategy is the use of games. Gaming encourages student involvement, active learning, and critical thinking. Games are often used in combination with lecture to highlight important information (Xu, 2016).

The evaluation of student knowledge and skill acquisition is a critical aspect of the nurse educator role. Tutors were taught how to develop and utilize grading rubrics and to communicate with the students about grading expectations. Rubrics are an objective measure to provide clarity regarding expectations so students may complete the assignment successfully (Kirkpatrick & DeWitt, 2012). Another strategy to assess outcomes of learning is teacher-developed tests. According to Tarrant & Ware (2012), many nurse educators do not have the knowledge base or education to develop exam questions. Therefore, tutors were provided theory on test construction and item analysis.

Methods: The Certificate in Nursing Education Program was composed of four graduate level courses which were offered as a hybrid program. Weekly online classes were held along with virtual office hours. In order to provide support, consultation and mentorship, faculty visited Guyana on 4 different occasions. These courses were designed to meet the needs of the tutors and the various schools of nursing. All assignments were tailored to address their needs and to assist them in improving their curricula. Courses covered included teaching and learning theory in nursing education, methods of nursing education, practicum in nursing education and evaluation. All assignments were customized to address the tutors' needs and to assist them in making improvements to the curricula. Topics covered included teaching and learning theory in nursing education, methods of nursing education, and evaluation. Assignments included simulation scenario development, creation of an innovative learning strategy such as a game, table-top exercise or application, and case studies. Assessment and evaluation assignments included the development power point presentation, grading rubric, and skill or simulation evaluation tool. Tutors were

also required to write 10 test questions from more than one level of Bloom's taxonomy and provide a peer review.

The design utilized was a pre/post mixed method. Upon receiving approval from the university institutional review board 26 participants were requested to complete the survey before the start of the program and following the completion. All of the participants were tutors from the various schools of nursing in Guyana both public and private. Data collected included demographics, tutor teaching responsibilities, teaching and evaluation methods utilized in the clinical setting, expectations of the program, self-reported confidence and competence regarding teaching in the classroom, clinical and simulation setting, curriculum development, and qualitative open-ended questions.

Results: Pre-post scores found an increase in tutor use of simulation as a teaching modality (25% and 66 % respectively). Pre-post scores found an increase in tutor use of case presentations (59% and 83% respectively) and technology in the classroom (66% and 78% respectively) with a subsequent decrease in the use of traditional lectures (89% and 77% respectively). Pre-post scores found an increase in the usage of clinical competency skills checklist by tutors (46% and 65% respectively). Pre-post scores found an increase in tutors development of exam questions (88% and 94% respectively) with a subsequent decrease in the use of commercial test question banks(69% and 61%).

Conclusion: Upon completion of the Nursing Education Certificate program the Guyanese tutors demonstrated an increase in the utilization of innovative teaching strategies and evaluation measures. The participants reported an increase in the use of non-traditional teaching methods including simulation, case presentations and technology - based activities. Participants utilized clinical skills checklist as a formal evaluation measure at a greater rate following the program. Study limitations include a small sample size and self reported data. However, these results offer promise for future offering of the program. Innovative teaching strategies may promote an increase in student engagement and learning.

References

- Freeman Herreid, C. & Schiller, N. (2013). Case studies and the flipped classroom. *Journal of College Science Teaching*, 42, (5) 62- 66.
- Gipson, M. (2013). Enhancing Learning – A comparison of lecture and gaming outcomes. *Nurse Educator*, 38(5), 184-185.
- Kirkpatrick, JM & De Witt, DA (2012). Strategies for Assessing and Evaluating Learning Outcomes. In: Billings, DM, Halstead, JA, eds. *Teaching In Nursing: A Guide For Faculty* (4th ed.) St. Louis: Elsevier.
- Rowles, C. Strategies to promote critical thinking and active learning. In: Billings, DM, Halstead, JA, eds. *Teaching In Nursing: A Guide For Faculty* (4th ed.) St. Louis: Elsevier.
- Tarrant, M. & Ware, J. (2012). A framework for improving the quality of multiple-choice assessments. *Nurse Educator*, 37(3) 98-104.
- Tedesco-Schneck, M. (2013). Active learning as a path to critical thinking: are competencies a roadblock? *Nurse Education Practice*, 13(1), 58-60.
- Xu, J. (2016). Toolbox of teaching strategies in nurse education. *Chinese Nursing Research*, 3, 54-57.

Contact

dsalani@med.miami.edu

Q 08 - Innovative Teaching Strategies

Case-Based Learning in a Flipped Classroom to Promote Critical Reasoning

Noel Holly Santa, MSN, RN, CCRN, USA

Abstract

Purpose: The aim of this project was to determine if case-based learning in a flipped classroom model promoted critical reasoning in senior level nursing students enrolled in an undergraduate Baccalaureate Nursing program.

Background: There is an ever-growing need to change the pedagogy of nursing education to meet the demands of highly-technological and dynamic healthcare systems with more complex, diverse and higher acuity populations (Kaddoura, 2011). Nurse educators are challenged to bridge the theory-practice gap to ensure that new nurse graduates are well-equipped with the skills to critically reason through patient situations that require sound clinical judgment (Benner, Kyriakidis, & Stannard, 2013; Kaddoura, 2011). In meeting these challenges, nurse educators must transform the classroom, shifting teaching and learning paradigms (Benner, Kyriakidis, & Stannard, 2013; Nilson, 2016, October 24). The classroom environment must promote and support student engagement through deeper, more meaningful learning that foster critical reasoning (Kaddoura, 2011). A flipped classroom creates an environment in which students actively engage with content, thereby stimulating and encouraging higher level thinking (Honeycutt, 2016). The use of case scenarios promotes the development of critical reasoning through open-ended and unfolding situations that require students to interpret, analyze and synthesize the most salient patient data to support clinical decisions (Kaddoura, 2011; Nilson, 2016, October 24). Case scenarios also provide a format for students to explore alternatives, describe rationales that support their decisions, receive feedback from their peers and faculty, and promote a greater awareness of their own cognitive reasoning (Kaddoura, 2011; Nilson, 2016, October 24).

Methods: Case-based learning within a flipped classroom model was used to teach critical care content to senior level nursing students. Quantitative data was compiled using a pretest-posttest design with student results from Assessment Technologies Institute (ATI) Medical-Surgical Proctored examination before and after a senior-level critical care course. Qualitative data was also analyzed through student evaluations at the end of the course.

Participants: Convenience samples from four different cohorts (total n=48) in pre-licensure Baccalaureate Nursing programs were used to evaluate student learning outcomes.

Results: A pretest-posttest was performed from ATI Medical-Surgical Proctored examination percentages before and after the critical care course. The t-test results indicated statistical difference in students' performance for all four cohorts with *t* values ranging from 2.24 to 5.38. The resultant *p* values were less than 0.05. Themes from student comments in course evaluations ranged from wanting "more lecture" to "challenging" and "Hard work but very rewarding."

Conclusion: Quantitative and qualitative data suggests that integrating case-based learning within a flipped classroom model may be effective in promoting deeper and more meaningful learning to enhance critical reasoning.

References

- Benner, P., Kyriakidis, P. H., & Stannard, D. (2013). *Clinical wisdom and interventions in acute and critical care: A thinking-in-action approach* (2nd ed.). New York, NY: Springer Publishing Company.
- Honeycutt, B. (ed.). (2016). *Flipping the college classroom: Practical advice from faculty*. Madison, WI: Magna Publications, Inc.
- Kaddoura, M. A. (2011). Critical Thinking skills of nursing students in lecture-based teaching and case-based learning. *International Journal for the Scholarship of Teaching & Learning*, 5(2), 1-18. doi: <https://doi.org/10.20429/ijstl.2011.050220>.

Nilson, L. B. (2016, October 24). Teaching critical thinking: Some practical points. *Faculty Focus*. Retrieved from http://www.facultyfocus.com/articles/effective-teaching-strategies/teaching-critical-thinking-practical-points/?utm_campaign=shareaholic&utm_medium=printfriendly&utm_source=tool.

Contact

noel.santa@ursuline.edu

Q 09 - International Research Collaborations

Challenges and Opportunities in Conducting International Research Study: Family-Witnessed Resuscitation in Two European Countries

Natalia Sak-Dankosky, MSN, BSN, RN, Finland

Paula R. Sherwood, PhD, MSN, BSN, RN, CNRN, FAAN, USA

Pawel Andruszkiewicz, PhD, MD, Poland

Tarja Kvist, PhD, MSN, BSN, RN, Finland

Abstract

Background: Conducting international nursing research has been recognized to be crucial in advancing professional healthcare practice (Opollo et al. 2014). Besides providing opportunities for building cultural competences and enhancing effective multi-cultural collaboration, international research projects have been found to have significant implications for research, education, policy and practice (Opollo et al. 2014, Fronda & Alhusen 2016). Its importance for the ethical aspects in critical care has been emphasized after the European Resuscitation Council recognized a need for unification of national legislations and improved application of ethical principles in CPR across Europe (Bossaert et al. 2015, Mentzelopoulos et al. 2016). It is therefore important to conduct research which include samples from different countries, what will contribute to the enhanced understanding of barriers preventing from implementing evidence-based nursing practices globally.

Purpose: The purpose of this presentation is to describe practical experiences in conducting international multisite study aiming to understand the barriers to family-witnessed cardiopulmonary resuscitation practice implementation in two European countries, Poland and Finland.

Methods: A multisite international study using a mixed-method descriptive-explanatory research design was conducted (Author citation 2015, Author citation 2016). Challenges, opportunities, and solutions to the encountered barrier were discussed.

Results: The international study we conducted was divided into two main phases: (1) a quantitative part in which we used a survey questionnaire to explore critical care and emergency nurses and physicians' experiences and attitudes related to in-hospital family-witnessed CPR, and (2) a qualitative part in which we interviewed critical patients' family members to explore and understand their views regarding family-witnessed CPR option. Despite many opportunities such as more diverse and larger sample, enhanced intercultural collaboration, presence of different cultural contexts and thus better understanding of the studied phenomenon, we faced multiple challenges related to in-between country differences which resulted in study protocol changes and adjustments. Translating the data collection instrument, different policies regarding ethical approval application, availability of the sample and culturally-determined willingness to participate in a research study were the main challenges we experienced during the design, empirical and analytic phases of the research process. Strategies such as adjusting the recruitment and data collection strategies, extending data collection time frames, unification of study variables, and analysis of the context and organization of care were used in order to address the encountered barriers.

Conclusion: Despite the generally recognized importance of international nursing studies, their planning, conducting, and implementing can be challenging especially when exploring an ethically sensitive phenomena. Critical issues related to the philosophical, methodological, practical, ethical and financial aspects need to be addressed during every phase of the international research process. Available strategies can help the researchers to overcome encountered challenges. Sometimes study protocol adjustments need to be made, to successfully conduct and meet the research aims of a multinational nursing research.

References

1. Bossaert, L.L., Perkins, G.D., Askitopoulou, H., Raffay, V.I., Greif, R., Haywood, K.L., Mentzelopoulos, S.D., Nolan, J.P., Van de Voorde, P. & Xanthos, T.T. (2015). European Resuscitation Council Guidelines for

Resuscitation 2015: Section 11. The ethics of resuscitation and end-of-life decisions, *Resuscitation*, 95, 302-11.

2. Fronda, C. & Alhusen, J. (2016). Lessons learned from an international, multisite simulation research study, *Nurse Educator*. 41, 199-203.
3. Mentzelopoulos, S.D., Bossaert, L., Raffay, V., Askitopoulou, H., Perkins, G.D., Greif, R., Haywood, K., Van de Voorde, P. & Xanthos, T. (2016). A survey of key opinion leaders on ethical resuscitation practices in 31 European Countries, *Resuscitation*, 100, 11-7.
4. Opollo, J., Opollo, D., Gray, J. & Spies, L. (2014). Conducting international nursing research: challenges and opportunities. *Nurse Researcher*, 22, 29-33
5. Sak-Dankosky, N., Andruszkiewicz, P., Sherwood, P. & Kvist, T. (2015). Factors associated with experiences and attitudes of healthcare professionals towards family-witnessed resuscitation: a cross-sectional study, *Journal of Advanced Nursing*, 71, 2595-608.
6. Sak-Dankosky, N., Andruszkiewicz, P., Sherwood, P. & Kvist, T. (2016). Health care professionals' concerns regarding in-hospital family-witnessed CPR implementation into clinical practice, *Nursing in Critical Care* (accepted)

Contact

natalia.sak-dankosky@uef.fi

Q 09 - International Research Collaborations

Multinational Research Collaboratives, Interaction Costs, and Time to Productivity: An Empirical Model to Support Success

Betty A. Rambur, PhD, RN, FAAN, USA

Abstract

Purpose: To illuminate promising practices in multinational research collaboratives that may guide research initiatives that range from interprofessional, to multi-site, to international.

Research to effectively address complex global problems may require the composition of equally complex, diverse, multidisciplinary research teams. Indeed, collaboration among professions, disciplines, institutions, and nations may offer a means to address society's most vexing problems. Although intuitively attractive, collaboration also creates intricate interplays of personal and scientific values, norms and expectations. This research was undertaken to better understand promising practices in the potentially most complicated research collaboratives, those that span nations.

Methods: Because individuals in different regions of the globe may experience the same constructs in unique ways, a qualitative, inductive exploration of the perspective of those leading or managing research collaboratives that span nations was undertaken. A snowball sample of 15 cases drawn from research-intensive institutions in four continents served as exemplars for further exploration. Open-ended exploratory interviews were done to elicit narrative data. A grounded theory, constant comparative methodology was used for data analysis.

Results: Five distinct domains of collaboratives emerged, along an axis of progressive complexity at the operational interface, each with increasing time to research productivity. Identified domains were: parallel facility sharing; data sharing; bridging peers; differing scientific languages and academic cultures; and human subjects or politically/culturally sensitive themes. Each of these domains reflected increasing interaction costs that impeded productivity, with productivity slowed not by the complexity of the research per se, but the complexity of the interface between individuals and organizations. Notably, in the last two domains, differences were often not fully understood until research was well underway, thus creating compounding complexity and challenges. Thus, on further analysis, these five domains could also be further categorized in a simplified dichotomy of "deceptive differences" and "deceptive similarities." In the former, collaboratives were among institutions in which there appeared to be great differences due to geography or other factors, but initiatives were framed within similar scientific cultures and expectations. Distinguishing characteristics were comparatively little risk to the individual scientist, with risk held at the institutional level. Funds were an effective catalyst to spur productivity, and an administrative champion was essential. In contrast, collaboratives characterized by "deceptive similarities" were more unstable and reliant on individual connections, with resulting risk to the individual researchers. Funds were not a reliability effective catalyst and an administrative champion typically had little influence.

Conclusion: Such interaction costs may contribute to Hsiehchen, Espinoza, and Hsieh, (2015) findings that the growth of multinational clinical trials has remained "stagnant" in the last two decades. Implications for research collaboratives that range from those with teams within a single discipline to multinational efforts are detailed, with an emphasis on necessary supports for broad collaboratives spanning nations and diverse perspectives. Issues for consideration in proposal development inclusive of essential activities before the perceived beginning of the research are detailed

References

- Chester, K., & Ko, K. Problematizing the collaboration process in a knowledge-development context. *Journal of Business Research* 69(5), 1604-1609.
- Hsiehchen, D., Espinoza, M., & Hsieh, A. (2015). The cooperative landscape of multinational clinical trials. *PLOS ONE* 10(6): e0130930 DOI: 10.1371/journal.pone.0130930.
- Jordan, S., & Adams, R. (2016). Perceptions of success in virtual cross-disciplinary design teams in multinational corporations. *Codesign-International Journal of Cocreation in Design and the Arts*, 12(3), 185-203

Lopez-Duarte, C., Vidal-Suarez, M., Gonzalez-Diaz, B., & Rosa Reis, N. (2016). Understanding the relevance of national culture in international business research: A quantitative analysis. *Scientometrics*, 108(3), 1553-1590

Parker, M., & Kingori, P. (2016). Good and bad research collaborations: Researchers' views on science and ethics in global health research. *PLOS ONE*: 11(10): e0163579. DOI: 10.1371/journal.pone.0163579.

Contact

brambur@uri.edu

Q 10 - Novice Nurse Faculty

Developing Novice Nurse Faculty: Finding an Authentic Leadership Voice

Barbara J. Patterson, PhD, RN, ANEF, USA

Laura C. Dzurec, PhD, RN, PMHCNS-BC, ANEF, FAAN, RN, PMHCNS-BC, ANEF, FAAN, USA

Gwen Sherwood, PhD, RN, FAAN, ANEF, USA

David Anthony (Tony) Forrester, PhD, RN, ANEF, FAAN, USA

Abstract

Purpose: to describe the impact of a 20-month mentored leadership development program for new nurse faculty with less than five years academic experience.

According to the American Association of Colleges of Nursing's (AACN, 2015) 2014-2015 report, *Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing*, nursing schools in the U.S. turned away 68,938 qualified applicants from baccalaureate and graduate nursing programs in 2014 in part due to faculty shortages. A 2014 AACN special survey regarding faculty vacancies reveals a vacancy rate of 6.9% that year.

Anecdotally, some new nurse faculty members find the transition to academic life challenging and leave academia within 2-5 years, extending a shortage of nurse faculty. Further contributing to the existing shortage, the average age of doctorally prepared nurse faculty by rank (professor, associate professor, assistant professor) is 61.6, 57.6, and 51.4 years respectively. With a dramatic wave of retirements expected, fewer faculty will be available to fill the shortage, resulting not only in further shortage but in less experienced faculty, overall.

These factors raise questions of whether nurse faculty are adequately prepared for academic leadership. Research indicates that faculty and administrators in nursing programs in the United States resist accepting positions with greater administrative responsibility; faculty who do accept formal leadership roles are often thrust into positions with insufficient experience or leadership preparation (Young, Pearsall, Stiles, Nelson, & Horton-Deutsch, 2011). The quality of academic leadership sets the stage for the health of the overall work environment (Brady, 2010), which in turn affects faculty satisfaction and retention.

Formal mentoring offers one solution to addressing issues of gaps in leadership skill and numbers of faculty. Mentoring may be one way to facilitate leadership development and increase retention of new nursing faculty. However, despite broad recognition of the importance of mentoring, formal mentoring programs and empirical evidence is limited.

The Nurse Faculty Leadership Academy (NFLA) of Sigma Theta Tau International offers an intense, mentored leadership development experience to faculty with fewer than 5 years of full-time teaching experience. Based on the Kouzes and Posner Leadership model (2012), the NFLA is designed to foster academic career success, promote nurse faculty retention and satisfaction, encourage personal leadership development, and cultivate high performing, supportive work environments in academe. The NFLA is a 20-month mentored leadership experience through which scholars participate in two leadership development workshops, conduct in-depth self-assessment, and design an individualized leadership development plan guided by a Leadership Mentor from another academic institution and a Faculty Advisor from the NFLA core faculty. Together, Scholar, Mentor, and Advisor form a triadic mentoring relationship. Scholars also create, implement, and lead a team project to advance nursing education through which they develop their leadership skills and host two site visits for the triad with their local administrative team.

Methods: The design for the study was qualitative description with human subjects protection approval. Descriptive statistics were employed to describe characteristics of the Scholars, whose responses on their final NFLA report were reviewed and analyzed by four NFLA faculty to identify common patterns and

themes. The research team used comparative analysis to reach consensus on the results of their analysis, and an audit trail was maintained to ensure credibility of the findings.

Results: The sample of 14 Scholars comprised 12 females and 2 males with a mean age of 49 years (range 33-58 years). Average number of years in scholars' current teaching positions was 2.6. The majority of scholar respondents (86%) were Assistant Professors. The over-arching theme emerging from the data was "Finding an authentic leadership voice". Four sub-themes emerged to characterize this theme: Identifying inner strengths and weaknesses; Increasing focus on others, Increasing self-confidence; and Clarifying aspirations.

Conclusion: The findings of this study contribute to the advancement of the science of nursing education globally by providing empirical evidence for mentored leadership development programs. A greater emphasis on leadership development is needed for nurse faculty during graduate education and in the early years of an academic career. Results from this 20-month program also support the usefulness of a leadership model to guide mentored experiences. Leadership observers in the local institution helped facilitate scholar development by developing self-awareness and situational awareness of others and the environment.

Leadership is an essential component of the academic nurse faculty role. Leadership development is an on-going journey rooted in reflective practices to increase awareness of self, others, and context. For the Scholars in this NFLA cohort, the guided mentoring from NFLA programming contributed to behavioral changes in their leadership trajectory and helped clarify their faculty role amid expanding responsibilities. Finding their authentic voices was a major developmental step in contributing to the organization, learning to work with other faculty, and speaking up to help lead initiatives.

References

- American Association of Colleges of Nursing. (AACN). (2015). Nursing faculty shortage fact sheet. Retrieved from <http://www.aacn.nche.edu/media-relations/FacultyShortageFS.pdf>
- Brady, M. (2010). Healthy nursing academic work environments. *Online Journal of Issues in Nursing*, 15(1), Manuscript 6. doi:10.3912/OJIN.
- Cleeter, D. (2011). Guest editorial. Faculty leadership development: Concept or reality? *Nursing Outlook*, 59, 109-110.
- Kouzes, J., & Posner, B. (2012). *The leadership challenge: How to make extraordinary things happen in organizations* (5th ed.). San Francisco, CA: Jossey-Bass.
- Young, P., Pearsall, C., Stiles, K., Nelson, K., & Horton-Deutsch, S. (2011). Becoming a nursing faculty leader. *Nursing Education Perspectives*, 32, 222-228.

Contact

bjpatterson@mail.widener.edu

Q 10 - Novice Nurse Faculty

A Structured Mentorship Program to Support Expert Clinicians in New Roles as Clinical Faculty

Lisa A. Seldomridge, PhD, RN, USA

Judith M. Jarosinski, PhD, RN, CNE, USA

Abstract

Purpose: The international shortage of qualified nursing faculty has been identified as a key factor in the inability to educate additional students to become registered nurses (Nardi & Gyurko, 2015) and was a focus of the 2010 Sigma Theta Tau International and International Council of Nurses summit (International Summit, 2010). Because the faculty shortage is the result of multiple, decades-old problems, solutions must be coordinated and comprehensive (Kowalski & Kelly, 2013).

One solution to the nurse faculty shortage is the recruitment, training, and mentoring of expert clinicians to become part-time clinical teachers (Hinderer, Jarosinski, Seldomridge, & Reid, 2015). The aim of this program, the Eastern Shore Faculty Academy and Mentorship Initiative (ES-FAMI), was to develop a diverse group of new clinical faculty and support them through the transition from clinician to educator. The Academy provided a foundation in educational theory, legal aspects of clinical teaching, methods of providing formative and summative feedback, and strategies for dealing with difficult students using a variety of face-to-face, online, and simulation activities. Upon completion of the Academy, a year-long structured one-to-one mentorship experience was offered to graduates. Mentoring opportunities that are laissez-faire provide little structure for the mentee, whereas formalized mentoring experiences with clearly defined goals are far more beneficial to novice educators (Cunningham, 2016; University of Melbourne, 2012). By pairing novice teachers with expert nursing faculty from one of the three area nursing programs, additional support and professional development was provided to assist the novices through their first teaching assignments. The purpose of this research was to evaluate various aspects of the structured, comprehensive, one-to-one mentorship experience.

Methods: A review of the literature was undertaken to identify best practices for structured mentorship programs. Using this information, the team developed a web-based Mentorship Resource site containing all training materials, survey instruments, and resources needed for the program. After approval by the University Committee on Human Research, prospective mentors and mentees completed several instruments to assist in the matching process. Mentors also completed an online training module and 2 hour face-to-face training. Mentees completed a 1/1/2 hour orientation to the mentorship program, expectations, and responsibilities. Mentor-mentee pairs completed a mentorship agreement stipulating their goals, meeting arrangements, and expectations for confidentiality and feedback. Data were collected on the focus and method of each contact. Information on mentor and mentee satisfaction with the mentorship experience were collected after 6 months and again at 1 year.

Results: Data from 12 matches support a need for careful matching of mentors and mentees, separate training of mentors and mentees to prepare them for the mentorship experience, flexibility in meeting the expectation for twice per month contacts, development of separate resource websites for mentors and mentees, and open communication with program participants to problem-solve along the way.

Conclusion: A structured, comprehensive mentorship program is a necessary component of the preparation of expert clinicians as new nursing faculty and can be implemented in any nursing program regardless of geographic location. Since it takes one full-time faculty to produce six graduates per year who in turn provide \$704,000 in annual health care services (Kowalski & Kelly, 2013), assuring a successful transition to the role of clinical teacher is a sensible investment. Though it requires time and effort to develop, implement, and evaluate, an extended mentorship experience may be the missing link in supporting new clinical teachers through their first teaching assignments. This new model for professional development can add to the number of available nursing faculty and enhance "nursing's capacity to meet global healthcare needs" (Nardi & Gyurko, 2013, p. 324). The role of mentoring is vital in

the advancement of individual nurses as well as the advancement of the profession as a whole (Institute of Medicine, 2010).

References

Cunningham, A. (2016). Benefits of mentoring. Cornell University ILR School. Retrieved from:

<http://digitalcommons.ilr.cornell.edu/student/107/>

Hinderer, K., Jarosinski, J., Seldomridge, L., & Reid, T. (2015). From expert clinician to nurse educator: Outcomes of a faculty academy initiative. *Nurse Educator*, 41(4). doi: 10.1097/NNE.0000000000000243.

Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. Washington, DC: National Academies Press.

International summit seeks solutions to global shortage of nursing faculty. (2010). Retrieved from

<https://www.elsevier.com/about/press-releases/clinical-solutions/international-summit-seeks-solutions-to-global-shortage-of-nursing-faculty>

Kowalski, K. & Kelly, B. (2013). What's the ROI for resolving the nursing faculty shortage? *Nursing Economic*, 31(2), 70-76.

Nardi, D.A. & Gyrko, C. (2013). The global nursing faculty shortage: Status and solutions for change. *Journal of Nursing Scholarship*, 45(3), 317– 326.

University of Melbourne. (2012). What communication styles assist the mentoring process. Retrieved from:

https://hr.unimelb.edu.au/data/assets/pdf_file/0005/583178/Mentoring-Communication.pdf

Contact

laseldomridge@salisbury.edu

Q 11 - Cooperative Simulation Learning

Cooperative Learning Versus Independent Learning and the Haptic Intravenous (IV) Simulator

Lenora McWilliams, PhD, RN, USA

Abstract

Purpose: Inserting an intravenous (IV) catheter is a complex and critical skill taught in nursing school. Haptic IV simulators provide opportunity for students to practice IV skills repeatedly in a safe environment without harm to a patient. Haptic IV simulators provide tactile feedback including palpation of a vein and resistance during venipuncture. Cooperative learning is an active learning strategy where students work together to complete a task. The basic elements of cooperative learning include: positive interdependence, promotive interactions, individual accountability, social skills and group processing. The aim of this study was to evaluate the effectiveness of cooperative based as compared to independent learning when used with nursing students who are learning intravenous catheter (IV) insertion using a haptic IV simulator.

Methods: A convenience sample of 180 nursing students were randomized into positions which indicated who was to attempt the simulation first, second or third within the cooperative learning group and the independent learner. Positions (1st, 2nd, 3rd learner and the independent learner) were then randomized into IV simulation groups. IV simulation groups determined the date and time to complete their IV simulation. A posttest only experimental research design was used to compare the effectiveness of cooperative based learners versus the independent learners on the haptic IV simulator based on the dependent variables. The two dependent variables were the initial performance score and the number of attempts to earn a passing performance score on the haptic IV simulator.

Results: Results of the ANCOVA for the initial performance score was significant and indicated that 36% of the variance was related to position in their group while less than 2% was related to IV experience. Results of the ANCOVA for the number of attempts to be successful was significant and indicated that position in their group accounted for 53% of variance while 10% was related to IV experience. Results were confirmed using a non-parametric Kruskal-Wallis test.

Conclusion: Cooperative learners' performance scores were higher while needing fewer attempts on the IV simulator compared to independent learners. The use of cooperative learning groups provide empirical evidence that students learn as a result of observing and working together. This study supports the efficacy of using simulators as a means for students to learn a psychometric skill.

References

- Johnson, D., Johnson, R., & Smith, K. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in College Teaching*, 25(3&4), 85-118. Retrieved from: <http://celt.miamioh.edu/ject/issue.php?v=25&n=3%20and%204>
- Jung, E.-Y., Park, D. K., Lee, Y. H., Jo, H. S., Lim, Y. S. & Park, R. W. (2012). Evaluation of practical exercises using an intravenous simulator incorporating virtual reality and haptics device technologies. *Nurse Education Today*, 32, 458-463. <http://dx.doi.org/10.1016/j.nedt.2011.05.012>
- Lin, Z.-C. 2013. Comparisons of technology-based cooperative learning with technology-based individual learning in enhancing fundamental nursing proficiency. *Nurse Education Today*, 33, 546-551. <http://dx.doi.org/10.1016/j.nedt.2011.12.006>
- Reinhardt, A., Mullins, I., & De Blieck, C. (2012). IV insertion simulation: Confidence, skill, and performance. *Clinical Simulation in Nursing*, 8, e157-e167. <http://dx.doi.org/10.1016/j.ecns.2010.09.001>
- Ross, J. G. (2012). Simulation and psychomotor skill acquisition: A review of the literature. *Clinical Simulation in Nursing*, 8(9), e429-e435. <http://dx.doi.org/10.1016/j.ecns.2011.04.004>.

Contact

lamcwilliams@uh.edu

Q 11 - Cooperative Simulation Learning

iHuman Project: Implementation and Evaluation of Cloud-Based, Virtual-Patient, Case-Based Simulation

Elaine D. Kauschinger, PhD, MSN, ARNP, FNP-BC, USA

Abstract

Purpose: The purpose of this study was to investigate how feasible and effective will it be to integrate simulation-based learning modules, delivered via the i-Human Patient virtual learning platform, into online graduate nursing courses, where feasibility is indicated by level of student and faculty satisfaction; effectiveness is determined by analysis of data generated from the i-Human cases that students completed. An additional interest was related to the students level of satisfaction with using a virtual patient case simulation.

Methods: During a 7 week period, students in an online graduate nursing course volunteered to complete 3 virtual patient cases. Students advanced through the virtual patient case simulations while the cloud-based system captured and tracked their clinical decision-making processes. Student participants also attended three WebEx-supported live debriefing sessions to have an opportunity to share their learning experiences with the virtual cases. Additionally, students completed an anonymous survey at the end of the course that assessed their level of satisfaction with the virtual patient simulation.

A second group of students in another online graduate nursing course were required to participate in the i-Human patient simulation as part of a graded activity over a 7 week period. Students selected and completed 4 out of 6 possible cases. Their clinical decision-making processes were also tracked and recorded via i-Human learning platform. Students completed an anonymous survey at the end of the course that assessed their level of satisfaction with the virtual patient simulation.

Results: Overall, both groups report that they were satisfied with the virtual stimulation experience and that they liked the interactive ability of the case simulation, stress-free learning environment and the clinical experience of patient care. Students disliked not receiving credit for questions they perceived were asked during the case, organization of options and the time it took to complete cases. Data from both groups provided insights to the faculty regarding students progress and performance on cognitive competencies as well as choices that impact clinical decision making. Overall, students in both performed better or equal to the previously completed cases. Exception reporting allowed faculty to be aware if students fell below a certain threshold in one or more areas of the case(s). Trend analysis identified certain questions or topics that students are not getting correct or topics that all the students are weak

Conclusion: Cloud-based virtual patient case simulation was an effective and feasible inclusion in online graduate nursing courses. Students and faculty using the virtual patient case simulation tended to be satisfied with the learning experience.

References

- Benner, P. (2015). Curricular and pedagogical implications for the Carnegie Study, Educating Nurses: A call for radical transformation. *Asian Nursing Research*, 9(1), 1-6. <http://dx.doi.org/10.1016/j.anr.2015.02.001>
- Cook, D.A., Erwin, P.J., & Triola, M. (2010). Computerized virtual patients in health professions education: A systematic review and meta-analysis. *Academic Medicine*, 85 (10), 1589-1602. doi: 10.1097/ACM.0b013e3181edfe13
- Shore, N. (Dec. 12, 2011). Millennials are playing with you. *Harvard Business Review*. Retrieved from <https://hbr.org/2011/12/millennials-are-playing-with-you>

Contact

elaine.kauschinger@duke.edu

Q 12 - Creative Therapy Methods to Enhance Clinical Reasoning Poetry, Paintings, and a Short Story: Humanities Foster Success in Developing Clinical Reasoning Skills

Josette Brodhead, PhD, MSHS, CNE, RNC, USA
Patricia M. Burke, PhD, CNE, RNC, USA

Abstract

Purpose: Implementing humanities-based teaching/learning strategies can support the development of clinical reasoning skills in pre-licensure nursing students. The ability to function effectively in a dynamic, culturally diverse healthcare environment requires both critical thinking and clinical reasoning skills. The American Association of Colleges of Nursing (AACN, 2008) recognizes the importance of humanities in the baccalaureate nursing curriculum. The purpose of this quantitative study was to examine the use of humanities-based teaching/learning strategies on nursing students' critical thinking and clinical reasoning skills.

Methods: A quasi-experimental, nonrandomized pretest-posttest study examined the impact of humanities-based teaching/learning strategies on the development of critical thinking and clinical reasoning skills among BSN students enrolled in a maternal/newborn nursing course. Participants were selected from two private, faith based colleges, one in the mid-west and one in the north-east. The educational interventions were threaded throughout the course; a total of 9 students from each site completed the study. A lesson plan with scripted questions was provided to each instructor to ensure consistency and the researcher was available for consultation regarding implementation strategies. The humanities-based teaching/learning strategies that included the analysis of a poem, three paintings, and a short story provoked emotional and somatic responses, thus stimulating inner reflection. The collaborative sharing nature of open discourse encouraged students to view the unique perspectives of their peers. The use of educational strategies that evokes emotional and cognitive dissonance provides the platform for transformative learning to occur (Clifford & Montgomery, 2015; Haber-Curran & Tillapaugh, 2015). At the end of the activities, the value of uniqueness and differences was reinforced providing a new frame of reference to see the world. Participants completed the California Critical Thinking Skills Test (CCTST) to assess differences in critical thinking (Insight Assessment, 2015). The Self-Assessment of Clinical Reflection and Reasoning tool (SACRR) was used to assess changes in clinical reasoning (Royeen, Mu, Barrett, & Lubben, 2000). Both the Watson's theory of caring (Watson, 2008) and transformational learning (Cranton, 2006) philosophical underpinnings were used to develop the framework, to implement the educational interventions, and to interpret the results of the study.

Results: The findings indicated that the humanities-based teaching/learning strategies did significantly impact the development of clinical reasoning skills ($p < .05$). However, there was no significant difference between pretest and posttest scores ($p > 0.5$) for critical thinking skills.

Conclusion: The humanities-based teaching learning strategies did positively impact clinical reasoning skills. Although critical thinking scores did not significantly improve, one site did show growth. Further exploration of the research questions is warranted.

References

- American Association of Colleges of Nursing. (2008). *The essentials of baccalaureate education for professional nursing practice*. Retrieved from <http://www.aacn.edu/education-resources/BaccEssentials08.pdf>
- Clifford, V., & Montgomery, C. (2015). Transformative learning through internationalization of the curriculum in higher education. *Journal of Transformative Education, 13*(1), 46-64. doi:10.1177/1541344614560909
- Cranton, P. (2006). *Understanding and promoting transformative learning: A guide foreducators of adults* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Haber-Curran, P., & Tillapaugh, D. W. (2015). Student-centered transformative learning in leadership education: An examination of the teaching and learning process. *Journal of Transformative Education, 13*(1), 65-84. doi:10.1177/1541344614559947

Royeen, C., Mu, K., Barrett, K & Luebben, A. J. (2000). Pilot investigation: Evaluation of clinical reflection and reasoning before and after workshop intervention. In P. Crist (Ed), *Innovations in Occupational Therapy Education*. Bethesda, MD: American Occupational Therapy Association.

Watson, J. (2008). *Nursing: The philosophy and science of caring* (rev. ed.). Boulder, CO:University Press of Colorado.

Contact

josette_brodhead@hotmail.com

Q 12 - Creative Therapy Methods to Enhance Clinical Reasoning Reflective Practice Journaling and Clinical Reasoning: A Qualitative Inquiry Study

Debra Scardaville, PhD, RN, CPNP-PC, USA
Joyce A. Wright, PhD, MSN, BSN, RN, CNE, USA

Abstract

Purpose: The purpose of this presentation is to report the results of an IRB approved qualitative descriptive research study exploring the use of reflective journaling as a pedagogical strategy to evaluate the attainment of clinical reasoning among a targeted population of diverse RN-BSN students in a residency program at a public university in the United States. The following qualitative research question is answered in this presentation: What is the RN-BSN residency students' experience and perception of involvement of clinical reasoning and clinical judgment through the process of reflection and reflective journal writing? Purposive sampling of seven RN residency program students were obtained through informed consent.

Emerging complexity in healthcare practice settings inclusive of global arenas for care and the mandate for a stronger collaborative interdisciplinary nursing practice (Ironsides, 2015) have significantly contributed to the need for sustained exploration of educational paradigms in nursing practice preparation. Educational paradigms must be aimed at the development of not only technical skills but the ability to critically identify a holistic foundation for nursing practice, based upon different forms of knowledge or ways of knowing (Carper, 1978). Engagement in reflective practice is noted to facilitate the development of multiple ways of knowing in nursing practice (Sherwood & Horton-Deutsch, 2012), leading to the development of critical thinking (Zori, 2016). Research encompassing a variety of transformative educational strategies designed to address contemporary educational needs is evinced in the literature. However, despite advances in the epistemology of nursing knowledge and practice, continuing research into educational preparation modalities records evidence of a widening theory-practice gap (Hickerson, Taylor & Terhaar, 2016; Epp, 2008). Significantly, this disparity lends to a diminishment of safe, quality patient care. Therefore, contemporary educational practices must address these concerns.

A review of the literature notes the significance of the model of residency nursing education and reflective practice in the development of an epistemology founded upon multiple ways of knowing in nursing practice. Residency programs, described by the American Association of Colleges of Nursing [AACN] as a model intended to provide supplemental education within the context of the workplace through the provision of mentored, individualized clinical experiences, have demonstrated to provide benefits through a variety of ways including overall improvement (Rush, Adamack, Gordon, Lilly, & Janke, 2013); additional attainment of knowledge through skills training, debriefing, and hands on self-care knowledge (Pine & Tart, 2007); and culturally congruent care based upon evidence (Letourneau & Fater, 2015).

Evidence of the use of reflection as pedagogical strategy is well documented over decades in the nursing literature. Many models of reflective practice exist. Reflective practice, "a means of self-examination that involves looking back over what has happened in practice to improve or encourage professional growth" (Ruth-Sahd, 2003, p. 488) is cited as a conscious, dynamic process of thinking about, analyzing, and learning from an experience that gives one insights into Self and practice (Freshwater, 2008; Kim, Lauzon, Burbank & Martins, 2010; Asselin, 2011) and is an essential element of evidence-based practice through questioning (Thompson & Burns, 2008). Reflective practice allows a forum for opening to a holistic nursing practice through the embracement of diverse arenas of knowledge. Evidence of this is noted in the seminal work of Benner (1984) which documented a lessening of the theory-practice gap through the development of personal knowledge with technical or empirical knowledge and more recently though aiding in the internalization of ways of thinking (Kennison, 2012). Guided reflective journaling is one strategy frequently employed to assist in the development of reflective practice. Most recent evidence for the use of reflective journaling as an effective teaching-learning strategy in the development of clinical judgment is offered by Brussard (2015a, 2015b).

An extensive review of the literature entailed exploration of critical conceptual definitions as well as an examination of evidence-based educational strategies using reflective journaling. Succinctly, the theoretical basis for this study is noted within the conceptual analysis of the significant concepts of critical thinking, clinical reasoning, and clinical judgment. For the purpose of this study, critical thinking is maintained as a precursor to both concepts of clinical reasoning defined “as a complex cognitive process that uses formal and informal thinking strategies to gather and analyze patient information, evaluate the significance of this information and weigh alternative actions” (Simmons, 2010, p. 1155) and clinical judgment described as, “an interpretation about a patient’s needs and/or the judgment to take action (or not), the use of standard approaches or modification of standard approaches or improvising of a new one as deemed appropriate to the patient’s response” (Tanner, 2006, p. 204). The evidence of application and identification of a variety of forms of nursing knowledge, noted in the seminal work of Carper (1978) and further refined and expanded upon by Chinn & Kramer (2014) provided additional theoretical foundations in this study.

Methods: Methodology in this qualitative descriptive study utilized reflective journaling as an educational strategy created through active reflective dialogue with research faculty investigators through an anonymous secured electronic journaling platform. Following journal submissions, written insightful electronic feedback was created by each researcher independently, allowing for diverse reflective insights to the study participants. Cue questions inviting deeper reflection were created using the Johns (1995) model of structured learning to reveal multiple ways of knowing and learning (Carper, 1978). The Johns (1995) model promotes exploration of four fundamental patterns of knowing: ethical, personal, aesthetic, and empirical, adding an additional pattern of knowing, reflexivity, that assists the writer in knowing about themselves in the experience. Additional cue questions using emancipatory knowing (Chinn & Kramer, 2014) further reflecting contemporary nursing practice roles and identities, were also constructed.

Results: Rigor of data analysis process, was maintained utilizing the framework of Lincoln and Guba (1985). This framework incorporates methods to address rigor through the review of data credibility, transferability, dependability, and confirmability, in which the qualitative thematic analysis of journal entries was independently ascertained by the two researchers following the study completion. Following independent analysis, researchers met to compile mutual evidence of clinical reasoning as revealed in reflective journaling. A thematic analysis was structured around the framework of patterns of nursing knowledge (Carper, 1978; Chinn & Kramer, 2014). Study findings noted authentication of all ways of knowing embodied in student reflective journals. A continuum of expansion of the framework of nursing knowledge is distinguished by the involvement of the study participants’ reflective journaling from the technical or empirical ways of knowing in nursing practice as a single, foundational way of providing nursing care toward the attainment of emerging emancipatory thinking and nursing practice as corroborated through the emancipatory concepts of an opening to voice, vulnerability, holism, community of caring, and disparity.

Conclusion: Results of this study further indicate the significance for curricular and educational implications of reflective journaling and reflective narrative explorations as a warranted pedagogical strategy. The importance of this strategy is noted through the reflective journal of one participant in which a true “seeing” of the community of nursing was facilitated in this study (Study Participant, 2016). This pedagogical strategy, as based upon active constructivist learning theories and models of education and feasibility of use, continue to be validated for applicability of use in contemporary nursing education in global arenas. Models of clinical learning for the novice nurse in conjunction with reflective journaling offer many potential implications for safe, quality patient centered nursing practice.

References

- Asselin ME. (2011). Reflective narrative: A method for learning through practice. *J Nurses Staff Development*, 27(1):2-5.
- Benner, P. (1984). *From novice to expert, excellence and power in clinical nursing practice*. Menlo Park, CA: Addison-Wesley Publishing Company.
- Brussard, M. (2015a). Clinical judgment in reflective journals of pre-licensure nursing students. *Journal of Nursing Education*, 54(1), 36-40.
- Brussard, M. (2015b). The nature of clinical judgment development in reflective journals. *Journal of Nursing Education*, 54(8), 451-454.

- Carper, B. (1978). Fundamental patterns of knowing in nursing. *Advances in Nursing Science*, 1(1), 13-24.
- Chinn, P. & Kramer, M. (2014). *Knowledge development in nursing: Theories and processes (9th ed.)*. Philadelphia: Mosby.
- Epp, S. (2008). The value of reflective journaling in undergraduate nursing education: A literature review. *International Journal of Nursing Studies*, 45, 1379-1388.
- Freshwater D. (2008). *Reflective practice: The state of the art*. In: D. Freshwater, B. J. Taylor, & G. Sherwood (Eds.), *International textbook of reflective practice in -Nursing*. Oxford, UK: Blackwell Publishing.
- Hickerson, C., Taylor, L., & Terhaar, M. (2016). The preparation-practice gap: An integrative literature review. *The Journal of Continuing Education in Nursing*, 47(1), 17-23.
- Ironside, P. (2015). Narrative pedagogy: Transforming nursing education through fifteen years of research in nursing education. *Nursing Education Perspectives*, 36, 83-88.
- Johns, C. (1995). Framing learning through reflection using Carper's fundamental ways of knowing in nursing. *Journal of Advanced Nursing*, 22, 226-234.
- Kennison, M. (2012). Developing reflective writing as effective pedagogy. *Nursing Education Perspectives*, 33(5), 306-311.
- Kim, H.S., Lauzon-Clabo, L.M., Burbank, P., Leveillee, M., & Martins, D. (2010). Application of critical reflective inquiry in nursing education. In: N. Lyons. (Ed.). *Handbook of reflection and reflective inquiry: Mapping a way of knowing for professional reflective inquiry*. New York, NY: Springer Publishing.
- Letourneau, R.M. & Fater, K.H. (2015). Nurse residency programs: An integrative review of the literature. *Nursing Education Perspectives*, 36, 96-101.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.
- Pine, R., & Tart, K. (2007). Return on investment: Benefits and challenges of a baccalaureate nurse residency program. *Nursing Economic\$, 25*, 13-18.
- Rush, K.L., Adamack, M., Gordon, J., Lilly, M., & Janke, R. (2013). Best practices of formal new graduate nurse transition programs: An integrative review. *International Journal of Nursing Studies*, 50, 345-356.
- Ruth-Sahd, L. (2003). Reflective practice: A critical analysis of data-based studies and implications for nursing education. *Journal of Nursing Education*, 42(11), 488-497.
- Sherwood, G. & Horton-Deutsch, S. (2012). *Reflective practice: Transforming education and improving outcomes*. Indianapolis, IN: Sigma Theta Tau International.
- Simmons, B. (2010). Clinical reasoning: Concept analysis. *Journal of Advanced Nursing*, 66(5), 1151-1158.
- Tanner, C. (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. *Journal of Nursing Education*, 45, 204-211.
- Thompson, D. & Burns, H. (2008). Reflection; An essential element of evidenced-based practice. *Journal of Emergency Nursing*, 34(3), 246-248.
- Zori, S. (2016). Teaching critical thinking using reflective journaling in a nursing fellowship program. *The Journal of Continuing Education in Nursing*, 47(7), 321-329.

Contact

dscardavil@njcu.edu

Q 13 - Emergency Situations

Development and Implementation of a University Active Shooter Drill Using Cross-Sector Collaboration and Nursing Leadership

Shannon Lee Woods, DNP, RN, CNOR, CNE, USA

Abstract

Emergency and disaster preparedness is a modern day theme and has changed with increasing technology and the ability to predict natural disasters. Manmade disasters have provided little opportunity to mitigate outcomes except with robust emergency and disaster plans. Hospitals have been good at developing policies, procedures, and protocols in emergency management. Healthcare workers, particularly nurses, practice emergency management and mitigation naturally within the course of their daily work. With this strong skill, nurses are positioned to be a natural leader in higher educational settings' response plans as emergency and disaster preparedness becomes more common. The purpose of this proposal is to discuss the process and nursing skills used to provide expertise to a diverse group of individuals with a common focus on safety and emergency management.

Tabletop exercises can provide a tool to measure emergency management plans (Veenema, 2013). A tabletop exercise is a good starting point when developing an active drill. The use of tabletop exercises is not new to nursing. Tabletop exercises can be likened to simulation that better prepares the learner for real-world action in a comfortable and non-threatening environment (Rega & Fink, 2014; Wittman-Price, Godshall, & Wilson, 2013). Just as simulation allows the learner to make mistakes and then learn from them so does a tabletop exercise. This further develops a comfort level for immediate response to difficult situations of all involved (Jacobs, 2014; Wittman-Price et al., 2013). Learning occurs through finding gaps that exist in the emergency plan and expands the knowledge level of the learners. The interactions during a tabletop exercise enhances the learning experience as the participants glean knowledge from each other and learn where action is needed to make the emergency plan more successful (Rega & Fink, 2014).

Active drills are different in that the entire stakeholder group could potentially be engaged; whereas, in a tabletop drill the participants can be chosen and the drill can be more controlled (Veneema, 2013). Active drills follow a written script with moment-by-moment responses that change based on the actors that become part of the script unknowingly. Skill sets are practiced which include communication, action, interaction, and reaction. Designated observers monitor length of time in communication and response. A hot wash will typically occur at the end of an active drill where the main stakeholders assess and evaluate the witnessed responses. The evaluation includes recommendations and a plan of action to improve the emergency operation plan (Veneema, 2013). Active drills are shown to create continuity between community entities both in the U.S. and globally (Dausy & Moore, 2014).

In a small private university in South Georgia the president of the university appointed as chair to the Safety and Security Committee a nursing faculty member who had previous emergency and disaster experience. The university president tasked the committee to develop active drills to promote safety and mitigate disastrous outcomes. During the first two years the emergency operations plan was updated and tabletop exercises focusing on natural disasters occurred within the committee. Then the tabletop exercise was provided for participation of the administrative team.

After the natural disaster tabletop exercise with administration the committee chair contacted local law enforcement and the local fire chief and garnered support to develop a plan for university education on fire and active shooter safety. After many meetings with community emergency responders the first combined educational endeavor was mandatory training of university faculty and staff that was provided by the Safety and Security Committee, the local Fire Chief, and the local lead Lieutenant of The Special Weapons and Tactics (SWAT) division. Using best practices the training included fire safety, escape routes, fire extinguisher use, active shooter safety, and university reassembly areas (Interagency Security Committee, 2015).

With a foundation for combined educational endeavors the committee chair garnered support for an active shooter drill. An active shooter tabletop exercise was developed and initiated with the lead of the committee chair and SWAT team Lieutenant. Local community agencies and the university administrative team participated. After revising the safety plan, based on the tabletop findings, an active shooter drill was developed by the committee chair and SWAT team Lieutenant. This successful drill took place with comprehensive planning efforts that included inter-professional university divisions and cross-sector community collaboration.

The outcomes of the drill identified the opportunities for improvement within the emergency safety plan of the university and created a working knowledge of the roles of various individuals along with group effort initiatives clearly delineated. As identified in the literature, communication is the most essential component of emergency preparedness success (Veneema, 2013). Lessons learned by the university (and the committee chair) included the vast amount of communication efforts that must occur in developing, initiating, and deploying participatory drills. Other lessons learned included the use of technology for directing a drill including reverse calling systems to notify the public of drill dates and information, perimeter security, signage, campus involvement, and the use of media in conveying messages. Partnering agencies were beneficial in creating a more secure campus with the sharing of up-to-date floor plans that are part of the SWAT teams' computer based program, community partner drilling for acquisition of knowledge of layouts, and evaluation of processes from experts with thorough recommendations that can be evaluated and re-evaluated for functional use. The role of the committee chair as an effective and empowered nurse leader shows that nursing has a way to use clinical expertise in far-reaching ways that impact society positively and create not only inter-professional collaboration but cross-sector collaboration as well.

References

- Dausy, D. J. & Moore, M. (2014). Using exercises to improve public health preparedness in Asia, the Middle East and Africa. *BMC Research Notes*, 7(474), 1-7. doi: 10.1186/1756-0500-7-474
- Jacobs, L. (2014). The Hartford consensus: How to maximize survivability in active shooter and intentional mass casualty events. *World Journal of Surgery*, 38, 1007-1008. doi: 10.1007/s00268-014-2481-7
- Rega, P. P. & Fink, B. N. (2014). Immersive simulation education: A novel approach to pandemic preparedness and response. *Public Health Nursing*, 31(2), 167-174. doi: 10.1111/phn.12064
- Interagency Security Committee. (2015, November). *Planning and response to an active shooter: An Interagency Security Committee policy and best practices guide*. Retrieved from <https://www.dhs.gov/sites/default/files/publications/isc-planning-response-active-shooter-guide-non-fouo-nov-2015-508.pdf>
- Veenema, T. G. (2013). *Disaster Nursing and Emergency Preparedness*. New York: Springer Publishing Company.
- Wittman-Price, R., Godshall, M. & Wilson, L. (2013). *Certified Nurse Educator (CNE) Review Manual*. New York: Springer Publishing Company.

Contact

swoods@thomasu.edu

Q 13 - Emergency Situations

Differences and Similarities in Emergency Department Crowding Between a Developing Country and a Developed Country

Naomi van der Linden, PhD, Australia

M. C. (Christien) van der Linden, PhD, ACNP, CEN, RN, Netherlands

Abstract

Purpose: Emergency department (ED) crowding is an international crisis affecting patient care. ED crowding is associated with delays in treatment, diminished quality of care, and increased inpatient mortality. The problem of ED crowding has been extensively described in hospitals in the USA, Canada, Australia and Europe. However, the problem is not limited to developed countries. Although no comparison has been made between crowding issues in developed versus developing countries, lower amounts of resources may result in more severe crowding in developing countries. In this study, patient flow was compared between a hospital in a developing country, and a hospital in a developed country. Identifying key issues and bottlenecks affecting ED patient flow and analyzing the relative importance of contributing factors may provide insight into promising solutions.

Methods: An IRB-approved mixed methods study was conducted at two EDs, both urban Level 1 Trauma Centers. First, a 1-year (August 2014 – July 2015) retrospective cohort study was performed, comparing patients' conditions (including acuity level and final disposition) and crowding measures (including length of stay). Acuity level was registered according to the 5-level triage scales used at the EDs, in which acuity 1 has the highest priority and 5 the lowest priority. To investigate differences and similarities in the quantitative data between the hospitals, we used two-tailed *t* tests, Mann Whitney U tests, and χ^2 tests where appropriate. Statistical significance was assumed at a level of $P < 0.05$.

Second, participant observation and 18 face-to-face interviews were conducted in August and September 2015, focusing on the causes and consequences of ED crowding. Hospital administrators, ED staff, nurse managers, and emergency physicians were questioned individually about what they considered to be the main causes and consequences of ED crowding, using open-ended questions. Observation notes and interviews were transcribed within 12 hours. A member check technique with ED management was used to verify the accuracy and validity of the observations. Qualitative content analysis was used to summarize the views of the interviewees regarding causes and consequences of ED crowding into input-, throughput- and output issues. Analysis of the observations continued with triangulation from other sources (including scientific articles regarding ED crowding).

Results: At the ED in the developing country 58,839 visits (160 patients/day), and at the ED in the developed country 50,802 visits (140 patients/day) were registered. Patients' conditions and ED crowding were worse in the developing country compared with the developed country. Median patient length of stay at the ED of the developing country was significantly longer (279 minutes vs. 100 minutes, $P < 0.001$). Length of stay exceeded 6 hours for 37.9% of the patients at the ED in the developing country, vs. 3.3% of the patients at the ED in the developed country ($P < 0.001$). Almost 17% of the patients of the ED in the developing country were assigned acuity level 1, while only 1% of the ED patients in the developed country were assigned acuity level 1. There were higher admission percentages (35% vs. 21%, $P < 0.001$) and higher mortality rates (1.4% vs. 0.1%, $P < 0.001$) at the ED in the developing country compared with the ED in the developed country.

According to the interviewees from both EDs, crowding occurs on a daily basis. Interviewees mentioned similar reasons for constraints to the patient flow: high patient volumes, long treatment times, and poor availability of inpatient beds. An important reason for long length of stays at the ED of the developing country was the delay in reaching a decision to admit the patient or send the patient home. At both hospitals, delays in the admitting process, mostly due to a shortage of inpatient bed capacity, were mentioned. Solutions to ED crowding in the developing country should focus on improving ED throughput as well as ED output, while at the ED in the developed country the output issues are more important.

Conclusion: Despite differences in patient populations (more severely sick at the ED in the developing country), and in the state of crowding (worse at the ED in the developing country), the causes of ED crowding were the same in both EDs: high volumes, long treatment times, and poor availability of inpatient beds. ED crowding in the developing country can be reduced by more efficient processes in the ED and by increased capacity within the hospital. At the ED in the developed country, the outflow should be improved.

The impact of new interventions to improve patient flow through the ED should be considered carefully. Monitoring the patient flow during a longer period of time allows assessment of the extent to which these interventions foster constructive change.

References

- Beaulieu, P., Gurney, D., Healy-Rodriguez, M. A., Menafrá, M., Noll, W., Novotny, A. et al. (2014). Holding, Crowding, and Patient Flow. *Website Emergency Nurses Association*. Retrieved from: www.ena.org.
- Beniuk, K., Boyle, A. A., & Clarkson, P. J. (2012). Emergency department crowding: prioritising quantified crowding measures using a Delphi study. *Emergency Medicine Journal*, 29, 868-871.
- Boyle, A., Beniuk, K., Higginson, I., & Atkinson, P. (2012). Emergency department crowding: time for interventions and policy evaluations. *Emergency Medicine International*, 838610.
- Crawford, K., Morphet, J., Jones, T., Innes, K., Griffiths, D., & Williams, A. (2014). Initiatives to reduce overcrowding and access block in Australian emergency departments: a literature review. *Collegian*, 21, 359-366.
- Manning, K. (2012). ED crowding and throughput more than just an ED problem. *Journal of Emergency Nursing*, 38, 117-118.
- Mehmood, A., Khan, B. A., and Khursheed, M. (2012). Overcrowded emergency departments: A problem looking for solution. *Journal of the Pakistan Medical Association*, 62, 529-530.
- Morris, Z. S., Boyle, A., Beniuk, K., & Robinson, S. (2012). Emergency department crowding: towards an agenda for evidence-based intervention. *Emergency Medicine Journal*, 29, 460-466.
- Oredsson, S., Jonsson, H., Rognes, J., Lind, L., Goransson, K. E., Ehrenberg, A. et al. (2011). A systematic review of triage-related interventions to improve patient flow in emergency departments. *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine*, 19, 43.
- Pines, J. M., Hilton, J. A., Weber, E. J., Alkemade, A. J., Al, S. H., Anderson, P. D. et al. (2011). International perspectives on emergency department crowding. *Academic Emergency Medicine*, 18, 1358-1370.
- The Royal College of Emergency Medicine. (2015). Tackling Emergency Department Crowding. *Website The Royal College of Emergency Medicine*. Retrieved from: <https://portal.rcem.ac.uk/LIVE/docs/Service%20Design%20+%20Delivery/52a.%20ED%20crowding%20overview%20and%20toolkit%20-%20Dec%202015.pdf>.
- van der Linden, M. C., Reijnen, R., Derlet, R. W., Lindeboom, R., van der Linden, N., Lucas, C. et al. (2013). Emergency department crowding in The Netherlands: managers' experiences. *International Journal of Emergency Medicine*, 6, 41.

Contact

chris10vanderlinden@hotmail.com

Q 14 - Public Safety

Using Community Engagement and Multisectoral Collaboration to Address Health and Public Safety

Amber P. Williams, DNP, APRN, FNP, RNC-MNN, USA

Abstract

Problem: Carbon monoxide (CO) is the leading cause of poison related death in the United States, claiming over 400 lives and causing more than 20,000 emergency room visits annually (CDC, 2012). Carbon monoxide is a colorless, odorless, tasteless, and silent gas produced by fuel burning appliances, earning it's name as the silent killer. It is only detectable with CO detectors. Common fuel burning appliances that most Americans use include cars, heaters, ovens, grills, generators, fireplaces, and more. Yet, CO detectors are not required by law or code in many states leaving families, residents, travelers, shoppers, or diners unaware and unprotected where they work, live, play, pray, eat, shop, or learn. In essence, this is a public health concern requiring action from multiple fronts...where no single player is solely accountable for improving outcomes (Kindig & Isham, 2014).

Nurses have always been instrumental in health promotion activities. As a profession, nurses are well suited to lead collaborative community engaged public health activities. Collaboration is an essential driver of community health promotion with the ability to improve population health outcomes (Harper, et.al., 2014). According to Roberts and Jumpper-Black (2016), inclusion of key community stakeholders is critical in all level of the collaborative process. To address CO awareness, a nurse advocate gathered community stakeholders to discuss possible interventions. Multi-sectoral participants included the state fire marshal office, fire chiefs and educators from surrounding communities, the American Red Cross, local legislators, retail restaurant owners, academic nurse faculty, and a non-profit foundation. Together, a plan was developed to address public awareness and home safety related to carbon monoxide. To implement this shared vision, continued collaboration as well an engaged community would be necessary over the next 1-2 years. Communities, due to their intimate character, have the capacity to promote, accept, and sustain health initiatives (Simoes and Sumaya, 2010).

Methods: "Empowered groups and communities plan, enact, and evaluate interventions that affect their collective groups" (Roberts and Jumpper-Black, 2016, p88). Multiple organizations and six communities collaborated to implement a blitz program to assess homes, inform residents, install CO and smoke alarms where necessary at no cost, and protect residents. Each of the six cities' fire chiefs were surveyed for their CO needs. Funding was gained to support equipment and educational materials through grants and donations. Each community pooled its resources and networks to perform a 6 separate one-day blitz events in targeted neighborhoods to install 1000 CO alarms. Community networks included fire departments, fire marshals, sororities, civic organizations, neighborhood associations, Boy Scouts of America, American Red Cross volunteers, public safety officials, city administrators, nurses, police, food retailers, family members, the governor's office, home supply retailers, and many more.

Evaluation: Since CO detectors were not required by law in homes, there is no data on CO detector usage, knowledge, or effectiveness. To address this, a brief survey was included for each home that was entered to gather information. Basic demographic information was gathered regarding number of persons living in the home and their ages. Information about the home included: type of home, type of heat used, number of levels, and number of CO alarms installed.

Additionally, 4-6 months after installation, follow up surveys were conducted on 25% of the homes where CO detectors were installed to evaluate the education provided about carbon monoxide.

Results: During the one-day blitz events, 420 CO alarms were installed. Each of the communities continued to assess homes and install the remaining CO alarms at no cost. Follow up surveys revealed that all homes still had working alarms and respondents knew what to do if it alerts. 1000 families are now CO aware. Communities remain engaged in addressing awareness to prevent poisonings and deaths.

References

- Centers for Disease Control. (2012). Carbon Monoxide Poisoning Prevention: working together to keep communities safe.
- Harper, C., Kuperminc, G., Weaver, S., Emshoff, J., and Erickson, S. (2014). Leveraged Resources and Systems Changes in Community Collaboration. *American Journal of Community Psychology* 54:348-357. DOI 10.1007/s10464-014-9678-7.
- Kindig, D. and Isham, G. (2014). Population Health Improvement: A Community Health Business Model That Engages Partners in All Sectors. *Frontiers of Health Services*. 30(4), 3-20.
- O'Mara-Eves, A., Brunton, G., Oliver, S., Kavanagh, J., Jamal, F., and Thomas, J. (2015). The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. *BMC Public Health* 15:129, DOI 10-1186/s12899-015-1352-y
- Roberts, T. and Jumper-Black, C. (2016). Promoting public health through community engagement: embracing the journey. *Journal of Human Behavior in the Social Environment* 26:7-8, 565-574, DOI: 10.1080/10911359.2016.1236000
- Simoes, E., and Sumaya, C. (2010). Protecting and Enhancing Health: Community Engagement, Collaborations, and Incentives for Prevention. *Journal of Primary Prevention* 31:21-29, DOI 10.1007/s10935-010-0201-0

Contact

proctora@comporium.net

Q 14 - Public Safety

Effects of Insecticide Exposure Prevention Program on Exposure and Blood Cholinesterase Levels in Thai Farmers

Sukanda Worapitpong, MSN, RN, Thailand

Noppawan Piaseu, PhD, RN, APN/NP, Thailand

Abstract

Purpose: The present study aimed at investigating the effects of an insecticide exposure prevention program on exposure and blood cholinesterase levels of farmers.

Specific research objectives were: 1) to compare insecticide exposure levels between the experimental and the control groups after the program 2) to compare blood cholinesterase levels in the experimental group before and after the program and 3) to compare blood cholinesterase levels in the experimental and the control groups after the program.

Methods: This Quasi-experimental research aimed at investigating the effects of insecticide exposure prevention program on exposure and blood cholinesterase levels of farmers. The conceptual framework was guided by Donabedian and the RAMA Model including four components: Raising Awareness at the individual, family and community levels, Aiming at target outcome, Mobilizing change and innovation, and Assuring synergy for home visits and assessments by health teams. Through convenience sampling with inclusion criteria, the sample included 49 radish farmers exposed to Organophosphate consisting of experimental group (n=25) and a control group (n=24). The experimental group participated in a 12-week insecticide exposure prevention program. **The Raising Awareness** included group process at the individual and family levels, and focus group with community leaders, stakeholders, supporters, and healthcare team. **Aiming at target** outcome included community participation aimed to determine problem and set a mutual goal to protect insecticide exposure in community. **Mobilizing change and innovation** consisted of group activity aimed to promote a use of protective equipments, demonstrate role model, encourage a positive reinforcement and exchange of experiences to prevent insecticide exposure. The innovation emerged in this study was the insecticide exposure prevention strategies and environmental safety regulation in the community. **Assuring synergy** involved home visits by health team, prevention of insecticide exposure toward the community rules, and management of the problem. Unexpectedly, during the data collection process, the experimental group experienced the insect outbreak, therefore, they used insecticide more frequently. The control group received a guide book for farmers and routine nursing care. Data were collected from April to July, 2016. Data were then analyzed using descriptive statistics and inferential statistics including Chi-square test, Paired t-test, Independent t-test, Mann Whitney U test.

Results: Results revealed that mean age of the experimental group was 37.04 years (SD = 6.74) and that of the control group was 37.71 years (SD = 9.90). There were more male farmers in the experimental (72%) and the control (70.8%) groups. The insecticides used by the farmers were organophosphate, avermectin, pyrazole, phenylpyrazole, and chloroacetamide. Most of the samples had been using these insecticides for 6-10 years, 3-4 times a week. The subjects' characteristics were not statistical different between the experimental and control groups.

Since the mean scores of insecticide exposure between of the experimental (38.52) and the control (40.83) groups were significantly different before the program ($t = -2.135, p = .038$), mean differences between the experimental and the control groups were compared using Independent t-test revealing that mean difference of insecticide exposure was higher in the experimental (9.72) group than the control (2.63) group ($t = 6.612, p < .001$). The experimental group had insecticide exposure levels at 38.52 before and 28.80 after the program. The Paired t-test showed that after the program, the experimental group had less insecticide exposure level when compared to that before the program ($t = 10.924, p < .001$).

The experimental group had blood cholinesterase levels at 7.01 before and 6.59 after the program. The Paired t-test showed that after the program, blood cholinesterase levels of the experimental group were

not significantly different when compared to that before the program ($t = 1.315$, $p = .201$). Blood cholinesterase levels between of experimental (6.59) and the control (7.46) groups. The Independent t-test showed that after the program, blood cholinesterase level in the experimental group was not significantly different from the control group ($t = 1.343$, $p = .186$).

Conclusion: The results suggest that community nurse practitioners apply the principle of Raising awareness, Aiming at target outcome, Mobilizing change and innovation as approaches for insecticide exposure prevention program in the “farmers’ health clinical”, along with outcome monitoring for sustainability.

References

1. American Association for Clinical Chemistry. (2016). Cholinesterase Test. [Online]. Retrieved from <http://labtestsonline.org/understanding/analytes/cholinesterase/tab/test/>
2. Ministry of Public Health, Department of Disease Control, Bureau of Epidemiology. (2013). *The Occupational health manages guide book for public health team: farmers health clinic*. Bangkok: Agricultural cooperative printing of Thai Ltd.
3. Raksanam, B., Taneepanichskul, S., Robson, M. G. & Siriwong, W. (2014). Health risk behaviors associated with agrochemical exposure among rice farmers in a rural community, Thailand: a Community-based ethnography. *Asia-Pacific Journal of Public Health*, 26(6), 588-595.
4. Siriphanich, S. (2013). Situation and Health Effects Related to Pesticides, 2013. *Weekly Epidemiological Surveillance Report*, 44(44), 689-692.
5. Thepphukhieo, S. & Daenseekaew, S. (2013). Community participation in chemical pesticides prevention for flowers planting and garland making. *Journal of Nurses' Association of Thailand, North-Eastern division*, 31(1). 80-89.
6. Tritipsombut, J., Gabklang, P., Boonkerd, S. & Oapsuwan, A. (2014). The study of knowledge attitudes and pesticide usage behaviors among the agricultural workers at Huay sam kha village, Tub ruang sub-district, Phra thong kum district, Nakhon Ratchasima province. *Srinagarind Medical Journal*, 29(5), 429-434.
7. World Health Organization. (2004). *Guidelines on the prevention of toxic exposure*. N.P.: World Health Organization in collaboration with the United Nations Environment Programme and the International Labour Organization.

Contact

sukanda9388@gmail.com

Q 15 - Smoking Cessation Interventions

Effect of RCT Testing on a CBPR-Developed Cessation Intervention for Culturally Diverse, Low Socioeconomic Women

Jeannette Andrews, PhD, RN, FAAN, USA

Martina Mueller, PhD, RN, USA

Susan Newman, PhD, RN, CRRN, USA

Gayenell S. Magwood, PhD, RN, FAAN, USA

Karen Kane McDonnell, PhD, MSN, RN, OCN, USA

Janie Heath, PhD, RN, FAAN, USA

Martha S. Tingen, PhD, RN, FAAN, USA

Abstract

Purpose: There are an estimated 4.8 million households living in US government subsidized housing, with the majority of these households led by single African American women. The smoking prevalence of African American women in US subsidized housing neighborhoods is two to three times higher than the African American women in the general population (40-60 % vs. 19 %). The convergence of individual, social, and neighborhood factors for women in subsidized housing creates an environment in which smoking is a social norm.

The purpose of this presentation is three fold: 1) to describe the effect of a recently conducted, CBPR developed, multi-level smoking cessation intervention among African American women living in subsidized housing neighborhoods in the Southeastern US; 2) to compare the results of this randomized controlled trial (RCT) with previous pilot work with these underserved, high-risk communities; and, 3) to analyze the barriers and challenges of sustaining relationships and research efforts with culturally diverse, low-socioeconomic communities over 15 years, scaling up CBPR pilot studies to randomized controlled trials, and social and environmental barriers with communities burdened with fiscal, environmental and social inequities.

Methods: For the recently conducted RCT, a total of n = 409 women in 14 subsidized housing neighborhoods in two Southeastern US states were enrolled in a group randomized controlled trial. Government subsidized neighborhoods (e.g., public housing and Section 8) were included that had at least 100 households in a clustered site and that had not been used in previous studies. Of the 34 subsidized housing neighborhoods in these two regions, the study was implemented in the 14 neighborhoods that met eligibility. Seven matched pairs were formed of the 14 subsidized neighborhoods based on size and geographical location and randomly assigned one neighborhood in each pair to either the treatment condition (*Sister to Sister*) or a delayed control condition. Neighborhoods included in the study ranged in size from 100 to 352 households, with 27-32 participants enrolled in each neighborhood. Intervention neighborhoods received a 24-week multi-level intervention (AKA *Sister to Sister*).

Women in neighborhoods randomized to the *Sister to Sister* intervention received individual, peer group, and neighborhood level strategies. Individual-led strategies were led by paid community health workers (termed “coaches” in the field). The community health workers provided 1:1 contact with participants to reinforce educational content and behavioral strategies from the group sessions, social support with the quitting process, and enhanced self-efficacy with cessation attempts. The community health workers met with participants’ in their homes or a designated place in the neighborhood (i.e., community center) weekly for 12 weeks, every other week for 4 weeks, and every 4 weeks for 8 weeks. A certified smoking cessation counselor led behavioral group sessions in each intervention neighborhood using the *Sister to Sister* handbook based on the Public Health Service Guidelines. The weekly group sessions were initiated during the 1st week of the intervention, with a total of 6 group sessions over a 6-week period. An 8-week supply of transdermal nicotine patches were offered to participants who set a quit date (targeted at week 2 of the intervention) with weekly to bi-weekly supplies administered after the group sessions. Within the 24-week study period, the neighborhood tenant association, in partnership with study staff, implemented at least two neighborhood level anti-smoking activities, such as a memory walk for family members who died from smoking-related illnesses, neighborhood health fair, and/or neighborhood

cookout with anti-tobacco educational handouts. Control neighborhoods received written cessation materials at weeks 1, 6, 12, 18 and a delayed intervention after the 12 month data collection. The primary outcome evaluated in the study was biochemically verified 7-day point prevalence abstinence from smoking assessed at 6 and 12 months.

For the longitudinal analyses, random coefficient models were used to account for the group-randomized trial design.

The previous pilot study conducted 6-8 years earlier, used a quasi-experimental design, with a similarly designed, multi-level intervention (AKA Sister to Sister). A total of 103 women from 2 neighborhoods completed this intervention study. Process evaluation, focus group data, and researcher/community feedback informed barriers and challenges and lessons learned over this 15 year period.

Results: In both the RCT and the investigators' previous pilot work, recruitment and retention (> 90%) goals for participants were met. In the RCT, approximately 86 % of the sample were African American, 34 % had not completed high school or equivalency, and 78 % reported household incomes less than \$20,000/year. At baseline, women, on average, smoked 12.7 cigarettes per day. Although 12 month smoking cessation outcomes in the RCT (12% vs. 5.3%, $p=0.016$; intervention vs. control) were similar to other biochemically validated outcome studies by other investigators in similar communities, the cessation outcomes were lower than the previous pilot study (39 % vs. 11.5 %, $p=0.008$; intervention vs. control) conducted by this investigative team. In both the pilot and RCT, intervention participants who kept community health worker visits, attended group sessions, and used nicotine patches were more likely to remain abstinent from smoking.

There were two major differences observed in the pilot and the larger, scaled RCT: time in the neighborhood and readiness of neighborhoods.

Conclusion: A CBPR developed study with culturally diverse women in subsidized housing showed promise with recruitment and retention in a large randomized controlled trial. While the cessation outcomes were less promising than previous pilot studies conducted by our team, women made serious quit attempts, quit smoking and/or reduced daily smoking over the study period. This landmark study demonstrated the benefits of a CBPR approach to reach, recruit, and engage this highly vulnerable population, however, effectiveness in promoting lifestyle behavior change in environments burdened with poverty and social inequities remain a challenge. Investigators, community partners, and especially funders, must consider and ultimately support the time and resources necessary for the processes of building relationships, trust, and co-ownership with marginalized, culturally diverse groups. Further, as a society, addressing the social determinants of health continue to be a priority in promoting behavior change with these high-risk communities.

References

- Andrews JO, Mueller M, Magwood GS, Newman SD, Dooley M, Tingen MS. (2016). Effect of a smoking cessation intervention for women in subsidized housing neighborhoods: a randomized controlled trial. *Preventive Medicine*, 90, 170-176.
- Andrews JO, Mueller M, Newman SD, Magwood G, Ahluwalia JS, White K, Tingen MS. (2014). The Association of Individual and Neighborhood Social Cohesion, Stressors and Crime on Smoking Status among African American Women in Southeastern US Subsidized Housing Neighborhoods. *Journal of Urban Health*. 9 (6): 1158-1174.
- Andrews JO, Newman SD, Heath J, Williams L, Tingen MS. (2012). Community based participatory research and smoking cessation interventions: A review of the evidence. *Nursing Clinics of North America*, 47(1): 81-96.
- Andrews JO, Tingen MS, Jarriel SC, Caleb M, Simmons A, Brunson J, Mueller M, Ahluwalia J, Newman SD, Cox MJ, Magwood G, Hurman C. (2012). Application of a CBPR framework to inform a multi-level cessation intervention in public housing neighborhoods. *American Journal of Community Psychology*. 50(1-2):129-40.
- Andrews JO, Felton G, Wewers M, Waller J, & Tingen M. (2007). The effect of a multi-component smoking cessation intervention with African American women in public housing neighborhoods. *Research in Nursing & Health*, 30:1, 45-60.
- Andrews JO, Bentley G, Crawford S, Pretlow L, Tingen M. (2007). Using community based participatory research to develop a culturally sensitive smoking cessation intervention for African Americans in Public Housing Neighborhoods. *Ethnicity & Disease*, 17, 331-337.

Contact

j.andrews@sc.edu

Q 15 - Smoking Cessation Interventions

Tribal College Students' Access to and Use of Mobile Communication and Technology for Health Information

Jo Ann Walsh Dotson, PhD, MSN, RN, USA
Lonnie A. Nelson, PhD, USA

Abstract

Purpose: The purpose of this study was to assess the availability and use of cell phones for health education and promotion purposes in two tribal college communities in Montana. The study was completed in preparation for an intervention study examining the effectiveness of a text message delivered tobacco cessation program for tribal college students. The text messaging program was a modification of a successful program developed and implemented in New Zealand (Rodgers et al., 2005). Mobile communications technology is increasingly used for health education and promotion and as a mechanism to support healthy activities. In 2014 it was reported that 90% of the population in the U.S. have cell phones ("Mobile Technology Fact Sheet," 2014). Undergraduate college students in the U.S. are among the most "connected" worldwide, with 92% owning personal laptops and/or cell phones and 98% having internet access (Smith, Rainie, & Zickuhr, 2011). There is limited data about the availability of cell phones and networks in Indian Country and the acceptability of electronic media for health promotion purposes by American Indian college students.

Methods: This project was designed as a descriptive study. The research universities and tribal colleges' Institutional Review Boards determined to study to be exempt. The inclusion criteria were that participants had to be self-reported American Indian, at least a part time student at the TCU and 18 years of age or greater. The twenty two multiple choice questions queried respondents regarding their access to, use of, and preferences regarding cell phone use for health education and promotion purposes. Participants were recruited at the tribal college by student workers and researchers. Participants were given \$10 after completion of the survey. 200 paper/pencil surveys were gathered from two tribal college sites.

Results: Approximately 36% of tribal college students reported smoking. The mean age for tobacco use initiation was 15.7 years, with a range of 8 – 30 years. 98% of students had access to a computer, although less than 60% had access every day. 91% had a cell phone, but not all had unlimited text. Half of the respondents stated they would be interested in participating in a smoking cessation study using cell phones. Variations in characteristics of students and responses was assessed by RUCA code and statistically significant differences identified. Results of the surveys were reviewed and approved by tribal college presidents.

Conclusion: Tobacco use in rural and tribal communities continues to be high, making the development of tobacco cessation strategies that can effectively reach rural populations a priority. Students at tribal colleges in rural settings had less access to mobile communications and technology than students in universities and community colleges. Internet and cellphone use and access varies based on system infrastructure and community placement. Effective development and deployment of health education and promotion requires knowledge of the access to and acceptability of content by priority users.

References

- Cobb, N., Espey, D., & King, J. (2014). Health Behaviors and Risk Factors Among American Indians and Alaska Natives, 2000-2010. *American Journal of Public Health*(Supplement 3), S481-S489. doi:10.2105/AJPH.2014.301879
- Sampson, A., Bhoohibhoya, A., Digeralamo, D., & Branscum, P. (2015). The Use of Text Messaging for Smoking Cessation and Relapse Prevention: A Systematic Review of Evidence. *Journal of Smoking Cessation*, 10(1), 50-58. doi:10.1017/jsc.2013.36
- Whittaker, R., McRobbie, H., Bullen, C., Borland, R., Rodgers, A., & Gu, Y. (2012). Mobile phone-based interventions for smoking cessation. *The Cochrane Database Of Systematic Reviews*, 11. doi:10.1002/14651858.CD006611.pub3

Contact

joann.dotson@wsu.edu

Q 16 - Technology and Learning Strategies

Active Learning Strategies for Course Enhancement: Monitoring Adverse Event Reporting in Twitter

Janet Thornton, PhD, MS, RN, USA

Abstract

Purpose: Adverse drug event surveillance systems suffer from under-reporting and lags in data-processing (Freifeld et al., 2014). Meanwhile, patients are using Twitter social media to describe adverse drug events, real-time (Bian, Topaloglu, & Yu, 2012). Nursing students with limited clinical experience learn about real-world drug use and side effects from Twitter postings, while learning common pitfalls encountered when working with data. The purpose of this pre-test/post-test experimental study was to evaluate the impact of active learning strategies designed to appeal to six student learning styles: competitive, collaborative, avoidant, participant, dependent, and independent.

Scientific advances, new technologies, and volumes of big data are strong forces influencing the role of nurses, calling for new ways of thinking and teaching. Innovative educational models are needed to prepare safe, beginning practitioners to provide evidence-based care in a complex, rapidly changing healthcare environment. Broad-based skill sets are needed as advances in science and technology continue to emerge. In this Foundations of Research & Evidence Based Practice [EBP] undergraduate course, students learn principles of the research process and gain foundational competencies for EBP, as described by Melnyk & Fineout-Overholt (2015). Using a flipped classroom approach, students apply principles of the research process by comparing Federal Adverse Event Reporting System [FAERS] data and Twitter posts, reinforcing knowledge being learned in a patho-pharmacology course where they are concurrently enrolled.

Methods: Sophomore undergraduate students (N=65) enrolled in this course completed the 60-item Grasha-Riechmann Student Learning Styles Survey to identify the most and least preferred student learning styles. During week 1, a general (Pre-test) scale was used to assess attitudes and feelings toward courses taken up to that point in college. During week 14, students were instructed to assess attitudes and feelings toward the current course after exposure to active learning activities, using a specific (post-test) scale. Students were asked to use a 5-point Likert scale to rate attitudes and feelings (e.g., 1=strongly disagree; 5=strongly agree). Paired sample t-tests were used to compare the mean scores. Cohen's d was calculated to magnitude of the intervention's effect on six learning styles. Students collaborate in groups to create a basic research question involving a drug, evaluate the level of concordance between Twitter posts mentioning adverse events and reports received by the U.S. Food & Drug Administration Adverse Event Reporting System (FAERS) and generate a visual display of data (e.g. bar chart). They conduct a modified integrative review of literature and create a professional poster. Posters are displayed at the School of Nursing; faculty members vote on best posters. The winning group(s) are awarded a ribbon and invited to submit abstracts to present their poster at the College of HHS Student Research Day. Mined Twitter data was compared to data available in the FAERS dataset, to determine if events found on Twitter were consistent with adverse events reported in FAERS. At week 14, they were asked to answer three questions: *what I learned*, *what I most enjoyed in this class*, and *what I would do differently if I took this course again*. Professional posters were developed from an integrative literature review drawn from the PICOT question, following tips for better visual elements in posters and podium presentations .

Results: The average time taken to complete this electronic survey was 5.8 minutes. There were statistically significant decreases on the *Independent*, *Dependent*, *Competitive*, and *Participant Style* scores. The Independent Style results were: Time 1 (M=3.38, SD=0.36), Time 2 (M=3.21, SD=0.41), $t = 2.22$ (63 df), $p < .05$; Cohen's d (0.42) indicating a moderate effect size. Dependent Style results were Time 1 (M=3.81, SD= 0.35), Time 2 (M=3.61, SD=0.34), $t=3.46$ (60 df), $p<.001$; Cohen's d (0.57), indicating a large effect size. Competitive Style results were: Time 1 (M=2.66, SD=0.50), Time 2 (M=2.43, SD=0.53), $t=2.34$ (60 df), $p<.05$; Cohen's d (0.43) indicated a moderate effect size, and Participant Style results were: Time 1 (M=3.96, SD= 0.38), Time 2 (M=3.75, SD=0.44), $t=2.63$ (62 df), $p<.05$; Cohen's d

(0.50), indicating a large effect size. There was a statistically significant increase on the *Avoidant Style* score as follows: Time 1: (M=2.56, SD=0.54), Time 2 (M=2.87, SD=0.58), $t = -3.17$ (60 df), $p < .05$; Cohen's d (-0.56) indicating a large negative effect size. No significant differences were noted for the *Collaborative Style* of learning.

Key themes emerging from the question *What I learned* were: drug adverse events on Twitter are not always the same as those reported in the FAERS data, importance of teamwork, professionalism, and time management, and new skills (APA formatting, Excel, Zotero, One-Drive, Microsoft online, using GroupMe for communications, conducting literature searches, mining databases). *What I most enjoyed*: learning the importance of EBP in nursing and how it will help me in my role as a professional nurse, working in small groups, flipped classroom and active learning methods (as opposed to lectures), trying out new software, creating a professional poster. *What I would do differently*: change or revise my PICOT question, proofread for details, follow instructions more closely, time management skills, delegation in groups, read more of the assigned readings, start sooner to create the poster and literature tables.

Conclusion: Findings from this study have clear implications for nursing faculty who desire to try active learning strategies in the classroom and are ideally suited to those teaching evidence based practice courses. The cost-effective active learning techniques used in this course were designed to help students to become savvy consumers of research, while improving student engagement and satisfaction. Skills learned in this course may be transferred into subsequent courses (e.g. Leadership & Management), serving as a foundation for higher level coursework. Posters can be presented at upcoming university Undergraduate Research Event, showcasing what nursing students are learning. Students found the projects meaningful, interesting, and of importance for their future role as professional nurses and meeting graduate-level expectations. Using Twitter, the publicly available FAERS dataset (which also includes international event reporting), and working in group projects was a popular way to reinforce knowledge needed by nurses around the world (e.g., teamwork, delegation, basic data analysis, awareness of consumer issues, time management, awareness of adverse events, including off-label use of drugs).

References

- Bian, J., Topaloglu, U., & Yu, F. (2012). Towards large scale twitter mining for drug-related adverse events. *Smart Health & Well-Being*, 25-32. Doi [10.1145/2389707.2389713](https://doi.org/10.1145/2389707.2389713)
- Freifeld, C.C., Brownstein, J.S., Menone, C.M., Bao, W., Filice, R., Kass-Hout, T., & Dasgupta, N. (2014). Digital drug safety surveillance: Monitoring pharmaceutical products in Twitter. *Drug Safety*, 37, 343-350. DOI 10.1007/s40264-014-0155-x.
- Melnik, B.M. & Fineout-Overholt, E. (2015). *Evidence based practice in nursing and healthcare: A guide to best practice* (3rd ed). Philadelphia: Wolters-Kluwer.

Contact

jthorlto@purdue.edu

Q 16 - Technology and Learning Strategies

Using the "Kahoot.it" Game to Enhance Undergraduate Nursing Students' Learning

Jane M. Kurz, PhD, RN, USA

Frances Kinder, PhD, RN, CPNP, USA

Abstract

Gaming wasn't formally included in nursing education until 75 years ago as an alternative to the traditional lecture method. Today, games as pedagogical platforms are becoming more popular in all areas of education.. These strategies engage the learner in a stimulating manner, appeal to many, and support learning. Individuals of different abilities can play together emphasizing participants' strengths. Feedback is immediate. Group cohesiveness can develop as a result of peer cooperation and team interactions. Nevertheless, educators might be inclined not to use games for a variety of reasons. They tend to be noisy, chaotic and less controllable than lecture presentations. Producing a game and planning for potential problems is time-consuming and labor-intensive. There are articles that describe various games that an educator could use (Bessinger, 2015). However, there has been little research that lends support for game use in improving students' knowledge level. One might ask the research question is: do undergraduate nursing students exposed to gaming in a nursing course have higher final exam scores than students who were not exposed to gaming. Although there are articles that describe various games, there are very few articles that provide empirical evidence to support use of games in the classroom (Davidson & Candy, 2016) . This quasi-experimental study addressed that gap.

Purpose: The purpose of this study was to explore if the "kahoot.it " game was associated with improved final exam scores with undergraduate nursing students. Kahoot.it is a free platform for learning that is engaging and fun. Players answer questions which are created by the faculty. They answer on their own devices and the lesson is shared on a screen in the classroom. Feedback is instant and the game is very competitive. Students can play in teams or as individuals. Adult Learning Theory provided the theoretical foundation for the use of gaming as a teaching strategy (Curran, 2014).

Methods: All 77 senior baccalaureate program students were enrolled in the required 15-week UG Nursing care of Children and Adolescent course. Students ranged in age from 20 to 22 years. All received the same lecture and class discussions but the research group (N=37) played Kahoot.it game in four 20 minute sessions during the semester. The control group (N=40) had no games during their classes. All students had the same final exam at the end of the semester.

Results: Independent t-tests showed that the research group had higher test scores. ($t=4.75$, $p=.01$) than the control group.

Conclusion: This study provided empirical evidence that gaming did make a significant difference in exam scores at the end of the course. Educators should incorporate this game strategy into their planned teaching modalities. Researchers should repeat this study with larger groups of students and test the number of games that need to be played within a single course to influence exam scores.

References

- Bessinger, H. (2015). Critical Thinking challenge games and teaching outside of the box. *Nurse Educator*, 40 (2), 57-58.
- Curran, M. (2014). Examination of the teaching styles of nursing professional development specialists, Part I: Best practices in Adult Learning Theory, curriculum, and knowledge transfer. *The Journal of Continuing Education*, 45(5), 233-242.
- Davidson, S., & Candy, L. (2016). Teaching EBP using game-based learning: Improving the student experience. *Worldviews on Evidence-based Nursing*, 13 (4), 285-293.

Contact

kinder93@lasalle.edu

Q 17 - Theory Into Practice

Factors Influencing Undergraduate Students' Intention to Use Evidence-Based Practice (EBP) After Graduation

Mary-Anne Ramis, MPhil, BN, RN, AFHEA, MACN, Australia

Anne M. Chang, PhD, RN, FRCNA, Australia

Lisa Nissen, PhD, BPharm, AdvPracPharm, FPS, FHKAPh, FSHP, Australia

Abstract

Purpose: EBP education has historically been aimed at teaching EBP knowledge and skills to health professionals to effect a change in clinical behaviour (Young, Rohwer, Volmink, & Clarke, 2014), however, professional registration criteria in nursing and across many health disciplines now requires undergraduate students to be competent and capable of incorporating EBP into their clinical practice upon graduation (Bloom, Olinzock, Radjenovic, & Trice, 2013; Melnyk, 2013; Tilson et al., 2011). Despite this mandate, little research has been undertaken to identify factors which are influential toward student's uptake of EBP in their respective clinical environments. Using Bandura's self-efficacy construct (Bandura, 2012) as a framework, this research aimed to develop and test a model of factors influencing undergraduate health student's intention to use EBP following graduation.

Methods: Variables for inclusion in the model were determined from the theory, current literature and a systematic review of modeling studies predicting student intention to use EBP following graduation. A protocol for the systematic review was registered on the PROSPERO International Prospective Register of Systematic reviews (ID number: CRD42015029263). For the second stage of the research, data were collected via online survey from second year nursing and paramedicine students using validated measurement scales for each variable, to fit the hypothesised model. Structural equation modelling using path analysis methods were used to identify relationships between the dependant and outcome variables.

Results: Variables of student EBP self-efficacy, sources of EBP self-efficacy, EBP beliefs, EBP outcome expectancy and EBP use were found to be correlated to the outcome variable of intention to use EBP and subsequently were included in the model. Data from the first episode of data collection were entered into the modelling software however, the initial model was a poor fit for the data. After modification according to the parameters as suggested from the initial analysis report, the model was tested again using Maximum Likelihood analysis. The model fit indices (Blunch, 2012) for the modified model indicated a good fit ($\chi^2 = 9.04$, $df = 6$, $p = 0.171$; $GFI = 0.982$; $AGFI = 0.936$; $Standardized\ RMR = 0.0451$; $RMSEA = 0.046$), identifying undergraduate health student's intention to use EBP as being directly influenced by EBP beliefs, with the overall model identifying 25 % of variance of intention to use EBP.

Conclusion: Positive attitudes and beliefs that EBP is relevant and beneficial impact significantly on student's intention to use EBP, which has particular relevance to EBP educators. A high correlation between EBP expected outcomes and EBP self-efficacy was identified suggesting students do expect improved outcomes for the steps of the EBP process, however, this did not directly influence their intention to use EBP. Further research will be conducted to validate the model with a separate cohort of undergraduate students as well as further analysis of factors' influencing health undergraduate's current use of EBP.

References

- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9-44.
- Bloom, K. C., Olinzock, B. J., Radjenovic, D., & Trice, L. B. (2013). Leveling EBP Content for Undergraduate Nursing Students. *Journal of Professional Nursing*, 29(4), 217-224. doi: <http://dx.doi.org/10.1016/j.profnurs.2012.05.015>
- Blunch, N. (2012). *Introduction to structural equation modeling using IBM SPSS statistics and AMOS*: Sage.
- Melnyk, B. M. (2013). Educational Programming in Undergraduate and Graduate Academic Curricula: Friend or Foe to Accelerating Evidence-Based Practice? *Worldviews on Evidence-Based Nursing*, 10(4), 185-186.
- Tilson, J., Kaplan, S. L., Harris, J. L., Hutchinson, A., Ilic, D., Niederman, R., . . . Zwolsman, S. E. (2011). Sicily statement on classification and development of evidence-based practice learning assessment tools. *BMC Medical Education*, 11(1), 78.

Young, T., Rohwer, A., Volmink, J., & Clarke, M. (2014). What Are the Effects of Teaching Evidence-Based Health Care (EBHC)? Overview of Systematic Reviews. *PLOS ONE*, 9(1), e86706.

Contact

m.ramis@qut.edu.au

Q 17 - Theory Into Practice

Strategies to Promote Student Publication in an Evidence-Based Practice Course

Margaret Harvey, PhD, APRN, ACNP-BC, USA

Abstract

Purpose: The purpose of this session is describe innovative teaching strategies used to enhance student manuscript preparation, submission, and publication of scholarly work completed during an EBP course.

Methods: Students enrolled in a graduate, evidence based practice course completed a pretest/post-test survey assessing their knowledge, skills, and attitudes regarding various teaching strategies designed to enhance student scholarship and manuscript preparation. Students were assigned to work in small groups based on their clinical practice area and develop a relevant PICOT question. Keywords were identified, appropriate databases were queried, and articles meeting selected criteria were critically appraised. Students registered for the free web based citation manager and imported all selected references to their respective group folders. Once an appropriate journal was selected, students prepared a systematic review using the specified submission guidelines for that journal. The course faculty mentored each group, reviewed, edited, and submitted the manuscript as the corresponding author. Students also submitted an abstract of their findings as a group poster presentation to a selected national conference.

Results: A 12 item survey was developed to assess the knowledge, skills, and attitudes of student's attitudes toward scholarship and ability to prepare and submit a manuscript based on a clinically relevant PICOT question. The tool was found to have a moderate degree of internal consistency with a Cronbach alpha 0.76. Seven of the 12 survey items addressing student confidence in appraising the literature, effective team work, and ability to translate research in to evidence based protocols were statistically significant (Paired t test, $p < 0.05$) There was no difference in scores related to future plans to submit posters and manuscripts or improved ability in using the web based citation manager. Of the seven manuscripts, five were submitted for publication, two were rejected, two were accepted for publication with minor revisions and one was accepted pending major revisions. All of the abstracts were accepted by national conferences for poster presentation.

Conclusions: Employing a small group approach with faculty guidance can enhance student manuscript preparation and publication. There were some technical issues with the web based citation manager that limited its usefulness. Major obstacles were found during the revision process for those manuscripts originally accepted due to time restraints and faculty work load issues. Submitting only one exemplar manuscript for publication and focusing on poster development and presentation is a more strategic and effective learning strategy in this setting.

References

AACN. (2011). *The essentials of master's education in nursing*. Retrieved from <http://www.aacn.nche.edu/education-resources/MastersEssentials11.pdf>

IOM (2010). *The future of nursing: Leading change advancing care*. Retrieved from <http://www.nationalacademies.org/hmd/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx>

Jackson, et al (2014). *Small group learning: Graduate health students' views of challenges and benefits*. Contemporary Nurse. A journal for the Australian Nurse Profession, 48 (1), 117- 128. doi. 10.5172/conu2014.48.1.117

Melnyk, B.M. & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing and healthcare*. 3rd edition. Philadelphia: Lippincott Williams & Wilkins. ISBN 978-1451190946

Winters, C. A., & Echeverri, R. (2012). Academic Education. Teaching Strategies to Support Evidence-Based Practice. *Critical Care Nurse*, 32(3), 49-54 46p. doi:10.4037/ccn2012159

Contact

mharvey@uthsc.edu

R 02 - Experiences of Pregnant Women

Improving Care of High-Risk Obstetrics Patients By Creating an Evidence-Based Nurse-Driven Process

Holly A. Barbella, MSN, MBA, RN, USA

Grant C. Walter, BS, BS, USA

Ann F. McFadden, BSN, RN, USA

Abstract

Preterm birth complicates one out of every eight pregnancies in the US. A rural health system in north central Pennsylvania wanted to evaluate the most effective treatment modalities in trying to reduce preterm births. A collaborative interdisciplinary healthcare team, under nursing leadership was created to explore options. One additional aspect was the lack of process when identifying eligible high risk patients who might be eligible for intervention/treatment.

An evidence based practice (EBP) project utilizing the John's Hopkins Model of EBP was initiated. The goal of the project was to evaluate the overall effectiveness of 17-P (an injectable progesterone medication initiated between 16-20 weeks' gestation and given weekly until 37 weeks) as well as which high risk obstetric patients should receive the medication and its effectiveness at difference stages of the pregnancy. In addition, the project evaluated how to best reduce delays in treatment initiation. Literature was evaluated, specifically considering articles and publications that referred to clinical guidelines, clinical trials, medication information, and committee/expert opinions. All research articles and literature were evaluated per the Hopkin's Model. **Results** demonstrated that use of 17-P does reduce preterm deliveries in varying degrees depending on gestational age of initiation and patient medical history. Additionally, the EBP project confirmed patient eligibility criteria included prior spontaneous, preterm, singleton delivery.

Based on results from the EBP project, the nurse led collaborative team was continued and the following additional goals were developed: administer 17-P at 16 weeks, educate staff and patients as to the benefits of 17-P and streamline a nurse driven process utilizing the Electronic Medical Record (EMR). Three screening questions were developed incorporating recommendations from findings identified from the EBP project and embedded in the EMR. The process also included nurses screening all new obstetric patients with the questions at the initial new OB visit. If the screening questions identified an eligible patient, providers then received an electronic notification alerting them of an at risk patient in order to provide counseling, order the 17-P and begin the precertification process for insurance. Staff communication, the development of staff and patient education, use of team meeting updates, and formal Grand Rounds were utilized.

To evaluate the patient identification process (nurses completing the screening questions) a monthly report was created. The report showed screening compliance by each department and was distributed to the nursing and leadership staff for evaluation. This feedback was marginally successful - raising overall system compliance from 40% to over 60%. It was determined that more targeted data was needed, and a report was additionally developed that provided individual nurse compliance with the screening process. This report was also electronically distributed on a monthly basis. Step by step instruction of how to properly perform and document the screening questions was also included as process reinforcement. Process compliance dramatically increased from 60% to over 85% in only a few short months.

In addition to screening compliance, initial injection data for eligible patients was also tracked. Before a screening process was created, the average gestational age for the first injection was 22.5 weeks, which was well over the recommendation of 16-20 weeks. Administration data from the latest quarter in 2016 shows the average initiation is now at 17.5 weeks' gestation.

During reflection of the entire EBP project, the need for standardized work processes that are reliable across large service areas and multiple practices was recognized as the key for the improvement in outcomes. Transparent data shared regularly that were attributable to individuals provides a driving force

for increased compliance. In addition, recognizing high performers and sharing success stories with other teams empowered team members to remain focused on improving patient outcomes.

The poster or oral presentation will explain the EBP project and results, the electronic and process improvements, details of education accomplished, graphs showing interventions and follow-up, and how other nurses/healthcare facilities could integrate the same project.

References

Baha, C.M., Istwan, N.B., Palmer, B. & Stanziano, G. (2012). Pregnancy outcomes of women receiving compounded 17 α -hydroxyprogesterone caproate for prophylactic prevention of preterm birth 2004 to 2011. *American Journal of Perinatology*, 29, 635-642.

Gupta, S. & Roman, A. (2012). 17- α hydroxyprogesterone caproate for the prevention of preterm birth. *Women's Health*, 8(1), 21-30.

How, H.Y., Barton, J.R., Istwan, N. B., Rhea, D.J & Stanziano, G.J. (2007) Prophylaxis with 17 alpha-hydroxyprogesterone caproate for prevention of recurrent preterm delivery: does gestational age at initiation of treatment matter? *American Journal of Obstetrics and Gynecology*, 197, 260 e1-260 e4.

Contact

habarbella@geisinger.edu

R 02 - Experiences of Pregnant Women Differences Between Chinese and American Women and Their Experience of Stress Urinary Incontinence in Pregnancy

Jinguo Helen Zhai, MSN, RN, RM, China
Lynda A. Tyer-Viola, PhD, RNC, FAAN, USA
Joseph Hagan, PhD, USA

Abstract

Purpose: Stress urinary incontinence (SUI) is a common health problem for childbearing women with a prevalence rate that varies between 30-60% (Fozzatti et al., 2012). Although known to be prevalent in women during pregnancy and postpartum, urinary incontinence is associated more with women during the menopausal stage of life. Urinary incontinence can create health problems such as chronic skin breakdown and urinary tract infections as well as social isolation and decreased physical activity (Gandheri & Oskouei, 2014). Recognizing the presence and significance of SUI during pregnancy may be key to preventing exacerbation of SUI later in life. The lack of understanding of the relationship between pregnancy related SUI and its effect throughout the life span may affect long term quality of life. Due to the social stigma of the problem, nurses are uniquely positioned to care for these women. The health system can either provide support or be seen as a barrier to women expressing this care concern. Examination of SUI in a multi ethnic population of pregnant women cared for in the same health system revealed significant differences related to ethnicity (Bo, Oglund, Sletner, Morkrid, & Jennum, 2012). How SUI is perceived by different ethnic groups of women, cared for in two unique health care systems has not been explored. Treatment options require engagement with an array of health professionals such as a nurse, physical therapist, and/or behavioral health provider. Treatment can include medication, physiotherapy, and lifestyle behavioral therapy combinations (Ghaderi & Oskouei, 2014). The choice of treatment may be guided by culture and healthcare system beliefs. The purpose of this study is to explore the experience of severity of stress urinary incontinence during pregnancy, its prevalence and associated risk factors, acceptance of treatment options and its effect on quality of life.

Methods: A descriptive cross sectional design was used at two care sites: Guangzhou China and Houston Texas. A total of 356 postpartum women in China and the United States of America (USA) responded to an in person survey between September 2014 to September 2016. Primigravida women were enrolled during the postpartum period to assess their perceptions of SUI during their index pregnancy. One researcher collected data in both sites. All women completed a short demographic survey and two known validated measures: The Incontinence Impact Questionnaire (IIQ) and the International Consultation on Incontinence Questionnaire Short Form (ICIQ-SF).

Results: There were significant differences in demographics between the two groups. American women had less health problems prior to pregnancy ($p = .01$) and had higher education ($p = .00$) whereas more Chinese women were married ($p < .001$) and worked outside the home ($p = .00$). American women rated their state of health postpartum significantly greater than Chinese women ($p = .00$). Overall, 37% of women experienced urinary incontinence with Chinese women having experienced more incontinence than American women ($p = .0001$). More Chinese women experienced an episiotomy than American women. More women in China would consider prevention and treatment during pregnancy ($p < .0001$). Chinese and American women both exercised before and during pregnancy with differences noted related to time and intensity ($p < .001$). There are significant differences between acceptable prevention and treatment interventions ($p = .00$). All women would welcome pelvic floor conditioning with few opting for medication or surgery. There are no differences between Chinese ($M = 1.22$ $SD = 0.58$) and American ($M = 1.23$, $SD = 0.72$) women between the ICIQ-SF scores. There were significant differences related to the IIQ impact of incontinence on quality of life measure ($p = .001$).

Conclusion: There are significant differences between Chinese and American women related to prevalence, the presence of the risk factors and acceptable prevention and treatment interventions. Matching women's beliefs and understanding with acceptable treatment in relationship with the culture of

the society and health care system, may improve care over time. Nurses in both cultures are viewed as supportive care providers that could assist with prevention and care for women who experience SUI.

References

- American College of Urogynecologic & Gynecologists. (2014). Committee Opinion: Evaluation of Uncomplicated Stress Urinary Incontinence in Women Before Surgical Treatment. *Female Pelvic Medicine & Reconstructive Surgery*, 20(5), 248-251. doi: 10.1097/SPV.0000000000000113
- Bo, K., Oglund, G., Sletner, L., Morkrid, K., & Jenum, A. (2012). The prevalence of urinary incontinence in pregnancy among a multi-ethnic population resident in Norway *BJOG: An International Journal of Obstetrics & Gynaecology*, 119, 1354-1360. doi: 10.1111/j.1471-0528.2012.03435.x
- Fozzatti, C., Ricetto, C., Herrmann, V., Brancalion, M. F., Raimondi, M., Nascif, C. H., . . . Palma, P. P. (2012). Prevalence study of stress urinary incontinence in women who perform high-impact exercises. *International Urogynecology Journal*, 23(12), 1687-1691. doi: 10.1007/s00192-012-1786-z
- Ghaderi, F., & Oskouei, A. E. (2014). Physiotherapy for women with stress urinary incontinence: a review article. *Journal of physical therapy science*, 26(9), 1493-1499. doi: 10.1589/jpts.26.1493

Contact

latyervi@texaschildrens.org

R 02 - Experiences of Pregnant Women

Experiences of Women With Physical Disabilities Related to Pregnancy

Suzanne C. Smeltzer, EdD, MS, RN, ANEF, FAAN, USA

Monika Mitra, PhD, MA, USA

Lisa I. Iezzoni, MD, MSc, USA

Linda Long-Bellil, PhD, JD, USA

Lauren D. Smith, MPH, BS, USA

Abstract

Purpose: The purpose of this IRB-approved study was to explore the pregnancy-related experiences of women with physical disabilities by obtaining their descriptions and perceptions of their experiences during the perinatal period as well as their recommendations for obstetric clinicians to improve perinatal care of women with physical disabilities. This study is significant because generations of women with disabilities have experienced barriers to health care, including in accessible offices, problematic interactions with health care providers and negative responses related to pregnancy and childbearing from health care professionals and others (Iezzoni, Wint, Smeltzer & Ecker, 2015; Mitra, Long-Bellil, Smeltzer, & Iezzoni, 2015).

Methods: This qualitative descriptive study (Colorafi & Evans, 2016), which is part of a larger mixed-method study of pregnancy-related experiences of women with physical disabilities, was conducted through telephone interview. Women with physical disabilities were recruited for the study through a variety of social media sites and contacts with community-based disability organizations. Thirty-one women responded to the invitation to participate. Following screening, 25 women who met the inclusion criteria of having delivered a newborn within the last 10 years, having a mobility limitation, and being between the ages of 21 and 55 at the time of the study were interviewed by phone.

Individual interviews were conducted by two members of the research team using a semi-structured interview guide based on literature, a preliminary focus group, and the results of the researchers' previous research and experience working with women with disabilities. Among other topics related to perinatal experiences, women were asked about their interactions with obstetric clinicians (obstetricians, nurse midwives, nurse practitioners, nurses) during pregnancy; they were also asked for recommendations for clinicians about how to ensure positive perinatal experiences for women with physical disabilities. Traditional content analysis was used to analyze the transcriptions of the interviews. The transcriptions of the interviews were independently read by members of the research team to identify salient points. The research team then used those salient points to identify categories of concerns related to interaction with clinicians and recommendations related to those concerns made by women for the health care providers. The transcriptions were again reviewed to identify specific examples of their interactions and the recommendations provided by the women. Codes were continuously revised and final themes with supporting examples of women's quotes were identified.

Results: The mean age of women in the study at the time their youngest child was born was 37.4 + 7.0. Fifteen women reported that their pregnancies were planned and ten reported unplanned pregnancies. Women reported diverse disabling conditions causing physical disability. Three themes emerged from analysis of the interview data: 1) clinicians' lack of knowledge about pregnancy-related needs of women with physical disabilities; 2) clinicians' failure to consider knowledge, experience and expertise of women about their own disability; and 3) clinicians' overall lack of awareness of reproductive concerns of women with physical disabilities. Women provided specific recommendations related to each of these themes and warrant attention by clinicians who interact with women of childbearing years who live with physical disabilities.

Conclusion: Women experienced problematic interactions with clinicians related to pregnancy and childbearing. They identified specific recommendations for clinicians to address those problems with the goal of improving perinatal health care for women with disabilities. These recommendations, if followed have the potential to improve the health of women with disabilities during the perinatal period

References

Colorafi, K. J., & Evans, B. (2016). Qualitative descriptive methods in health science research. *HERD*. 9(4), 16-25. doi: 10.1177/1937586715614171.

lezzoni, L. I., Wint, A. J., Smeltzer, S. C., & Ecker, J. L. (2015). [Physical accessibility of routine prenatal care for women with mobility disability](#). *J Womens Health* (Larchmt), 24, 1006-1012. doi: 10.1089/jwh.2015.5385.

Mitra, M., Long-Bellil, L. M., Smeltzer, S. C., & lezzoni, L. I. (2015). A perinatal health framework for women with physical disabilities. *Disability and Health Journal*, 8(4), 499-506. doi: 10.1016/j.dhjo.2015.05.007

Mitra, M., Clements, K.M., Zhang, J., lezzoni, L.I., Smeltzer, S.C., & Long-Bellil, L.M. (2015). [Maternal characteristics, pregnancy complications, and adverse birth outcomes among women with disabilities](#). *Med Care*. 53(12):1027-32. doi: 10.1097/MLR.0000000000000427.

Contact

suzanne.smeltzer@villanova.edu

R 03 - Promoting Evidence-Based Practice

A Systematic Review of the Factors Influencing Healthcare Managers' Engagement in Evidence-Informed Practice

Pamela E. Baxter, PhD, RN, Canada
Sarah J. Hewko, MHA, RD, Canada
Kaitlyn C. Tate, BScN, RN, Canada
Patrick B. McLane, PhD, MA, Canada
Carly A. Whitmore, BScN, RN, CPMHN(c), Canada
Greta G. Cummings, PhD, RN, FCAHS, FAAN, Canada

Abstract

Purpose: Provision of quality care is dependent on both the progressive application of evidence-based medicine and the adoption of evidence-based management practices, which create the capacity for an organization to effectively standardize evidence-based care (Shortall, Rundall & Hsu, 2007). Despite general support among health care leaders for evidence-based approaches to clinical practice, many have been slow to approach their managerial practice with a similar lens (Hewison, 1997). We know relatively little about the knowledge practices of healthcare managers, particularly as it relates to the application of research evidence in their management practice (Lomas 2005). To fill this gap in the literature, we have conducted a systematic review of the international literature with the goal of isolating factors predictive of research use in the management practice of healthcare leaders.

Methods: This review was conducted concurrently to a related review examining interventions to enhance healthcare managers' use of research evidence in their management practice (Tate et al. *In Preparation*); we conducted a single search and filtered studies to one review or the other (or both) as appropriate. Inclusion and exclusion criteria, set *a priori* by the complete research team (n = 7) were applied independently by two reviewers at both the title and abstract review stage and the full-text manuscript review stage. Included studies must have reported on a primary study of healthcare managers, in which the goal (at least in part) was to identify factors related to healthcare managers' use of research in their management practice. *Healthcare managers*, for our purposes, were defined as persons employed in a formal management/leadership position at any level in a healthcare delivery organization (e.g. vice president, director, executive, manager). Studies were excluded if the subjects were primarily policy-makers, if the focus was on clinical decision-making, or if, in the study, knowledge use was defined so broadly as to include non-research evidence. *Research evidence*, for our purposes, was defined as researcher-produced evidence that had been developed in accordance with standard scholarly practices.

An academic librarian specializing in health sciences aided the research team in developing a comprehensive search strategy. We conducted our search in ten electronic databases including (but not limited to): CINAHL, MEDLINE, PsycINFO, Cochrane Database of Systematic Reviews and Business Source Complete. Key search terms included "decision-maker/making," "research use/utilization" and "healthcare managers/management."

For all studies meeting inclusion criteria, we extracted relevant methodological details and results into a standardized data extraction template. Each extraction was completed by one member of the research team and validated by another. Each included study also underwent quality appraisal, conducted independently by two team members. We appraised all qualitative papers using Letts, Wilkins, Law, Stewart, Bosch and Westmoreland's Critical Review Form – Qualitative Studies (Version 2.0) and all quantitative using Cummings et al.'s (2008) tool, which has been employed in multiple reviews to appraise cross-sectional, correlational and exploratory studies. Studies containing both qualitative and quantitative results were evaluated using both appraisal tools. Studies at all quality levels (low, medium, high) were included in the synthesis of results.

In order to organize and subsequently analyze the findings we used the PARIHS framework (Rycroft-Malone, 2004). This framework contains three core concepts: context, facilitation and evidence (Rycroft-

Malone, 2004). These three concepts were used as the initial rows for a matrix which were applied to the data. Each study was read and reread by PB, new themes and subthemes were added to the matrix as required (not captured by the three categories) under each of the themes. Additional rows were added as needed. An 'x' was placed in the matrix when a theme or sub-theme was identified in a study. Once the final themes and sub-themes were agreed upon by the research team, a final matrix was developed and applied to all included articles, which resulted in the final synthesis.

Results: From the data, we identified three major influencing factors; context, facilitators, healthcare manager characteristics. The evidence strongly suggests that organizational context plays a key role in determining whether or not the healthcare manager uses evidence to support/inform his/her practice. Factors within the organizational context include; the level of commitment within the organization to support and implement evidence-informed management practices, the amount of value placed on evidence-informed practice by the organization, organizational expectations related to the use of evidence in practice, the presence of organizational policies and mandates that support and/or promote evidence-informed healthcare manager practices, and the organization's philosophy related to the use of research evidence. Facilitators of evidence informed healthcare manager practice include having access to adequate human and non-human resources. Human resources included; adequate library services (librarian, library technicians) and support, knowledgeable staff (as it relates to research and evidence-informed practice), and other organizational leaders who could promote and support those wanting to implement evidence into practice. Non-human resources included; time to search, read, and apply research evidence to management practices, access to data/resources and a technical infrastructure capable of supporting evidence-informed practice. Healthcare manager characteristics also played a significant role in influencing whether or not he/she used research evidence in their practice. The lack of understanding of what evidence-informed practice is, the lack of training in research and/or the lack of personal research experience all limited the manager's use of evidence in healthcare manager practice.

Conclusion: Without a supportive environment and the necessary resources (human and non-human) within that environment health care managers (with or without knowledge of evidence-based practice) are much less likely to engage in evidence-based practice. More attention must be paid to supporting healthcare managers (using a variety of strategies) to engage with the research evidence to inform healthcare management practices.

References

1. Cummings GG, Lee H, MacGregor T, Davey M, Wong CA, Paul L, Stafford E. (2008). Factors contributing to nursing leadership: A systematic review. *Journal of Health Services Research & Policy*. 13(4):240-248.
2. Hewison A. (1997). The language of management: An enduring challenge. *Journal of Nursing Management*. 5:133-141.
3. Letts L, Wilkins S, Law M, Stewart D, Bosch J, Westmorland M. Critical Review Form - Qualitative Studies (Version 2.0). (2007). Occupational Therapy Evidence-Based Practice Research Group. Retrieved from: https://www.unisa.edu.au/Global/Health/Sansom/Documents/iCAHE/CATs/McMasters_qualreview_version2%200.pdf
4. Lomas J. (2005). Using research to inform healthcare managers' and policy makers' questions: From summative to interpretive synthesis. *Healthcare Policy*. 1(1):55-71.
5. Shortell SM, Rundall TG, Hsu J. (2007). Improving patient care by linking evidence-based medicine and evidence-based management. *Journal of the American Medical Association*. 398(6): 673-676.
6. Tate K, Hewko SJ, McLane P, Baxter PE, Perry KE, Estabrooks CA, Cummings GG. (*In Preparation*). Learning to lead: A review and synthesis of the results of interventions to enhance healthcare managers' use of research in management practice.

Contact

baxterp@mcmaster.ca

R 03 - Promoting Evidence-Based Practice

Influence of Nurse Social Networks on Evidence-Based Practice (EBP): Results of an Exploratory Study

Nan M. Solomons, PhD, MS, USA

Judith A. Spross, PhD, RN, FAAN, USA

Gerri Lamb, PhD, RN, FAAN, USA

Abstract

Purpose: Nurses' adoption of and adherence to evidence-based practice (EBP) has been an ongoing concern for more than four decades (Eaton, Meins, Mitchell, Voss, & Doorenbos, 2015; Squires et al., 2011). Efforts to improve nurses' EBP adoption and adherence rates have demonstrated few results (Hanrahan et al., 2015; Thorsteinsson & Sveinsdottir, 2014). Findings by Benner et al. (1997), Pravikoff et al. (2005), and Estabrooks et al. (2005) suggest that nurses prefer to obtain clinical information through communication with colleagues, that is, their social network. Even though research on quality improvement and EBP suggest that relationships and communication are relevant, few studies have used social network methods to examine the role communication may play in the effective adoption of and adherence to EBP (Chambers, Wilson, Thompson, & Harden, 2012; Cunningham et al., 2012). The purpose of this presentation is to examine the relationship between nurses' communication patterns (who talks to whom) and their perceptions of the quality of that communication, concepts integral in understanding nurses' adoption of EBP. The findings here were part of a larger study exploring how communication patterns and communication quality were related to use of evidence-based transitional care practices.

Theoretical model: The model developed for this study was informed by diffusion of innovations theory (Rogers, 1995), social network theory, quality improvement and EBP literature, and relational coordination theory (Gittel, 2002). Rogers' diffusion of innovations theory is one of the most common frameworks for EBP research. His emphasis on the role of communication in spreading innovation provided an important bridge to social network theory and research. Many of Rogers' concepts like communication channels and boundary spanning have been elucidated and operationalized in social network research (Cunningham et al., 2012; Valente, 2010). Social networks are comprised of nodes (people or groups) and ties, the connection between nodes. Ties are characterized as strong or weak. Strong ties have a common background and possess the same knowledge whereas weak ties do not share a common background and have different sources of knowledge (Burt, 2007). Social networks comprised of strong ties are more interconnected and inwardly focused (Granovetter, 1973). Key social network scientists like Granovetter and Burt have demonstrated that the strength of the relationship and the position of the individual within the social network can influence the quality of the communication. Social network concepts operationalized in this study include density, fragmentation, and centrality.

Conceptualization of the quality of communication and its impact on care quality draws from the quality improvement and EBP literature. In a national ICU study, Shortell and colleagues (1992) reported that ICUs with high communication scores had better patient outcomes. High performing ICUs were not only more likely to be communicating within their unit but also communicating regularly with other units within the hospital and with the administration, more so than lower performing units. Two factors reported by Shortell and colleagues (1992) were the importance of open and accurate communication. Similarly, findings from the EBP literature report that nurses often obtain information from each other (Eaton et al., 2015; Thorsteinsson & Sveinsdottir, 2014) because it is relevant and timely (Estabrooks et al., 2005).

Relational coordination theory (Gittel, 2002) provides support for the link between the relational aspects of communication flow and communication quality identified by Shortell et al (1992). Gittel (2002) found that initially the relationship was the primary influence on communication quality; over time she found that influence was bidirectional: communication influenced the relationship and the relationship influenced communication.

Diffusion of innovations theory often informs EBP research (e.g. Eaton et al. (2015) and Hanrahan et al. (2015)). The addition of social network theory and methods allows a more granular examination of the roles of relationships and communication in EBP adoption and adherence.

Methods: A convenience sample of 10 adult medical-surgical units from six hospitals, five home care agencies, and six long-term care facilities was used. A total of 273 hospital staff (nurses, discharge planners, supervisors and Certified Nursing Assistants) and 69 post-acute (home care and long-term care) staff were surveyed. Analysis and discussion of post-acute data are outside of the scope of this presentation.

Hospital staff completed surveys about two communication patterns, one for patient care and one for patient discharge; communication quality; relationship quality; and demographic characteristics. Post-acute care staff completed a similar, abbreviated survey.

Communication patterns Nursing and discharge planning staff were asked to indicate their frequency of communication over a 30-day period for each staff person. Frequency was measured using a 5-point Likert scale, ranging from 1, not at all to 5, daily. Higher values of frequency corresponded to greater tie strength.

Communication quality Communication quality was measured using the ICU Nurse-Physician Questionnaire (Shortell et al., 1992) within-group communication scale, comprised of three subscales: (a) within-group openness (four items), (b) within-group accuracy (four items), and (c) within-group timeliness (three items). Items were measured using a 5-point Likert scale ranging from 1, strongly disagree to 5, strongly agree.

Results: The level of analysis for this study was at the unit level. Social network measures described the communication patterns across the unit. Statistical significance was set to .10 due to the exploratory nature of the study. Each communication pattern variable was correlated with each communication quality variable. Non-parametric correlation was used because social network data do not have a normal distribution (Borgatti, Everett, & Johnson, 2013). Before describing the results, it may be helpful to define the social network variables.

Density is a measure of overall cohesiveness among nodes in the social network; when density is high there is greater cohesiveness within the social network. *Fragmentation* is a measure of the presence of cliques or subgroups within the social network (Wasserman & Faust, 1994); when fragmentation is high there is low cohesion overall and a greater number of subgroups within the social network. *In-degree centralization* is a measure of hierarchy (Freeman, 1978). When in-degree centralization is high then communication is centralized among a few nodes; in contrast, when in-degree centralization is low, communication is decentralized within the social network. The results and the interpretation are reported by communication quality variable.

Communication Openness: Density and in-degree centralization were both strongly, negatively, and significantly associated with communication openness ($r_s(10) = -.80, p = .005$; $r_s(10) = -.57, p = .083$, respectively). The strength and direction of these associations in this study suggest that highly interconnected social networks with centralized communication may not be conducive to innovative ways of thinking. In contrast, the third social network variable, fragmentation, was strongly, positively, and significantly associated with communication openness ($r_s(10) = .72, p = .018$). The strength and direction of this association in this study suggests that EBP adoption is more likely to occur within small groups rather than larger groups.

Communication accuracy: Density was strongly, positively, and significantly associated with communication accuracy ($r_s(10) = .56, p = .093$). The strength and direction of this association suggests that social networks which have greater interconnectedness are more likely to believe that the information received from other members in the social network is correct. In contrast, fragmentation was moderately and negatively associated with communication accuracy ($r_s(10) = -.49, p = .15$), a finding that approached significance. The strength and direction of this association suggests that communication received from

other groups is not perceived to be as accurate as the communication from within the group. In-degree centralization was moderately and negatively associated with communication accuracy ($r_s(10) = -.34$, $p = .334$). The moderate strength and direction of this association suggests that there may be another unmeasured variable such as leadership style, teamwork, or demographic variables that would contribute to a hierarchy among unit staff.

Communication timeliness: There were no statistically significant relationships between the social network variables (density, fragmentation, and in-degree centralization) and communication timeliness ($r_s(10) = .06$, $p = .868$; $r_s(10) = .36$, $p = .343$; $r_s(10) = -.08$, $p = .828$, respectively). It is possible that the social network variables dropped from analysis—diameter, core-periphery, and average path length—may have led to different findings, given the role of these variables in the model.

Limitations: In general, social network analysis requires at least a 50% response rate, especially for measures that represent distance (core-periphery, diameter, average path length) (Borgatti, Carley, & Krackhardt, 2006). Response rates among some units in the sample were less than 50%; therefore, measures of distance were removed from the analysis. Other social network measures such as density, fragmentation, and in-degree centralization maintain reliability at lower response rates (Borgatti et al., 2006) and were included in the analysis.

Conclusion: The research question arose from findings in the EBP literature that nurses turn to each other for information, a finding that has been deemed at least puzzling and perhaps even concerning (Squires et al., 2011). The model and findings from this study suggest that understanding nurses' social networks may help us understand this reported phenomenon and why and how nurses' social networks contribute to or impede adoption of EBP. Implications for design and implementation of future research will be discussed.

References

- Borgatti, S. P., Everett, M. G., & Johnson, J. C. (2013). *Analyzing Social Networks*. Los Angeles: Sage.
- Chambers, D., Wilson, P., Thompson, C., & Harden, M. (2012). Social Network Analysis in Healthcare Settings: A Systematic Scoping Review. *PLOS ONE*. doi:10.1371/journal.pone.0041911
- Cunningham, F. C., Ranmuthugala, G., Plumb, J., Georgiou, A., Westbrook, J. I., & Braithwaite, J. (2012). Health professional networks as a vector for improving healthcare quality and safety: a systematic review. *BMJ Qual Saf*, 21(3), 239-249. doi:10.1136/bmjqs-2011-000187
- Eaton, L. H., Meins, A. R., Mitchell, P. H., Voss, J., & Doorenbos, A. Z. (2015). Evidence-based practice beliefs and behaviors of nurses providing cancer pain management: a mixed-methods approach. *Oncol Nurs Forum*, 42(2), 165-173. doi:10.1188/15.onf.165-173
- Hanrahan, K., Wagner, M., Matthews, G., Stewart, S., Dawson, C., Greiner, J., . . . Williamson, A. (2015). Sacred cow gone to pasture: a systematic evaluation and integration of evidence-based practice. *Worldviews Evid Based Nurs*, 12(1), 3-11. doi:10.1111/wvn.12072
- Squires, J. E., Hutchinson, A. M., Bostrom, A. M., O'Rourke, H. M., Cobban, S. J., & Estabrooks, C. A. (2011). To what extent do nurses use research in clinical practice? A systematic review. *Implementation science : IS*, 6, 21. doi:10.1186/1748-5908-6-21
- Thorsteinsson, H. S., & Sveinsdottir, H. (2014). Readiness for and predictors of evidence-based practice of acute-care nurses: a cross-sectional postal survey. *Scand J Caring Sci*, 28(3), 572-581. doi:10.1111/scs.12083

Contact

nsolomons@une.edu

R 03 - Promoting Evidence-Based Practice

Driving Evidence-Based Practice Through Remote and/or Mobile Applications

Kim Tharp-Barrie, DNP, RN, SANE, USA

Tracy Williams, DNP, RN, USA

Abstract

Purpose: The pilot study investigated the efficacy of a mobile application designed to facilitate critical thinking and clinical reasoning at the bedside, specifically related to nurse-sensitive quality indicators and core measures, or more specifically those healthcare acquired conditions we are all charged with managing and eliminating from our organizations. The mobile web application pilot provided resources in the navigation and management of one nurse-sensitive quality indicator Catheter Associated Urinary Tract Infection (CAUTI), and two core measures, Acute Myocardial Infarction & Stroke (AMI, STK).

Methods: Use of mobile application devices were coupled with the use of Remote Management for rapid response within system and to all designated “partners” (i.e. nursing home, LTAC, etc.) via tele-monitor and/or teleconference with facility prior to patient transfer. Center to be staffed with 24/7 Acute Care APRN. Traveling/On call APRNs to respond either remotely or on site to view and review all patients requesting and /or requiring transfer to acute care.

Results: The pilot included: one healthcare acquired condition (CAUTI), two core measures (AMI, STK), and a medication calculator. Early feedback from the participants prompted few changes in algorithms. An overwhelming interest indicated a need for adding more nursing sensitive indicator bundle and core measure algorithms. Seamless updates to the mobile web application are planned to remain current with the latest evidence-based practice recommendations established by regulators such as the Centers for Medicare and Medicaid Services (CMS) and The Joint Commission and national experts such as the Agency for Healthcare Research and Quality (AHRQ).

Conclusion: Hospitals are increasingly developing policies and procedures to restrict the use of mobile devices in the clinical arena. Caution should be exercised before instituting policies that will limit point of care nurses from accessing valuable resources, devices, and methods required to optimize the acquisition, retrieval, and use of information in health to inform clinical decisions—the very purpose of informatics in healthcare. To date, seven additional core measure sets have been added, four additional nurse sensitive quality/safety indicators have been added, an icon was placed on nursing workstations for easy access to the point-of-care bedside mobile application, and continued collaboration with leadership on allowing cellular devices in patient care areas is on-going.

References

- Cobb, J. (2013). The Numbers on Mobile Healthcare Apps. Retrieved from <http://www.healthcarepg.com/>
- Franko, O., & Tirrell, T. (2012). Smartphone app use among medical providers in ACGME training programs. *Journal of Medical Systems*, 36(5), 3135-3139.
- Moore, S., Anderson, J., & Cox, S. (2012). Pros and cons of using apps in clinical practice. *Nursing Management - UK*, 19(6), 14-17.

Contact

kim.tharp-barrie@nortonhealthcare.org

R 04 - Quality Improvement Outcomes

Implementation and Sustainability of Quality Improvement (QI) in Home and Community-Based Service (HCBS) Settings

Kathleen Abrahamson, PhD, RN, USA
Heather Davila, MPA, USA
Christine Mueller, PhD, RN, FAAN, USA
Greg Arling, PhD, USA

Abstract

Purpose: Home and community-based services (HCBS), defined as receipt of support services in one's own home or other community setting, have been expanding rapidly since the 1980s, when the United States (US) Congress enacted section 1915(c) of the Social Security Act. Continued growth and expansion of HCBS and efforts to better integrate health and social services have sparked national interest in improving the quality of community-based services. Increasingly, QI processes are promoted by US agencies seeking to improve the quality "value" received from monetary investment. Within healthcare, the majority of QI efforts have taken place within hospitals, nursing facilities, and other institution-based care delivery environments. Across settings, nurses are often involved in leading QI efforts. Little is known about the implementation of QI in HCBS settings and it remains unclear whether QI principles can be effective within the variable, diffuse, individual-focused organizations that comprise the HCBS delivery network.

The objective of this study was to explore HCBS providers' perspectives of organizational readiness for QI in regards to motivation, structure, capabilities and QI experiences early in the project implementation phase. Additionally, follow-up data was collected from HCBS providers six-months after project completion to gather provider perceptions of project impact, sustainability, and availability of resources to maintain improved processes and outcomes.

Multiple models of innovation uptake and change processes note organizational readiness as a key component in the success of organizational change efforts. The current analyses examine readiness at the organizational level using the constructs of organizational readiness: motivational readiness (perceived need for improvement and training, pressure to change from internal or external forces); institutional resources (adequacy of space, staffing, training and technology); staff attributes (efficacy, influence, adaptability and desire for growth among employees); and organizational climate (clarity of mission, staff cohesiveness, autonomy, stress, openness to change and open communication).

Methods: The sample for this study were participants (52 respondents within 27 provider organizations) in a state-sponsored QI program, the Minnesota Home and Community-Based Services Performance-Based Incentive Payment Program (HCBS PIPP), which funded QI projects developed by HCBS providers. The number of respondents per organization ranged from 1-4, with a mode of 2 per organization. Projects that were selected for funding through HCBS PIPP aimed to improve the quality of life of older adults and people with disabilities in a measurable way; improve the quality of services in a measurable way; and/or deliver good quality services more efficiently. Fifty-eight agencies applied for HCBS PIPP support and 27 projects were funded. Funded agencies varied considerably, ranging from large home care agencies with a wide consumer base to small social service agencies serving a narrowly defined population. Projects were funded initially for one year; 17 agencies completed their work in one year and the remainder received extensions of 3 to 12 months. The HCBS PIPP provided a unique opportunity to examine provider perspectives of organizational readiness for QI within a diverse set of HCBS organizations.

A pencil and paper survey addressing 17 domains of QI capacity, readiness, implementation and impact was administered to participants attending a conference for HCBS PIPP participants in January, 2015 (about 6 months after the HCBS PIPP-funded QI projects started). The survey was designed to capture a comprehensive view of HCBS PIPP providers' perspectives of their organization's capacity for QI. Each of the 17 domains contained multiple survey items. Survey items were presented in Likert-scale format. At

least 6 months after project completion a follow-up survey was delivered on-line to HCBS-PIPP funded organizations. This latter survey addressed perceptions of project impact, sustainability, and factors that were barriers and/or facilitators to project success.

Descriptive statistics and frequencies were calculated for each survey item. Independent t-tests were used to determine significant differences in means based on organizational characteristics. A p-value of ≤ 0.05 was considered to be significant. For purposes of analysis, organizations were coded based on five major characteristics: residential services delivery (versus non-residential services), population served (older adults versus not specifically older adults), amount or level of prior experience with QI, structure (multiple participating sites versus a single site), and project size (>100 consumers or < 100 consumers affected or served by the project). Analyses were performed using SPSS version 23.

Results: The three factors most frequently noted as essential for QI participation were support from top leadership, having someone to write the HCBS-PIPP proposal, and having someone available to lead project planning. Top apprehensions surrounding participation in HCBS PIPP were choosing the right area for QI, coming up with a “really good” project, measuring quality, meeting project goals, and sustaining the project after funding. Primary resources needed by respondents to support QI included staff members who are trained in QI techniques and processes, as well as existing structures within the organization to manage QI implementation. Almost half of respondents reported making good progress in areas that were not yet fully established in their organization such as having a written description of their QI program (46%), and having a means to obtain consumer input (47%). Conversely, only 17% of respondents reported using a QI model such as the PDSA cycle or LEAN to guide their QI efforts and only 23% had a fully established evaluation plan for their QI project. It is notable that three fourths of respondents reported not having an established evaluation plan despite the HCBS PIPP projects being underway at the time of initial survey administration.

Respondents from organizations that provided residential services reported significantly less experience with QI implementation, greater use of root cause analysis, and increased use of internally-generated data reports to aid QI efforts than respondents from organizations providing only non-residential services. Respondents from organizations that served primarily older adults reported significantly more experience with QI implementation, greater use of root cause analysis, higher average organizational designation of someone with responsibility for QI, and less established identification of a set of quality areas that the organization wanted to monitor than those serving younger consumers. Additionally, respondents from organizations that served more than 100 consumers reported significantly more experience with implementing QI and more frequent designation of someone with responsibility for QI. Representatives from larger organizations (those serving > 100 consumers) noted connecting with other organizations to share ideas as a significant weakness and meeting the basic needs of consumers so there is more time to think about QI as a significant strength, in comparison to smaller organizations.

The follow-up survey addressing project sustainability, administered at least 6 months after project completion, revealed that most projects used project funds to hire a project coordinator, additional staff members, or to purchase/rent equipment. Most providers perceived significant improvements in quality within the project focus area, consumer quality of life, and consumer satisfaction. Although most noted that most of the project remained intact after completion of HCBS funding, funding project coordinator time and additional staff was a challenge. Turnover of staff and training newly hired staff was an additional concern. Those who were able to sustain parts of the project noted budgetary support from top leadership and redirection of resources toward the project to be successful strategies.

Conclusion: Internal resources available to support QI varied widely between participating organizations, with differences observed between smaller and larger agencies, as well as between provider types and populations served. Project funds were often used to provide additional staff, staff training and equipment. Directing funds toward tangible items became a challenge to project sustainability when funding concluded. Providers listed multiple innovative approaches to sustaining QI impacts after funding, and these approaches will be discussed in the presentation. Although implementing QI was perceived by respondents to have some sustained positive impact on organizational processes, follow-up research

could explore the impact of QI implementation on the capacity of organizations for ongoing QI, as well as the influence on organizational climate in order to inform and direct future HCBS QI initiatives.

References

Agency for Healthcare Research and Quality (AHRQ). (n.d.). Quality improvement, from <http://www.ahrq.gov/health-care-information/topics/topic-quality-improvement.html>

Centers for Medicare and Medicaid Services (n.d.-a). Quality of Care Home and Community-Based Services (HCBS) Waivers, from <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-HCBS.html>

Weiner, B., Amick, H., & Lee, S. Y. (2008). Conceptualization and measurement of organizational readiness for change: a review of the literature in health services research and other fields. *Medical Care Research and Review*.

Contact

kaabraha@purdue.edu

R 04 - Quality Improvement Outcomes

A Description of Work Processes Used By Clinical Nurse Specialists (CNS) to Improve Patient Outcomes

Janet S. Fulton, PhD, RN, ACNS-BC, ANEF, FAAN, USA

Ann M. Mayo, DNSc, RN, CNS, FAAN, USA

Jane A. Walker, PhD, RN, USA

Linda Urden, DNSc, RN, CNS, NE-BC, FAAN, USA

Abstract

Purpose: The purpose of this qualitative descriptive study was to identify common processes used by clinical nurse specialists (CNS) working in a variety of practice settings and specialties to advance nursing practice and achieve improved clinical outcomes.

Background/Significance Around the world, health care environments are increasingly holding nurses accountable for outcomes. Advanced practice nurses with graduate-level nursing preparation are expected to contribute to improved patient outcomes. Nursing in the U.S.A. recognizes four advanced practice roles – clinical nurse specialists (CNS), nurse practitioners, nurse midwives and nurse anesthetists. Each role contributes to improving outcomes; however, the CNS role historically has led large scale nursing practice initiatives to advance excellent nursing care for specialty populations (Fulton, et al., 2016).

System-level structural and process factors are known to influence CNS practice (Kilpatrick, et al., 2016); however, little is known about the specific processes by which CNSs achieve improved clinical outcomes. Greater understanding of how CNSs achieve outcomes will provide insight into mechanisms for improving health care and capturing CNS practice outcomes in this volatile time of dramatic health care reform.

Methods: *Design:* Qualitative descriptive methods described by Sandelowski (2000) were used to identify the elements of how CNSs work and processes used by CNSs in implementing clinical improvement projects. CNSs are guided by professional practice competencies, therefore it is logical to assume that CNS work experiences have common meanings and associated behaviors, and that shared elements of the work process can be explored through the descriptive method.

Ethics: The study was approved by human subject institutional review boards of the investigators' universities.

Sample/Setting: A purposive sample was used to assure a diverse group. Participants were selected from among National Association of Clinical Nurse Specialist Conference juried abstract presentations describing project-related outcomes. It was believed that the abstract authors, having submitted their work for public presentation, would be willing to discuss how they achieved the outcomes. Each abstract author was recruited via e-mail.

Procedures: Participants attended one of two 60 minute focus groups. A funnel approach was used; the most open ended question was asked first. Participants shared stories about the process of achieving project outcomes, focusing on the thinking and decision making that guided them in working through the project. Responses were probed for details about decisions and actions; similarities and difference in experiences were explored. Discussions were audio-recorded and transcribed verbatim; transcripts were reviewed for accuracy.

Analysis: Qualitative descriptive methods were used to analyze the narratives. Qualitative description can be used to obtain a rich description of the common experiences of a group to obtain straightforward answers to questions (Sullivan-Boai, et al., 2005). Moderated structured interview with low-inference content analysis, all of which were used in this study, are common in qualitative description (Sandelowski, 2000).

A standard content analysis process (Neuendorf, 2002) was used. The team members read the transcripts several times. Transcripts were then divided among the team members and relevant sections (text units), were coded independently. The text units were compared and contrasted and grouped into subcategories independently. Team members revised and labeled the subcategories. The quality of the findings (Miles, et al., 2014) was enhanced by use of all researchers to code and categorize data and a consensus procedure (documented by audit trail) to resolve discrepancies. Demographic data were collected and analyzed using descriptive statistics.

Results: Seventeen CNSs participated (8 and 9 in each focus group); average 24 years (range:11 - 39) as a registered nurse; average 8.6 years (range: 1.5 to 23) worked as a CNS; average age 49.6 years (range:35 to 62 years); 82% held master's degree, 18% had a doctorate (DNP or PhD); specialty included 53% adult, 24% acute/critical care, 6% perinatal, 6% pediatrics, 11% other; 15 participants (88%) held advanced certifications including adult (35%), acute/critical care (18%); wound/ostomy(6%), and 6% other.

Findings involved descriptions of CNSs engaged in intricate interactions across a diverse workforce of health professionals and others with varying expertise and interests. The CNS carefully balanced a long term goal with more immediate challenges. The descriptions included detailed accounts of how the CNSs moved a project forward from initial problem identification to the endpoint of success, sustainability and disengagement. **Situating Work** was the category that emerged to describe the process of fitting the work to context, as each team, unit or division was a unique context requiring adaptations. Situating work included beginning with the end in mind, garnering resources, aligning evidence/data, managing tasks, tailoring strategies, managing the team, developing skills in staff, energizing forward movement, monitoring progress, and removing barriers/meeting the challenges of resistance. Descriptive categories of processes surrounding situating the work included: **Identifying a Problem** by using staff input and CNS knowledge and expertise; **Engaging Stakeholders**, which involved identifying stakeholders, conducting preparatory steps for engagement, and onboarding stakeholders; **Forecasting**, such as reading situation dynamics, seeing possibilities and being open to revisions; **Providing Feedback** by communicating, providing support and encouragement, and seeking feedback from others; **Interfacing with the System**, such as connecting with administration, bridging interdisciplinary teams and connecting within the system, and; **Disseminating** reports throughout the system including determining what needed to be reported to whom, when and how. These processes were embedded in personal attributes common and essential to CNS practice. **Building Trust** was described as earning trust of others, using purposeful strategies to build trust, and being trusted in the present and as capital for the future. **Having Self-agency** included rich descriptions of foundational characteristics representing a culmination of education, experience, and emotional intelligence creating a sense of self-reliance that lead to a willingness to take responsibility and to lead through influence. Self-agency also included nuanced and textured descriptions of how the participants took ownership of and responsibility for advancing nursing practice in their clinical settings.

Conclusion: Discussion: CNSs are responsible for identifying clinical problems and initiating system-level interventions to prevent or improve management of the problems (Whitman & Pervis, 2015). CNS practice competencies include leading change for improved clinical outcomes (Fulton, et al., 2016). This study provided insight into how CNSs practice and the processes used by CNSs in achieving clinical outcome improvements. The patient-centered activities of CNS have been studied (Norton et al., 2012), the activities related to system-level clinical leadership have been described (Elliott et al., 2012), and the importance of CNS leadership in for the sustainability of a project has been evaluated (Babine et.al, 2016). However, these studies provided limited insight into how CNSs work.

CNSs are clinical nursing experts, and the better expert work is done, the less visible it is (Wears, 2012). As CNSs become more engaged in supporting system-level practices of the healthcare team, the more invisible they become (Kilpatrick et al., 2016). The concept of "invisible work" was created to bring sociological attention to work that was unrecognized or undervalued (DeVault, 2014). This study provides insight into the very real but often invisible work processes used by CNSs in supporting and leading

healthcare teams and improving outcomes. Much of the supporting and leading of CNS work is articulation work; unacknowledged management of awkward intersections among the social worlds of people, technology and organizations (Hampton & Junor, 2005). For CNSs, this articulation work was facilitated by self-agency. A landmark document (NACNS, 2004) described core CNS professional attributes that included personal integrity, mastery of emotions, positive self-regard, willingness to take risks, knowledge of abilities, openness to self-review, and appreciation of diversity. These attributes were interwoven through the participants' stories and were central to successful system-level articulation work.

Conclusion: The findings of this study provide insight into CNS practice processes, lend credibility to the CNS's leadership abilities, and help explain why the CNS role and practice is often considered invisible and ambiguous.

Limitations: Participants were from North American health care systems (USA and Canada), and while structurally different they are similar in the level of health care delivered, thus the findings may not reflect CNS processes used in project work occurring in other systems in different countries. Participants were recruited from among those CNSs reporting successful improvement project outcomes, therefore little can be deduced about processes that were not successful.

Implications for Practice: Regardless of country, CNS-led clinical improvement projects are central in advancing nursing practice and improved outcomes. CNS practice is situational and contextual; processes used by CNSs to gain trust, solve problems, and communicate with other disciplines are essential to CNS practice. CNS education should incorporate these processes into curricula; new CNSs should be mentored in mastering these competencies and developing self-agency. Administrators need to support these critical, though often invisible, CNS work processes because CNS-led improvement initiatives will enhance the CNS role across specialties and settings, support individual CNS job satisfaction, and ultimately improve patient care outcomes.

Future research should provide closer examination of clinical and fiscal outcomes of CNS practice related to improvement projects. Also, studying this phenomenon in other countries where CNSs practice might validate the findings in this study, or reveal other unique characteristics that foster CNS success in achieving health care outcomes would be valuable.

References

- Babine, R.L., Honess, C., Wierman, H.R. & Hallen, S. (2016). The role of clinical nurse specialists in the implementation and sustainability of a practice change. *Journal of Nursing Management*, 24, 39 – 49.
- Elliott, N., Higgins, A., Begley, C., Lalor, J., Sheerin, F., Coyne, I. & Murphy, K. (2012). The identification of clinical and professional leadership activities of advanced practitioners: findings from the Special Clinical and Advanced Practitioner Evaluation study in Ireland. *Journal of Advanced Nursing*, 69(5), 1037-1050.
- DeVault, M.L. (2014). Mapping invisible work: Conceptual tools for social justice projects. *Sociological Forum*, 29(4), 775-790.
- Fulton, J.S., Mayo, A.M., Walker, J.A. & Urden, L. D. (2016). Core practice outcomes for clinical nurse specialists: A revalidation study. *Journal of Professional Nursing*, 32(4), 271-282.
- Hampton, I. & Junor, A. (2005). Invisible work, invisible skills: Interactive customer service as articulation work. *New Technology, Work and Employment*, 20(2), 166-181.
- Kilpatrick, K., Tchouaket, E., Carter, N., Bryant-Lukosius, D., DiCenso, A. (2016). Structural and process factors that influence clinical nurse specialist role implementation. *Clinical Nurse Specialist*, 30(2), 89-100.
- National Association of Clinical Nurse Specialists (2004). *Statement on Clinical Nurse Specialist Practice and Education*, Harrisburg, PA: Author.
- Norton, C., Sigsworth, J., Heywood, S. & Oke, S. (2012). An investigation into the activities of the clinical nurse specialist. *Nursing Standard*, 26(30), 42-50.
- Wears, R.L. (2012). Work, visible and invisible. *Annals of Emergency Medicine*, 59, 374-375.
- Whitman, N. & Purvis, S. (2015). Improving outcomes for high risk patients: Creating timely reports from the electronic health record. *Clinical Nurse Specialist*, 29(5), 283-289.
- Research Methods References**
- Miles, M.B., Huberman, A.M. & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. Washington, D.C.: Sage.
- Neuendorf, K.A. (2002). *A Content Analysis Guidebook*. Thousand Oaks, CA: Sage.

Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing and Health*, 23, 334-340.

Sullivan-Bolyia, S., Bova, C. & Harper, D. (2005). Developing and refining interventions in persons with health disparities: The use of qualitative description. *Nursing Outlook*, 53, 127-133.

Contact

jasfulto@iu.edu

R 04 - Quality Improvement Outcomes

The Influence of Multimorbidity on Rehabilitation Outcomes in Stroke and Amputation

Bianca Ivonne Buijck, PhD, MScN, RN, Netherlands

Abstract

Purpose: Multimorbidity is highly prevalent in older patients who rehabilitate in skilled nursing facilities (SNFs). In these SNFs, nurses have an important role in the rehabilitation process of patients. Although the high prevalence of multimorbidity, studies aimed at identifying determinants of outcome in elderly patients with multimorbidity that rehabilitate after stroke or lower limb amputation (LLA) in SNFs, are scarce. Therefore, this study aimed to investigate the influence of multimorbidity on rehabilitation outcomes in stroke and LLA.

Methods: The Geriatric Rehabilitation in AMPutation and Stroke (GRAMPS) study is a prospective, multicentre, cross sectional study in 15 SNFs. Univariate, and multivariate logistic and linear regression analyses were used to identify multimorbidity as independently related determinant of rehabilitation outcomes, such as postural imbalance (for stroke), and prosthetic use and timed-up-and-go test (for LLA).

Results: 186 patients with stroke and 46 patients with LLA were included in the study. Multimorbidity was present in 34% of the stroke patients and 53% of the patients with LLA. The stroke patients with multimorbidity differed from the patients without multimorbidity with respect to age, proprioception, and vibration sense, but not for any of the cognitive tests, muscle strength, or sitting balance. Patients with multimorbidity had, on average, lower scores on outcome measures. In linear regression analyses, both balance and walking abilities were best explained by multimorbidity, muscle strength, and the interaction between muscle strength and static sitting balance (overall explained variance 66% and 67%, respectively). In LLA patients multimorbidity was not independently related to prosthetic use. Being able to ambulate independently, and having a transtibial amputation (rather than a higher level of amputation), without phantom pain, determined prosthetic use ($R^2=56\%$), while cognitive abilities, low amputation level, and pre-operative functional abilities were independently associated with the timed-up-and-go test ($R^2=82\%$).

Conclusion: Multimorbidity was independently related to postural imbalance after stroke in patients admitted for rehabilitation in SNFs, but surprisingly multimorbidity had no significant role on rehabilitation outcomes of patients with LLA, even though other authors found an association between multimorbidity and prosthetic use. However, multimorbidity was evenly distributed between patients with, and patients without, a prosthesis. Therefore, it could not give an independent contribution to prosthetic use. Because the presence of multiple chronic diseases influences the performance of stroke and LLA patients during rehabilitation in het SNF, it is important that nurses have insight in rehabilitation outcome.

References

Kabboord, van Eijk, Fiocco, van Balen, Achterberg (2016). Assessment of Comorbidity Burden and its Association With Functional Rehabilitation Outcome After Stroke or Hip Fracture: A Systematic Review and Meta-Analysis. [J Am Med Dir Assoc.](#)

van Eijk, van der Linde, Buijck, Geurts, Zuidema, Koopmans. [Predicting prosthetic use in elderly patients after major lower limb amputation.](#) Prosthet Orthot Int. 2012 Mar;36(1):45-52

Contact

bianca.buijck@rotterdamstrokeservice.nl

R 06 - Provider Perceptions of the HIV Patient Perspectives of People Living With HIV Toward Healthcare Providers: Insights Into Multicultural Health Literacy

Ellen R. Long-Middleton, PhD, RN, FNP, FNAP, RN, FNP, FNAP, USA

Patrice Kenneally Nicholas, DNSc, MPH, RN, ANP, FAAN, USA

Inge B. Corless, PhD, RN, FAAN, USA

Carmen J. Portillo, PhD, RN, FAAN, USA

Allison R. Webel, PhD, RN, USA

Marta Rivero-Mendez, DNS, RN, GCG, PR

William L. Holzemer, PhD, RN, FAAN, USA

Keitshokile Dintle Mogobe, PhD, RN, RM, Botswana

Jeanne Kemppainen, PhD, RN, CNS, USA

Kathleen M. Nokes, PhD, RN, FAAN, USA

Yvette Cuca, PhD, MPH, MIA, CPH, USA

Paula Reid, PhD, RN, WHNP-BC, USA

Lucille Sanzero Eller, PhD, RN, USA

Dean Wantland, MSN, MS, RN, USA

Motshedisi B. Sabone, PhD, RN, Botswana

Solymer Solis-Baez, BA, BA, Puerto Rico

C. Ann Gakumo, PhD, RN, USA

*Rachel Fortinsky, *, *, USA*

Carol Dawson-Rose, PhD, RN, FAAN, USA

Abstract

Purpose: To further our understanding about relationship influences that impact health literacy, the purpose of this study was to characterize the perspectives of a culturally diverse group of people living with HIV (PLWH) toward their health care providers. Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate decisions related to their health. Low health literacy is associated with poor health outcomes. Use of preventive services, knowledge about medical conditions and treatment, rates of hospitalization, health status, and health care costs are all linked to health literacy. Although low health literacy can occur in any population, the burden of low health literacy disproportionately affects racial and ethnic minorities and individuals with low income levels. For PLWH, lower health literacy is associated with lower CD4 cell counts, higher viral loads, and a decreased likelihood of taking antiretroviral medication. Adequate health literacy is critical for treatment adherence and for promoting healthy behaviors in the daily lives of PLWH. In order to achieve and maintain HIV viral suppression, adherence to HIV treatment regimens requires a constant, near-perfect medication adherence rate for many medications. Further, the ability to seek and sustain treatment is contingent on one's ability to navigate a complex health care system. Proficiency in health literacy skills is critical to this process.

Methods: Twenty-eight focus groups consisting of people living with HIV were conducted in eight sites representing multicultural backgrounds in the United States, Puerto Rico and Botswana. Responses from audio-recorded focus group interviews were analyzed using content analysis.

Results: Five themes emerged from the data that exemplified characteristics and relationship qualities valued by the participants living with HIV in their health care providers – partnership, knowledgeable health care provider, understandable language, respect, and knowing the person. Participants valued respectful partnership relationships with a knowledgeable health care provider who used understandable language and regarded them as a person of worth.

Conclusion: Relationship quality between patients and health care providers was central to facilitating and enhancing the health literacy of PLWH and likely their retention in care.

References

Dawson-Rose, C., Cuca, Y. P., Webel, A. R., Solis Baez, S. S., Holzemer, W. L., Rivero-Mendez, M., . . . Lindgren, T. (2016). Building Trust and Relationships Between Patients and Providers: An Essential Complement to Health Literacy in HIV Care. *Journal of the Association of Nurses in AIDS Care*, 27(5), 574-584.

Epstein, R. M., & Street, R. L., Jr. (2011). The values and value of patient-centered care. *Annals of Family Medicine*, 9(2), 100-103.

National Institutes of Health. (2016, 07/29/2016). Clear Communication. Retrieved from <https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public-liaison/clear-communication>

Nielsen-Bohlman, L., Panzer, A. M., & Kindig, D. A. (2004). *Health Literacy: A Prescription to End Confusion*. Washington, DC: The National Academies Press.

Palumbo, R. (2015). Discussing the Effects of Poor Health Literacy on Patients Facing HIV: A Narrative Literature Review. *International Journal of Health Policy & Management*, 4(7), 417-430.

Pleasant, A., Rudd, R. E., O'Leary, C., Paasche-Orlow, M. K., Allen, M. P., Alvarado-Little, W., . . . Rosen, S. (2016). *Considerations for a new definition of health literacy. Discussion Paper*. Washington, DC: National Academy of Medicine. Retrieved from <https://nam.edu/considerations-for-a-new-definition-of-health-literacy/>

Thompson, M. A., Mugavero, M. J., Amico, K. R., Cargill, V. A., Chang, L. W., Gross, R., . . . Nachega, J. B. (2012). Guidelines for Improving Entry into and Retention in Care and Antiretroviral Adherence for Persons with HIV: Evidence-Based Recommendations from an International Association of Physicians in AIDS Care Panel. *Annals of Internal Medicine*, 156(11), 817-833.

Contact

ellen.long-middleton@uvm.edu

R 06 - Provider Perceptions of the HIV Patient Barriers and Facilitators of Couples' HIV Testing and Counseling: Providers' Perceptions From an HIV Epicenter

Natalie M. Leblanc, PhD, MPH, RN, USA

Abstract

Globally, it is estimated that half of those who are HIV infected are in a relationship with someone who is not (1). Since the beginning of the HIV epidemic the literature has demonstrated that among women, including women of color in the United States, partner attributes heightened risk for infection (2, 3). In the United States, it is estimated that there are ~200,000 heterosexual serodiscordant couples, estimated by the proportion of HIV infected women in a relationship (4). Further modeling studies have identified intimate partnerships as a significant source of infection among gay men (5, 6, 1). These findings warrant HIV prevention in the U.S. to directly address interpersonal risk.

Couples HIV testing and counseling (CHTC) is a dyadic approach to HIV primary prevention that aims to address interpersonal risk for HIV (7, 8). It has been well developed globally, but only recently has been introduced for adoption in the United States (7). The World Health Organization (WHO) has recognized that there is a need to enhance identification of serodiscordant couples to prevent new infections and therefore they have developed guidelines for CHTC. These guidelines recommend that providers' support for CHTC and for HIV prevention in serodiscordant couples will be critical to the success of such services, and that providers' attitudes and views must be considered when planning orientation and training for CHTC (1).

So far, studies which have assessed the acceptance of CHTC in the United States has demonstrated its applicability and feasibility predominantly among male couples (10, 11, 12). The literature is lacking in demonstrating the role of providers in the promotion of CHTC within healthcare facilities and among varying patient populations. Therefore, a need remains to understand provider perspectives that may enhance or impede implementation of CHTC in the U.S. within a clinical setting.

Purpose: Miami-Dade County is the leading jurisdiction for HIV incidence in the United States, with a rate of 45.3(13). Several factors contribute to this high incidence including state public health and health institutional policy, a large immigrant population, interpersonal risk factors and geographical vulnerability (proximation to high incidence countries and location within a high prevalence US. Region; 13). As part of a broader study to describe healthcare provider knowledge, attitudes and perception of couples' HIV testing and counseling (CHTC) in Miami-Dade County, Florida, a qualitative descriptive design (14) was used to also explore provider's perspectives about CHTC in a clinical setting. The focus of this abstract is to describe provider perceived facilitators and barriers to CHTC implementation.

Methods: A two-tiered purposive sampling approach was used to recruit providers with experience of engaging people into the HIV care continuum. In-depth, semi-structured interviews among healthcare (clinical and non-clinical) providers (N=22) recruited among 4 healthcare facilities in Miami-Dade County, Florida were conducted from December 2015 to March 2016. Data collection involved use of a topic guide that allowed for open ended responses and that was informed by the literature on provider motivation to engage patients into the HIV care continuum. A content data analysis was conducted to develop codes, categories and themes. This was followed by a thematic analysis to explore more latent content and underlying themes from the narratives (14, 15).

Overall healthcare providers possessed a favorable attitude toward CHTC and believed it to be warranted among their patient population. Content analysis revealed that provider's perceptions were influenced by their personal ethos and experience, their knowledge of the local context including the context of their patient vulnerabilities. A thematic analysis revealed four themes among the narratives: 1) Whom is this strategy for?; 2) Balanced engagement; 3) provider experiences, practices and preferences; and 4) the model of care and the health problem.

Results: Providers perceived couples' HIV testing and counseling (CHTC) to be for couples who aim to establish commitment or monogamy. They perceived the strategy allowed for the reconceptualization of health promotion within couples and approaches between patients and providers. Providers perceived CHTC to balance engagement between themselves and the individual patient(s) and between partners within the couple. Providers described CHTC as a strategy that allows the couple to avoid any confusion regarding joint results and mitigate any anxiety or potential blame regarding the couple's diagnosis. Adoption of CHTC indicated for some providers not only an evolution in HIV screening approaches, but in how individuals perceived personal well-being to allow for a reconceptualization of individual health.

Current provider practices and preferences were believed to either facilitate or impede CHTC. Many providers spoke of having high levels of comfortability to engage patients in HIV screening, and conversations regarding sexual health. In addition, some of these providers reported experiences engaging couples in a wellness or health visit, or facilitating disclosure between their HIV infected patient/client and their sexual partner. Therefore, to implement CHTC was simply the next step in their personal practice.

Although overall clinical providers reported a willingness to engage couples, some noted that some of their colleagues may not be capable or willing to do so. Some providers reported that the prospect of having a seropositive patient or a serodiscordant couple may be a deterrent for providers. Others perceived some provider's lack of knowledge, training and ultimately capacity to even manage a couple and/or HIV infected patients would make them unwilling to adopt the practice of offering CHTC. It was also believed that some providers are not amendable to having frank with patients about their sexual health.

Provider induced stigma was reported as an important problem. Healthcare providers reported that certain clinical providers possess biases against and can be judgmental toward certain patient populations. This stigma was demonstrated through implicit or explicit biases which potentially deterred patients from screening and engaging into subsequent HIV care for those in which it's indicated.

Some providers also spoke about patient attributes as potential barriers to CHCT. Underlying mental health issues and poor coping skills were salient concerns regarding vulnerability of patients. These concerns dominated all populations discussed in the narratives and by extension perceived to be an important consideration for CHTC. The contexts of patients' lives were also perceived to be potential barriers to uptake. These contexts include concerns regarding insurance, lack of time and transportation or lack of partner willingness to engage in the strategy. Despite this context, prior patient demands and current inquires for CHTC among the patient population and the community were perceived as facilitators to begin offering CHTC at primary care facilities.

Providers perceived that the current U.S. healthcare system does not adequately support HIV primary prevention and therefore this may be a barrier to including partners in HIV screening in a clinical setting. The lack of health insurance among male partners of female index patients within couples, in tandem with provider commitment to the index patient was perceived as a barrier to CHTC. Providers reported that the clinical provider has to be able to bill for their services and delineate who is the patient, in addition to whether the partner of the index patient is registered at the facility, all indicative of perceived barriers.

Providers narratives described the organizational setting and program policies which would facilitate CHTC or was perceived to be potential barriers to CHTC. Providers in favor of clinically-based CHTC noted that federally qualified health centers (FQHC's) and primary care clinics would be best suited to implement CHTC because of the population they serve and the belief that these settings were family/community oriented. Providers used elements of their workplace setting as the model of care that could implement CHTC. Many reported that their organization has the space to accommodate another person in a consultation room to be screened, that they provide free HIV screening on-site, have personnel who can conduct rapid tests and a model of care that incorporates routinized HIV screening, elements which were all perceived facilitators of CHTC. Providers also identified that the scope of practice within their facility allowed for partners to be screened for sexually transmitted diseases including HIV infection and hence can logistically facilitate CHTC.

Conclusion: All but one provider expressed their willingness and capability to implement CHTC. However, providers expressed the need for a multi-level paradigm shift in the U.S. so that the model of care addresses the health problem of interpersonal risk. One level involved a need for clinical providers to be better trained in interpersonal relationships with their patients and improved tolerance for diverse populations. It also involved more cross-training of skills among non-clinical providers and a model of healthcare that was more interdisciplinary to address diverse patient needs. Specific recommendations included the need for provider and patient's education regarding interpersonal health risk and a need to streamline existing health care services so that partners are able to be screened for HIV if present with the index patient.

References

1. World Health Organization. (2015). *Global summary of the AIDS epidemic*. Retrieved from: http://www.who.int/hiv/data/epi_core_july2015.png?ua=1
2. Wingood, G. M., & DiClemente, R. J. (1998). Partner influences and gender-related factors associated with noncondom use among young adult African American women. *American Journal of Community Psychology*, 26(1), 29-51.
3. Wyatt, G. E., Gómez, C. A., Hamilton, A. B., Valencia-Garcia, D., Gant, L. M., & Graham, C. E. (2013). The intersection of gender and ethnicity in HIV risk, interventions, and prevention: New frontiers for psychology. *American Psychologist*, 68(4), 247-260. doi: 10.1037/a0032744
4. McMahon, J. H., Elliott, J. H., Bertagnolio, S., Kubiak, R., & Jordan, M. R. (2013). Viral suppression after 12 months of antiretroviral therapy in low- and middle-income countries: a systematic review. *World Health Organization. Bulletin of the World Health Organization*, 91(5), 377-385E. doi: <http://dx.doi.org/10.1136/bmj.e4159>
5. Goodreau, S. M., Carnegie, N. B., Vittinghoff, E., Lama, J. R., Sanchez, J., Grinsztejn, B., . . . Buchbinder, S. P. (2012). What drives the US and Peruvian HIV epidemics in men who have sex with men (MSM)? *PLoS one*, 7(11), 1-9. doi: 10.1371/journal.pone.0050522
6. Sullivan, P. S., Wall, K. M., O'Hara, B., Jones, J., Barnes, J., Diclemente, R., . . . Stephenson, R. (2014). The prevalence of undiagnosed HIV serodiscordance among male couples presenting for HIV testing. *Archives of Sexual Behavior*, 43(1), 173-180. doi: <http://dx.doi.org/10.1007/s10508-013-0214-x>
7. Centers for Disease Control and Prevention [CDC]. (2012). Effective interventions. Couples HIV testing and counseling. Retrieved January 1, 2015, from <https://www.effectiveinterventions.org/en/HighImpactPrevention/PublicHealthStrategies/CHTC.aspx>
8. Chomba, E., Stephenson, R., Haworth, A., Allen, S., Kanweka, W., Tichacek, A., . . . Sinkala, M. (2008). Evolution of couples' voluntary counseling and testing for HIV in Lusaka, Zambia. *Journal of Acquired Immune Deficiency Syndromes*, 47(1), 108. doi: 10.1097/QAI.0b013e31815b2d67
9. Sullivan, P. S., Stephenson, R., Grazer, B., Wingood, G., Diclemente, R., Allen, S., . . . Grabbe, K. (2014). Adaptation of the African couples HIV testing and counseling model for men who have sex with men in the United States: an application of the ADAPT-ITT framework. *SpringerPlus*, 3(1), 249. <http://doi.org/10.1186/2193-1801-3-249>
10. Stephenson, R., Rentsch, C., & Sullivan, P. (2011). High levels of acceptability of couples-based HIV testing among MSM in South Africa. *AIDS Care*, 24(4), 529-535. doi: 10.1080/09540121.2011.617413
11. Mitchell, J. W. (2014). Gay male couples' attitudes toward using couples-based voluntary HIV counseling and testing. *Archives of Sexual Behavior*, 43(1), 161-171. doi: 10.1007/s10508-013-0211-0
12. Wagenaar, B. H., Christiansen-Lindquist, L., Khosropour, C., Salazar, L. F., Benbow, N., Prachand, N., . . . Sullivan, P. S. (2012). Willingness of US men who have sex with men (MSM) to participate in couples HIV voluntary counseling and testing (CVCT). *PLoS one*, 7(8), e42953. doi: 10.1371/journal.pone.0042953; 10.1371/journal.pone.0042953
13. Florida Department of Health [FDOH]. (2016) HIV/AIDS section. Retrieved from <http://www.floridacharts.com/charts/OtherIndicators/NonVitalHIVAIDSViewer.aspx?cid=0471>
14. Sandelowski, M. (2010). What's in a name? Qualitative description revisited. *Research in Nursing & Health*, 33(1), 77-84. doi: 10.1002/nur.20362
15. Sandelowski, M., & Barroso, J. (2003). Classifying the findings in qualitative studies. *Qualitative Health Research*, 13(7), 905-923. doi: 10.1177/1049732303253488

Contact

Natalie_Leblanc@URMC.Rochester.edu

R 06 - Provider Perceptions of the HIV Patient Quality of Care at Primary Healthcare Facilities: Perceptions of Tuberculosis and HIV Co-Infected Patients

Deliwe Rene Phetlhu, PhD, MHS, BA, RN, RM, South Africa
Siphokazi Mngcozelo, BCur, RN, RM, South Africa
Million Bimerew, PhD, MN, BN, RN, South Africa
Joliana Selma Phillips, PhD, MSc, South Africa

Abstract

Purpose: Tuberculosis (TB) has been declared a global emergency and in South Africa a national emergency over two decades ago. TB is the leading opportunistic infection worldwide and the primary cause of mortality among people living with Human Immunodeficiency Virus (HIV). Tuberculosis and HIV combined are responsible for the deaths of over 4 million people annually and more than 65% of individuals diagnosed with TB in South Africa are co-infected with HIV. Providing quality health care services is therefore of utmost importance in improving South Africa's poor health outcomes in addition to restoring patient and staff confidence in the health system. The South African health consumers (patients) are increasingly becoming aware of their rights to quality care and their met or unmet expectations of quality services are directly linked to issues such as treatment adherence and patient retention. This could be a contributing factor in the increase in the TB/HIV co-infection rate in South Africa. Therefore, the purpose of this research was to explore and describe the perceptions of patients co-infected with TB and HIV regarding the quality of care at primary health care facilities in the Eastern Cape Province of South Africa.

Methods: Data collection commenced after ethical approval was received from the university's ethics committee and the provincial health department's research committee. The setting of the study was a sub-district that had primary health care facilities in rural, semi-rural and urban areas. Purposive sampling was used to select participants who then gave consent voluntarily after the study aim was explained to them and all other ethical concerns were addressed. Semi-structured interviews were conducted and data saturation was reached after the 18th participant was interviewed. The transcripts of the interviews were analysed thematically and a consensus meeting held to confirm and agree on common themes.

Results: Two main themes were generated, that is; satisfaction with delivered services and impediments to quality of care. The sub-themes of the satisfaction theme were: positive nurse-patient relationship; non-discrimination; health promotion; and availability of resources. The sub-themes of the impediments theme were: lack of privacy and confidentiality and prolonged waiting time.

Conclusion: The findings indicated that the participants' perception of quality of care were closely linked to their perception of nurses' behaviour and the systemic dynamics. It is therefore important for nurses to be respectful and responsive to the patients' individual needs to enable them to provide quality patient-centred care. The importance of nurses' knowledge regarding TB and HIV and their role in providing health education to patients are also highlighted.

References

Chimbindi, N., Barnighausen, T. & Newell, M. (2014). Patient satisfaction with HIV and TB treatment in a public programme in rural KwaZulu-Natal: evidence from patient-exit interviews. *BMC Health services research*, 14 (32).
Oluwagbenga, O & Mora, M. (2012). Time, expectation: patients' experiences at national hospital Abuja, Nigeria. *African journal of Primary Health Care and family medicine*, 4(1): 398-404.
Campbell, C., Scott, K., Madanhire, C., Nyamukapa, C. & Gregson, S. (2011). A 'good hospital': nurse and patient perceptions of good clinical care for HIV-positive people on antiretroviral treatment in Rural Zimbabwe: a mixed-methods qualitative study. *International journal of nursing studies*, 48(2): 175-183.

Contact

dphetlhu@uwc.ac.za

R 08 - Using Simulation in Nursing Education

Hands Off: Student Experiences in Objective Data Collection in Virtual Clinical Simulation

A. J. Kleinheksel, PhD, CHSE, USA
Francisco Jimenez, PhD, MA, MA, USA
Aaron Kotranza, PhD, USA

Abstract

Purpose: The purpose of this study was to investigate the impact of professional nursing experience on student satisfaction and perceived efficacy of virtual patient simulation in baccalaureate nursing curricula.

The increasing adoption of simulation in undergraduate nursing curriculum is motivated by the National Council of State Boards of Nursing simulation study (Hayden, et. al 2014) which supports replacing up to 50% of clinical hours with simulation. While the NCBSN study was limited in scope to physical and high-fidelity computer-assisted simulation (e.g human patient simulators) and pre-licensure undergraduate nursing programs, virtual simulation, including virtual patient simulation, is an additional tool for educators augmenting or replacing clinical placements with simulation. Virtual simulation can be as or more effective than physical simulation for teaching diagnostic reasoning to pre-licensure nursing students (Duff, Miller, and Bruce, 2016). Virtual patient simulation has been adopted to teach medical students communication and diagnostic skills (Cendan and Lok, 2012). However, the adoption of virtual simulation for “hands on” curricular components such as physical assessment may be limited by the lack of physical contact with the simulated patient. Particularly for post-licensure students, who typically have practical nursing experience, the lack of physical interaction may limit student satisfaction and the perceived efficacy of the simulation, presenting a barrier to curriculum integration.

To illuminate the potential for implementation of virtual patient simulations in physical assessment curricula, the researchers evaluated pre- and post-licensure baccalaureate nursing students’ attitudes towards curriculum-integrated virtual patient simulations that teach and evaluate physical assessment.

Methods: Participants: The participants in this study were BSN and RN-BSN students at 20 nursing schools across the United States. A total of 5,774 students were enrolled in courses during the spring 2016 semester. Sample exclusion criteria was identified based on the specific assignment and courses configurations that would most likely result in unreliable student data: students enrolled in courses in which instructors allowed multiple attempts or reopening of the assignments and assignment attempts in which students spent less than 10 minutes with the virtual patient. The assignments sampled for this study were Digital Clinical Experience (DCE) Focused Exams (FE) that included a newly released objective data collection feature. A final sample of 1,028 student attempts for the FE assignments of the DCE were selected for the study: 480 for the Respiratory FE (46.7%), 323 for the Cardiovascular FE (31.4%), and 225 for the Abdominal FE (21.9%).

Materials: Three assignments of DCE Undergraduate Health Assessment simulation product were selected for the study: the Respiratory FE, the Cardiovascular FE, and the Abdominal FE. In the Respiratory FE, students perform a focused examination of a 8-year-old male pediatric patient who is having a persistent cough. In the Cardiovascular FE, students perform a focused examination of a 58-year-old postoperative male patient who is presenting with chest discomfort. In the Abdominal FE, students perform a focused examination on a 68-year-old female patient who comes to the ER with abdominal pain. Each virtual patient case and associated performance assessment instruments were previously validated for nursing accuracy and learning value by several subject-matter experts.

The new objective data collection feature allows students to use the Exam Menu interface to perform physical assessments (e.g., inspection, percussion, and auscultation). As they perform each assessment, the Objective Data Collection tab automatically opens in the EHR allowing students to report on the respective assessment dimensions. For example, when students inspect the patient’s abdomen to assess for abnormalities, the dimensions students can report on are symmetry (symmetric or asymmetric),

contour (flat, rounded, protuberant, or hollowed), and appearance (e.g., rash, striae, distension, bruising, etc.). When students leave the virtual patient's room, the system alerts them to any assessments that they have not yet reported. When they submit their assignment to their instructor, students receive a score several aspects of their performance, including Objective Data Collection.

Measures: The researchers developed a survey containing eight Likert-type items and one open-ended question to measure students' attitudes towards the new objective data collection feature. The Likert-type items were "Overall, I feel that this assignment was a worthwhile learning experience", "I feel that the patient's body images and visuals allowed me to select the appropriate findings in the EHR", "I feel that the patient's body sounds allowed me to select the appropriate findings in the EHR", "I feel that the process of reporting objective findings improved my clinical reasoning skills", "I feel that the duration of this assignment was appropriate", "I feel that the score I received on objective data collection was a fair representation of my performance", "I feel that this assignment was too challenging for me to complete", and "I feel that this assignment helped me identify physical exam skills that need improvement". These items were evaluated on a scale of 1 to 5 where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The open-ended question was "How satisfied were you with the experience of selecting a physical exam from the menu, and then reporting the objective data in the EHR?".

Procedure: Each FE assignment had a post-exam activity that included a link to the survey instrument. In the survey instructions, students were told that their answers would be confidential and that participating or opting-out of the survey would not interfere with their patient exam assignment in any way. In order to ensure anonymity, identifying information, including demographics, were not collected in the survey.

Analysis: The data included in this study employed both quantitative and qualitative elements in a mixed-model design (Johnson & Onwuegbuzie, 2004). We conducted independent samples t-tests to compare RN-BSN and BSN student responses to the Likert-type items. Responses to the open-ended question were first coded for distinct concepts and themes in each student group separately. Then, responses were counted within each of the identified themes to obtain frequencies of occurrence.

Results: Quantitative analysis: In the Respiratory FE assignment, compared to their BSN peers, RN-BSN students reported significantly higher levels of agreement to the items "Overall, I feel that this assignment was a worthwhile learning experience", $t(460) = 3.274, p < .05$, and "I feel that the duration of this assignment was appropriate", $t(449) = 4.123, p < .05$. In the Cardiovascular FE assignment, RN-BSN students reported significantly higher levels of agreement to the item "I feel that the duration of this assignment was appropriate" compared to their BSN peers, $t(319) = -3.095, p < .05$. Similar to Respiratory, in the Abdominal FE assignment, RN-BSN students reported significantly higher levels of agreement than their BSN peers to the items "Overall, I feel that this assignment was a worthwhile learning experience", $t(222) = 2.353, p < .05$, and "I feel that the duration of this assignment was appropriate", $t(223) = 3.095, p < .05$.

Qualitative analysis: Over 75% of the RN-BSN and 80% of the BSN students who responded to the open-ended question included in each FE reported that they were satisfied or very satisfied with the experience of selecting a physical exam from the menu, and then reporting the objective data in the EHR. The main themes emerging among responses from RN-BSN students were: 1) the need for better art and sound assets to identify abnormalities (e.g., it was difficult to distinguish if patient was flushed or not, or the quality of the auscultation sounds made it difficult to report the finding), 2) the expectation that the EHR would auto-populate with the correct dimensions selected without having to select them, and 3) using the open-text Nursing Progress Notes tab in the EHR to summarize objective findings implied additional work and time. The main themes emerging among responses from BSN students were: 1) the activity was challenging or difficult to complete, 2) the workflow of the assessment was appropriate (i.e., having to perform the assessment and then record on the EHR, or EHR opening simultaneously with performing the assessment, or being able to report findings from various dimensions available), and 3) the idea that better instructions were required to complete the activity.

Conclusion: Due to persistent shortages of clinical placements and faculty, nursing programs are in an increasing need of a variety of simulation modalities to achieve their learning objectives assessment outcomes. Virtual patient simulations presents a viable, flexible, and standardized option for faculty. This study found that students of both learning populations find value and realism in virtual patient physical assessments. This study also found that significantly more RN-BSN students found virtual physical assessments to be valuable and appropriate than their pre-licensure counterparts. This difference, which surprising at first glance may be explained by the high level of fidelity of the virtual environment, which experienced students recognize, and/or the complexity experience presented by the deep patient narrative, which is more realistic to a real person. The findings of this study can be used to add additional evidence to case for using virtual patients in nursing education, but more importantly, it can be used to help faculty better frame the design, use, and value of virtual patients for their different student populations.

References

1. Hayden, J.K., Smiley, R.A., Alexander, M., Kardong-Edgren, S., Jeffries, P.R. (2014). The NCSBN National Simulation Study: A longitudinal, randomized controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5, S1–S64.
2. Duff, E., Miller, L., & Bruce, J. (2016, September). Online virtual simulation and diagnostic reasoning: A scoping review. *Clinical Simulation in Nursing*, 12(9), 377-384. <http://dx.doi.org/10.1016/j.ecns.2016.04.001>.
3. Cendan, J., & Lok, B. (2012). The use of virtual patients in medical school curricula. *Advances in Physiology Education*, 36(1), 48–53. <http://doi.org/10.1152/advan.00054.2011>
4. Johnson, R. B., & Onwuegbuzie, A. J., (2004, October). Mixed Methods Research: A Research Paradigm Whose Time Has Come. *Educational Researcher*, 33, 14-26. doi:10.3102/0013189X033007014

Contact

francisco@shadowhealth.com

R 08 - Using Simulation in Nursing Education

The Impact of Clinical Simulation on Beginning Nursing Students' Self-Efficacy and Learning

Lucy R. Van Otterloo, PhD, RNC, CNS, USA
Cathleen Deckers, EdD, RN, CHSE, USA

Abstract

Purpose: The use of simulation as an educational tool is becoming increasingly prevalent in nursing education (Yuan et al., 2012). Simulation-based education has been shown to improve communication skills, collaboration, and critical thinking (Bond et al., 2004; Norman, 2012), as well as increase self-efficacy and competency (Bambini et al., 2009). In fact, the National Council of State Boards of Nursing recommends substituting high-quality simulation experiences for up to half of traditional clinical hours (Alexander et al., 2015). Although published studies show improved learning with simulation compared to traditional education, there are few attempts to determine simulation effectiveness in building self-efficacy prior to beginning the clinical experience and/or in the obstetric setting. While all nursing courses adhere to a similar nursing practice basis, the care of the childbearing family is unique in its need to understand normal physiologic functioning as well as the effects pregnancy has on these normal functions. The purpose of the study was to compare the effectiveness of two educational delivery methods for the clinical setting, traditional lecture and high-fidelity human simulation on beginning level nursing students' self-efficacy. The aim was to determine if a simulated experience would increase self-efficacy of students preparing to enter the obstetrics clinical setting thereby improving the students' confidence and maximizing learning outcomes.

Methods: A control/experimental design was used for this study. Students enrolled in the clinical courses were either placed in the traditional lecture or simulation group. A pre/post-test was utilized to assess knowledge and a validated self-efficacy instrument (Obstetric Nurse Self-Efficacy) specific to the obstetric setting was used to determine level of confidence. Assessments were linked using specific participant ID numbers and entered into SPSS for analysis.

Results: A total of 150 students participated in the study (control=64, experimental=86). No significant difference was noted in knowledge acquisition between the two groups as expected, but the simulation group had slightly higher confidence scores. Significant difference was noted in groups where faculty followed a standardized procedure during the simulation between all groups and the control/experimental groups ($p=.034$). Qualitative data collected from students in the simulation group indicated that they felt better prepared to initiate care for the laboring patient, were less anxious about "not-knowing", and adapted to the new unit quickly. Faculty noted a positive difference regarding students' initiation of and confidence in care with those in the simulation group.

Conclusions: Novice students are noted to incur increased anxiety when entering the obstetric course with limited knowledge and skills needed for the care of the obstetric population. Furthermore, patient safety concerns with this vulnerable population limits actual hands-on experience to learn the necessary new skills. The results of this study support the use of simulation to assist in enhancing undergraduate students' self-efficacy in dealing with obstetric patients as well as their satisfaction with learning. Although simulation may be costly, programs should consider the appropriate, adequate, and timely use of simulation in nursing education and develop policies for standardization throughout the curriculum.

References

- Alexander, M., Durham, C.F., Hooper, J.I., Jeffries, P.R., Goldman, N., Kardong-Edgren, S....Tillman, C. (2015). NCSBN simulation guidelines for prelicensure nursing programs. *Journal of Nursing Regulation*, 6(3), 39-42.
- Bambini, D., Washburn, J., & Perkins, R. (2009). Outcomes of clinical simulation for novice nursing students: Communication, confidence, clinical judgement. *Nursing Education Research*, 30 (2), 79-82.
- Bond, W.F., Deitrick, L.M., Arnold, D.C., Kostenbader, M., Barr, G.C., Kimmel, S.R., & WorriLOW, S.R. (2004). Using simulation to instruct emergency medicine residents in cognitive forcing strategies. *Academic Medicine*, 79 (5), 438-446.
- Norman, J. (2012). Systematic review of literature on simulation in nursing education. *ABNF Journal*, 23(2), 24-28.

Yuan, H.B., Williams, B.A., & Fang, J.B. (2012). The contribution of high-fidelity simulation to nursing students' confidence and competence: a systematic review. *International Nursing Review*, 59, 26-33.

Contact

cathleen.deckers@csulb.edu

R 08 - Using Simulation in Nursing Education

Validating Targeted Behavioral Markers for Baccalaureate Nursing Student Teamwork Performance Outcomes in Simulation

LeAnn Chisholm, PhD, RN, USA
Rose A. Harding, MSN, RN, USA
Keili L. Peterman, MSN, MBA, RN, NEA-BC, USA
Mary E. Ford, MSN, RN, USA
Lisa Donnelly, MSN, RN, USA
Theresa A. Rhodes, MSN, RN, CPN, USA
Kelli M. White, MSN, RN-BC, USA
Kacie S. Calloway, BSN, RN, USA

Abstract

Background: Patient safety is a global priority for nurses and healthcare providers alike, yet medical errors are not decreasing. The Agency for Healthcare Research and Quality (AHRQ, 2014f) indicates that one out of seven Medicare patients in the United States will be the victim of a medical error. James (2013) concluded that medical error accounts for 200,000 to 440,000 deaths per year, with many of these errors related to ineffective teamwork and communication (AHRQ, 2014f). In an effort to improve teamwork and communication in healthcare, the United States Department of Defense and AHRQ developed the Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPs®) Instructional Framework to facilitate teamwork education and evaluation. TeamSTEPPs® evaluation instruments include the Teamwork Attitudes Questionnaire, Teamwork Perceptions Questionnaire, and the Teamwork Performance Observation Tool (TPOT). The TPOT (AHRQ, 2014a) was designed to objectively measure teamwork performance but has not been sufficiently studied. The AHRQ encourages nationwide implementation of these essential teamwork concepts in order to decrease morbidity and mortality associated with medical error.

Significance : Teamwork principles can be implemented in every high-fidelity simulation according to Clapper and Kong (2012). The NLN's Vision for Simulation in Nursing Education emphasizes the imperative for nurse educators to purposefully integrate simulation throughout curricula to promote clinical reasoning and good judgment (NLN Vision statement, 2015). Learning outcomes from these experiences need to be evaluated using reliable and valid instruments especially when these experiences replace clinical time (NLN Vision Statement, 2015). The ultimate goal of nursing education, despite teaching pedagogy, is for students to translate learning into clinical practice (Adamson, Kardong-Edgren, & Willhaus, 2013).

Zhang (2015) applied the Event Based Training (EBT) methodology to teamwork education and the development of Targeted Behavioral Markers (TBMs) which are scenario specific and reflect teamwork behaviors from the Team Performance Observation Tool (TPOT). With EBT, simulation scenarios are embedded with events which trigger an expected response creating an objective evaluation and facilitating feedback for improvement (Dwyer, Oser, Salas, and Fowlkes, 1999).

Purpose: The purpose of this research study was to analyze psychometric properties of the Teamwork Performance Observation Tool (TPOT) enhanced with Targeted Behavioral Markers (TBM) using a methodology by which validation can be efficiently accomplished and replicated.

Methods: This presentation will discuss a methodological study which sought to demonstrate the viability of the Team Performance Observation Tool enhanced with Targeted Behavioral Markers (TBMs) as a sensitive and valid measure of teamwork performance and a superior approach to teamwork assessment without TBMs. This study provides psychometric data for TeamSTEPPs® Teamwork evaluation instruments and a discussion of interrater reliability concerns, including implications for future studies using observational instruments.

Research Design: The study employed a quasi-experimental Multitrait-Multimethod (MTMM) design to investigate construct validity of the TPOT with TBMs. It compared methods of evaluation and traits being evaluated to determine if the evaluation method affects the outcome of testing. In this study, instruments with established reliability (TPOT, T-TPQ, T-TAQ) and varying methods of evaluation were utilized to evaluate teamwork along with newly developed TBMs which identify scenario specific teamwork behaviors. The Teamwork Nomological Network was developed for this study to illustrate theoretical relationships between the concept of teamwork, individual traits and outcomes, and associated measurement instruments. The Multitrait-Multimethod Correlation Matrix is a numerical expression of the Teamwork Nomological Network.

Aim and Research Questions: The aim of this research was to assess the convergent and divergent validity of the Team Performance Observation Tool (TPOT) enhanced with Targeted Behavioral Markers (TBM) as a valid measure of teamwork skill and performance acquisition in simulation training.

RQ 1: What is the relationship between TPOT, TPOT with TBMs, and the T-TPQ, T-TAQ, and the NLN Simulation Checklist (assesses convergent validity)?

RQ2: What is the relationship between the TPOT, TPOT with TBMs, and the Clinical Skills Self Efficacy Scale (assesses divergent validity)?

Sample, Setting, Recruitment: The study used a convenience sample of senior level baccalaureate nursing students enrolled in a clinical capstone nursing course (n=57) at a medium sized University and within a ten bed high fidelity Simulation Center. After Institutional Review Board (IRB) approval was obtained, the PI explained the purpose and design of the study, answer questions, invited clinical capstone students to participate, and obtained their voluntary written consent. Students were eligible to participate in the research study if all prior course work was complete. No student enrolled in the capstone course was excluded from the study since all students were expected to participate in the final clinical experience and were expected to successfully complete the nursing program. Participation in the study involved completing surveys and analysis of observational data. Choosing to participate or not participate in the study did not affect the student's grade for the course.

Rater Training: Three baccalaureate nursing students, who are not in the study sample, were recruited to participate in testing the simulation scenario and create a video for conducting interrater reliability among study raters. These volunteers received the TeamSTEPPs® teamwork education workshop but did not complete study surveys or demographic forms. The volunteer simulation was realistic and revealed technical issues in the scenario implementation, pre-scenario instructions and checklists which needed to be made prior to the study. Five faculty and two TeamSTEPPs® Master Trainers participated in a four hour faculty development workshop conducted by the PI (TeamSTEPPs® Master Trainer) in order to review the simulation, study instruments, and obtain baseline interrater reliability. Baseline interrater reliability of 80% was established for the observational instruments.

Data Collection: Five nurse faculty members each evaluated and scored three or four teams consisting of three nursing students using the observational instruments. Each team participated in the same simulation developed by the National League for Nursing (NLN) and Laerdal®. The PI viewed all simulations and rated each group on the observational instruments. The two TeamSTEPPs® Master Trainers viewed and rated 50% of the simulations and participated in the faculty development workshop. Ratings from the five faculty members, PI, and two TeamSTEPPs® Master Trainers were compared and interrater reliability was examined. Participating students completed the Clinical Skills Self Efficacy Scale, the T-TPQ (teamwork perceptions) and T-TAQ (teamwork attitudes) using anonymous Blackboard® surveys after the simulation.

Data Management: Data consisted of individual Likert style individual student surveys (Demographics, Clinical Skills Self Efficacy Scale, T-TPQ, T-TAQ) as well as group team performance evaluations (TPOT, TPOT with TBMs, NLN Simulation Checklist) and recorded simulations. Each student was assigned an individual identification number, team identification number, and faculty identification number. A code book linking subjects with their individual, team, and faculty evaluator identification numbers was maintained on the PI's laptop computer which was maintained in a locked office and password protected

along with videos of the simulations. Team raw scores and mean scores were calculated for the individual surveys in order to analyze relationships between survey data and teamwork observational data.

Data Analysis: The data was analyzed using the Statistical Package for Social Science (SPSS) version 22. Preliminary analysis included demographics, reliability statistics for each instrument, and Intraclass Correlations to analyze interrater reliability between raters on the observational instruments. Pearson correlations were calculated and placed in the Multitrait-Multimethod Correlation Matrix for interpretation. Pearson Correlations were calculated between the TPOT without TBMs, TPOT with TBMs, T-TPQ, T-TAQ, and NLN Simulation Checklist and entered in to the Multitrait-Multimethod Correlation Matrix. Moderate correlations (.4 - .6) indicate convergence while high correlations (.6 - .9) may indicate that the concepts are very similar. Pearson Correlations for the TPOT, TPOT with TBMs, and the Clinical Skills Self Efficacy Scale were also calculated. Low correlations (<.4) between self efficacy, team performance measures, and outcomes indicate divergence.

Results: Correlations between the TPOT and TBMs ($r^2=.87$, $p < .01$) and between the TAQ and TPQ surveys were significant and high ($r^2=.47$, $p < .01$). However, correlations between observed teamwork performance (TPOT and TBM), teamwork attitudes (TAQ), and perceptions (TPQ) overall scores were weak in this study ($r < 0.4$). No study was identified for comparison. Unexpected findings may be related to rater training, faculty teamwork knowledge and simulation experience, ambiguity of behavioral markers, contamination of TPOT results by exposure to TBMs, and varying student performance. Conversely, self-efficacy with clinical skills demonstrated low correlations with teamwork attitudes and perceptions as predicted, but unexpected high correlations with observed teamwork scores. High correlations between clinical skill self-efficacy and observed teamwork performance scores ($p < .05$) may indicate that clinical skill self-efficacy influences teamwork performance. Additional study of these relationships using fully crossed designs for interrater agreement are needed in order to clarify the MTMM Correlation Matrix and provide a framework to assess future teamwork behavioral markers.

Conclusion: Teamwork education and evaluation in nursing education is essential to promote patient safety. Assessment of teamwork perceptions and attitudes can be used to indicate the effectiveness of teamwork education (Brock et al., 2013); however, attitudes and perceptions do not always translate to clinical practice. Established rigorous methods for determining reliability and validity need to be applied to testing objective teamwork performance instruments. Findings from this study provide much needed psychometric data for the TPOT and unexpected findings regarding the relationship between the TPOT, TAQ, and TPQ.

References

- Adamson, K. A., Kardong-Edgren, S., & Willhaus, J. (2013). An updated review of published simulation evaluation instruments. *Clinical Simulation in Nursing*, 9(9), e393-e400. <http://dx.doi.org/10.1016/j.ecns.2012.09.004>.
- Agency for Healthcare Research and Quality (2014a). Team performance observation tool: TeamSTEPPs® instructor manual. Agency for Healthcare Research and Quality, Rockville, MD. Retrieved from <http://www.ahrq.gov/professionals/education/curriculumtools/TeamSTEPPs®/instructor/reference/tmpot.html>
- Agency for Healthcare Research and Quality (2014f). 20 Tips to Help Prevent Medical Errors. December 2014. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.ahrq.gov/patients-consumers/care-planning/errors/20tips/index.html>, retrieved Feb. 6, 2016
- Brock, D., Abu-Rish, E., Chiu, Chia-Ru, Hammer, D., Wilson, S., Vorvick, L., Blondon, Kaherine, Schaad, D., Liner, D., & Zierler, B. (2013). Interprofessional education in team communication: Working together to improve patient safety. *BMJ Quality and Safety*, 22, 414-423.
- Clapper, T. C., & Kong, M. (2012). TeamSTEPPs®: The patient safety tool that needs to be implemented. *Clinical Simulation in Nursing*, 8(8),e367-e373. Doi:10.1016/j.ecns.2011.03.002.
- Dwyer, D. J., Oser, R. L., Salas, E., & Fowlkes, J. E. (1999). Performance measurement in distributed environments: Initial results and implications for training. *Military Psychology*, 11(2), 189-215.
- James, J. T. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety*, 9(3), 122-128.
- National League for Nursing (2015). A vision for teaching with simulation. NLN Vision Series: Transforming Nursing Education Leading the Call to Reform. Retrieved from <http://www.nln.org/docs/default-source/about/nln-vision-series-%28position-statements%29/vision-statement-a-vision-for-teaching-with-simulation.pdf?sfvrsn=2>

Zhang, C., Miller, C., Volkman, K., Meza, J., & Jones, K. (2015). Evaluation of the team performance observation tool with targeted behavioral markers in simulation-based interprofessional education. *Journal of Interprofessional Care*, 29(3), 202-208. Doi: 10.3109/13561820.2014.982789

Contact

leann.chisholm@lamar.edu

R 09 - Using Photovoice in Healthcare

Finding Meanings: Using Photovoice to Explore Smoking in Rural Low-Income Women

Star Mitchell, PhD, RN, CCRN, USA

Abstract

Background: High rates of smoking-related chronic disease in low-income rural women and limited access to and use of quality health care has created a challenge to tobacco cessation efforts. These factors support the international call for creative and targeted research approaches that offer new insight and meaning into the relationship between smoking and social determinants of health (Garrett, Dube, Bann, & McAfee, 2015; World Health Organization, 2008). Research has provided a clear picture of how many people smoke, who smokes, and how much they smoke. Unanswered questions remain that are relative to *why* certain demographic groups of people continue to smoke and *how* to effectively reduce cigarette use in populations that embrace smoking. Smoking rates in low-income rural women are stagnant while rates in non-poor and non-rural populations continue to decline, disproportionately increasing the tobacco-related disease and health burden of rural communities when compared to other sectors of society (American Lung Association, 2012; Centers for Disease and Control, 2014).

Purpose: This study explored the meaning of smoking from the perspective of rural low-income women and its effect on the relationship to social identity, sociocultural factors, and smoking behavior. Using photovoice from a relativist's perspective, the purposes of this study were to (a) explore cultural and social factors that give meaning to being a smoker in rural low-income women and (b) explore the relationships between social support, social networks, social identity, and the meaning of smoking in rural low-income women's decision to smoke and attempt smoking cessation.

Methods: This is an interpretive focused ethnography using photovoice as the primary method of inquiry to collect data from low-income rural women residing in three homogeneous and neighboring counties located in the mid-Atlantic portion of the United States. Counties selected for recruitment presented high rates of poverty, smoking, and unemployment with similar cultural, economic, geographic, and social characteristics. This naturalistic approach to inquiry included community assessments and individual photo elicited interviews. Participants completed an initial interview focusing on their current smoking behaviors and smoking history. After completing self-produced photographs of smoking experiences, a second individual interview was conducted using the photos as a mechanism to elicit deeper discussion and gain insight into what it means to smoke and be a smoker. Demographic data were recorded and analyzed for similarities and nuances. Transcribed narratives and photographs were analyzed for the complexity of participants' stories, focusing on the phenomenon of smoking in various aspects of their lives, including identity development and the socio-cultural meaning of smoking (Goodall, 2000; Saldana, 2013). ATLAS.ti was used to support descriptive, thematic, and theoretical coding of transcripts and photos to facilitate identifying variations and patterns reflective of the women's experiences, relationships, social and cultural beliefs, and behaviors within the social context of smoking.

Results: Of the 17 women enrolled in the study, 13 completed both interviews and submitted photographs, which resulted in 26 interviews and 196 participant-produced photographs for analysis. For these 13 women between the ages of 25 and 63, social characteristics showed all participants living as single women, most with dependent children, a common history of drug or alcohol abuse, current or previous domestic violence, and exposure to community violence in their current living conditions. All the women wanted to find a job. Seven themes evolved from analysis of the data which add to our understanding of what it means to be a smoker within the social context of low-income rural women: (1) feelings of isolation (2) struggling day to day (3) it's relaxing (4) looking good and the sense of empowerment (5) family support and expectations (6) being a good mother (7) hope for a better life. Although the interview questions did not specifically ask about rural life, patterns and themes disclosed during narratives and review of the photographs related to social engagement, social identities, and the meaning of the women's social relationships within the context of rural living. Feelings of isolation were associated with the geographic nature of rural living and further amplified by the stigmatization

encountered when identified as a smoker. Prominent narrative themes include relationships between smoking and their roles associated with family membership, being a good mother, and their need to feel empowered within their social environments. As established in previous smoking studies, women in the current study described smoking as a tool for relaxation and stress relief.

Conclusion: Photovoice is an effective and creative method for expanding our knowledge of the relationship between smoking and social determinants of health. Findings presented in this study add to our understanding of cultural and social factors that give meaning to smoking in rural low-income woman; and explore the relationships between social support, social networks, social identity, and the decision to smoke or attempt smoking cessation in this marginalized population of smokers that have not responded to current smoking cessation interventions. This knowledge will be useful in the design of smoking cessation interventions that target low-income women living in disadvantaged rural areas and supports the use of this creative research approach in future studies that target disadvantaged or marginalized populations.

References

- American Lung Association. (2011). *Trends in Tobacco Use*. Research and Program Services. <http://www.lung.org/assets/documents/research/tobacco-trend-report.pdf>. Accessed 2/13/2015.
- Boydell, K., Gladstone, B., Volpe, T., Allemang, B., & Stasiulis, E. (2012). The production and dissemination of knowledge: A scoping review of arts-based health research. *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 13 (1), Art. 32. Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/1711/3329>, Accessed December 17, 2015.
- Centers for Disease Control and Prevention. (2014) *Adult cigarette smoking in the United States: Current estimate*. Retrieved July 20, 2014 from: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm
- Garrett, B., Dube, S., Babb, S., & McAfee, T. (2015). Addressing the social determinants of health to reduce tobacco-related disparities. *Nicotine & Tobacco Research*, 17 (8), 892-897. doi: 10.093/ntr/ntu266.
- Goodall, H. (2000). *Writing the new ethnography*. Walnut Creek: AltaMira Press.
- Hartley, D. (2004). Rural health disparities, population health, and rural culture. *American Journal of Public Health*, 94, 1675-1678.
- Mitchell, S., Kneipp, S., & Giscombe, C. (2015). Social Factors Related to Smoking among Rural, Low-Income Women: Findings from a Systematic Review. *Public Health Nursing*.
- National Research Council and Institute of Medicine. (2015). *Measuring the Risks and Causes of Premature Death: Summary of Workshops*. H.G. Rhodes, *Rapporteur*. Committee on Population, Division of Behavioral and Social Sciences and Education. Board on Health Care Services, Institute of Medicine. Washington, DC: The National Academies Press.
- Pearce, J, Barnett, R., & Moon, G. (2012). Sociospatial inequalities in health-related behaviors: Pathways linking place and smoking. *Progress in Human Geography*, 36, 3-24.
- Saldana, J. (2013). *The coding manual for qualitative researchers, 2nd ed*. Thousand Oaks, California: Sage Publications.
- Wang, H., Shumacher, A., Levitz, C., Mokdad, A., & Murray, C. (2013). Left behind: widening disparities for males and females in US county life expectancy, 1985-2010. *Population Health Metrics*, 11:8. <http://www.pophealthmetrics.com/content/11/1/8>. Accessed 12/2/2015.
- World Health Organization Commission on Social Determinants of Health. (2008). *Closing the Gap in a Generation: Health Equity Through Action on the Social Determinants of Health: Commission on Social Determinants of Health Final Report*. World Health Organization, Geneva. Retrieved from http://apps.who.int/iris/bitstream/10665/43943/1/9789241563703_eng.pdf

Contact

sam418@txstate.edu

R 09 - Using Photovoice in Healthcare

Photovoice Empowerment Activity: Engaging High-Risk Youth in Civic Engagement and a Leadership Program

Ainat Koren, PhD, RN, USA

Abstract

Purpose: High risk youth have few opportunities to engage in the community and have their voices heard. Photovoice is a creative community-based participatory research methodology that has been successful in giving marginalized populations leadership roles in assessing their environment and advocating for positive change (Catalani & Minkler, 2010; Hergenrather, Rhodes, Bardhoshi, 2010; Israel, Eng, Schultz, & Parker, 2015; Wang 2006).

Research has established the positive impact of community service, community and school engagement, positive youth and adult relationships and enhanced self image on reducing youth risk behavior. The purpose of Photovoice is to (1) to enable individuals to record and reflect their community's strengths and concerns, (2) to promote a dialogue and knowledge about important issues through discussion of photographs, and (3) to reach key stakeholders in the community. The ability to digitally communicate their identities, the context of their lives, and express changes that they believe need to be made on individual and societal levels has given these teens a voice. This presentation will share results from a photovoice activity and a program evaluation of high risk teens participating in a civic engagement and leadership program.

Methods: An exploratory qualitative method was employed to examine the impact of photovoice combined with civic engagement and leadership program participation on eleven high school students in Southern Massachusetts. An interview guided focus group was audio recorded and transcribed verbatim. The data was coded and themes were summarized. In addition, photographs from the photovoice project and their accompanied narratives were coded and summarized into themes.

Results: Focus group analyses showed that teens experienced concerns about gender and race discrimination. They were also concerned about the crime rates in their community. The teen experienced empowerment, identity awareness, and community awareness through the workshop and photovoice activity. Participants expressed their desire for civic engagement. In addition the teens expressed short and long term plans for education attainment, graduation and productive life goals. At the end of the year the group is planning an exhibition of their photographs in their high school and community library, to raise the consciousness of the community and key stakeholders to their view and vision for their community.

Conclusion: This study has implications for professionals and researchers engaging with high risk minority teens in the community. Photovoice methodology can complement any program that has teen empowerment among their goals. Photographs acquired through a photovoice project have the potential to promote participatory action by allowing participant to have a voice.

References

- Catalani, C., & Minkler, M. (2010). Photovoice: A review of the literature in health and public health. *Health Education & Behavior, 37*, 424–452
- Hergenrather K.D, Rhodes, S.G, Bardhoshi, G. (2009) Photvoice as Community – Based Participatory Research: A Qualitative Review. *American Journal of Health Behavior, 33*(6), 686-698.
- Israel, B. A., Eng, E., Schultz, A. J., & Parker, E. A. (2013). *Methods in community-based participatory research for Health* (2nd ed.). San Francisco: Jossey-Bass
- Wang, C. (2006). Youth participation in photovoice as a strategy for community change. *Journal of Community Practice, 14*(1/2), 147–161.

Contact

ainat_koren@uml.edu

R 09 - Using Photovoice in Healthcare

Curling and Rural Women's Health in Canada: A National Photovoice Study

Beverly D. Leipert, PhD, MSN, BSN, BA, RN, Canada

Lynn Scruby, PhD, MS, BN, RN, Canada

Heather Mair, PhD, Canada

Robyn Plunkett, PhD, MScN, BScN, BSc, RN, Canada

Abstract

Purpose: Purposes of the Study were to:

- 1) Explore effects of curling on the health and community life of rural women;
- 2) Determine how health, sport, and recreation can be understood within the contexts of rural gender and community change; and
- 3) Assess the utility of photovoice, an innovative, participatory qualitative research methodology and method, in advancing research with rural women.

These purposes were set for the following reasons. Sport and recreation play important roles in rural life in Canada. Determinants of health such as physical activity and social inclusion are key to the health of rural residents and essential for rural community life (Kulig & Williams, 2012). More than 28% of Canadian curlers live in communities with fewer than 10,000 people (Canadian Curling Association, 2008). Yet, rural women have few opportunities to experience the social and health benefits of sport and recreation, as rural communities tend to favor men and boys in sports, to the exclusion or minimizing of women and girls, for example in sports such as hockey. In addition, little research has been conducted on the significance and effects of sport and recreation for rural women (Morrow & Wamsley, 2013).

Rural communities in Canada are becoming feminized aging communities (Leipert, Leach, & Thurston, 2012). In these rural communities, few health and recreation resources exist (Mair, 2007), and rural people are less healthy and have shorter life expectancies compared to urban residents (Canadian Institute for Health Information, 2006; Kulig & Williams, 2012). Thus, it is vital that research focus on rural women and recreation to enhance understanding and nursing practice regarding sport and the health of rural people in general, and rural women in particular.

Methods: The methods of this study were guided by two methodological approaches: rural ethnography, and photovoice. Rural ethnography, in its exploration of ways in which the world is experienced and understood in the everyday lives of people, acknowledges the centrality of gender, power, process, and complexity in rural life (Hughes, Morris, & Seymour, 2000). Photovoice, with its novel use of photographs and oral and written methods, elicits rich data about contexts and social and health-related experiences (Wang & Burris, 1997). Thus, both of these methodologies were suitable for this study.

Sample and Setting: Fifty-two women and girls, ranging in age from 12 to 75 years with an average age range of 50-60 years, in seven rural communities in Nova Scotia, Manitoba, Ontario, and the Northwest Territories participated in the study. Inclusion criteria were that participants self-identified as present or past female members of rural curling clubs. Curling experience ranged from one to 16 or more years with most participants having several years of curling experience. Rural was defined in this study as populations living outside the commuting zone of areas with more than 10,000 residents (du Plessis, Beshiri, & Bollman, 2002).

Data Collection: Prior to beginning the study, ethical approval was obtained from Western University, the University of Manitoba, and Dalhousie University. Then, in a camera orientation session, participants were provided with cameras and log books and asked to take photos and record data that depict roles that curling clubs play as sport and community places for rural women and how curling and curling clubs influence the health of rural women. After two weeks the cameras and log books were retrieved, and copies of the photos were made for the participants and the researchers. These photos were returned to the women in focus group settings, where each participant selected two photos to title and discuss. Further data collection occurred as the researchers observed in rural curling rinks and engaged in

conversations about physical and socio-cultural aspects of the rink, such as the roles of women and others, how the rink is used by women, men, children, and the community, and the effects of use on the social lives and health of rural women. These researcher observations and perspectives were recorded in field notes and included in the data of the study.

Results: Study participants in the four provinces took 955 photographs, recorded in 52 log books, and participated in two group interviews in their rural location. All of the data from these sources were analyzed by the researchers with some analysis also done by and with the participants. Results reveal that curling enhances physical and mental health and resiliency, facilitates vital social and community connections, supports rural community life, and provides a valued and visible way for women to support rural community life. Photovoice was revealed as a significant enhancement to this research in its facilitation of the recruitment of participants of varying ages and backgrounds, and in the provision of rich, evocative, and insightful data, analysis, and findings. Narrative and pictorial data will be used extensively in the presentation to illustrate these findings.

Conclusions: This research significantly enhances understanding of how gender and recreation intersect to influence rural women's health, social capital, rural community change, and community development and sustainability. Important recommendations regarding nursing and other support and enhancement of girls' and women's sport and curling in rural communities will be offered based on the findings of this study. Recommendations regarding the utility of this research for nursing education, for example regarding learning about research methodologies and methods and rural nursing practice possibilities, are also evident and will be addressed in the presentation. Photovoice methodology significantly enriched recruitment, data collection, analysis, and dissemination activities, and its utility and suggestions for further rural and women's health research to enhance substantive, methodological, and nursing education and practice understandings will be offered.

References

- Kulig, J., & Williams, A. (Eds.). (2012). *Health in rural Canada*. Vancouver, BC: UBC Press.
- Leipert, B. (2013). Rural and remote women and resilience: Grounded theory and photovoice variations on a theme: An update. In C. Winters (Ed.), *Rural nursing: Concepts, theory, and practice* (4th ed., pp. 95-117). New York: Springer.
- Leipert, B., Leach, B., & Thurston, W. (Eds.). (2012). *Rural women's health*. Toronto, ON: University of Toronto Press.
- Morrow, D., & Wamsley, K. (2013). *Sport in Canada: A history*. Don Mills, ON: Oxford University Press.
- Prosser, J. (2011). Visual methodology: Toward a more seeing research. In N. Denzin & Y. Lincoln (Eds.), *The Sage handbook of qualitative research* (4th ed., pp. 479-495). London, UK: Sage.
- Nicholson, M., Brown, K., & Hoyer, R. (2013). Sport's social provisions. *Sport Management Review*, 16 (2), 148-160.
- Seifried, C., & Clopton, A., (2013). An alternative view of public subsidy and sport facilities through social anchor theory. *City, Culture, and Society*, 4, 49-55.
- Yonge, O., Myrick, F., & Ferguson, L., & Grundy, Q. (2013). Multiple lenses: Rural landscape through the eyes of nurse preceptors and students. *Journal of Rural and Community Development*, 8 (1), 143-159.

Contact

bleipert@uwo.ca

S 04 - Creating a Culture of Patient Safety

The Development and Testing of a Measure for Turbulence in Intensive Care

Jennifer A. Browne, PhD, RN-BC, CCRN, USA

Carrie Jo Braden, PhD, RN, FAAN, USA

Abstract

Purpose: Nursing workload is a valuable measure of a nurses' work and is used to determine the needs of a unit and to bring some degree of standardization to staffing models and costs. Once a workload measure is in place, connections and correlations can be made between nurse staffing, performance measures and patient outcomes.¹ Gaining a better understanding of nursing work has become especially important as leaders attempt to balance diminishing healthcare resources and cost containment with a need to promote clinical outcomes and patient safety. (Berry & Curry, 2012; Myny, Van Hecke, De Bacquer, Verhaeghe, Gobert, Defloor & Van Goubergen, 2012).

While undertaking a model-building dissertation study, it became evident that the concept of workload did not describe all the activities nurses were performing. It was observed that some staff nurses with moderate to low workload assignments were exhibiting stress and were delayed with scheduled tasks. The nurses voiced frustration with work blockages such as incorrect medications delivered, missing supplies (i.e., wrong size ostomy bag) and equipment issues (i.e., broken bar code scanner). The activities undertaken to surmount barriers to completing patient care were not captured in standard workload measures. (Baernholdt, Cox & Scully, 2010)

Because the full extent of nurse activities could not be specified in the proposed model, a variable for turbulence was created in order to capture nurse activities not represented by workload. The purpose of this presentation is to report the completed validity and reliability testing of a measure for turbulence and, based on the identified characteristics, propose a turbulence definition. Recommendations for future research are influenced by the initial correlation findings between turbulence, workload and patient safety. Literature Review:

Environmental turbulence has been defined as "an interaction between individuals and their environment in response to instability and rapid changes in their internal and/or external environment affected by attributes of the individuals, groups and/or the organization with the potential to impact patient and nursing outcomes" (Bosco, 2007, p.13). Turbulence is inclusive of internal factors with a notion of ineffective buffering of any disruptive force that may intrude upon the nurses' ability to perform nursing practice and provide patient care. (Tillman, Salyer & Corely, 1997; Bosco, 2007).

Jennings (2007) characterized turbulence as a loss of control due to simultaneous demands; difficult, or unfamiliar work; heavy patient loads; and excessive responsibility. Turbulence attributes clustered into two themes: communication and workload. Unique stressors, exclusive to our conceptualization of turbulence were those items that grouped primarily under nursing communication: breakdowns, distractions, interruptions, loss of information during handoffs, cognitive stacking and impaired decision-making. (Salyer, 1995; Patterson & Wears, 2010; Rivera-Rodriguez & Karsh, 2010; Coiera, 2012; Hopkinson & Jennings, 2013; Park, Blegen, Spetz, Chapman & DeGroot, 2013).

Methods: This mixed methods study was conducted in collaboration with The American Association of Critical Care Nurses (AACN) and approved by The University of Texas Health Science Center IRB. A 15 item turbulence scale was developed from the literature and tested in a mixed methods dissertation pilot with our local chapter of AACN. Clinical experts in critical care helped determine content validity. Reliability was tested using an interrater approach with critical care nurse raters scoring unique workload and turbulence components

The turbulence items were then administered as part of a national survey interested in assessment of a Health Information Technology Workaround Model. A voluntary survey was sent to all members of AACN. Respondents were asked if any of the 15 listed activities were present or impacted work on their unit

during their workaround experience. Responses were on a Yes (1)/ No (0) scale. Workload was measured using acuity, staffing ratio, and the nurse's perception of their workload (light, moderate and heavy).

Results: A sample of 307 AACN RN members responded to an email survey consisting of items measuring nurse characteristics, workload, turbulence/ problems and patient safety risk (or event) and workarounds. Open ended questions solicited narrative descriptions of the problems, work activities and workarounds encountered or performed by the nurses. The respondents were 87% female, and the majority were 45 years old or greater. Almost 50% of the nurses had a bachelor's degree in nursing, and 20.6% an associate degree. Nurse experience was midway between proficient and expert. Intensive care specialties included adult, pediatric and neonatal. Patient acuity was reported as: 61.8% critical, 28.7% guarded. Workload of the nurse was reported as heavy (40%) and moderate (58%).

The distribution characteristics for the turbulence items will be presented. Sudden changes in acuity, interruptions and distractions were reported by more than half of the respondents. Other frequently selected turbulence items included administrative demands, communication breakdowns, information overload, noise, transfers in and out of the unit and staff having to leave the unit. Triangulation methods resulted in inter-method agreement of all 15 of the turbulence characteristics. There were no outliers or additional attributes identified.

The minimum amount of data for factor analysis was satisfied with a final sample size of 296 (> 12 cases per variable). Using completed study data, consistency for the total scale indicated a Cronbach's alpha of .75 ($p < .01$). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .77, above the recommended value of .6, therefore exploratory factor analysis of the 15 items was examined. Based on principal component extraction with varimax rotation, the five factor solution obtained had Eigen values greater than one and factor loadings ranging from .53 to .82. The 5 factors explained 54% of the variance. The criteria for the factor solutions are consistent with conventional statistical recommendations (Polit & Beck, 2008). Based on the analysis, the definition of turbulence offered by this work is: The degree to which the interaction between a nurse and attention diversion, resource inadequacy, communication breakdowns, sudden acuity increases and interpersonal relationships affects the nurses' ability to practice or provide care.

Conclusion: Initial testing of a turbulence measure demonstrated reliability and validity and produced a preliminary definition based on essential attributes. Hyun, Bakken, Douglas and Stone (2008, p.8) state "staffing decisions that lack consideration of all relevant factors may result in poor patient outcomes". Workload, although widely used, does not tell the entire story and underestimates the totality of nurses' tasks and responsibilities. When considering workload and turbulence, a broader understanding of nurse activities might provide us with alternative solutions beyond "staffing". For example, workload (i.e., acuity, admissions and discharges) might be difficult to manipulate, but turbulence items, such as interruptions, loss of information, communication breakdowns and inadequate resources can be intervened upon. In the primary study we found that turbulence was most strongly correlated with safety hazards ($r = .41$, $N = 293$, $p = .000$) whereas the association between workload and safety hazards ($r = .16$, $N = 29$, $p = .005$) had the weakest relationship. The findings of this research will be presented and suggest that interventions aimed at turbulence reduction should result in better clinical outcomes and a reduction in safety risk.

References

- Baernholdt, M., Cox, K., Scully, K. (2010). Using clinical data to capture nurse workload. *CIN: Computers, Informatics, Nursing*, 28, 229–234.
- Berry, L., Curry, P. (2012). Nursing workload and patient care: understanding the value of nurses, the effects of excessive workload, and how nurse-patient ratios and dynamic staffing models can help (First). The Canadian Federation of Nurses Unions, Ottawa.
- Bosco, C. L. (2007). *The relationship between environmental turbulence, workforce agility and patient outcomes*. (Unpublished doctoral dissertation). University of Arizona, College of Nursing, Tucson
- Coiera, E. (2012). The science of interruption. *BMJ Quality and Safety*, 21:357–360.
- Hopkinson, S.G., Jennings, B.M.(2013). Interruptions during nurses' work: A state-of-the-science review. *Research in Nursing & Health*, 36:38–53.

Hyun, S., Bakken, S., Douglas, K., Stone, P. (2008). Evidenced-based staffing: potential roles for informatics. *Nursing Economics*, 26(3): 151-158.

Jennings, B. M. (2007). Turbulence. In R. Hughes (Ed.), *Advances in patient safety and quality: An evidence-based handbook for nurses* (pp. 2-137-2-158). Rockville, MD: AHRQ.

Jennings, B., Sandelowski, M., Boshamer, C., Higgins, M. (2013). Turning over patient turnover: an ethnographic study of admissions, discharges and transfers. *Research in Nursing and Health*, 36(6): 554-566.

Myny, D, Van Hecke, A., De Bacquer, D., Verhaeghe, S., Gobert, M., Defloor, T., & Van Goubergen, D. (2012). Determining a set of measurable and relevant factors affecting nursing workload in the acute care hospital setting: A cross-sectional study. *International Journal of Nursing Studies*, 49, 427-436.

Park, S.H., Blegen, M.A., Spetz, J., Chapman, S.A., DeGroot, H. (2013). Patient turnover and the relationship between nurse staffing and patient outcomes. *Research in Nursing & Health*, 35:277–288.

Patterson, E.S., Wears, R.L. (2010). Patient handoffs: standardized and reliable tools remain elusive. *Joint Commission Journal on Quality and Patient Safety*, 36:52–61.

Polit, D., & Beck, C. (2008). *Nursing research; generating and assessing evidence for nursing practice* (8th ed.). Philadelphia, PA: Lippincott, Williams, & Wilkins.

Rivera-Rodriguez, A.J., Karsh, B-T. (2010) Interruptions and distraction in healthcare: review and reappraisal. *Quality & Safety in Health Care*, 19:304–312.

Salyer, J. (1995) Environmental turbulence. Impact on nurse performance. *Journal of Nursing Administration*, 24(4):12–20.

Tillman, H. J., Salyer, J., & Corely, M. C. (1997). Environmental turbulence: staff nurse perspectives. *Journal of Nursing Administration*, 27(11), 15-22.

Contact

jabrowne@sbcglobal.net

S 04 - Creating a Culture of Patient Safety

Registered Nurses' Perceptions of Patient Safety Culture and Safety Outcomes in the Workplace

Elizabeth J. Murray, PhD, RN, CNE, USA

Abstract

Purpose: Patient safety presents a serious global public health issue (WHO, 2014). Health care organizations have worked to reduce errors, identify, and analyze near misses, and foster a patient safety culture for more than 15 years all over the world. Yet, estimates indicate that in developing countries one in ten patients is harmed by a range of errors or adverse events while hospitalized (WHO, 2014). In addition, recent studies suggest that close to 210,000 patients die in the United States from preventable errors (James, 2013) and at least 3.6% of hospital deaths in England are attributed to preventable errors (Yu, Flott, Chainani, Fontana, Darzi, 2016). Patient safety and patient safety culture are key components of quality health care. Keeping patients safe is inherent in nursing care. As the largest component of the healthcare workforce, registered nurses are viewed as “inseparably linked to patient safety” (IOM, 2004, p. 23). The aim of this study was to explore registered nurses’ perceptions of patient safety culture and safety outcomes in their workplace using the AHRQ *Survey on Patient Safety Culture*.

Methods: This study involved a descriptive correlational design using the AHRQ *Survey on Patient Safety Culture*. Is a 42-item survey that measures seven patient safety composites at the unit level, three patient safety composites at the organizational level, and four safety outcomes. The *Surveys on Patient Safety Culture* were mailed to a randomized sample of 500 registered nurses with active and clear licenses in a southeastern state in the United States using the Dillman Tailored Design Method (2000). The estimated sample size was calculated using G* Power 3. The results yielded a minimum of 67 nurses were needed for a medium effect size ($r = 0.30$), 0.05 level of significance, and the desired power of 0.80 (Faulstich, Erdfelder, Lang, & Buchner, 2007). Data collection took place from November 2014 to February 2015. Data analysis was completed using SPSS software for Windows, Version 23.

Results: A total of 108 valid surveys were returned resulting in a response rate of 24%. The percent of positive results were calculated for each survey item and each composite. Negatively worded items were recoded. Among the unit-level aspects of patient safety culture, *teamwork within units* had the highest average positive response (76.5%) and *nonpunitive response to errors* had the lowest average response (25.5%). Among the organizational-level aspects of patient safety culture, *management support for patient safety* had the highest average positive response (52%) and *handoffs & transitions* had the lowest average positive response (33.75%). Twelve percent of the respondents gave their workplace an overall grade of excellent while 14.9% rated their workplace as poor or failing. The average percentage of positive responses to the safety outcomes of overall perceptions of patient safety and the frequency of events reported were 46% and 50.33% respectively. Pearson correlation coefficient was used to examine the relationships between patient safety culture composites and safety outcomes. A significant positive correlations were found between *communication and openness* and the *frequency of events reported* ($p < 0.001$) and *supervisor/manager expectation & actions promoting patient safety* and *patient safety grade* ($p < 0.001$). A significant negative correlation was found between staffing and the number of events reported ($p < 0.001$).

Conclusion: There are several limitations to this study. A major limitation of this study is the low response rate, however, the sample was representative of nurses across numerous work areas. Another limitation is the self-selection of participants. Many factors could have influenced their responses such as recent exposure to safety training or adverse event in the practice setting. Finally, the survey was conducted in one state in the southeastern region of the United States and may not be generalized to the larger population.

The findings of this study have implications for nursing practice, nursing leadership, and future research. These results provide evidence for the need to further education of frontline nurses on the importance of

reporting errors and near misses. In addition, nurses must feel safe reporting errors and near misses and these findings suggest that there is more work to be done to ensure a non-punitive environment. Understanding nurses' perceptions will help the profession and nursing leadership to develop strategies that foster transparency in the workplace, support patient safety culture, increase safety outcomes, and improve error reporting systems.

Further research is needed to explore nurses' perceptions of patient safety culture, safety outcomes, and error reporting regionally, nationally, and globally. In addition, further research related to each composite on the AHRQ *Survey on Patient Safety Culture* is recommended.

References

- Agency for Healthcare Research and Quality. (2013). *Surveys on patient safety culture*. Retrieved from [http://www.ahrq.gov/professionals/qualitypatient safety/patientsafetyculture/index.html](http://www.ahrq.gov/professionals/qualitypatient%20safety/patientsafetyculture/index.html)
- James, J.T. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety*, 9(3), 122-128.
- World Health Organization. (2014). *10 facts on patient safety*. Retrieved from <http://www.who.int/features/factfiles/patientsafety/en/>
- Yu, A., Flott, K., Chainani, N. Fontana, G., & Darzi, A. (2016). *Patient safety 2030*. London, UK: NIHR Imperial Patient Safety Translational Research Centre. Retrieved from www.Imperial.ac.uk/patient-safety-translational-research-centre

Contact

emurray@fgcu.edu

S 07 - Cross-Country Health Systems

Making a Cross-Country Comparison of Health Systems: What Are the Possible Study Design Frameworks?

Cheryl Zlotnick, DrPH, MPH, MS, RN, Israel

Sue A. Anderson, PhD, MS, BSN, BS, AS, RN, FNP-BC, USA

Vanessa Heaslip, PhD, MA, BSc (Hons), DipHe, RN, DN, United Kingdom

Abstract

Purpose: Health care systems form the framework and context through which countries provide health care services to their populations. They are comprised of an amalgam of culturally- and often economically-driven structures (e.g., facilities, personnel, policies, processes) to attain optimal health outcomes. No single health system is precisely like another. However, when studies explore differences in population health status or outcomes across countries, often the comparison focuses solely on health outcomes, completely omitting the effects and influences of the health system. This omission is problematic, since as several health care provision models suggest, health care outcome inequities may be connected to or even originate from the health system's context and approach; but this topic has been explored by very few studies. With increasing globalization, nurses comprising the largest health professional labor force in the world must employ the most rigorous study design frameworks when conducting cross-country comparisons of health outcomes. Thus, the goal of this research project is to examine study design frameworks used to make cross-country comparisons of health care outcomes taking into account the health care system context.

Methods: To address this goal, this study examined study design frameworks using a scoping review methodology with the following steps: the identification of the domains of the health care system that must be explored; search and selection of relevant studies; charting the studies' findings; and summarization of the results.

Results: Study design frameworks for cross-country comparisons of health care outcomes within the health system context varied by: (1) use of country selection criteria as a basis for country selection, (2) use of a guiding theory to govern the elements for comparison, (3) the decision of the data type (i.e., quantitative, qualitative, mixed-methods), (4) ascertainment and validation of measurements, (5) synthesis of findings employed a wide versus narrow focus, (6) inclusion of countries' cultures and population composition, and (7) contribution to other countries' health systems.

Conclusion: A grid denoting a variety of cross-country study design frameworks depicts a variety of strengths and weaknesses. Countries' health care systems are culturally-linked, but criteria exploring or explicating cultural influences within the health system context were sparse or absent. Moreover, cross-country comparison frameworks were inconsistent in their abilities to delineate and define approaches that resulted in inequitable health service outcomes for different population groups. Design frameworks failing to include the cultural context limit our ability to fully examine differences in health care outcomes. Nurses and other health professionals must choose a study design framework that is systematic, comprehensive and sufficiently robust to meet the challenge of conducting cross-country comparisons so that study results are able to assist countries' policymakers and administrators to make improvements that promote better and more equitable health outcomes for their population.

References

- Aizer, A. (2014). Rising inequality and intergenerational mobility: the role of public investments in human capital. *CESifo Economic Studies*, 60(2), 280-311.
- Arksey H, O'Malley L. 2005. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology: Theory and Practice* 8(1): 19–32. DOI: 10.1080/1364557032000119616.
- Cacace, M., Ettelt, S., Mays, N., & Nolte, E. (2013). Assessing quality in cross-country comparisons of health systems and policies: towards a set of generic quality criteria. *Health Policy*, 112, 156-162.
- Central Intelligence Agency (US CIA) (2015). The World Fact Book. Retrieved 19 January 2016: <https://www.cia.gov/library/publications/resources/the-world-factbook/>

Chernichovsky, D. (1995). Health System Reforms in Industrialized Democracies: An Emerging Paradigm. *The Milbank Quarterly*, 73(3), 339-372.

Colquhoun, H.L., Levac, D., O'Brien, K.K., Straus, S., Tricco, A.C., Perrier, L., Kastner, M., & Moher, D. (2014). Scoping reviews: time for clarity in definition, methods and reporting. *Journal of Clinical Epidemiology*, 67(12), 1291-1294.

Kontunen, K., Rijks, B., Motus, N., Iodice, J., Schultz, C., & Mosca, D. (2014). Ensuring health equity of marginalized populations: experiences from mainstreaming the health of migrants. *Health Promotion International*, 29(S1), i121-i129.

Levac D, Colquhoun H, O'Brien KK. 2010. Scoping studies: advancing the methodology. *Implementation Science* 5(1): 69. DOI: 10.1186/1748-5908-5-69.

O'Mara-Eves, A., Brunton, G., Oliver, S., Kavanagh, J., Jamal, F., & Thomas, J. (2015). The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. *BMC Public Health*, 15, 129.

Organisation for Economic Co-operation and Development (2015). OECD Data. Retrieved 20 January 2016: <https://data.oecd.org/inequality/poverty-rate.htm>

Phillips, K. A., Morrison, K. R., Andersen, R., & Aday, L. A. (1998). Understanding the context of healthcare utilization: assessing environmental and provider-related variables in the Behavioral Model of Utilization. *HSR: Health Services Research*, 33(3), 571-596.

Shern, D. L., Blanch, A. K., & Steverman, S. M. (2016). Toxic stress, behavioral health, and the next major era in public health. *American Journal of Orthopsychiatry*, 86(2), 109-123.

The World Bank (2015, 20 January 2016). GINI index (World Bank estimate), from <http://data.worldbank.org/indicator/SI.POV.GINI>

UNICEF -DESA Population Division-Migration Section (2015, 19 January 2016). Migration Profile, from <http://esa.un.org/migmgprofiles/indicators/indicators.htm>

World Health Organization (2007). *Everybody's Business Strengthening Health Systems to Improve Health Outcomes*. Geneva, Switzerland.

World Health Organization (2015). Israel: WHO statistical profile Retrieved 15 September 2015, from <http://www.who.int/gho/countries/isr.pdf?ua=1>

Contact

czlotnick@univ.haifa.ac.il

S 07 - Cross-Country Health Systems

A Case-Oriented, Cross-Country Comparison of Three High-Income Countries' Health Systems and Healthcare Accessibility

Sue A. Anderson, PhD, MS, BSN, BS, AS, RN, FNP-BC, USA

Cheryl Zlotnick, DrPH, MPH, MS, RN, Israel

Vanessa Heaslip, PhD, MA, BSc (Hons), DipHe, RN, DN, United Kingdom

Abstract

Purpose: Located on different continents, the United Kingdom (UK), Israel and the United States (US) are high income countries differing in size, population size, and type of health care systems; yet, their general population's health outcomes are similar. This study used qualitative and quantitative information to gain insight on the health care systems and health care accessibility of vulnerable groups in the general populations of these three industrialized countries.

Methods: Using a case-oriented, cross-country comparison, this study uses the three factors of the Behavioral Model of Utilization (i.e., health system environments, population characteristics and health behaviors/outcomes) to examine health care accessibility for selected vulnerable groups in each of the three countries (i.e., Israel, UK, US).

Results: The health system environments and population characteristics differed dramatically. The health system of the United Kingdom had open access to all; Israel's health system provided basic healthcare to all citizens, yet citizens could opt for different levels of services. The fee-for-service system in the US resulted in barriers to healthcare access for vulnerable citizens. Regardless of the type of healthcare system and level of access to health care, all three countries experienced threats to health. All health systems showed features indicating their adaptation to the dominant or majority group of the country's general population. However, all three high income countries' health systems were inadequate at addressing vulnerable population groups (i.e., socioeconomically low income individuals, minorities, immigrants, non-citizens) as demonstrated by unmet need and inadequate health behaviors.

Conclusion: Despite the diversity of health system philosophies and approaches, none of the health systems were effective at addressing health care inaccessibility and or unmet need for vulnerable population groups. Health systems in high income countries must acknowledge that access to healthcare is an important component of a healthy population; knowledge development of specific strategies to improve health within communities is equally important. Health systems in the three countries lack strategies that proactively engage, reach-out to and facilitate health care access for vulnerable populations. Nurses must be fully engaged through their work and research within communities to strengthen health systems and improve the health of all.

References

Heaslip V., (2015) Experiences of vulnerability from a Gypsy/Travelling perspective: a phenomenological study. Bournemouth University.

Henry J. Kaiser Family Foundation (2015) Fact sheet: Key facts about the uninsured population.

Shepherd J.G., Locke E., Zhang Q. & Maihafer, G. (2014): Health services use and prescription access among uninsured patients managing chronic diseases. *Journal of Community Health* 39, 572-583.

Zlotnick C., Baron-Epel O., Zusman S.P. & Keinan-Boker L. (2014): Trends and predictors of primary dental care health services for adults in Israel. *Community Dental Health* 31, 212-218.

Contact

sanderso@iusb.edu

S 08 - Effective Teaching Methods

Student-Centered Teaching Methodology in an Undergraduate Nursing Programme at Two Nursing Institutions in Kingston, Jamaica

Melissa Walker, MScN (Ed), BScN (Hons), RN, CertPaedNsg, CertNsgAdmin, Jamaica

Cavelle J. Allen, MScN (Dist), BScN (Hons), RN, Jamaica

Dawn Munroe, MA (CounsPsych) (High Hons), RN, RM, Jamaica

Rosain N. Stennett, MPH, BSc, Jamaica

Shaulene M. Stanley, MScN (Ed), BScN, RN, CertAdvNsgEd, Jamaica

Karozan S. Cascoe, MScN (Dist), BScN (Hons), RN, Jamaica

Abstract

Purpose: To determine the factors related to student-centred teaching methodology in an undergraduate nursing programme at two nursing institutions in Kingston, Jamaica.

Methods: This descriptive cross-sectional study was conducted among 129 randomly selected students and the 24 lecturers teaching this cohort. Data were collected using the Principles of Adult Learning Scale (PALS). The tool consists of 39 items with seven constructs namely: Personalizing Instruction, Relating to Experience, Assessing Student Needs, Climate Building, Participation in Learning Process and Flexibility for Personal Development. **Results** were analysed using the SPSS version 22. Pearson's Correlation Coefficient was used to determine the relationship between the demographic characteristics of the lecturers and the teaching methodology as well as the relationship between class size and the teaching methodology. Independent sample *t* test was used to compare means and determine the significance of observed differences.

Results: The study had a response rate of (79%) and (71%) for students and lecturers respectively. The results showed that 50% of the lecturers and students rated the degree of student-centredness as teacher-centred. There was no significant relationship between age and years of experience and the teaching methodology. However, there was a strong negative relationship between class size and the teaching methodology and this was statistically significant ($p < 0.001$). There was a statistically significant difference between the lecturers' and students' mean scores within the following factors: Learner Centred Activities ($t = -9.267, p < 0.001$), Personalizing Instructions ($t = 4.063, p < 0.001$), Assessing Students' Needs ($t = -6.24, p < 0.001$) and Participation in Learning ($t = -3.384, p = 0.001$).

Conclusion: There was no significant relationship between age and years of experience and the teaching methodology. However, there was a strong negative relationship between class size and the teaching methodology. Fifty percent of the lecturers and students rated the degree of student-centredness as teacher-centred. The findings of this study are extremely important to nursing education as it highlights the disjunction between the lecturers' rating of specific practices and the predominant teaching approach. Given the relationship between student-centredness and enhanced critical thinking skills, student engagement and motivation to learn, it is critical for the teaching/learning environment to be more student centred.

References

- Chilemba, E., & Bruce, J. (2015). Teaching styles used in Malawian BSN programmes: A survey of nurse educator preferences. *Nurse Education Today*, 35(2), e55-e60. doi: <http://dx.doi.org/10.1016/j.nedt.2014.12.015>
- Stanford, A. (2014). *The effects of teachers' teaching styles and experience on elementary student's mathematical achievement* (Doctoral dissertation, Liberty University).

Contact

melissa.walker04@uwimona.edu.jm

S 08 - Effective Teaching Methods

Leadership Initiatives: Challenges and Implications for a Remote Nursing Education Program

Dora Maria Carbonu, EdD, EdM, MN, BN, RN, Canada

Nancy A. Edgecombe, PhD, MN, BN, OPN, RN-NP, Canada

Amanda R. Parrott, BN, RN, OHN, CMSN(C), CCNE, Canada

Elissa Sakariassen, MN, BN, RN, Canada

Abstract

Purpose: The need for nursing education to facilitate the development of leadership skills has been recognized in the literature (Rosser, 2014; Galuska, 2015). Several collaborative and innovative activities have been incorporated into nursing programs, including peer mentoring both in the clinical and laboratory settings, service learning, promoting student attendance at leadership conferences, and facilitating active student-organizations (Foli, Braswell, Kirkpatrick and Lim, 2015; Ross, Bruderle and Meakim, 2015; Schoening et al., 2015; Tabloski, 2016). The Bachelor of Science in Arctic Nursing (BScN) Program is unique as it is located in Iqaluit in Nunavut Territory, a remote area of Canada's Arctic, which has implications on what activities and opportunities for leadership experiences are possible. This presentation outlines the challenges and implications of incorporating leadership activities into the BScN Arctic Nursing Program.

Methods: The Bachelor of Science in Arctic Nursing Program is delivered by Nunavut Arctic College (NAC) in Iqaluit, Nunavut in partnership with Dalhousie University in Halifax, Nova Scotia. A number of activities have fostered student leadership initiatives in the Program, including student attendance at conferences, focused assignments within the leadership course, and service learning experiences. One highly successful activity is the 3rd-Year nursing students' participation in a leadership activity prior to their six-week intersession clinical placement at Dalhousie University in Halifax. As part of the orientation experience for the Arctic Nursing students in Halifax, they participate in a two-day Leadership Boot Camp where, through learning experiences the students acquire theoretical and practical leadership strategies and skills. Upon completion of their clinical placement in Halifax, the students return to Nunavut, highly motivated and enthused about their acquired leadership knowledge and understanding. They express interest and willingness to take on a leadership role, and this interest has translated into a number of both formal and informal activities that have allowed the students to demonstrate leadership within the School of Nursing. Informal activities have included advocacy initiatives, such as submitting an article to the local newspaper to raise public awareness and to correct the myths about the BScN Program, and leading student-professional development forums. Formal initiatives have included incorporation of student leadership activities into several courses, such as peer mentoring of junior students by senior students.

Results: The success of the BScN (Arctic Nursing) Program leadership initiatives has resulted from three important environmental factors: (a) students feeling safe and challenged as a result of academic leadership activities, which enhance their sense of belonging; (b) clearly defined goals, objectives and tasks the students work together on; and (c) student-and-Faculty-groups being small and cohesive, and all contributing to the learning process. The students are individually accountable for their work, and the group-work as a whole is also assessed and evaluated.

Conclusion: Leadership learning experiences have promoted and enhanced the students' academic and clinical performance, and have resulted in increased confidence and satisfaction by capitalizing on achieving their goals and objectives. Students actively invest in their own learning, sharing their strengths and improving on their weaker skills, demonstrating respect for each other, and with improved interpersonal relationships among the student-groups and instructors. This innovative approach to teaching-learning remains an ongoing goal and a challenge, yielding highly achievable and positive academic results among the nursing-student-faculty population at Nunavut Arctic College.

References

Foli, K.J., Braswell, M., Kirkpatrick, J. & Lim, E. (2014). Development of leadership behaviors in undergraduate nursing students: A service-learning approach. *Nursing Education Perspectives*, 35(3), 76 -82. doi:10.5480/11-578.1

Galuska, L. A. (2015). Dedicated education units: Partnerships for building leadership competency. *The Journal of Nursing Education*, 54(7), 385. doi:10.3928/01484834-20150617-05

Ross, J. G., Bruderle, E., & Meakim, C. (2015). Integration of deliberate practice and peer mentoring to enhance students' mastery and retention of essential skills. *The Journal of Nursing Education*, 54(3), S52. doi:10.3928/01484834-20150218-20

Rosser, E. (2014). What role can education play in developing leadership? *British Journal of Nursing*, 23(17), 952.

Schoening, A. M., Seide, M. S., Goodman, J. T., Tow, J. C., Selig, C. L., Wichman, C.,... Galt, K.A. (2015). Implementing collaborative learning in prelicensure nursing curricula. *Nurse Educator*. 40(4), 183 – 188. doi: 10.1097/NNE.0000000000000150

Tabloski, P. A. (2016). Setting the stage for success: Mentoring and leadership development. *Journal of Professional Nursing*, 32(5), S54-S58. doi:10.1016/j.profnurs.2016.03.003

Contact

afimawuko@hotmail.com

Evidence-Based Practice Poster Presentations

EBP PST 1 - Evidence-Based Practice Poster Session 1

The Influence of Leader-Member Exchange and Structural Empowerment on Nurses' Perceptions of Patient Safety

Adam J. Morse, BScN, BSc, RN, Canada

Abstract

Reports have illustrated the lack of supportive and inclusive work environments is a causative factor of health related absences and nursing attrition. This has been reported to lead to increased risk to nurses' safety, patients' safety and poorer patient outcomes. The purpose of this study is to examine the impact of the four dimensions of Leader-Member Exchange (LMX) (contribution, affect, loyalty, and professional respect) of nurse managers and access to the four structures of structural empowerment (support, opportunity, resources, and information) on nurses' perceptions of patient safety climate. A cross-sectional survey is conducted using a random sample of 230 nurses across Ontario in acute care settings. *Leader-Member Exchange-MDM*, *Conditions for Work Effectiveness Questionnaire-II*, and *Patient Safety Climate Questionnaire* are used to measure study variables. Previously, no specific research has examined the influence of LMX, and structural empowerment, on patient safety climate. This study may uncover some of the processes by which each of these variables influences the next.

Leader-Member Exchange (LMX) theory focus is on the relationship between leader and follower, identifying key features of the relationship that are important to the development of trust and effective working relationships (Lunenburg, 2010). LMX can be used to examine leadership techniques that enhance patient and environmental safety, as well as organizational commitment when applied to performance outcomes (Higgins, 2015). High level of structural empowerment (SE) is shown to increase job satisfaction, and increase organizational commitment (Laschinger et al., 2009a). Previous studies show correlations between LMX and SE that have a positive influence on patient outcomes (Squires et al., 2010; Cai, & Zhou, 2009). SE is the degrees of access employees have to environmental structures including opportunity, support, resources, and information. Effective leaders play a key role in ensuring nurses have access to these structures.

Nursing leaders foster a work environment that supports staff and increases the patient safety climate (PSC) (Armstrgon et al., 2009). High PSC reduces adverse events from occurring and avoid harm to patients (Flin et al., 2006; Sexton et al., 2006a). Patient outcomes, workplace injury, and staff's intention to leave the unit are found to all be affected by the PSC (Hotmann & Mark, 2006). Researchers have proposed that positive link between effective leadership styles and continuous quality improvement (McFadden et al., 2015), however no direct link has been examined between the effects of both individual leadership styles and SE on how nurses perceive a PSC. Through LMX, nursing leaders may be better able to develop effective working relationships with nurses, increase SE and therefore create an atmosphere for a better PSC (Davies et al., 2011).

From the College of Nurses of Ontario registry, a random sample of 230 registered nurses working in an acute care teaching hospital within the province of Ontario has been selected from both rural and urban settings. Inclusion criteria is met if participants are currently employed for more than four months on their current unit, either full-time or part-time, to avoid the inclusion of data from individuals who are new and may not be familiar with their current manager and working environment. Participants must be directly involved in patient care with a superior in a leadership role who they are required to report directly to. Participants currently on leave or returned to work for less than four months will be excluded.

Three standardized self-reporting instruments will be used to measure the study variables (see Appendix B). Iden & Maslyn (1998) *Leader-Member Exchange-MDM (LMX-MDM)* will be used to measure the quality of relationships between the nurse managers and nursing staff. *LMX-MDM* is a 12-item scale that asks participants to what extent do they agree or disagree with a series of questions.

Nurses will not be guaranteed any direct benefits as a result of their participation in this study. However, this study will indicate the impact of Leader-Member Exchange of nurse managers and structural empowerment on nurses' perceptions of patient safety climate.

In addition, further knowledge can be acquired that will begin to identify the factors affecting patient outcomes in relation to the impact of individuals in managerial roles. As a result, this information can be used to enhance the working environments of nurses and increase patient safety in the future.

The results of this study primarily target nursing leaders in front-line managerial positions, possibly increasing their awareness of SE allowing them to develop a more positive working environment on their unit that may lead to increased productivity and increased patient safety. Managers in middle and upper management may also be interested in these findings as a means to examining positive influences to LMX and developing strategies and training to be provided to front-line managers to enhance a PSC. The abstract of this study will be submitted for presentation at conferences focusing on researching nursing leadership styles and research on influential factors related to patient safety.

References

- Bawafaa, E., Wong, C. A., & Laschinger, H. (2015). The influence of resonant leadership on the structural empowerment and job satisfaction of registered nurses. *Journal of Research in Nursing*, doi: 10.1177/1744987115603441
- Davies A., Wong C.A., & Laschinger, H. (2011). Nurses' participation in personal knowledge transfer: the role of leader-member exchange (LMX) and structural empowerment. *Journal of Nursing Management*, 19(5), 632-643. Available at: Doi: 10.1111/j.1365-2834.2011.01269.x
- Dinh, J., Lord, R., Gardner, W., Meuser, J., Liden, R., & Hu, J. (2014). Leadership theory and research in the new millennium: Current theoretical trends and changing perspectives. *The Leadership Quarterly*, 25(1), 36-62. doi: 10.1016/j.leaqua.2013.11.005
- Hesselgreaves, H., & Scholarios, D. (2014). Leader-member exchange and strain: a study of job demands and role status. *Human Resource Management Journal*, 24(4), 459-478.
- Kalisch, B. J., & Lee, K. H. (2012). Congruence of perceptions among nursing leaders and staff regarding missed nursing care and teamwork. *Journal of Nursing Administration*, 42(10), 473-477.
- Risan, H. (2013). Dyadic relationships for leaders in facility management. *International Journal of Facility Management*, 4(1), 1-10.

Contact

amorse3@uwo.ca

EBP PST 1 - Evidence-Based Practice Poster Session 1

Memory-Focused Interventions for People With Cognitive Disorders: A Meta-Analysis of Randomized Controlled Studies

Kuei-Ru Chou, PhD, Professor, RN, Taiwan

Abstract

Background: Cognitive disorder is a crucial global issue. Memory impairment is often considered an early and crucial clinical manifestation of cognitive disorder. Previous studies have shown that memory-focused interventions can effectively mitigate memory function decline. However, in previous studies, the research targets were mostly healthy older adults; few meta-analyses on patients with cognitive disorders have been performed. The purpose of the present study was to assess the effect of memory-focused interventions on cognitive disorder through conducting a meta-analysis.

Methods: According to a systematical literature search strategy, using keywords and the MeSH terms to identify studies related to memory-focused interventions and cognitive disorders. The online electronic databases used in this study were PubMed, the Cochrane Library, OVID-Medline, CINHALL, PsycINFO, and Embase (up to July 2015). Articles that met the inclusion criteria were included and a random effect model was used for a meta-analysis. The primary indicators were objective memory performance and subjective memory performance; the secondary indicators were immediate recall, delayed recall, global cognitive functions, and depression.

Result: A total of 19 research articles were included in this study. The results showed that memory-focused interventions had a medium–large effect on the objective and subjective memory performance of patients with cognitive disorders, a small–medium effect on delayed recall and global cognitive function, and a small effect on immediate recall (all $p < .05$). A subgroup analysis on objective memory performance that featured medium heterogeneity showed that the number of treatment weeks (≤ 5 weeks) could be adopted as a moderator variable for the effect of memory-focused interventions on objective memory performance. A metaregression analysis showed that various continuous variables were nonsignificantly correlated with effect size.

Conclusion: In this study, the meta-analysis results showed that memory-focused interventions effectively improved the objective and subjective memory performance of patients with cognitive disorders. Objective memory performance can serve as a reference for diagnosing cognitive disorders; the meaning of subjective memory performance and related factors is crucial for rapidly aging societies. We hope that memory-focused interventions can improve memory function and assist patients in overcoming their self-care problems resulting from memory impairment.

References

- 1 Eshkoor SA, Hamid TA, Mun CY, Ng CK: Mild cognitive impairment and its management in older people. *Clin Interv Aging* 2015;10:687-693.
- 2 Petersen RC: Mild cognitive impairment. *NEJM* 2012;364:2227-2234.
- 3 Kenneth M, Langa MD, Deborah A, Levine MD: The Diagnosis and Management of Mild Cognitive Impairment: A Clinical Review, *JAMA* 2014; 312:2551-2561.
- 4 Carretti B, Borella E, Fostinelli S, Zavagnin M: Benefits of training working memory in amnesic mild cognitive impairment: specific and transfer effects. *Int Psychogeriatr* 2013;25:617-626.
- 5 Brigola AG, Manzini CSS, Oliveira GBS, Ottaviani AC, Sako MP, Vale FAC: Subjective memory complaints associated with depression and cognitive impairment in the elderly: A systematic review. *Dement Neuropsychol* 2015;9:51-57.
- 6 Solomon A, Mangialasche F, Richard E, Andrieu S, Bennett DA, Breteler M, Fratiglioni L, Hooshmand B, Khachaturian AS, Schneider LS, Skoog I, Kivipelto M: Advances in the prevention of Alzheimer's disease and dementia. *J Intern Med* 2014;275:229–50.
- 7 Hockin AC: The relationship between cognitive training and problem solving abilities in older adults diagnosed with mild cognitive impairment (Doctoral dissertation). 2012. Available from ProQuest Dissertation and theses database (UMI No. 3509860)
- 8 [Gross AL](#), [Parisi JM](#), [Spira AP](#), [Kueider AM](#), Ko JY, [Saczynski JS](#), [Samus QM](#), [Rebok GW](#): Memory training interventions for older adults: a meta-analysis. *Aging Ment Health* 2012;16: 722-734.

- 9 [Zeng X](#), [Zhang Y](#), [Kwong JS](#), [Zhang C](#), [Li S](#), [Sun F](#), [Niu Y](#), [Du L](#): The methodological quality assessment tools for preclinical and clinical studies, systematic review and meta-analysis, and clinical practice guideline: a systematic review. *J Evid Based Med* 2015;8:2-10.
- 10 Buelow MT, Tremont G, Frakey LL, Grace J, Ott BR: Utility of the cognitive difficulties scale and association with objective test performance. *Am J Alzheimers Dis Other Demen* 2014;29:755–761.
- 11 Higgins JPT, Green S: *Cochrane Handbook for Systematic Reviews of Interventions*. 2013. <http://www.cochrane-handbook.org/handbook>.
- 12 Finn M, McDonald S: Repetition-lag training to improve recollection memory in older people with amnesic mild cognitive impairment. A randomized controlled trial. *Neuropsychol Dev Cogn B Aging Neuropsychol Cogn* 2015;22:244-258.
- 13 [Konsztowicz S](#), [Anton J](#), [Crane J](#), [Moafmashhadi P](#), [Koski L](#): A pilot study of training and compensation interventions for mild cognitive impairment. *Dement Geriatr Cogn Dis Extra* 2013;3:192-201.
- 14 [Man DW](#), [Chung JC](#), [Lee GY](#): Evaluation of a virtual reality-based memory training programme for Hong Kong Chinese older adults with questionable dementia: a pilot study. *Int J Geriatr Psychiatry* 2012;27:513-520.

Contact

kueiru@tmu.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Implementing an Acuity Adaptable Care Model in an Existing Academic Medical Center

Gretchen Brown, MSN, RN, USA
Cyndi Parke, MSN, RN, USA

Abstract

Stanford Health Care has successfully implemented one Acuity Adaptable Unit (AAU) for neurosciences patients. The Stanford AAU model merges acute care patients and intermediate intensive care patients within one patient care unit. The nursing staff on the AAU are all trained and competent to provide varied levels of care to match each patient's clinical needs, which minimizes patient transfers between units and handoffs between clinicians, thereby decreasing demands on housekeeping and transport and improving patient safety. The current hospital expansion provides a unique opportunity to leverage this successful model of care and spread it throughout the organization, with the intent of improving the patient experience, minimizing disruptions to care, improving the staff experience, improving patient flow, and decreasing operational costs. We are currently 50% through our implementation in our existing hospital and will move the model to our new tower. This will be Stanford Health Care's new model of Nursing Care and a strategy to bring best practice to our patient centered care. This change in our existing Nursing mental model has truly been a change management initiative as well as an opportunity to look at quality outcomes from a new perspective. Patients will not move for technology and the added training allows nurses in the Acute Care and Intermediate Intensive Care areas to bring a higher level of critical thinking to their patients. Physicians and ancillary staff can now enjoy a team atmosphere and colocate their resources with their patients. Case Management has played a pivotal role in clarifying level of care, and Housekeeping and Transport are enjoying the decrease in effort since we are transferring patients less often. All of these efficiencies add to our cost effectiveness and lean perspective we have toward delivering exemplary care while being efficient. We will share some of our early metrics and lessons learned with the audience. We have learned valuable lessons along the way.

References

- Bonuel, N. & Cesario, S. (2013). Review of Literature: Acuity-Adaptable Patient Room. *Critical Care Nursing Quality*, 36(2).
- Chindhy, S., Edwards, N., Rajamickam, V., et al. (2014). Acuity Adaptable Patient Care Unit System Shortens Length of Stay and Improves Outcomes in Adult Cardiac Surgery: University of Wisconsin Experience. *European Journal of Cardio-Thoracic Surgery*, 46.

Contact

gbrown@stanfordhealthcare.org

EBP PST 1 - Evidence-Based Practice Poster Session 1

A Standardized Handover and Transport Process for Critically Ill Pediatric Patients: An Interdisciplinary Collaboration

Brigit VanGraafeiland, DNP, MSN, RN, CRNP,, USA
Cynthia Foronda, PhD, CNE, ANEF, USA
Sarah Vanderwagen, BSN, RN, USA
Laura Allan, BSN, RN, USA
Meghan Bernier, MD, USA
Jennifer Fishe, MD, FAAP, USA
Elizabeth Hunt, MD, MPH, PhD, USA
Justin Jeffers, MD, USA

Abstract

Background :The transfer and handover of critically ill pediatric patients from the pediatric emergency department (PED) to the pediatric intensive care unit (PICU) is a period of vulnerability associated with adverse events. The Institute of Medicine (IOM) has emphasized that multiple threats to patient safety exist during the transfer of patients due to the potential for delayed, incorrect, interrupted, or incomplete communications. Furthermore, delays in transfer and handover impact the time for the patient to receive definitive treatment.

Aims: Using a Systems Engineering Initiative for Patient Safety framework, the aims of this project were to 1) examine staff members' satisfaction with the current handover and transport process, 2) develop a new protocol and process for handover, and 3) evaluate staff satisfaction with the standardized, interdisciplinary, handover and transport process.

Methods: Focus groups were conducted to determine barriers and facilitators to the current handover and transport process. Using these data, a multi-disciplinary team convened to establish seven patient criteria for specialized transport as well as a standardized, interdisciplinary handover tool. The seven patient criteria were; 1.) Out of hospital witnessed arrest with return of spontaneous circulation, 2.) Status epilepticus, 3.) Complex cardiac patients with unstable vital signs, 4.) Intubation or ventilation requirements in the form of new BiPAP or CPaP, 5.) Shock physiology with vasopressor requirement, 6.) New Glasgow Coma Scale less than 10, 7.) High risk for acute compensation at the discretion of the attending physician. When patients met the established criteria, the PICU nurse and physician would come directly to the ED for team-to-team (the Pediatric Expedited Team) handover and physically assist with the transport to the PICU. The new process was piloted over a 6-month period, from September 2015 to March 2016. Staff satisfaction regarding the new process was examined pre and post-intervention using mixed methods.

Findings: Focus groups revealed five themes: need for improved communication, cultural dissonance among units, defects in system and processes, need for standardization, and ambiguity between providers regarding acuity. During the 6- month pilot period there were 370 PED to PICU transfers, 45 of which activated the PET Team (12.1%). Quantitative data were analyzed using cross-tabulations and descriptive statistics. Staff members reported improvements in their perceptions of satisfaction, safety, communication, and role understanding with the new process.

References

Foronda, C., VanGraafeiland, B., Quon, R., & Davidson, P.M. (2016) Handover and transport of critically ill children: an integrative review. *International Journal of Nursing Studies*, 62, p. 207-225. doi: 10.1016/j.ijnurstu.2016.07.020
The Joint Commission. Sentinel event data. root causes by event type: 2004-2014. Retrieved from http://www.jointcommission.org/assets/1/18/Root_Causes_by_Event_Type_2004-2014.pdf. Updated Last Updated, 2015. Accessed Accessed, October 13, Accessed, 2016.
Interprofessional Education Collaborative Expert Panel. Core competencies for interprofessional collaborative practice: Report of an expert panel. . 2011

Contact

c.foronda@miami.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

The Utilization of a Nurse Manager Audit Toolkit to Re-Envision the Nurse Manager Role

Louise C. Rudden, MScN, RN, BScN, NP (Paed), Canada

Melody Hicks, BScN, Canada

Stephanie Lappan-Gracon, MN, BScN, Canada

Yogini Walli, MN, BScN, RN, Canada

Abstract

Managers are recognized as the lynchpins in sustaining organizational improvements. Over time, healthcare has evolved placing increased demands on the manager role. Factors influencing the scope of the role include increasing unit transparency and accountability, added corporate projects and protocols, increased focus on quality standards, Rising patient acuity and demand, and heightened use of technology. Managers are being pulled in different directions between operations and clinical tasks and have less time to focus on clinical leadership activities. A nurse unit manager role toolkit was utilized to re envision the nurse manager role in a pilot group of managers in a large ambulatory portfolio (The Advisory Board Company, 2015).

This was a two stage process and included restructuring the role and ensuring strategic prioritization. In the first stage, the group began by clarifying the role expectations of the manager and the executive. Using the toolkit, the first step was establishing the priority manager and executive areas of accountability. Once these had been identified a manager time audit was performed and results were compiled to identify the current state. Both these tools were key in determining the gaps between the current state and the ideal state and highlighted key areas to focus on when re-envisioning the role to meet organizational priorities. To do this in a systematic way, involved understanding manager activities to identify how to offload, delegate and eliminate low value tasks to allow managers to focus on more high value activities. Manager feedback was also incorporated to understand these activities.

In the second stage, ensuring strategic prioritization was imperative. This included securing daily efficiency gains such as strategies in delegating non-managerial work and developing expert partnerships. Protecting the important from the immediate was achieved with enhancing real time transparency and structuring each day around priorities. The toolkit was helpful in restructuring the manager role to allow managers to focus on more clinical leadership activities especially those which align with the strategic directions of the organization. Early results of the re-envisioning process are promising and will be shared. The limitations of a unit manager toolkit and the target audience for use will be discussed.

References

The Advisory Board Company. Retrieved from the World Wide Web on September 13th, 2016.

https://www.advisory.com/-/media/Advisory-com/Research/NEC/Events/Webconference/2016/012716_NurseManagerWebcon.pdf

Scoville R, Little K, Rakover J, Luther K, Mate K. *Sustaining Improvement*. IHI White Paper. Cambridge, Massachusetts: Institute for Healthcare Improvement; 2016.

Contact

louise_rudden@hotmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Discharging Patients Before 10:00 a.m.: A Pilot Study

Chiao-Wen Chang, RN, Taiwan
 Pi-Yu Chang, Taiwan
 Chiung-Ying Chang, RN, Taiwan
 Li-Mei Ou, BSN, RN, Taiwan
 Tsung-Hsien Lin, PhD, MD, Taiwan
 Yen-Hsu Chen, PhD, MD, Taiwan

Abstract

Background: Late afternoon hospital discharges are thought as a bottleneck for the emergency department (ED) patients admission to the ward. Currently, the discharge process is lack of generalized solutions. If admission patients discharges are earlier in a day, it might improve ED admission process, ED overcrowding, and increase satisfaction for both patients and staffs.

Purpose: The aim of this pre-/post-intervention retrospective analysis study is to increase the morning discharge percentage between 8am and 10am in a 1680 beds university medical center in Taiwan.

Intervention: The steering group create a Discharging Procedure Program (DPP) to enhance everyone's responsibilities for early discharge. We initiated several meeting rounds to explain the procedure and fully communicated with all participants. A next-day patients discharge list was created and a short message was sent at daily 8:00 am to notify physician and nurse practitioner to remind the scheduled discharge patients at the same day. We also created a website to monitor the patients expected to be discharged since April 2016.

Results: Total 21670 patients discharge was analyzed. The early discharge percentage increased from 15% to 19% over the 5-month intervention. The non-elderly (age < 65 year old) group has more earlier hospital discharges than the elderly group (age > 64 years old) ($p < 0.001$) (see Table one).

Conclusions: Our study demonstrates that increased patients early discharge could be possible by a team work. Future effort and investigation will allow for better early discharge and understanding of the difficulties on hospital discharges of the elderly.

Table one: Hospital discharges of the elderly

Variables	Discharge between 8am and 10am		Non-Discharge between 8am and 10am		X ² %
	N	%	N	%	
Age**					
age < 65 year old	2,654	18.7	11,545	81.3	0.001 _a
age > 64 years old	1,258	16.8	6,213	83.2	

a : Chi-Square test

** p < 0.01

References

EI-Eid, G. R., Kaddoum, R., Tamim, H., & Hitti, E. A. (2015). Improving hospital discharge time: a successful implementation of Six Sigma methodology. *Medicine (Baltimore)*, *94*(12), e633. doi: 10.1097/MD.0000000000000633
 Kravet, S. J., Levine, R. B., Rubin, H. R., & Wright, S. M. (2007). Discharging patients earlier in the day: a concept worth evaluating. *Health Care Manag (Frederick)*, *26*(2), 142-146. doi: 10.1097/01.HCM.0000268617.33491.60

Wertheimer, B., Jacobs, R. E. A., Bailey, M., Holstein, S., Chatfield, S., Ohta, B., . . . Hochman, K. (2014). Discharge before noon: An achievable hospital goal. *Journal of Hospital Medicine*, 9(4), 210-214. doi: 10.1002/jhm.2154

Contact

1030754@kmuh.org.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

The Relationships Between Critical Care Nurses' Experience, Decision-Making, and Their Attitudes Toward Physical Restraint Use

Kristi J. Stinson, PhD, RN, MSN, APN-BC, USA

Abstract

The purpose of this descriptive correlational study was to examine the relationships between and among registered nurses' clinical experience, clinical decision-making processes, nursing practice issues with physical restraint use, and attitudes regarding physical restraint use in the critical care environment. The participants were 413 primarily white (91%), critical care nurses ranging in age from 19 to 68 (M=45.56) from across the United States. Participants were classified as experts based on Benner's (2001) classifications, in both experience in nursing in general (88%) and in critical care (82%) in particular. Participants were recruited through the American Association of Critical Care Nurses (AACN) and completed two online surveys (Jenkins' Clinical Decision Making in Nursing Scale (CDMNS) and The Physical Restraint Questionnaire – the Nursing Practice Issues with PR Use and Attitudes Toward PR Use subsections) via Survey Monkey™.

The results indicate that there is no strong correlation to explain any variance between attitudes toward PR use in critical care and clinical experience in nursing in general, clinical experience in critical care, clinical decision making, and nursing practice issues with PR use. This sample of nurses' mean scores on the CDMNS were higher than noted in previous research. A moderate correlation was found between clinical decision making processes and nursing practice issues with physical restraint use. There were no differences found in any of the Benner stages of clinical experience. Nurses at all of Benner's level from novice through expert had no significant differences in their attitudes toward PR use. Nurses with more clinical experience were more likely to have been taught content about PR use in their basic RN nursing curriculum than those with less clinical experience.

The results of this study suggest that there is a need to include education related to PR use in current nursing curricula which can lead to better clinical decisions and improved overall patient care related to PR use in critical care environments.

References

- Lane, C., & Harrington, A. (2011). The factors that influence nurses' use of physical restraint: A thematic literature review. *International Journal of Nursing, 17*(2), 195-204. doi:http://dx.doi.org/10.1111/j.1440-172X.2011.01925.x
- Langley, G., Schmollgruber, S., & Egan, A. (2011). Restraints in intensive care units – A mixed method study. *Intensive and Critical Care Nursing, 27*(1), 67-75. doi:http://dx.doi.org/10.1016/j.iccn.2010.12.001
- McCabe, D.E., Alvarez, C.D., McNulty, S.R., & Fitzpatrick, J.J. (2011). Perceptions of physical restraints use in the elderly among registered nurse and nurse assistants in a single acute care hospital. *Geriatric Nursing, 32*(1), 39-45

Contact

kristi.stinson@shu.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Career Maturity Characteristics of Mid-Career Japanese Nurses Working in Small and Mid-Sized Hospitals

Makiko Muya, PhD, RN, Japan
Kyoko Shida, MS, RN, Japan

Abstract

Purpose: Career maturity indicates the degree to which a person's thinking has matured regarding their way of living their professional and leisure life. The purpose of this study was to better understand the career maturity characteristics of mid-career Japanese nurses working in small and mid-sized hospitals.

Methods: Participants were 210 mid-career Japanese nurses with 5–15 years of experience working in hospitals with 299 or fewer beds. The survey questionnaire used was the Occupational Career Maturity Scale developed by Sakayanagi (1999). The scale consists of nine items each related to “career concern,” “career autonomy,” and “career planning.” The SPSS 22 was used to analyze the data to calculate descriptive statistics, Pearson's correlation, and t-tests. Ethical approval for the study was obtained from the Committee for Ethical Research for the Graduate School of Nursing at “A” University. Participants were provided with a written explanation that participation was voluntary and personal information would be handled and safe-guarded. It was assumed that consent was provided when a completed survey questionnaire was returned.

Results and Discussion: Analysis was performed on the responses obtained from 201 participants (response rate: 95.7%). Respondents' mean age was 33.9 ± 6.3 years and mean years of experience was 10.5 ± 4.3 years. Of the respondents, 119 or more than half (66.1%), intended to continue their careers (“I will continue to work in the nursing profession”). As for the mean scores for the factors on the Professional Career Maturity Scale, “career concern” was highest at 32.4 ± 5.4 , “career autonomy” was 30.6 ± 4.1 , and “career planning” was lowest at 27.4 ± 5.6 . Significant relationships between career maturity factors and intention to continue in the nursing profession were found for “career autonomy” ($r = 0.234$, $p < 0.001$) and “career planning” ($r = 0.233$, $p < 0.001$), but not for “career concern.” Dividing the data into two groups based on years of experience and performing t-tests showed a significant difference for “career planning” ($t = 1.33$, $p < 0.05$) between the mean scores for the 5–10 year group (27.8 ± 4.9) and 11–15 year group (26.6 ± 6.4). The low scores for “career planning” in this study showed that the participants found it difficult to plan their futures. In particular, the results indicated that career planning support for mid-career nurses with 5–10 years of experience is important, given the lower scores for that group. Related to continuing working in the nursing profession, autonomy and planning in the participants' professional lives were relevant to the same degree, suggesting that necessary future career support might explore options, such as fields of specialization appropriate to small and mid-sized hospitals while encouraging autonomy through fostering independence and a sense of responsibility toward the profession.

References

Tuneo Sakayanagi(1999)Career maturity indicates Psychology Scale II p339-344.

Contact

muyamaki@nursing.osakafu-u.ac.jp

EBP PST 1 - Evidence-Based Practice Poster Session 1

Nurses' Work-Related Fatigue and Related Factors

Chi-Hui Chuang, MS, RN, Taiwan

Yi Liu, PhD, RN, Taiwan

Abstract

Background: Fatigue not only is commonly seen in clinical patients but also prevails in healthy population. Fatigue can lead to poor performance, absenteeism, and medical adverse events. It is one of the main causes of nurses' intention to leave. Therefore, to explore the main factors associated with the work-related fatigue among nurses would help the establishment of fatigue reduction strategies.

Objective: To investigate work related fatigue and the related factors. **Methods:** A cross sectional study was conducted and a structured questionnaire survey was applied. The questionnaires were distributed to 11 wards in a district hospital and a medical center. A total of 276 valid questionnaires was obtained. IBM SPSS version 20 was used for data analysis.

Results: The main work related fatigue was acute fatigue among nurses. Physical work load, fatigue recovery, work overtime, work frustrations and work unit were significant predictors of acute fatigue.

Work overtime, recover are significant predictors. Overtime in nursing staff is generally discussed. Because of the implementation of electronic signatures, no overtime in this study sample. Because of overtime will reduce the rest time, reduce the nursing staff fatigue recovery.

According to the results of the study, the general medical ward work fatigue is higher than intensive care unit. According to the literatures, equipment in intensive care unit are more than general ward. Patients' condition with high complexity in intensive care unit. But the division in general ward is less specific. In Taiwan's general wards, 1 nurse take care of 8 patients, more at night shift. Each nurse at intensive care unit care take care of 2-3 patients.

Conclusion: Managers should implement strategies to limit overtime and performed self-scheduling method so that nurses can have more time for recovery. Based on different workload, manager reassign work to nurses/and regularly screen nurses'work-related fatigue. Be aware of the sources of nurses'work frustration and then make improvement on work environment.

References

- Adriaenssens, J., De Gucht, V., Van Der Doef, M., & Maes, S. (2011). Exploring the burden of emergency care: predictors of stress-health outcomes in emergency nurses. *J Adv Nurs*, 67(6), 1317-1328. doi:10.1111/j.1365-2648.2010.05599.
- Aiken, L. H., Sermeus, W., Van den Heede, K., Sloane, D. M., Busse, R., McKee, M., . . . Kutney-Lee, A. (2012). Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *BMJ*, 344, e1717. doi: 10.1136/bmj.e1717
- Barker, L. M., & Nussbaum, M. A. (2011). Fatigue, performance and the work environment: a survey of registered nurses. *Journal of advanced nursing*, 67(6), 1370-1382.
- Bartram, T., Casimir, G., Djurkovic, N., Leggat, S. G., & Stanton, P. (2012). Do perceived high performance work systems influence the relationship between emotional labour, burnout and intention to leave? A study of Australian nurses. *J Adv Nurs*, 68(7), 1567-1578. doi:10.1111/j.1365-2648.2012.05968.
- Fang, J., Qiu, C., Xu, H., & You, G. (2013). A model for predicting acute and chronic fatigue in Chinese nurses. *J Adv Nurs*, 69(3), 546-558. doi:10.1111/j.1365-2648.2012.06029.
- Karanikola, M., Giannakopoulou, M., Mpouzika, M., Kaite, C. P., Tsiaousis, G. Z., & Papathanassoglou, E. D. (2015). Dysfunctional psychological responses among Intensive Care Unit nurses: a systematic review of the literature. *Rev Esc Enferm USP*, 49(5), 847-857. doi:10.1590/s0080-623420150000500020
- Lee, K. A., Dziadkowiec, O., & Meek, P. (2014). A systems science approach to fatigue management in research and health care. *Nurs Outlook*, 62(5), 313-321. doi:10.1016/j.outlook.2014.07.002
- Smith-Miller, C. A., Shaw-Kokot, J., Curro, B., & Jones, C. B. (2014). An integrative review: fatigue among nurses in acute care settings. *J Nurs Adm*, 44(9), 487-494. doi:10.1097/NNA.000000000000104

Contact

lovejolin718@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Using Diverse Strategies to Enhance the Quality of Emergency Nursing

Hui-Ju Chung, RN, Taiwan

Hui-Ching Hsu, RN, Taiwan

Abstract

Purpose: As rapid economic development in Taiwan increases the living standard among the public, the needs for higher quality of medical services have also been growing, consequently gradually leading to more complaints about medical institutions. Enhancing the quality of medical services increases satisfaction and decreases the complaints from the patients. However, the enhancement of nursing quality on patients requires cross-sectional as well as longitudinal communication among medical staff, so as to effectively enhance patient-oriented nursing quality. Among those medical staff, nurses act as the coordinators between doctors and patients, and hold the key to cross-team resource integration. Nurses not only report opinions from patients and their families to medical teams, but also help medical teams to better understand thoughts and feelings of patients and their families. Therefore, this study aimed to, through clinical education and positive encouragement, enable nursing staff to identify feelings or understanding that hindered communication or caused misunderstanding in the process of doctor-patient communication in light of understanding, learning, practicing, discussing, and coordinating embedded in the communication theory. This study also attempted to help nursing staff to increase their self-awareness, and further develop emotion regulation, with good communicative skills utilized in medical teams to strengthen clinical nurse-patient communication and to enhance the quality of clinical nursing.

Methods: With the analysis of current situations and verification of previous literature for further unit complaint case analyses, project improvement based on factors related to complaints were as follows:

1. Holding relevant in-service educational courses
1. Communicative skills: error disclosure, conflict resolution, expression of sympathy, and apology conveyance.
2. Analyzing underlying reasons to verify the ins and outs as well as attributes of an event, and to propose relevant improvements.
3. Law regulations and basic knowledge related to medical disputes.
 1. Clinical practice – simulation
 1. Case discussion: Experiencing the feelings and understanding of the given communication and challenges in miscommunication between nursing staff and patients via simulations and role plays, allowing for angles and perspectives of reinterpretation.
 2. Demonstrating and explaining differences between negative and positive communication, reasons for success, and aspects that fit relevant theories.
 3. Discussing and practicing positive communication by probing into its challenges, reasons for success, and feelings/thoughts/behaviors embedded in a given communication.
 1. Ways of positive encouragement
 1. Setting up an honorary award: Publicizing patients' recognition of nurses' outstanding services.
 2. Awarding praise cards and gifts to nursing staff of outstanding services in ward meetings.
 3. Allocation of award fund: Superintendents allocated award fund to nursing staff of outstanding services.

Results: The project, with diverse strategies employed for clinical education and improvement measures, calculated numbers of complaint and praise in the Emergency Department from 2013 to 2015. The results revealed that cases of nursing complaints decreased (2 cases/year in 2013 to zero case/year in 2015), that praises of nursing services increased substantially (22 cases/year in 2013 to 97 cases/year in 2015), and that patients' satisfaction with nursing services was above 99%.

Discussions and conclusion: Medical practitioners and consumers all regarded the service attitude of nursing staff as one of significant indicators in medial service quality, and mentioned that service factors such as attitude and explanation were key to satisfaction. Nursing staff are normally in the forefront of serving patients and their families in medical institutions, thus service attitude and training of coping

capacity is vital in nursing. Nurse-patient communication is also an important factor affecting job satisfaction with nursing staff. A study probing into the effects of nursing staff's reception of communication training indicated that after the training of nurse-patient communication, the relationship between nurses and patients became closer and enhanced subsequent job satisfaction. In this project, diverse instructional methods were utilized, including communicative skills, analysis of underlying reasons, law regulations and basic knowledge related to medical disputes. Role play simulations that increased doctor-patient communication were also added, enabling participants to have hands-on experiences in doctor-patient communication in advance with diverse simulations. Ways of positive encourage for increasing the morale among nursing staff effectively lowered cases of complaints and greatly increased praises of outstanding services.

References

- Huang, Y.c., Hsu, L. L., & Hsieh, S. 1. (2011). The Effect of a Scenario-Based Communications Course on Self-Confidence in Novice Nurse Communications. *The Journal of Nursing*, 58(5), 53-62.
- Lorenz A, Helmchen, Michael RR, Timothy BM. How does routine of medical error affect patients' to sue and their assessment of provider quality? Evidence from survey data. *Medical Care* 2010, 48(11): 955-61.
- Mahmoud, I., Hou, X., Chu, K., Clark, M., & Eley, R., "Satisfaction with Emergency Department Service among Non-English-Speaking Background Patients", *Emergency Medicine Australasia*, Vol. 26, 2014, pp.256-261.
- Soremekun, O., Takayesu, J., Bohan, S., "Framework for Analyzing Wait Times and Other Factors that Impact Patient Satisfaction in the Emergency Department", *The Journal of Emergency Medicine*, Vol.41, No. 6, 2011, pp.686-692.

Contact

chung890867@yahoo.com.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Does Nail Polish Have Significance on Pulse Oximetry Readings?: A Literature Review

Julie Titus, SN, USA

Omolara Adedimeji, SN, USA

Diandra Duncan, SN, USA

Abstract

Purpose: A patient asked “if I have nail polish on during labor and then have to go for an unplanned caesarian section does my nail polish need to be removed?” (St. Vincent’s Private Hospital Maternity Blog, 2013). In nursing, nail polish is routinely removed prior to surgery or a procedure, based on the hospital’s protocol. Patients are questioning this practice. The aim of the literature review was to discover if fingernail polish has a profound effect on the accuracy of the pulse oximeter readings.

Methods: A literature review was conducted using EBSCOhost database. Articles selected ranged from the year 2011 to 2016. Eight articles on SpO₂ and nail polish were reviewed. The five selected research articles focused on how different colors and brands of nail polish affect SpO₂ readings; articles omitted were those that accentuated other factors that didn’t include nail polish. Only subjects with SpO₂ at 95 to 100 percent were included. Results were grouped into factors studied, and were compared and contrasted with respect to their methodology and data. Research has been ongoing about the effects that nail polish can have on the accuracy of the readings.

Results: Desalu (2013) conducted a study on fifty non-smoking participants using the Lifebox pulse oximeter. Four fingers of each hand were painted with clear, red, brown, and black nail polish. One finger on both hands remained free of nail polish as the control. Colors found not significantly different from the control mean are clear and red nail polish ($p=0.378$, $p=0.427$). Only 12% of the black nail polish and 64% of the brown nail polish were able to provide readings. The mean oxygen saturation values for black and brown nail polish were significantly different from their control mean ($p<0.001$).

Jakpor (2011) of University of Southern California performed three separate experiments, one which tested six colors of nail polish on 23 subjects using the Nonin Onyx pulse oximeter and the Nellcor N-395 pulse oximeter. Each nail in this study was painted with two coats of the color nail polish followed by a clear top coat, with one nail left alone as the control. The brand used had been Avon Quick Dry Nail Polish with the colors white (Snowflake), red (Red Red), blue (Sizzling Sky), pink (Carnival), wine (Red Wine), and clear. According to Jakpor, there were small, yet clinically insignificant drops in the readings with the application of blue, pink, and white nail polish with the Nonin pulse oximeter.

Yont (2013) conducted two phases for this study on 40 healthy, nonsmoking females. The first phase of the study comprised of pulse oximeter readings (model MD300C1) simultaneously on both left and right nail beds without nail polish. The second phase consisted of using ten different nail polish colors: dark red, yellow, dark blue, green, brown, purple, black, metallic, brown and light pink of the same brand. One coat of nail polish was applied onto the left hand while the right hand remained free of nail polish. The colors found to show significance ($p<0.05$) when compared to readings on the right hand were metallic, pink, yellow, green, blue, purple, black, brown and white. Red however did not show significance ($p>0.05$).

Diccini (2011) from Paulista Nursing School at the Federal University of São Paola conducted a cross-sectional study testing four different nail polish colors on eighty healthy participants using a portable Dixtal DX-2405 pulse oximeter. The researchers used five colors on the left hand—plum on the thumb, red on the index finger, chocolate on the middle finger, coffee on the ring finger, and “coffee with milk” on the little finger—while the right hand was used as a control. It was discovered that the colors red and coffee showed much more significant differences in measurements than the controlled hand; as much as 0.19% and 0.22% respectively. Meanwhile plum, “coffee with milk”, and chocolate showed no significant differences.

Yeganehkah (2014) collected oxygen saturation readings from thirty healthy students with SpO₂ values from 95-100%. Each participant had sat on a chair at continuous resting position for ten minutes. Following this, baseline readings were obtained on all fingers as they remained unpolished. Ten different colors were then randomly selected for each participant, with the application of two coats on each nail. Once the nails were dried, SpO₂ readings were then re-measured. Nail polish colors, orange, pink, and purple did not have an effect on SpO₂, while the other colors did provide a statistical difference (p<0.05). These readings however were clinically insignificant with <1.2%.

Conclusion: The results of the reviewed articles showed a variation on the effect that fingernail polish has on pulse oximeter readings. Each study varied depending on the color of nail polish used, the brand of the pulse oximeter, and the number of coats applied. On extensive review of the selected articles, it was found that colors such as black, brown, blue, pink, and white had more of an effect on pulse oximeter levels than colors such as red and clear. Although, red is noted to have the least significance in most of the articles, it was discovered in one study that red nail polish had a greater effect than other colors such as plum, "coffee with milk", and chocolate (Diccini, 2011). The reason behind these contradicting results is not stated, however, may suggest that the color of nail polish is insignificant to pulse oximeter readings. Through review of these articles, differences were detected with colors that had the greatest impact on pulse oximeter readings. These differences, however, are clinically insignificant and not great enough to make a significant impact on pulse oximeter readings. Thus, it is concluded, through the extensive review of literature, that fingernail polish does not have a profound effect on the accuracy of pulse oximeter readings.

References

- Can I wear nail polish during labour? - St Vincent's Private Hospital Melbourne. (2013, March 15). Retrieved December 01, 2016, from <http://blog.svpm.org.au/can-i-wear-nail-polish-during-labour/>
- Desalu, I., Diakparomre, O. I., Salami, A. O., & Abiola, A. O. (2013). The effect of nail polish and acrylic nails on pulse oximetry reading using the Lifebox oximeter in Nigeria. *The Nigerian Postgraduate Medical Journal*, 20(4), 331-335.
- Diccini, S., Pereira, E. M., Im, S. Y., Shida, L. Y., & Bettencourt, A. C. (2011). Evaluation of pulse oximetry measurements in healthy subjects with nail polish. *Acta Paulista De Enfermagem*, 24(6), 784-788.
- Hakverdioğlu Yönt, G., Akin Korhan, E., & Dizer, B. (2014). The effect of nail polish on pulse oximetry readings. *Intensive & Critical Care Nursing*, 30(2), 111-115. doi:10.1016/j.iccn.2013.08.003
- Jakpor, O. (2011). Do artificial nails and nail polish interfere with the accurate measurement of oxygen saturation by pulse oximetry?. *Young Scientists Journal*, 4(9), 33-37. doi:10.4103/0974-6102.83388
- Yeganehkah, M. R., Adeli, S. H., Vahedian, M., Dadkhah Tehrani, T., Akbari, H., Mobaraki, S. R., & Arani, Z. N. (2014). Effect of Nail Polish on Pulse Oximetry Findings in Healthy Volunteers: A Randomized Clinical Trail. *Qom University Of Medical Sciences Journal*, 8(1), 68-70.

Contact

julie.titus7@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

A Method of Analyzing Defects in Preoperative Preparation Process Using a Computerized Control System

Maya Novikov, BS, RN, Israel
Liat Cohen, MA, RN, Israel
Tatyana Fishman, MA, RN, Israel

Abstract

Overview: Providing of qualitative and timely care to all patients is a critical goal of management in surgery departments. The significant role in achievement of that goal and in effective functioning of staff in surgical department is an accurate preoperative preparing of patients. Defects in preoperative preparation process often cause to delays and cancellations of operations which lead to such outcomes as: increase of patient risk factors, prolongation of patient waiting time, ineffective usage of operational resources, reduce of patient's satisfaction rate, etc. Effective analyze of those defects and applying appropriate steps have significant impact on improvement of preoperative preparation process in surgery departments.

Purpose: To assess effectivity of a method for reducing rates of defects in preoperative preparation process based on a computerized control system.

Method: The method was introduced in 2015 in a major medical center (1,500 beds, 120 wards, 2,500 nurses) located in Israel as part of initiative to improve the effectivity of operations department. The method provides a way of analyzing reasons of delays and cancelations of operations causing by defects in preoperative preparation process. The method consists of introduction of computerized control system for documenting and classification cases of inappropriate preoperative preparation of patients. The method enables to get summary reports by various criteria, for example, by defects causes, by departments, etc., and this allows to see the whole picture and identify "bottle necks". During the period of application of the method, the documenting of cases and sharing reports were performed by nurse of preoperative room of operating department. The reports were distributed daily to management of surgery departments and contained patients' data and details of inappropriate preoperative preparing. These reports enabled nurses in charge as well as nursing management to identify the most frequent defects in each surgery department and to correct the preoperative preparation process in those departments. The main advantages of this method are transparency and availability of information which facilitate the improvement of preoperative preparation process.

Results: During the period of application of this method in medical center was observed significant reduction at least 80% of the rate of defects in preoperational preparing of patients in compare to the previous year. In addition, during the same period the number of operations was increased at least by 10%. Also, this allowed to renew and improve the existing procedure of preoperational preparing of patients and ensure more safety and qualitative care to all patients.

References

1. Ebirim L.N., Buowari D.Y., Ezike H.A. Causes of cancellation of elective surgical operations at a University Teaching Hospital. *Journal of Medicine and Medical Sciences*. 2012; 3(5), 297-301
2. Kaddoum R., Fadlallah R., Hitti E., EL-Jardali F., El Eid G. Causes of cancellations on the day of surgery at a Tertiary Teaching Hospital. *BMC Health Services Research*. 2016; 16(1), 1-8

Contact

yaki12@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Describing the Contribution and Value of Public Health Nurses to Health System Outcomes

Nancy Purdy, PhD, RN, Canada
Maureen Cava, MN, RN, FCCHSL, Canada
Joanne Crawford, PhD, RN, Canada
Cristina Catallo, PhD, RN, Canada

Abstract

Given that nurses are the largest group within the public health workforce, more effective use of PHNs would optimize the associated financial investment by improving the upstream prevention of illness and promotion of health (Meagher-Stewart, 2009). PHN roles have been vulnerable to cuts and replacement by other less expensive providers (National Advisory Council on Nurse Education and Practice, 2013). Building an effective Public Health Nurse (PHN) workforce requires an evidence base to articulate the contributions made by PHNs to the health outcomes of individuals and communities they serve (Underwood, 2010). Many aspects of PHN practice are invisible and need to be made explicit to the public and to administrators who manage public health programming and resources (Royal College of Nursing, 2016). The purpose of this study is to explore PHN and Nursing Leaders perspectives of their perceived value to health system outcomes.

The Nursing Role Effectiveness Model (Doran et al., 2002), based on systems theory, includes structural, process and outcome components that impact the quality of care. This framework will underpin the interview guide, as well as the identification of concepts relevant to PHN practice in relation to health outcomes. To understand outcomes unique to public health, the Ontario Public Health Standards (MOHLTC, 2008) will be used to reflect the five program areas (infectious diseases, family health, chronic disease management, environmental health and emergency preparedness).

A qualitative design will be employed and data collected using individual telephone interviews (up to 60 minutes). Purposive sampling with maximum variation will be used to ensure representation by the five programmatic areas of public health practice, the five regions of public health across Ontario (Canada) and a balance of PHN roles. Participants will be recruited via email distributed through the membership of two provincial PHN professional groups representing direct practice and formal leadership roles. A sample of 20 practitioners and 10 nursing leaders are sought (or more until saturation achieved). Interviews will be recorded, transcribed verbatim with personal identifiers removed. NVIVO 10 will be used to assist with coding. Inductive content analysis will be used to identify themes. Themes derived from the interviews will be used to identify concepts relevant to PHN practice in relation to contributions, value to the system, and group/community outcomes. The findings will be used to inform a systematic review of the literature to identify PHN-sensitive outcomes that can be used by administrators and policy makers to plan appropriate health human resources required for a robust public health system.

References

National Advisory Council on Nurse Education and Practice. (2013). *Public Health Nursing: Key to Our Nation's Health- 12th Annual Report to the Secretary of the United States*. Department of Health and Human Services and the Congress of the United States.

Royal College of Nursing, (2016). *Nurses 4 Public Health- Promote, Prevent and Protect The Value and Contribution of Nursing to Public Health in the UK: Final report*. Author, January 2015.

Underwood, J. (2010). *Maximizing Community Health Nursing Capacity In Canada: A Research Summary For Decision Makers*. Ottawa, ON: Canadian Health Services Research Foundation, February 2010.

Contact

npurdy@ryerson.ca

EBP PST 1 - Evidence-Based Practice Poster Session 1

Evaluation of Comprehensive Screening to Support Initial Depression Diagnosis Among Military Adolescent Beneficiaries

Chelsea M. Cruz, BSN, RN, USA

Alicia Rossiter, DNP, FNP, PCPNP-BC, FAANP, USA

Catherine G. Ling, PhD, FNP-BC, FAANP, USA

Abstract

Problem Statement: Due to the unique life circumstances associated with military service, greater burdens are placed on a military member's family increasing stress and risk for mental illness, especially among pediatric dependents. Symptoms of adolescent depression vary by individual and often go undiscovered by those closest to the individual. 90% Of adolescents seen within primary care in the United States have an undiagnosed mental health illness (NAMI, 2016). when an adolescent is facing a mental illness or attempting suicide, it prevents our military members both stateside and deployed from completing their missions adequately. Adolescent patients who are presently seen at a Military Healthcare Facility for primary care are screened using the Patient Health Questionnaire- 2 (PHQ-2) only at annual visits and when presenting with a psychosocial chief complaint. The PHQ-2 is not a comprehensive questionnaire and is not required to be completed at all visits with the physician. With 80% of families visiting their primary care physicians throughout the year it is imperative that screening for depression improves (Arroll et al., 2011). In the absence of a routine comprehensive screening 50% of adolescent depression cases are being overlooked (Arroll et al., 2011). **Purpose:** The PHQ-2 presently promoted by military pediatric primary care providers is not identifying over half of adolescent military beneficiaries at risk and/or presently suffering from symptoms of depression. Clinical recommendation for this study is to screen all military adolescent beneficiaries with the comprehensive Patient Health Questionnaire-9 Modified on a routine basis to support identification and initial diagnosis of depression. This study will explore the use of a standardized comprehensive depression screening tool (PHQ-9 Modified) among military adolescents for initial suggestive diagnosis. **Methods:** A voluntary anonymous online survey will be available for completion by parents of military adolescent beneficiaries who are stationed at MacDill Air Force Base in Tampa, Florida. The scoring of surveys will be completed following required methods established by the PHQ-9 Modified and PHQ-2 questionnaires. Evaluation of the survey results will reveal a comprehensive screening assessment tool's ability to support initial diagnosis of military adolescents at risk for depression. This will be reflected through supported data of the comprehensive screening questions derived from the PHQ-9 Modified identifying more individual military adolescents scoring at risk for depression that were not found at risk using questions derived from the PHQ-2. **Significance:** Adolescent depression is a serious disorder which often goes undiagnosed and has the ability to lead to suicidal attempts. Despite this fact and numerous supporting studies, practice guidelines have not wavered and continue to diagnose less than 50% of adolescents with depression prior to adulthood, with less being diagnosed within the military adolescent population. Our goal is to identifying and support the need for a routine comprehensive screening tool. With this study's support, education initiatives will be provided to not only to clinical staff at MacDill Air Force Base but also to the United States Military's health care providers across the nation and worldwide so that not only the adolescents at MacDill are screened properly, but those overseas as well.

References

Arroll, B., Goodyear-Smith, F., Crengle, S., Gunn, J., Kerse, N., Fishman, T., Falloon, K, Hatcher, S. (2011). Validation of PHQ-2 and PHQ-9 to screen for major depression in the primary care population. *Annals of Family Medicine*, 8(4), 348-53. doi: 10.1370/afm.1139.

National Association of Mental Health (NAMI). (2016). *Mental health by the numbers*. Retrieved from: <http://www.nami.org/Learn-More/Mental-Health-By-the-Numbers>

Contact

ChelseaMcruz@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Nursing Student Simulation: A Three-Tiered Model Approach

Kristina L. Leyden, PhD, APRN, FNP-BC, USA

Nakisha S. Paul, MBA, USA

Katherine D. Simpson, MSN, RN, FNP, CNRN, CVRN-II, LNC, USA

Abstract

Introduction: Simulation has long been used as training in nonmedical facilities¹. In nursing, it has had many definitions. The oldest definition found is using models to teach basic skills¹. As simulation technology grows, changes, and improves, so does the need to clearly define terms and how we use them. Simulation, presently, includes varying degrees of interaction. Examples include low-fidelity models (LFM) which has limited function/interaction (task-trainer intravenous (IV) arms for IV insertion); medium-fidelity mannequin (MFM), (chest model illustrating heart rhythms); high-fidelity mannequin (HFM), (full-bodied mannequin, fully functioning, mimicking a living patient)^{2,3}; and standardized patients (SP), (live persons participating in a scenario)⁴.

Technologically-enriched learning through simulation lab activity enhances personal and professional confidence. Simulations promote teamwork through communication and collaboration⁵. Students stated they enjoy the simulation lab activity and prepares them for the real world clinical environment. Students enter their roles with explored senses of patient care needs, and clinical expectations. This produces confidence and decreases situational anxiety⁶. Patient safety has improved since the seeds of critical thinking skills have been planted and sprouted in the real clinical environment. Medication errors are identified and corrected during simulation learning⁷.

Usefulness of differing simulation mediums in student education needs to be fully explored, well-documented, and clearly defined. Recommendations for use of differing simulation methods are dependent on learning objectives and the level of the student⁸. The purpose of this research is to disseminate how one baccalaureate-nursing program in a highly diverse, liberal-arts university with novice simulation technicians and faculty defined various methods of simulation, students' response to various methods, and recommendations for use.

Background: Partnership with a senior baccalaureate-nursing program with expert simulation technicians and faculty occurred so lab facilitators/faculty could shadow simulations and explore laboratory function to enhance simulation development and experience with novice users. A hospital clinical rotation preparation simulation was developed in Fall 2015, it was well received by students; however, technical limitations warranted close examination for modifications. High-intensity simulations were used in Spring 2016. Categorization, definitions, and learning objectives for simulation was needed for clarity across the program.

Methods: Faculty developed an introductory simulation, Fall 2015 for the adult/older adult medical surgical course, in addition to already existing laboratory skills with LFM. Introductory simulation included students assigned to one-on-one care to HFM with adult/older adult medical/surgical scenarios. This simulation mimicked a general medical/surgical hospital unit. Objectives included hospital unit preparation, setting expectations, understanding the routine of a hospital unit, beginning clinical reasoning, and effective communication to facilitate patient care. One student acted as charge nurse, other students assessed, medicated, and called the "provider" if needed and performed many other tasks, critical thinking, and prioritizing orders. Students carried out orders, documented findings, called laboratory and radiology for results, if needed. Students performed this simulation over 6-hour periods with pre- and post-briefing. Debriefing included asking the students to describe how they can use this experience going forward to their clinical experience, discuss their perceived limitations, and their perceived needs for clinical success.

Faculty extended simulation Spring 2016 for the Pediatric course. This simulation was increased in intensity and performed in a shorter period in small groups of 2-3 students and completed in phases. This

simulation included two higher acuity patient scenario and a focus on clinical reasoning. Students participated in two scenarios. Pre- and post-simulation testing completed to measure effectiveness and meeting of learner objectives.

Students' positive feedback and request for more simulations prompted the faculty to develop a step-approach to simulation in courses. Resources and technological restrictions needed to be evaluated.

Limitations: HFM require the most consideration. HFM are manufactured and programed by commercial companies and try to resemble life-like situations. Battery life varies between brand, gender, and mass. Males are more efficient because of automated features. The power source is located below the waist. Females use more power. They are used for general simulations and maternity. In maternity simulations, automation requires total body manipulation which requires greater power. Longevity of the mannequin's battery life may determine scenario length. Learning objectives may depend on mannequin type.

Power source can be a great limitation, as well as varying sizes of simulation laboratories. When the lab size is small, the radioactivity space is limited. This causes a voided transfer of data between mannequins. This cancels programmed scenario data and will not allow use of multiple mannequins in one setting; this can create limited teaching capabilities at one time.

Instructors must monitor mannequin vitals at all times. If abnormal vital signs are set in a scenario and go untreated by the student, mannequins will decompensate like live patients would. Mannequins will overheat and shut down.

Facilitator knowledge and ability varies and facilitators must learn the technology in order to allow the student to gather the most benefit. This facility uses an ultraportable recording system, so the ideal simulation includes one-facilitator recording/annotating student observations, one facilitator changing mannequin settings, vital signs, one answering the students' questions as the "patient", and one facilitator acting as the provider on-call, laboratory, or other departments the student may need to call upon.

Implementation: In Fall 2016, faculty developed a three-tiered model approach to simulation for students entering the adult/older adult medical surgical clinical rotation in order to classify and define simulation exercises for students. The first tier, coined "Sim-Skill", included needed laboratory skills training. The second tier, "Sim-Shift", is an introduction into the hospital unit and patient care during a shift. The third tier, "Sim-Care", is a high-acuity patient scenario.

Sim-Skill included learning new skills on LFM. For example, nasogastric tube insertion, central line dressing change, and injections were a few of the skills learned. In addition, students view equipment orientation and procedures via faculty-made videos.

Sim-Shift included students assigned to HFM as if in a general medical/surgical nursing unit, like in the previous year. However, shifts were shortened to morning and afternoon sessions allowing for technical considerations, and the students to report to one another between shifts. Session changes allowed the students to develop their communication skills nurse-to-nurse while giving report on the patient. Students in both sessions reported to the class on the following day their experience. These changes allowed the mannequins to reset between sessions. Most importantly, it allowed the students to transfer patient care and learn what was essential in communicating for transfer of care. Students got a sense of what it is like to work on a medical/surgical unit, fully manage patient care, communicate for continuation of care, and be accountable to others for that patient. Furthermore, students were able to put into practice fundamental safety concerns. For example, if a student left a side-rail down, simulation facilitators would place mannequin on the floor for the student to find. Sim-Shift was useful in identifying immediate safety and prioritization student needs.

Sim-Care included HFM and SP (acting as mannequin's family member) with high-acuity adult/older adult and pediatric scenarios performed in groups of 2-3 students. Expectations included assessment, prioritization, and interventions appropriate to scenario stages. The simulated patient's family may also be in the scenario adding another dimension to the simulation. They were also expected to communicate

findings to the patient's provider. Learning objectives in this tier include synthesizing theory learned in classroom and skills learned in the previous tiers. In addition, faculty assessment of students included clinical judgment and critical indicators. Pre-/post-simulation testing occurred.

Results: Students consistently request more time spent in the lab to develop technique and facilitate practice for the clinical setting. Students report a freedom in lab practice without risk of causing harm to a live patient.

Students participating in Sim-Shift reported better understanding of clinical expectations/role and helped to link theory to actual patient care. They reported seeing symptoms displayed by mannequins helped make disease clinical manifestations concrete. Learning these elements in simulated environment helped students feel safe in practice when clinical began. Students especially liked mannequins who were placed on contact/respiratory isolation. This helped make aware of needing to prioritize and prepare nursing interventions. Students learned importance of communication and preparedness before talking to the simulated-provider of the patient in order to receive orders or request the patient to be seen. Students reported an over-all positive experience and a desire for more Sim-Shifts.

Students participating in Sim-Care reported positive, stressful experiences. Post-simulation testing improved knowledge base in 57% of students for both scenarios and 83% of students for one scenario. One student had poor performance in post testing of both scenarios. All students identified own needs in order to think, prioritize, communicate, and implement patient care. All students requested more Sim-Care scenarios to translate didactic content into practical environment.

Conclusion: Simulation definitions helped facilitators communicate needs and student expectations to faculty and students. In addition, the clear definitions helped students understand a step-approach to clinical preparedness. This three-tiered model approach assists faculty in deciding simulation levels appropriate to student ability of for meeting set objectives. Technical limitations help form simulation type, length, and intensity. Faculty will continue to use this three-tier model to facilitate learning.

References

1. Dearmon V, Graves R, Hayden S, et al. Effectiveness of simulation-based orientation of baccalaureate nursing students preparing for their first clinical experience. *Journal of Nursing Education*. 2013;52(1):29-38.
2. Seropian M, Brown K, Samuelson Gavilanes J, Driggers B. Simulations: not just a manikin. *Journal of Nursing Education*. 2004;43(4):164-169.
3. Bray B, Schwartz C, Weeks D, Kardong-Edgen S. Human patient simulation technology: Perceptions from a multidisciplinary sample of health care educators. *Clinical Simulation in Nursing*. 2009;5:145-150.
4. Anderson D. Standardization patients (SP) tip sheet. <https://www.womenshealth.gov/files/assets/docs/heart-truth/sptips.pdf>, 2016.
5. Rice Y, DeLetter M, Fryman L, Parrish E, Velotta C, Talley C. Implementation and evaluation of a team simulation training program. *Trauma Nursing*. 2016;23(5):298-303.
6. Hollenbeck P. Simulation and its effects on anxiety in baccalaureate nursing students. *Nursing Education Perspectives*. 2016;37(1):45-47.
7. Zimmerman D, House P. Medication Safety: Simulation education for new RNs promises an excellent return on investment. *Nursing Economics*. 2016;34(1):49-51.
8. Munshi F, Lababidi H, Alyousef S. Low- versus high-fidelity simulations in teaching and assessing clinical skills. *Journal of Taibah University Medical Sciences*. 2015;10(1):12-15.

Contact

leydenk@stthom.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Engaging Nurses to Promote Clinical Outcomes

Allison Kathleen Peters, DNP, RN, CNOR, NEC, USA

Abstract

In a profession where it is critical to be engaged, nurses are said to be the least engaged of all of healthcare providers. As reflected in the research reviewed for this scholarly project, patients cared for by engaged nurses have been shown to have positive outcomes in their care. It is crucial to understand the factors facilitating nursing engagement and how we can create the work environment needed for nurses to achieve and maintain high levels of engagement in their workplace. To better understand the basic factors that help facilitate a healthy work environment for nurses, the Maslow Hierarchy of Inborn needs was paired with a corresponding Maslow Triangle of employee needs to investigate the effects of evidence-based workshops on levels of nursing engagement. This quality improvement project was conducted in a large academic medical center that has 850-beds and a Level I Trauma Center in its third Magnet® designation status. The two top rated engagement challenges in the unit were identified through the National Database of Nursing Quality Indicators (NDNQI) survey. Selected staff development workshops were conducted along with the utilization of the evidence based Press-Ganey® Action Planning Tips Guide (Toolkit) which targeted specific engagement challenges. 32 nurses participated in this project. The effectiveness of the project and its impact on nursing engagement was measured by comparing responses pre- and post-workshops using Utrecht Work Engagement Survey (UWES). In addition the Practice Environment Scale of the Nursing Work Index (PES-NWI) was given post implementation of the project. Increases in vigor, dedication and absorption were measured and observed across all of the engagement benchmarks evaluated. Limiting factors included length of time project was in place and study size. As part of Magnet status, nursing satisfaction/engagement is required to be measured and maintained at a high level and this project supports that it is a potentially modifiable construct.

References

- Bargagliotti, L. A. (2012). Work engagement in nursing: a concept analysis. *Journal of Advanced Nursing*, 68(6), 1414-1428. doi:10.1111/j.1365-2648.2011.05859.x
- Havens, D., Warshawsky, N., & Vasey, J. (2013). RN work engagement in generational cohorts: the view from rural US hospitals. *Journal of Nursing Management*, 21(7), 927-940.
- Kelly, D., Kutney-Lee, A., Lake, E. T., & Aiken, L. H. (2013). The critical care work environment and nurse-reported health care associated infections. *American Journal of Critical Care*, 22(6), 482-489. doi: 10.4037/ajcc2013298

Contact

petal@ufl.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Fostering Nurse Renewal Through Compassion: A Model for Alleviating Nurse Workplace Stress

Marie M. Shanahan, MA, RN, HN-BC, USA
Gayle Novack, MAOM, BSN, HNB-BC, USA
Veda L. Andrus, EdD, Hn-BC, USA

Abstract

Nursing workplace stress is a known deterrent to nurse satisfaction with the work environment. (Cranick, Miller, Allen, Ewell, & Whittington, 2015) It can lead to compassion fatigue and burnout. It is a contributing factor to nursing turnover and decreased retention of a skilled workforce (Edmonson & Asturi, 2015). Nurse workplace stress is an element of the downward spiral in patient safety and quality. If left unchecked it creates a cascading effect that diminishes effective organizational functioning, costing millions and endangering patients' lives (Birmingham, Dent & Ellerbe, 2013). Sadly, it can rob nurses of the joy and fulfillment they derive from caregiving (Bauer-Wu, & Fontaine, 2015).

Nurse workplace stress is most often associated with perceived and actual stressful elements of the work setting. It can be caused by challenging professional or personal relationships, inadequate staffing, demanding clinical workloads, patient acuity, unresponsive leadership, unresolved moral distress, and weak psychological boundaries. Regardless of the cause, it threatens the nurse's ability to perform at peak levels. (Richards, 2014).

Because nurse workplace stress is closely related to patient outcomes, it is imperative that nurse leaders create realistic avenues for nurses to develop coping skills and build resilience on the job.

This 900 bed urban hospital nursing team recognized the signs of nurse workplace stress and opted to take on the challenge. The nursing leadership had set the stage by adopting Jean Watson's Caring Science theory as their guiding philosophy of care. It fit well with their mission of providing spiritually centered holistic patient care. Nurses were educated in the tenets of Watson's theory and sought to enact them in clinical practice. They quickly realized that while nurses strongly desired to practice more caring centered care, they were failing due to tremendous workplace stressors related to heavy patient workloads, persistent staffing shortages and pressure to respond to multiple organizational initiatives. Nurses were describing their workloads as 'unbearable' and 'overwhelming to the extreme'.

To address this problem, nurse administrators developed a pilot project. They created a renewal room on the women's health unit. The purpose was to have specifically designated spaces for nurses to rest and re-focus while they are on shift. (Bullen, 2016). It needed to convey a sense of tranquility and peacefulness where nurse could reflect and re-connect to their love of nursing. It also needed to be a place where nurses let go of their burdens for a short period of time and practice the art of self-care (Andrus, 2016). As part of this project, it was hoped nurses would find relief from their day to day stressors and develop greater resiliency with regard to their workload.

A room that held excess equipment was selected as the designated space. It was close to the nurses' station, too small to be a patient room and had a privacy lock on the door. The nurse manager quickly enlisted clinical nurses to transform the room into a tranquil and soothing space. Nurses donated a comfortable chair and foot rest. They decorated with soft lighting, pillows and an electric tea pot and cups. Soon other nurses provided a portable music player and relaxing music. Also added were uplifting reading material, inspiring sayings and a journal to share thoughts with other nurses.

The renewal room became an overnight success with nurses utilizing it to refresh and rejuvenate before, during and after their shifts. As the usage increased, nurses from other units began to request their own renewal room. Today there are 17 renewal rooms throughout this organization, including one in the nursing administration office. They are in all patient services areas including the emergency department and surgical services. All employees are permitted to use the rooms for the purpose of quiet reflection

and alleviating their stress. The rooms are not used for eating, sleeping, consulting, charting, or meeting. They are separate from nurse break rooms and patient-family meeting areas. One person at a time may use the room and electronics are strongly discouraged. Some rooms contain massage chairs and many have essential oils for aromatherapy.

Included in this poster is a communication from one nurse to another that poignantly captures the need and success of the project.

First entry: "My nurse manager took me to this room today because I had my first breakdown on the unit. She is making me stay here for 30 mins. So while she's caring for my patients...and I cry my eyes out...I am still worried about doing things for them ON TIME. Being a new nurse is so stressful. This chair is cozy, the tea is yummy and I feel like I failed today. When does that feeling go away? My patients need me :-)"

Second entry: "Hang in there, we were all once a new nurse! Each day focus on one thing that went smoother, time management takes organization and in time will come. Things will all come together. BREATHE . It helps to have support, ask for help, ask for tips from your TEAM. How they prioritize, time save. Sending you + thoughts for an easier day! I'm sure your patients can feel your kind spirit, let it shine through! Be yourself! :-)"

Nurses were confronting tremendous work stressors, robbing them of their joy and resilience. This organization was committed to addressing workplace stress for their nursing team and they did so in a creative and compassionate fashion. Learn how they improved nurse renewal and embedded self-care in their culture. Today the renewal rooms are part of their culture and have contributed to a caring nursing work environment.

References

- Andrus, V. (2016). Cultivating Mindfulness in Nursing Practice and Self-Care. Retrieved December 6, 2016. <https://learn.ana-nursingknowledge.org/products/Cultivating-Mindfulness>
- Bauer-Wu, S. & Fontaine, D. (2015). Prioritizing Clinician Wellbeing: The University of Virginia's Compassionate Care Initiative. *Global Advances in Health and Medicine*, 4(5), 16-22.
- Birmingham, S., Dent, R. & Ellerbe, S. (2013). *Reducing the Impact of RN Fatigue on Patient and Nurse Safety*. *Nurse Leader*, 11(6), 31-34.
- Bullen, D. (2016). Serenity Spaces: Renewal Rooms Help Oncology Nurses Refuel and Restore. *Advance for Nurses*. Accessed December 6, 2016. <http://nursing.advanceweb.com/Features/Articles/Serenity-Spaces.aspx>
- Cranick, L., Miller, A., Allen, K., Ewell, A. & Whittington, K. (2015). *Does RN Perception of Self-Care Impact Job Satisfaction?* *Nursing Management*, 46(5), 16-18.
- Edmonson, C. & Asturi, E. (2015). *Built to Last: A Culture of Courage, Excellence, and Resilience*. *Nurse Leader*, 13(3), 30-34.
- Richards, K. (2014). *The Power of Self-Care to Transform Culture, Improve Retention, and Boost Resilience*. *Nurse Leader*, 12(1), 57-59.

Contact

marie@birchtreecenter.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Feasibility of Using Appreciative Inquiry to Improve Maternity Services in District Hospitals of Malawi

Zione Dembo, MSc, BSc, RNM, Malawi
Abi Merriel, MD, BSc, PGCertMedRsch, United Kingdom

Abstract

Purpose: In Malawi as demand for maternity services continues to surpass supply and overstretches frontline healthcare providers, it is important to improve the quality of maternity care to address the burden of maternal mortality and morbidity. Appreciative Inquiry (AI) is a method through which healthcare providers can make organisational change to improve clinical care and their working lives. It harnesses the energy and ideas of staff through a four-stage cycle: Discover (how it is now), Dream (of what it could be), Design (concrete plans) and Destiny (implement plans).

The purpose of the study was to assess the feasibility of implementing Appreciative Inquiry in three district level facilities in Malawi using participatory approach.

Methods: Between April 2015 and January, 2016 we adapted and implemented AI through participatory action cycle sessions.

Findings: We have successfully implemented AI with contributions from the entire ward team (patient attendants, nurses, clinical officers and clerks). Each team chose a different focus for their activities including 'team spirit' and 'infection prevention'. In two hospitals there have been some steps towards change, driven largely by key midwives team leaders. In one hospital the team have lobbied the management to have security guards to support their 'traffic control' policies in addition to successfully implementing the removal of shoes before entering the nursery and kangaroo wards. Another team has reduced the number of incidences of overfull sharps bins and waste in the incorrect bins on the ward. The main challenges faced were from constantly changing teams and the lack of time and resources to dedicate to the change process.

Conclusion: It is feasible to implement AI in maternity settings in Malawi when the care providers stay positive. However, the presence of committed champions seems important and health system challenges necessitate realistic goal setting; further study is needed to understand the effectiveness of the intervention.

References

Ruhe MC, Bobiak SN, Litaker D, Carter CA, Wu L, Schroeder C, et al. Appreciative Inquiry for Quality Improvement in Primary Care Practices. *Quality Management in Health Care*. 2011;20(1):37–48. 2. Trajkovski S, Schmied V, Vickers M, Jackson D. Implementing the 4D cycle of appreciative inquiry in health care: a methodological review. *Journal of Advanced Nursing*. 2013 Jan 14;69(6):1224–34. 3. Hussein J, Ramani KV, Kanguru L, Patel K, Bell J, Patel P, et al. The Effect of Surveillance and Appreciative Inquiry on Puerperal Infections: A Longitudinal Cohort Study in India. Karunajeewa HA, editor. *PLoS ONE*. 2014 Jan 30;9(1):e87378.

Contact

zionedembo@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Engaging Nurses in the Diagnostic Process

Kelly T. Gleason, BSN, RN, USA

Cheryl R. Dennison Himmelfarb, PhD, RN, ANP, FAAN, USA

Abstract

The dismal state of diagnostic errors in the medical world has recently been highlighted by the National Academy of Medicine's report, *Improving Diagnosis Healthcare* (The National Academies of Sciences, 2015). Each patient in the United States health care system faces a 5% chance of experiencing a diagnostic error every year. The first goal listed in the National Academy of Medicine's report is "Facilitate more effective teamwork in the diagnostic process among health care professionals, patients, and their families." The report specifically recommends interprofessional teamwork in the diagnostic process. Historically, medical diagnosis is considered solely a physician responsibility, and teamwork in diagnosis generally refers to physicians working together across specialties. There is a pressing need to adjust this antiquated view and enlist nurses to address diagnostic error. Interprofessional collaboration has been a key principle in successful efforts to reduce therapeutic errors (Goeschel & Pronovost, 2008) and, we believe, will be equally important to diagnostic safety efforts. While there are logistical, regulatory, and sociocultural barriers to engaging nurses and other allied health professionals on the diagnostic team that must be addressed, the potential benefits of engaging them are immense. (Newman-Toker, 2016) Achieving diagnostic safety is aligned with the core values of the nursing profession to provide safe, effective, and compassionate care. The purpose of this paper is to discuss necessary steps to address barriers to nurses effectively participating in the diagnostic process.

To change the view that nurses are not diagnostic team members, several steps must be taken:

- 1. Sociocultural barriers:** Nurses and physicians working together requires learned skills, including an understanding of roles and responsibilities, effective communication, shared values, and teamwork. Collaboration in practice results in better patient outcomes and healthcare processes (Zwarenstein, Goldman, & Reeves, 2009), and will be key achieving diagnostic excellence. There is a need for a paradigm shift in which nurses and physicians work together for the benefit of patient outcomes. Sociocultural barriers can be overcome through interprofessional education, multidisciplinary rounds, and understanding other health professionals' roles and responsibilities. Interprofessional education is required by licensing bodies of health professions and includes focus on interprofessional communication, understanding the roles of each discipline and collaborating as teams. Application of interprofessional principles should specifically focus on training opportunities related to the diagnostic process and the role of teams in achieving diagnostic accuracy. Creating structured opportunities for nurse to share observations and conclusions with diagnostic team may be a place to begin engaging nurses. Multidisciplinary rounds are increasingly common; including a discussion regarding the diagnostic process in multidisciplinary rounds would give the nurses an opportunity to present their observations and conclusions. Understanding other health professionals' roles and responsibilities is key to valuing the voice each health professional brings to the table. Nurses, physical therapists, and pharmacists are just a few allied health professionals that are not traditionally thought of as being members of the diagnostic team, though each brings an important perspective and knowledge to the diagnostic process.
- 2. Logistical barriers:** Logistical barriers exist in managing nurses' time in their already busy schedules to give them opportunities to present their observations and conclusions to providers. While providers and nurses may be open to nurses participating on the diagnostic team, the current routine in many hospitals has the diagnostic thought process taking part separate from the nurses. Logistical barriers can be overcome by working as a team to prioritize the diagnostic process in recognition that it is currently a major source of patient harm.
- 3. Regulatory barriers:** Regulatory barriers exist in the variable scope of practice regulations across locations. For example, within the United States, differences exist across states in nurse scope of

practice regulations. More effective and timely diagnoses can be enhanced if nurses practice to the full extent of their scope of practice. The Institute of Medicine's report "The Future of Nursing: Leading Chance, Advancing Health" (2010) highlighted the need for nurses to practice to the full extent of their education and training. Nurses play a critical role in monitoring the patient's condition, identifying and preventing diagnostic errors, care coordination, communication, and patient education. However, there is documented evidence that nurses are not currently practicing to their full scope of practice. Addressing regulatory barriers requires: 1) working with legislators to create universal scope of practice regulations that allow nurses to practice to the full extent of their training, education, and experience, and 2) nurses understanding scope of practice regulations in their specific area.

In conclusion, diagnostic errors are an urgent problem in health care. Achieving diagnostic excellence is impossible unless nurses contribute to the diagnostic process as an equal member of the healthcare team. Nurses have not traditionally been considered diagnosticians; we have a responsibility to own our role on the diagnostic team out of commitment to providing safe, effective, and compassionate care.

References

The National Academy of Medicine. (2015). *Improving Diagnosis in Health Care*. Retrieved from Washington, DC: Goeschel, C. A., & Pronovost, P. J. (2008). Harnessing the Potential of Health Care Collaboratives: Lessons from the Keystone ICU Project. In K. Henriksen, J. B. Battles, M. A. Keyes, & M. L. Grady (Eds.), *Advances in Patient Safety: New Directions and Alternative Approaches (Vol. 2: Culture and Redesign)*. Rockville (MD). Newman-Toker, D. B. T. D. E. (2016). Diagnosis is a team sport - partnering with allied health professionals to reduce diagnostic errors. *Diagnosis*, 3(2), 49-59. doi:10.1515/dx-2016-0009 Perry, J. J., Stiell, I. G., Sivilotti, M. L., Bullard, M. J., Hohl, C. M., Sutherland, J., . . . Wells, G. A. (2013). Clinical decision rules to rule out subarachnoid hemorrhage for acute headache. *JAMA*, 310(12), 1248-1255. doi:10.1001/jama.2013.278018

Contact

kgleaso2@jhmi.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Reducing Preventable Transfers From Short-Stay Care

Carmen Potter, MSN, RN, USA

Abstract

Problem: Reducing hospital-acquired conditions and decreasing the number of potentially avoidable rehospitalization are targeted goals of the federal health care reform (Maslow & Ouslander, 2012). Vulnerable populations such as clients who are being cared for in skilled nursing facilities (SNF) are often subjected to unnecessary emergency room visits and rehospitalizations. One in 4 clients discharged to a SNF is readmitted within 30 days. (Neuman, Wirtalla, & Werner, 2014). The PICOT question for the practicum project is, "For the nursing staff on a short-term care unit, does the implementation of an evidence-based patient evaluation tool, INTERACT, lead to a reduction in preventable hospitalizations?"

Evidence: It is believed that two-thirds of the readmissions are preventable (Neuman, Wirtalla, & Werner, 2014). These interventions increase healthcare costs and the incidences of hospital-acquired complications. Increased morbidity and mortality rates occur as a result of preventable transfers to acute care facilities. If a substantial percentage of rehospitalizations can be prevented, billions of dollars in Medicare and Medicaid savings will result over the next several years (Ouslander, Bonner, Herndon, & Shutes, 2014; Bonner, Tappen, Herndon, & Ouslander, 2014).

Interventions to Reduce Acute Care Transfer (INTERACT) is a quality initiative implemented by many skilled nursing facilities in the United States, Canada, the United Kingdom, and Singapore. Consistent use of the program has been associated with a 24% reduction in preventable hospitalizations of nursing home clients over a six-month period (Ouslander et al., 2014; Toles, Young, & Ouslander, 2013).

Strategy: Interventions to be implemented at the skilled nursing facility are components of the validated INTERACT quality improvement program. INTERACT is comprised of several tools and does not require implementation of all tools to be effective in reducing preventable transfers to acute care facilities. The INTERACT Quality Improvement Program is designed to assist and guide front-line staff in early identification, assessment, communication, and documentation about acute changes in client condition. It includes clinical and educational tools and strategies for use in everyday practice in skilled nursing facilities. Skilled nursing facilities across the country have implemented portions or all parts of the INTERACT Quality Improvement Program and many facilities have been able to significantly reduce avoidable hospitalizations using these resources (Ouslander et al., 2014; Toles et al., 2013).

The tools chosen for the pilot provide structured information used for client assessment which can then be relayed to the healthcare provider appropriately in a structured format. All licensed nursing staff will use Care Paths. Care Paths is an educational and reference tool used in guiding the nurse with the evaluation of specific symptoms that commonly cause acute care transfers. Acute Change in Condition File Cards are used by licensed nursing staff and provide guidance on when to communicate acute changes in status to healthcare providers. Another tool from the INTERACT program is the Stop and Watch Early Warning Tool which is utilized by Certified Nursing Assistants. Regular evaluation of and recognition of changes in clients' condition and reporting changes to the nurse is enhanced with use of Stop and Watch. All licensed nursing staff will incorporate the SBAR Communication Tool and Change in Condition Progress Note to effectively evaluate and communicate acute changes in condition to healthcare providers. Documentation of evaluation and communications on the form allows this to be a permanent part of the client medical record. Finally, the fifth INTERACT tool to assist with documentation of unplanned acute care transfers data collection is the Acute Care Transfer Log.

Practice Change: The purpose of the proposed clinical practice change process is to determine if implementing components of the INTERACT program at the skilled nursing facility will reduce preventable transfer and hospitalizations of clients from the short-stay care unit. The project proposal provides an overview of how INTERACT is used to successfully decrease unessential rehospitalizations. Information

on the significance of the problem as it relates to a higher than national percentage of rehospitalizations associated with not using a quality program such as INTERACT is presented. Practice recommendations and the plan to implement the proposed change process will be discussed with the goal being preventing unnecessary hospitalizations when it is safe to do so (Maslow & Ouslander, 2012).

Evaluation: Outcome represents results that will be measured to examine the effectiveness of the proposed intervention. Validated outcome measurement tools relevant to the pilot are utilized. The outcome being assessed in the project is the number of avoidable hospital admissions after implementation of the INTERACT quality initiative tools. The long-term objective for the pilot is there will be a 2% decrease in client rehospitalizations from the short-care unit during the eight weeks of practice implementation.

References

Neuman, M., Wirtalla, C., & Werner, R. (2014). Association between skilled nursing facility quality indicators and hospital readmission. *JAMA*, 312. <http://dx.doi.org/10.1001/jama.2014.13513>.

Ouslander, J., Bonner, A., Herndon, L., & Shutes, J. (2014). The INTERACT quality improvement program: An overview for medical directors and primary care clinicians in long-term care. *Journal of American Medical Directors Association*, 15, 162-170. <http://dx.doi.org/10.1016/j.jamda.2013.12.005>.

Toles, M., Young, H., & Ouslander, J. (2013). Improving care transitions in nursing homes. *Journal of the American Society on Aging*. Retrieved from <http://www.asaging.org/blog/improving-care-transitions-nursing-homes>.

Contact

cpotter@chamberlain.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Depression and Its Predictors in Hemodialysis Patients in Taiwan

Chou-Ping Chiou, PhD, RN, Taiwan

Abstract

Background. Depression is a common psychological problem in hemodialysis patients that affects their treatment compliance and lifestyle as well as their quality of life. Previous studies showed that depression and anxiety symptom in older HD patients were significantly higher than that of the age-matched controls. Social support is important for HD patients' treatment as it influences dialysis patients' health.

Aim. The objectives of this study were to investigate depression in hemodialysis patients in Taiwan and the important predictors for depression.

Methods. This study used a correlational cross-sectional design. Data for 150 hemodialysis patients were collected from one hemodialysis center in southern Taiwan. Measures included a demographic and clinical variables questionnaire, the Center for Epidemiologic Studies Depression Scale, and the Personal Resource Questionnaire 2000. Statistical analysis was carried out using multiple regression analysis.

Results. The results showed 55% of hemodialysis patients may be depressed. The social support level for hemodialysis patients was in the moderate range. Multiple regression analysis revealed that marital status, number of comorbidities, exercise behavior, and social support could significantly predict depression; total explanatory variance was 30.5%.

Implications for nursing practice. Hemodialysis patients have a high prevalence of depression. Risk factors influencing depression include lack of spouse, higher numbers of comorbidities, low levels of exercise, and low social support. The findings of this study can assist health care professionals in understanding factors that influence depression in hemodialysis patients. According to this study, exercise and social support are important factors that reduce depression and should be used in the care of hemodialysis patients. Exercise or regular physical activities are an integral part of life. Health care professionals can also help find an appropriate method of exercise and providing patients with concrete home exercise guidance. This study may serve as a reference when drafting future interventions to prevent or improve depression and enhance daily psychological and social care.

References

Rambod, Maasoumeh, & Rafii, Forough. (2010). Perceived social support and quality of life in Iranian hemodialysis patients. *Journal of Nursing Scholarship*, 42(3), 242-249. doi: 10.1111/j.1547-5069.2010.01353.x

Wang, S. Y., Zang, X. Y., Liu, J. D., Cheng, M., Shi, Y. X., & Zhao, Y. (2015). Indicators and correlates of psychological disturbance in Chinese patients receiving maintenance hemodialysis: A cross-sectional study. *International Urology and Nephrology*, 47(4), 679-689. doi: 10.1007/s11255-015-0910-7

Contact

chouping@isu.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Personalized Bleeding Risk Score to Optimize Post Coronary Intervention Outcomes

Sivaranjani Ramamoorthy, DNP, MSN, RN, ANP, NP-C, USA

Abstract

Purpose: To examine the effect of implementing a standardized bleeding risk score in minimizing bleeding complications in adult patients undergoing percutaneous coronary intervention

Background: Bleeding is the most common complication after percutaneous coronary Intervention (PCI). PCI-related bleeding events are associated with increased mortality, morbidity, cost and length of stay (LOS). Based on the Centers of Medicare and Medicaid Services Acute Care Episode Demonstration Program, PCI-related bleeding is considered a quality indicator for PCI outcome. According to 2011 AHA/ACC PCI guidelines, all the patients undergoing PCI need to be evaluated for their bleeding risk prior to the procedure. Personalized bleeding risk score (BRS) can predict and prevent PCI-related bleeding complications. The National Cardiovascular Data Registry (NCDR) CathPCI bleeding risk score (BRS) is a validated bleeding risk predictor tool which is readily available however, it is underutilized in the clinical setting.

Methods and Results: A quality improvement study was proposed and implemented in a cohort of sequential patients (n=128 electively scheduled for PCI. Retrospective data of patients who were reported to have had bleeding complications requiring blood transfusion and extended length of stay (LOS) were retrieved electronically. Then, an educational intervention was instituted to implement the BRS assessment tool and to use an expanded PCI-specific bleeding definition to document post-PCI bleeding. PCI-related bleeding complications, prior to initiation of the CathPCI bleeding risk tool (n=64) was compared to those who had pre-procedural estimation of bleeding risk (n=64) before undergoing PCI. Pre-procedural estimation of bleeding risk has had significantly (p=0.00) reduced the rate of PCI-related bleeding complications. The use of a bleeding risk tool supported clinician's selection of the appropriate treatment modalities such as coronary artery bypass graft (CABG) vs. percutaneous coronary intervention vs. medical therapy; assisted in the selection of stent type, drug eluting vs. bare metal, helps in the choice of type and duration of antiplatelet therapy, aids in careful attainment of vascular access radial vs. femoral artery, and influenced the use of vascular closure device vs. manual compression to reduce a patient's chances of developing bleeding complications.

Conclusion: Estimating pre procedural bleeding risk guides clinical decision making to promote bleeding risk adjusted therapy and which achieves better clinical outcomes. The study concluded that implementing the NCDR CathCPI bleeding risk score and using an expanded PCI specific bleeding definition together have effectively reduced the number of blood transfusions and length of stay.

References

1. Rao SC, Chhatrwalla A, Kennedy K et al. Pre-Procedural Estimate of Individualized Bleeding Risk Impacts Physicians' Utilization of Bivalirudin During Percutaneous Coronary Intervention. *Journal of the American College of Cardiology*. 2013; 61(18):1847-1852. doi:10.1016/j.jacc.2013.02.017.
2. Rao.S., McCoy L., Spertus J., et al., (2013). An Updated Bleeding Risk Model to Predict the Risk of Post-procedural Bleeding Among Patients Undergoing Percutaneous Coronary Intervention. *JACC, Cardiovascular Interventions*, 2013; 6(9):897-904:doi:10.1016/j.jcin.2013.04.016
3. Aggarwal A, Banga S, McRae R, Mungee S, Kizhakekuttu T. TCT-459 Effect of Bleeding Complications as Assessed by the National Cardiovascular Data Registry (NCDR) Bleeding Risk Calculator in Patients Undergoing Primary Percutaneous Coronary Intervention. *Journal of the American College of Cardiology*. 2015;66(15): B188. doi:10.1016/j.jacc.2015.08.475.
4. Singh M. Bleeding Avoidance Strategies During Percutaneous Coronary Interventions. *Journal of the American College of Cardiology*. 2015;65 (20):2225-2238. doi:10.1016/j.jacc.2015.03.567.
5. Chhatrwalla A, Amin A, Kennedy K et al. Association Between Bleeding Events and In-hospital Mortality after Percutaneous Coronary Intervention. *JAMA*. 2013;309(10):1022. doi:10.1001/jama.2013.1556.

Contact

sivaranajani.ramamoorthy@stonybrookmedicine.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Predictors of Implementation of Evidence-Based Fall Management Among Nursing Staff in Geriatric Hospitals

Hyun Jeong, MSN, RN, Korea, Republic of (South)

Mihyun Lee, MSN, RN, Korea, Republic of (South)

Myonghwa Park, PhD, RN, Korea, Republic of (South)

Younghye Go, MSN, RN, Korea, Democratic People's Republic of (North)

Miri Jeong, MSN, RN, Korea, Democratic People's Republic of (North)

Abstract

Purpose: Falls are one of the most frequent critical health problems for elderly in long term care settings. Injuries are a significant cause of morbidity and mortality. Implementing preventive management to lower the incidence of falls would go a long way to improve the quality of care in long term care settings. Nursing staff play an active and essential role in falls prevention. Evidence-based practice is a key recommendation to improve patient care outcomes. Although the Institute of Medicine has set the goal that 90 percent of clinical decisions will be evidence-based by 2020, low rate of nursing staff deliver evidence-based practice. The purpose of this study was to identify predictors that influence nursing staff's implementation of evidence-based fall management in geriatric hospitals. **Methods:** This study consisted of 505 nursing staff from long term care hospitals in Korea. The survey was designed to investigate nursing staff's knowledge, belief, organizational culture, competency and implementation of evidence based practice regarding fall management. **Results:** The results of stepwise regression analysis indicated that the nursing staff' knowledge, belief, organizational culture and competency for evidence-based practice explain 54.9% of evidence based fall management performed in geriatric hospitals. Among these factors, the significant predictors were organizational culture of evidence based fall management ($\beta=.37$, $p<.001$) belief of evidence based fall management($\beta=.27$, $p<.001$), knowledge of evidence based fall management($\beta=.19$, $p<.001$) and competency of evidence based fall management($\beta=.18$, $p<.001$). Belief of evidence based fall management and organizational culture of evidence based fall management were found to be the strong predictors of evidence based fall management implementation among nursing staff in geriatric hospitals. **Conclusion:** The results of this study suggest that there is a need to develop a systematic program to enhance individual nursing staff's belief of evidence based practice at individual level and to foster innovative organizational culture toward evidence based practice at organizational level.

References

- Evans, D., Pester, J., Vera, L., Jeanmonod, D., Jeanmonod, R. (2015). Elderly fall patients triaged to the trauma bay: age, injury patterns, and mortality risk. *The American Journal of Emergency Medicine*. 33(11), 1635-1638. <http://dx.doi.org/10.1016/j.ajem.2015.07.044>
- Teresi, Jeanne, A., Ramirez, M., Remler, D., Eilis., J., Boratgis, G., Silver, S., et al., (2013). Comparative effectiveness of implementing evidence-based education and best practices in nursing homes: effects on falls, quality-of-life and societal costs. *International Journal of Nursing Studies*. 50(4), 448-463. <http://dx.doi.org/10.1016/j.ijnurstu.2011.07.003>
- Institute of Medicine. (2010). *The Future of Nursing: Leading Change, Advancing Health*, Washington DC: National Academies Press.
- Kang, Y., Yang, I. S. (2016). Evidence-based nursing practice and its correlates among Korean nurses. *Applied Nursing Research*. 31, 46-51. <http://dx.doi.org/10.1016/j.apnr.2015.11.016>

Contact

miri9912@naver.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Effectiveness of Oral Sodium Phosphate Bowel Preparation for Colonoscopy: A Meta-Analysis

Hsin-Mei Ho, MSN, RN, Taiwan
Yueh-Yen Fang, PhD, RN, Taiwan
Shu-Chi Chen, MSN, RN, Taiwan
Chin-Han Hsieh, BSN, RN, Taiwan

Abstract

Purpose: Colon cancer is one of the top ten causes of death, and colonoscopy is one of the most commonly used diagnostic procedures. Effectiveness of bowel preparation is significant for the success of colonoscopy. The type and severity of bowel preparation side effects vary with the product used. Common adverse effects include nausea, vomiting, bloating, or abdominal pain. For the severe cases, kidney failure, heart failure or seizures might present. Though polyethylene glycol (PEG) is isotonic, the large volume used for bowel preparation and adverse events of nausea and abdominal discomfort may compromise patient compliance and increase the need for repeat procedures. Sodium phosphate (NaP) is used as an alternative for bowel preparation in current days. However, studies that compare the effects of bowel preparation between NaP and PEG are inconsistent. To validate the effect of NaP on bowel preparation for colonoscopy, this study compared the efficiency and adverse events of NaP and PEG bowel preparations.

Methods: We searched two Chinese databases (CEPS, and the Chinese Journal database) and four English databases (CINAHL, Medline, PubMed, and the Cochrane Central Register of Controlled Trials) to identify studies comparing the effects of bowel preparation with NaP and PEG. Evaluations of study quality were conducted by the 2011 Oxford Centre for Evidence Based Medicine Levels of Evidence and the Cochrane Collaboration's tool for assessing risk of bias. Meta-analyses were performed by the random effect model. Pooled effects of efficiency in bowel preparation and adverse events of NaP and PEG were calculated.

Results: Seventeen studies were included in the meta-analyses. Fourteen studies provided comparisons between NaP and 4-L PEP and the homogeneity was reached after 2 studies were excluded. The efficiency of NaP is significantly better than using the PEG (OR=1.55, 95% CI=1.15-2.09, $p=.004$). NaP and PEG did not differ in nausea, but NaP presented less vomiting responses than PEG.

Conclusion: Meta-analyses of efficacy in bowel preparation and related adverse events supported NaP as an effective strategy. Application of NaP in bowel cleaning will also provide patient comfort during the procedure.

References

- Agrawal, D., Elsbernd, B., Singal, A. G., & Rockey, D. (2016). Gastric residual volume after split-dose compared with evening-before polyethylene glycol bowel preparation. *Gastrointestinal Endoscopy*, 83(3), 574-580. doi: 10.1016/j.gie.2015.08.081
- Alvarez-Gonzalez, M. A., Flores-Le Roux, J. A., Seoane, A., Pedro-Botet, J., Carot, L., Fernandez-Clotet, A., . . . Lorenzo-Zuñiga, V. (2016). Efficacy of a multifactorial strategy for bowel preparation in diabetic patients undergoing colonoscopy: a randomized trial. *Endoscopy*, 48(11), 1003-1009. doi: 10.1055/s-0042-111320
- Anderson, J. C., Butterly, L. F., Robinson, C. M., Goodrich, M., & Weiss, J. E. (2014). Impact of fair bowel preparation quality on adenoma and serrated polyp detection: data from the New Hampshire Colonoscopy Registry by using a standardized preparation-quality rating. *Gastrointestinal Endoscopy*, 80(3), 463-470. doi: 10.1016/j.gie.2014.03.021

Contact

890210@ms.kmuh.org.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Comparison of Oral Health and Oral QOL Among Community Residents and Patients With Renal Insufficiency

Hsueh-Erh Liu, PhD, RN, Taiwan
Jeng-Yi Huang, MD, Taiwan
Wan-Jing Ho, MD, Taiwan
Hui-Ting Lu, BS, RN, Taiwan
Hsiu-Fang Lee, MSN, RN, Taiwan
Li-Hua Wang, MS, RN, Taiwan
Yi-Hsuan Kuo, MD, Taiwan

Abstract

Purpose: The major purpose of this study was to assess and compare the oral health status and oral health-related quality of life of the community residents, CKD patients and ESRD patients from a medical center and neighborhood community located in northern part of Taiwan.

Methods: A cross-sectional study design was conducted. A total of 79 community residents, 120 CKD patients and 101 ESRD patients agreed to participate and completed all data collection. Instruments for data collection included: questionnaires (demographic information, oral hygiene habit, attitude and knowledge related to oral health, and geriatric oral health assessment index_GOHA) and oral inspection (done by a trained assistant).

Results: The comparisons of demographic data showed that samples in CKD group were more male and lower educated. In addition, the age in ESRD group was significantly older than the CKD and community residents groups.

In regard to the performance of oral health, results of comparison showed that community residents had better performance than the other two groups in general. Specifically, the ESRD group reported lowest ratio in tooth brush at “after breakfast”, “after dinner” and “after eating”. Also, ESRD group reported a higher ratio in “never receive teeth examination”. The comparison of knowledge related to oral health showed that CKD group was the one with lower level than the other two groups. In addition, the comparison of attitude toward oral health found that community residents group reported more positive than the other two groups.

The results of personal inspection showed that CKD group had less untreated dental caries whereas the ESRD group had higher ratio of untreated dental caries. In addition, ESRD group had higher ratio of “0-5 loss teeth” in upper jaw whereas the CKD group had higher ratio of “11-15 loss teeth” in lower jaw. In regard to the dentures, CKD group had a higher ratio of active dentures and the ESRD group had a less ratio of full dentures.

The comparison of oral health-related quality of life showed that CKD group reported less total score than the groups of community residents and CKD patients. The comparisons of subscales showed that the CKD group had lower score in the psychosocial impact subscale than the groups of community residents and ESRD patients. For the pain and discomfort dimension, the group of community residents reported higher scores than the ESRD and CKD group. In addition, subjects in ESRD group reported higher scores than patients in CKD group.

Conclusion: The oral health status in the community residents, CKD patients, and ESRD patients were no good, measured by both subjective and objective methods. And limited patients had searched for medical treatment actively. The health care professions need to pay more attention to the oral health status of these specific subjects and referred them to dentist timely. Thus a holistic care could be achieved.

References

Yoshioka, M., Shirayama, M., Hinode, I.I D., Yanagisawa, S., Takeuchi, Y., Bando, T., Yokota, N. (2016). Factors associated with regular dental visits among hemodialysis patients. *World J Nephrol*, 5(5): 455-460.

Palmer, S.C., Ruospo, M., Wong, G., Craig, J. C., Petruzzi, M., De Benedittis, M., Ford, P., Johnson, D. W., Tonelli, M., Natale, P., Saglimbene, V., Pellegrini, F., Celia, E., Gelfman, R., Leal, M. R., Torok, M., Stroumza, P., Frantzen, L., Bednarek-Skublewska, A., Dulawa, J., Del Castillo, D., Bernat, A. G., Hegbrant, J., Wollheim, C., Schon, S., Gargano, L., Bots, C. P., Strippoli, G. F.; ORALD Investigators. (2016). Patterns of oral disease in adults with chronic kidney disease treated with hemodialysis. *Nephrol Dial Transplant*, 31(10):1647-53.

Contact

sarah@mail.cgu.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Implementation of "Creative Joint-Defense Network" to Improve Nursing Quality for Endotracheal Intubation

Huang-Jen Shih, BSN, RN, Taiwan

Abstract

Abstract Introduction: According to 2014 statistics from the Ministry of Health and Welfare's Taiwan Patient Safety Reporting System (TPR), among various tubing incidents reported by hospitals, endotracheal tubing incidents are of highest percentage (representing 97.8%) that are "harmful" to patients. Therefore, to implement the management of patient safety incidents, to prevent unplanned endotracheal tube removal, and to improve nursing quality for endotracheal intubation are issues of significant importance.

Aims: According to the statistics unit, unplanned endotracheal tube removal rate increased abruptly from 0‰ to 4.24‰ from 2014 April to June, which is 1.2‰ higher than the unplanned extubation rate of Taiwan Clinical Performance Indicator (TCPI) in 2014. Not only does unplanned extubation cause further harm to patients, but also leads to self-blame and low morale among nurses. Ensuring patient safety and successful ventilator weaning are the unit's foremost priorities, thus the motivation to conduct an improvement project with the purpose of applying its results to improve nursing quality for endotracheal intubation, prevent unplanned extubation incidents and to ensure the safety of patients.

Methods: The project is divided into three stages – the planning stage, implementation stage and evaluation stage. **First Stage:** Establish project team, through interviews, literature review, cause and effect diagrams etc., reasons for unplanned extubation confirmed: 1. Neglect of corner beds and cross-sector nursing care 2. Inexperience in intubation healthcare 3. Lack of auditing system 4. Low compliance from family members 5. Misunderstanding of high-risk self-extubation patients. **Second Stage:** After discussion and using decision matrix to take feasibility, efficiency, cost and other factors into consideration, solutions are formulated and conducted according to results analysis: 1. Implementation of Creative Joint-Defense Network for corner beds and cross-sector nursing care. 2. Implementation of consensus slogan for the unit team's joint-defense communication: "Joint-Defense Human Figure Diagram". 3. Implementation of 3D tape three-dimensional fixing method. 4. Implementation of bed-side empowerment tape (wufendai) fixing tutorial. 5. Implementation of audit system for endotracheal intubation. 6. Health education accompanied by doctors for patients' family members with low compliance. 7. Organization of health education work-shop for "ping-pong-gloves". 8. Watch patients' 30% muscle strength's "UE Video". **Third Stage:** After project implementation, statistics collected from 2015 May to July showed that the unit's unplanned extubation rate was 0‰, and endotracheal intubation completion was 100%.

Results: With the implementation of the project, unplanned extubation rate decreased from 4.24‰ to 0‰, thereby achieving the purpose of the project. Through the results of this project, rigid regulations and technicalities have been integrated with creative approaches, easing rejection against defense regulation implementations, and effectively decreasing unplanned extubation rate.

Conclusions: During the project's implementation, there was resistance and rejection from doctors, and project members continued to discuss and negotiate with support and assistance from supervisors to successfully accomplish our goals. After implementing the creative joint-defense network concept, the unit's unplanned extubation rate dropped from 4.24‰ before improvement to 0‰, demonstrating that medical harm from unplanned extubation can be prevented and avoided. This article hopes to be provided as reference for relative units.

References

王淑卿、王順生、陳慶維、王信傑 (2013) · 建構以服務為導向的防災監測物聯網 · 資訊科技國際期刊, 7 (2) , 50-61。

李春欣、李致美 (2015) ·利用人工類神經網路建構臺灣大專籃球運動聯賽勝隊預測模式之研究-以99 學年度至101 學年度大專甲二級女子籃球·*休閒運動健康評論*, 6 (1), 2-14。

沈美麗、陳欽明、許淑蓮 (2014) ·探討加護病房非計畫性氣管內管移除之概況與預測因子·*醫療品質*, 5 (2), 11-32。

莊淑娟、李愛誠、戴佳月、陳亞文 (2013) ·改善非計畫性氣管內管滑脫率之專案·*若瑟醫護雜誌*, 7 (1), 71-84。

陳彥佐、黃奕智、梁雅茹、黃湘喻、陳燕月、吳耀光 (2015) ·影響加護病房病人非計畫性拔管發生的原因及結果·*呼吸治療*, 14 (1), 45。doi: 10.6269/JRT.2015.14.1.09

黃奕智、黃湘喻、藍胃進、楊美貞、黃俊耀、吳耀光 (2015) ·影響加護病房病人非計畫性拔管發生的原因及結果·*胸腔醫學*, 30 (6), 337-346。

Contact

jen680928@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Personality Type and the Configuration of Online Learning Groups

Deborah Mandel, PhD, RNC-OB, USA

Mary Ann Dailey, PhD, RN, USA

Abstract

In nursing courses, 3 to 5 or more students are required to work within a group and complete assignments. Within a classroom environment, faculty and students are more aware of student personalities and their ability to work together within a group. However, in online courses, most students and faculty never meet in a face-to-face situation and students may not know their peers. For this reason, selection of students for a specific work group frequently occurs through random assignment, random selection, assignment by surname, or some other method selected by the faculty. Because group work is not favored by many students, the random process of group selection can cause individual and group dissatisfaction. Using a personality typology survey and making student assignments based upon the results of each student's 16 unique personality traits (i.e., beyond introversion and extraversion) could create groups that work more effectively and meet student learning outcomes.

The population selected for this research study was comprised of RN-BSN students enrolled in online courses within two nursing programs in two different universities, Slippery Rock University (SRU) and West Chester University (WCU), within the Pennsylvania State System of Higher Education. After obtaining IRB approval from both schools, students were asked to participate in the study for the fall 2016 semester. At the beginning of the semester, students enrolled in NURS 327 (SRU) and NSG 311-90 (WCU) were invited to participate in the research study using a "Generalized Announcement About the Research Project". Contained within this announcement was an explanation about the project and its purpose. If the student decided to participate in the research project, then the student was asked to complete the Informed Consent Form. Submission of the form demonstrated each student's willingness to participate in the research project. Following submission of the consent, students were asked to complete the Open Extended Jungian Type Scales 1.2 (OEJTS)TM survey, which took approximately 7-minutes. Results of the OEJTS 1.2 were used to create groups based upon complimentary personalities of each student member. Those students who did not wish to participate in the research project were randomly assigned to a non-study group to complete the assignments. Following completion of the group assignments, each student anonymously completed The Team Development Measure (a VA trademarked tool), which uses 31 statements to measure team characteristics. Within this study, data will be collected until December 19, 2016, the end of the semester.

References

- Al-Dujaily, A., Kim, J., & Ryu, H. (2013). Am I extravert or introvert? Considering the personality effect toward e-learning system. *Educational Technology & Society*, 16(3), 14 – 27.
- Chahino, M. (2011). *An exploration of student personality type and success in online classes* (Doctoral dissertation: Northern Illinois University). Retrieved from ProQuest at <http://search.proquest.com/docview/894377524> (ERIC Number: ED533713).
- Keller, H., & Karau, S. (2013). The importance of personality in students' perception of the online learning experience. *Computers in Human Behavior*, 29, 2494 – 2500.
- Morgan, K., Williams, K., Cameron, B., & Wade, C. (2014). Faculty perceptions of online group work. *The Quarterly Review of Distance Education*, 15(4), 37 – 41.
- Rodriguez Montequin, W., Mesa Fernandez, J., Villanueva Balsera, J., & Garcia Nieto, A. (2012). Using MBTI for the success assessment of engineering teams in project-based learning. *Int J Technol Des Educ*, 23, 1127 – 1146. DOI 10.1007/s10798-012-9229-1

Contact

dmandel@wcupa.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Nurse's Self-Confidence of Family Presence During Resuscitation in Japanese Pediatric Emergency and Critical Care Field

Emi Masuda, MNS, RN, Japan
Kayuri Furuya, DNSc, RN, PHN, Japan

Abstract

Introduction: According to the 2015's JRC (Japan Resuscitation Council) guidelines, family members of children under going resuscitation should be given the option of presence at the bedside. And in order to do that, it is necessary to build a system to provide enough family support. However in general, the family is guided away from their loved one into waiting room during patient's resuscitation in Japan. Furthermore, it is found that the system to support the family is undeveloped.

In the literature, nurses who invited family into resuscitations reported significantly higher self-confidence in their ability to manage it those that did not. To date, no researches have yet examined this issue and how to support to improve their self-confidence in Japan.

Objective: The purpose of this study was to measure nurse's self-confidence of family presence during resuscitation and to identify assistance to increase their self-confidence in Japanese pediatric emergency and critical care field.

Methods: Design: The study was a cross-sectional survey using questionnaire. **Subjects:** Our study's subjects were Japanese nurses who work in pediatric emergency and intensive care unit. **Materials:** The questionnaire collected basic personal demographic data and each hospital facilities characteristics. **Scale:** Japanese-language version FPS-CS (Family Presence Self-Confidence Scale)

We request and granted from the original author to use the tool of Japanese version. After having done back translation, we evaluate the reliability and validity of the scale. As a result of analysis, Cronbach's α reliability was 0.94, and ICC was 0.85.

Analysis: We tested differences according to demographic, staff characteristics and facility characteristics using the t tests for two group comparisons. Analysis of variance was used to examine differences in scores on the FPS-CS on the nurses and facility characteristics. SPSS Statistics Version 22 was used for all analyses. Significance was set at $p < .05$.

Ethical considerations: This study was approved by University of Tsukuba Faculty of Medicine, Ethics Committee. A letter was sent to each participants containing an ethical consideration, and their consent was implied on return of questionnaire.

Results: Three hundred twenty six employed in 24 wards of 19 different hospitals completed the questionnaire (response rate was 65.1%), of which 57.8% of nurses provided the opportunity for the family to be present during the resuscitation procedure. Mean total score were 2.53 ($SD=0.62$) on the Japanese-language version FPS-CS. Self-confidence for family assessment and support score was 1.94 ($SD=0.64$), the lowest score.

Self-confidence for direct patient care was significantly greater in nurses who had experienced 10 or more resuscitation events ($p < .001$, $d=0.85$), had experienced family presence during resuscitation ($p < .001$, $d=0.68$), had experienced 5 years or more medical practice in emergency or intensive care unit ($p < .001$, $d=0.64$), or had experienced 5 years or more medical practice as a nurse ($p=.001$, $d=0.61$). Self-confidence for managing family presence during resuscitation had a similar result. In addition participants who work in hospital that had education of family care for after the bereavement ($p=.007$, $d=0.46$), and had a system of family support for after the bereavement reported significantly more self-confidence for family assessment and support.

Discussion: Similar to overseas study, more than half of participants provided the opportunity for the family to be present. However they reported 1 point or more low score of FPS-CS as compared to the previous researches. One reason for this finding could be the specific influence of Japanese culture. In addition, the presence of family by the bedside during resuscitation is uncommon in Japan. And this finding could be related to lack of guideline for family presence and family support systems.

Using a skill-based experience within simulation training could be developing nurse's self-confidence for direct patient care and managing family presence during resuscitation. The findings suggest the need for the development of family's support system and advanced education for nurses in each hospital to improve nurse's self-confidence for family assessment and support. Further, we need developing family presence facilitators who support the family and the staff providing direct care in Japan.

References

- Twibell, R. S., Siela, D., Riwtis, C., Wheatley, J., Riegle, T., Bousman, D., . . . Neal, A. (2008). Nurses' perceptions of their self-confidence and the benefits and risks of family presence during resuscitation. *American Journal of Critical Care : An Official Publication, American Association of Critical-Care Nurses*, 17(2), 101-11.
- Chapman, R., Watkins, R., Bushby, A., & Combs, S. (2013). Assessing health professionals' perceptions of family presence during resuscitation: A replication study. *International Emergency Nursing*, 21(1), 17-25.
- Edwards, E. E., Despotopoulos, L. D., Calloll, D. L.(2013). Changes in Provider Perceptions of Family Presence During Resuscitation. *Clinical Nurse Specialist*, September/October, 239-244.
- Carroll, D. L. (2014). The effect of intensive care unit environments on nurse perceptions of family presence during resuscitation and invasive procedures. *Dimensions of Critical Care Nursing : DCCN*, 33(1), 34-39.
- Jabre, P., Belpomme, V., Azoulay, E., Jacob, L., Bertrand, L., Lapostolle, F., . . . , Adnet, F. (2013). Family presence during cardiopulmonary resuscitation. *The New England Journal of Medicine*, 368(11), 1008-1018.
- Tudor, K., Berger, J., Polivka, B. J., Chlebowy, R., & Thomas, B. (2014). Nurses' perceptions of family presence during resuscitation. *American Journal of Critical Care : An Official Publication, American Association of Critical-Care Nurses*, 23(6), e88-96.

Contact

masudaemi829@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Does Completing a Post Graduate Advanced Clinical Assessment Paper Influence Nursing Practice: An Exploratory Study?

Deborah J. Somerville, MNurs, RN, New Zealand

Abstract

The purpose of this research was to explore the influence a post graduate advanced assessment and clinical reasoning nursing paper may have on a registered nurses clinical practice. The post graduate paper, 773, has been available to registered nurses doing post graduate studies at the University of Auckland for over fifteen years. In this time, over 3000 nurses have completed this paper as part of their post graduate studies. It is often the first or second paper that a registered nurse completes as 50% of a post graduate certificate and is a compulsory paper for a clinical nursing masters or nurse practitioner pathway. The paper has a strong focus on clinical examination and diagnostic reasoning and students are required to perform a clinical examination as part of the assessment process. In addition they are required to complete an exam which assesses their knowledge and clinical application on a variety of blood tests and ECG interpretation. Therefore to successfully pass the paper all students must be at a certain level in their ability to perform a clinical examination and interpret diagnostic tests. What is unknown from the paper however, is whether students are able to take the clinical skills and the diagnostic reasoning knowledge and apply them to their area of clinical practice. The aim of this study was to explore whether advancing a nurses clinical examination skill and knowledge actually transitions into clinical practice 3 months after completion of the course.

The first part of the research included a questionnaire given to students at the beginning of the nursing paper and the same questionnaire repeated at the end of the paper. A total of 61 nurses completed the first questionnaire on day one of the course and 51 nurses completed the repeated version four months later at the completion of the course. The questionnaire used a combination of Likert scales and descriptive phrases to identify where nurses rated their clinical examination skills, including interpretation of ECGs and blood results. This part of the study has been entered into a data base and will be analysed using a comparative approach to the two questionnaires.

The second part of the research involved 13 nurses in two focus groups. The participants were recruited three months after completing the advanced assessment and clinical reasoning paper and the criteria was that they must be working within a clinical nursing role. The focus group facilitator directed the communication around clinical practice following completion of the paper. Specific emphasis included the everyday practice of clinical assessment, identification of the deteriorating patient and overall confidence in clinical assessment, including interpretation of blood results and ECG. This part of the study is currently being analysed using a thematic analysis approach. An early indication from the analysis is the paper develops a nurse's confidence to perform clinical examination on a greater number of patients and to intervene earlier with appropriate care.

References

- Montayre. J. (2015). Critical thinking in nursing education: addressing the theory-practice gap. *Nursing Review*. 15 (4). <http://www.nursingreview.co.nz/issue/august-2015/critical-thinking-in-nursing-education-addressing-the-theory-practice-gap/#.WDtko027qUk>
- Song. G., Xing. X., & Gui-Fung. G (2015). A systematic review of the impact of master's educated nurses on inpatient care. *International Journal of Nursing Education*. <http://dx.doi.org/10.1016/j.ijnss.2015.10.003>
<http://dx.doi.org/10.1016/j.ijnss.2015.10.003>

Contact

d.somerville@auckland.ac.nz

EBP PST 1 - Evidence-Based Practice Poster Session 1

Personality Traits Are Important Predictors of Glycemic Control in Patients With Diabetes

Shu-Fen Lee, PhD, MSN, RN, Taiwan

Abstract

Background: A close relationship between personality traits and diseases. Most diabetic patients understand the importance of complying with the healthy lifestyle of drugs, but the actual implementation situation is not ideal, because the performance behavior of dominant personality is an important factor affecting your doctor compliances. Today, limited clinical diabetes health teacher time and manpower considerations, provide personal and exclusive knowledge of diabetes care in the limited time is quite high challenge, due, personality traits and self-efficacy and self-care with a high degree of correlation. Therefore, to understand the case of personality traits as the core of the case management of blood glucose hub.

Objective: To investigate the personality traits of their diabetes patients with different body composition and blood parameters of difference, and to identify associated factors affect blood glucose control.

Methods: In this study, patients with certain metabolic Branch of the teaching hospital for the study, a total of 219 accepted questionnaires, 214 valid questionnaires. The resulting data with SPSS 18.0 descriptive statistics, one-way analysis of variance, chi-square test, Pearson's product-moment correlation and multiple regression analysis.

Results: The results showed that (1) Personal property, sex, marital status, education level, work patterns, exercise phase, the presence or absence of chronic diseases, perceived health status and other variables have significant differences in glycosylated hemoglobin. (2) the impact of glucose control important factors including age, morbidity time (years), perceived health status unhealthy - Other, fasting glucose, triglycerides and nervous personality - other personality traits and other variables have a relationship with glycosylated hemoglobin, age the elderly, the lower the risk of poor glycemic control, and reached statistical significance ($B = -0.097$, $OR = 0.908$, $95\% CI = 0.833-0.988$) for each additional 10 years of age, the risk of poor glycemic control reduced by an average of 9.2% . The longer diabetes, poor glycemic control risk, the higher ($B = 0.181$, $OR = 1.199$, $95\% CI = 1.064-1.351$), each additional year an increase of 1.199 times the chance of poor glycemic control. Perceived health status is unhealthy healthy than those who consciously poor glycemic control its 40.44-fold increased risk. Fasting plasma glucose each additional 10mg / dl an increase of 59 per cent of poor glycemic control probability. And triglycerides each additional 10 g / dl increase 39 percent risk of poorly controlled blood sugar. Prudential risks personality ($OR = 0.646$, $95\% CI = 0.109-3.838$) and a friendly personality ($OR = 0.605$, $95\% CI = 0.123-2.988$) poorly controlled blood sugar is relatively low, but less significant. However, nervous personality as significant predictors ($B = 2.017$), compared to other personality personality nerve have 7.52 times the risk of poorly controlled blood sugar.00

Conclusion: The study confirmed that patients with personality traits diabetes control and have a direct relationship. Long-term implementation of health behavior in order to maintain a stable blood sugar, in this personality trait crucial influence. Theoretical concepts to determine personality traits and health status is an important cornerstone of a nursing care to enhance the quality, if the medical staff can indirectly predict and assess the relationship between personality traits through the interaction of their health behavior and disease, and to give according to the characteristics of the personality traits adaptive health education will be able to improve the quality of care nursing care.

References

- Seides, R. (2012). Personality traits predict compliance with type 2 diabetes regimens. *Journal of Diabetes Nursing*, 16(7), 295.
- ADA. (2013). Standards of Medical Care in Diabetes -2013. *Diabetes Care* 36(1), S11-S66

Contact

erica@ctcn.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

The Effect of Elevating Head of Bed for Esophageal Cancer Patients With Nocturnal Reflux Symptom

Hui-Chen Huang, BSN, RN, Taiwan

Su-Ying Fang, PhD, RN, Taiwan

Abstract

Background: It has been demonstrated that elevating head of bed nocturnally can improve the symptoms of gastro-esophageal reflux disease by the mechanism of gravity to increase the clearance rate of removing acid-base digestion fluid. Our study base on this theory and previous researches to examine the effect of elevating head of bed for patients with esophageal cancer suffered from nocturnal reflux symptom after esophagectomy and reconstruction.

Purpose: The purpose of this study was to understand the effect of elevating head of bed by using the wedge form pillow on the gastro-esophageal reflux symptoms among patients receiving esophagectomy and reconstruction during the period of 14 days.

Methods: Cross-over design and block randomization was used in this study. First group were treated with proton pump inhibitors (PPI) at the first seven days, and started to use wedge form pillow combined with PPI using during eight to fourteen days. The second group used wedge form pillow and PPI at the first seven days and remove wedge form pillow and only use PPI during the second week. We used the questionnaire of The Dysfunction after Upper Gastrointestinal Surgery Cancer (DAUGS32) to follow their reflux symptoms by using telephone contact on 1st, 2nd, 3rd, 5th, 7th, and 8th, 9th, 10th, 12th, 14th day.

Inclusion criteria were above twenty years old, had been confirmed the diagnosis of esophagus cancer and finished total esophagus resection, gastric tube reconstruction and cervical anastomosis at least two months. If adjuvant radiotherapy and chemotherapy were intervened, we started the trial at least three months after operation. Participants who used materials other than gastric tube for esophagus reconstruction, accepted pyloroplasty or combined with others malignant tumor or recurrent status were excluded.

Result: Thirteen patients were recruited until now in which 7 were assigned to first group and 6 were in the second group. We used multiple mixed effect model to evaluate the improvement of symptoms of GERD. It had a significant effect ($p=0.034$) on the improvement of GERD symptoms in the first group while the period used wedge form pillow combined with PPI than the period treated only with medication. However, it did not show significant difference in the second group between wedge form pillow combined with PPI and PPI used alone ($p=0.054$). As a result of small sample size, we need to recruit more participants to .

Expect Result: The preliminary results of this study revealed that using wedge form pillow may improve the symptoms of gastro-esophagus reflux. We will keep follow the symptoms of all participants for at least three months and continue to recruit more patients into this study. If this management can decrease the time of reconstructed esophagus exposing in acid environment nocturnally, it can improve the patients' sleeping disorder and elevate their quality of life.

References

Daniel, P. R. (2015). Complications of esophageal resection. : An overview [Abstract]. Retrieved August 08, 2015, from the UpToDate on-line database: <http://www.uptodate.com/contents/complications-of-esophageal-resection>
Ginex, P., Thom, B., Jingeleski, M., Vincent, A., Plourde, G., Rizk, N., . . . Bains, M. (2013). *Patterns of symptoms following surgery for esophageal cancer*. Paper presented at the Oncology Nursing Forum

Contact

n023364@mail.hosp.ncku.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Development and Psychometric Tests of the Chinese Version of Patient Satisfaction With Nurse Practitioner Scale

Chuan-Yu Hu, MSN, NP, RN, Taiwan

Shu-Yuan Lin, PhD, RN, Taiwan

Wei-hui Hsiao, BSN, RN, NP, Taiwan

Abstract

Background: Patient satisfaction is a common indicator of patient care outcome. It has been included in the hospital accreditation standards by Taiwan Joint Commission since 2008. An instrument of patient satisfaction targeted to evaluate care outcomes that provide by nurse practitioners is rarely found in a review of literature.

Purpose: The purpose of this study was to develop and test psychometric properties of the Chinese version of patient satisfaction with nurse practitioner scale (C-PSNP).

Method: There were three phases of development in Chinese version of patient satisfaction with nurse practitioner scale. The first phase was to conduct literature review and focus group, that constructs the content of the questionnaire to measure patient satisfaction with nurse practitioner. The second phase was to test the construct validity of the C-PSNP scale. The third phase was to conduct a cross-sectional survey that used a convenience sample by recruiting 230 patients from four hospitals. The survey yield 230 validated questionnaires that collected from February to May, 2016. The data collected from the questionnaires had analyzed by SPSS 19.0. Statistical analysis including item analysis, Pearson correlations, exploratory factor analysis and reliability of Cronbach's α with the C-PSNP scale.

Result: The 20-item C-PSNP scale was developed, with a item discrimination CR (critical ratio) of 7.46–15.41 ($p < .001$), and item-total correlation of .61–.86 ($p < .001$). Exploratory factor analysis had extracted four factors, and they explained a total variance of 78.19%. Four factors were named as "communication and caring", "health information", "professional knowledge and skills", and "participation in decision-making". The Cronbach's α for the C-PSNP scale was .96. The Cronbach's α coefficients of four subscales were in an range of .88 - .94.

Conclusion: This study demonstrated the Chinese version of patient satisfaction with nurse practitioner scale is a valid and reliable tool that is recommended to use as an assessment tool for measuring the patient satisfaction with Taiwanese nurse practitioners.

References

Auerbach, D. I. (2012). Will the NP workforce grow in the future? New forecasts and implications for healthcare delivery. *Medical Care*, 50(7), 606-610. doi:10.1097/MLR.0b013e318249d6e7-133.

Chuang, M. J. & Yen, M. (2012). Exploring the Relationships of Workload and Job Satisfaction among Nurses in Taiwan. *Pao-Chien Journal of Healthcare and Management*, 10 (1), 45-55.

Contact

chuanchuan19@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

An Innovative Interdisciplinary Response to CVC-Related Complications in TPN-Dependent Pediatric Patients: A Comprehensive Educational Initiative

Gloria Verret, BSN, RN, CPN, USA
Meghan Meehan, MSN, RN, CPHON, VA-BC, USA
Manisha Parikh, MSW, LCSW, USA

Abstract

Central line associated bloodstream infections (CLABSIs) are a significant cause of morbidity in medically complex pediatric patients who rely on central venous access for life-saving medications and nutrition. The financial burden of CLABSIs is also significant. It is estimated that each CLABSI-related admission has a mean attributable cost of over \$55,000 and a length of stay of 19 days (Goudie et al., 2014). Catheter damage and malfunction contribute to costs as they also necessitate hospital visits and admissions. The CDC estimates there are 30,000 CLABSIs each year in the United States and 1 in 4 patients die from those infections.

Our urban pediatric academic medical center cares for a large volume of patients whose therapy requires the placement of a CVC, such as Intestinal Rehab (IR) patients who depend on total parenteral nutrition (TPN) for nutrition, and those followed by the Complex Care Hospitalist Medicine team for additional issues such as Mitochondrial Disorder. Since the parents and caregivers of these patients are expected to manage these devices in the home setting, a basic CVC care and maintenance class is offered twice a week to provide education, time for questions and hands-on practice. This class occurs in the hospital's Family Resource Center (FRC) and is taught by experienced nurses. Depending on the type of CVC a patient has, parents are taught catheter hub access, flushing maintenance, dressing changes, cap changes and steps to take in an emergency. Nursing and medical staff reinforce education as needed throughout the course of therapy.

Despite education and reinforcement, certain patients were repeatedly admitted for CLABSIs, catheter damage and/or malfunction. In the second quarter of 2016, out of 56 patients, there were 21 admissions for line complications. At times, serious sequelae were occurring such as loss of viable vessels for new catheter sites, leading to invasive procedures such as vessel stenting. A review of four complex-care patients showed 30 line infections in the last two years. One patient had 18 infections. There were 8 ICU stays for sepsis and intubation required on 2 patients. Multi-organ failure occurred in 1 patient. Multiple members of the interdisciplinary teams who care for these patients saw a need to provide enhanced education to this subset of patients and their families to help minimize complications. Families are currently encouraged to re-attend the CVC class when their child is admitted for a line complication acquired outside of the hospital. However, we noted that the class content might be too basic for those caregivers who were seasoned in caring for CVCs. While a review of the basics is essential, many families need more detailed and creative solutions for managing their child's long-term CVC, giving consideration to their own unique set of challenges and home situations.

A multidisciplinary team was organized to develop an Advanced CVC Care Class curriculum for this subset of families. The group consists of a nurse champion who both cares for patients on the medical-surgical ward and serves an educator in the FRC, an IR physician, Child Life Specialist (CLS), Social Worker (SW), Occupational Therapist (OT) and CVC nurse consultants. Families who had successfully prevented CLABSIs were also invited to participate and share tips and ideas. As families are involved in the creation of the educational content of the class, it is hoped that parents will feel increasingly valued and respected. The overarching aim is to help families help themselves (Tallon, et al., 2015). This class will accomplish this by empowering and partnering with parents and caregivers to provide more tools, resources and strategies to successfully prevent CVC complications and thus strive towards zero preventable CLABSIs in and outside the hospital.

The class is currently in the final stages of the development process and will be launched as soon as it is completed. The content consists of a PowerPoint presentation and individual videos from an IR physician,

CLS, SW, OT and CVC nurse consultants. Each specialty will provide educational tips, resources, and evidence-based best practices, along with creative solutions and ideas from families. This format will allow the nurse educator to individualize each class by focusing on the CVC complication that lead to the patient's admission while also gearing it towards the child's specific developmental age. The videotaped content will be available in three languages in order to meet the diverse needs of our patient population.

A pre-class survey will assess attendees' concerns and questions, while a post-class survey will gauge the attendees' comprehension of class content. In addition to rating their level of comfort caring for a CVC pre-and post-class, caregivers will be asked to rate their level of understanding and provide written examples of tips and techniques that they could utilize with their child's CVC.

With hospital stays shorter and acuties higher, teaching families home care by partnering with them as they transition home is key to decreasing readmission (Chick, et. al., 2012). In a systematic review of thirty-eight studies or articles, it was found that nurses have a singular opportunity to enhance meaningful interaction, build confidence and promote a successful transition home Two cornerstones of family centered care are a focus on developmentally appropriate care and providing adequate instruction to caregivers responsible for providing complex home care (Dokken et al., 22015). Based on these objectives and a foundation in evidence-based practice, the mission of this innovative and family centered advanced class is a reduction in CVC-related complications and associated patient morbidity and hospital admissions.

References

- Dokken, D., Parent, K. & Ahmann, E. (2015). Family presence and participation: Pediatrics leading the way...and still evolving. *Pediatric Nursing*, 41(4). 204-206
- Goudie, A., Dynan, L., Brady, P.W., & Rettiganti, M. (2014). Attributable cost and length of stay for central line-associated bloodstream infections. *Pediatrics* 133(6); Doi: 10.1542/peds.2013-3795
- Tallon, M., Kendall, G. & Snider, P. (2015) Rethinking family-centered care for the child and family in hospital. *Journal of Clinical Nursing*, 24, 1426-1435. Doi:10.1111/jocn.12799
- Rinke, M., Chen, A., Milstone, A., Hebert, L., Bundy, D., Colantuoni, E., Fratino, L, Herpst, C., Kokoszka, M. & Miller, M. (2015) Bringing central line-associated bloodstream infection prevention home: Catheter maintenance practices and beliefs of pediatric oncology patients and families. *The Joint Commission Journal on Quality and Patient Safety*, 41(4) 177-185

Contact

gverret@chla.usc.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Outcomes of an Innovative Evidence-Based Project: Building a Difficult Access Team in an Emergency Department

Barbara Maliszewski, MS, RN, USA
Madeleine Whalen, MSN/MPH, RN, CEN, USA
Heather Gardner, MS, RN, USA
Rebecca Sheinfeld, BA, CNE, USA
Diana Lyn Baptiste, DNP, MSN, RN, USA

Abstract

Background/Introduction: Emergency departments across the nation face challenges of longer lengths of stay due to increased volumes and patient acuity. Intravenous (IV) access is vital to emergency care, and a large proportion of patients seen in the Emergency Department have difficult venous access, resulting in patient care delays. Difficult venous access (DVA) is identified as a condition among individuals who most often require 2 or more attempts for successful IV access, leading to an increased length of time needed to obtain IV access, or may require special interventions to establish peripheral IV access.

Purpose/Objectives: The objective of this project was to determine if a dedicated difficult access team will decrease the number of attempts and amount of time for successfully obtaining IV access in difficult venous access patients.

Methods: The intervention included the implementation of a difficult access clinical technician team. The specialized team was initiated as a pilot to determine whether use of a specialized team would decrease number of attempts and amount of time for successfully obtaining IV access in difficult venous access patients. This study included convenience samples of patients visiting the adult emergency department with a provider order to place IV access. We compared the mean number of attempts and time it took for obtaining successful IV access for the pre and post- intervention periods, among two samples.

Results: Prior to the intervention, there were 3.8 (SD 1.18) mean number of attempts for obtaining IV access for (N=52) patients who were identified to have DVA. After the intervention, a mean number of attempts per DVA patient was reported at 1.2 (0.47). A significant difference ($p < 0.05$; CI 95% 2.25-2.94) was found between the pre intervention and post intervention mean number of successful attempts but no significant reduction in the time it takes to obtain successful IV access among these two samples.

Conclusion: IV access is an essential procedure for the assessment and treatment of patients seeking health care in the emergency department. It is important to consider a feasible solution for managing DVA among patients. Our findings suggest that implementation of a dedicated difficult access team can decrease the time and number of attempts necessary for obtaining IV access in individuals with difficult venous access. Further investigation is necessary to determine variables that impact increased time to obtain successful IV access in patients with difficult venous access.

References

1. Goff, David A., Pamela Larsen, Jason Brinkley, David Eldridge, Dale Newton, Timothy Hartzog, and J. Routt Reigart. "Resource utilization and cost of inserting peripheral intravenous catheters in hospitalized children." *Hospital pediatrics* 3, no. 3 (2013): 185-191
2. Harpel, J. (2013). Best practices for vascular resource teams. *Journal of Infusion Nursing*, 36(1), 46-50.
3. Orr M. & Doellman D. (2016). Infusion therapy standards of practice. 39;1S. *Journal of Infusion Nursing* ISSN: 1533-143
4. Witting, M. D. (2012). IV access difficulty: incidence and delays in an urban emergency department. *The Journal of emergency medicine*, 42(4), 483-487.

Contact

dbaptis1@jhu.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Identifying Acute Cardiac Deterioration in a Critical Care Setting and Establishing a New Recognition Protocol

Sarah A. Power, BS, USA

Abstract

Background: The early detection of clinical signs indicating cardiac deterioration can reduce the risk of adverse outcomes (Jones et al., 2013). Worsening physiological symptoms can easily go overlooked or unmanaged, if professionals are not educated properly. When these symptoms are not addressed, patients can experience treatment delays and mortality (Preece et al., 2012). The early detection of cardiac deterioration's clinical signs can reduce the risk worsening condition, or death. Defining a unit protocol for nurses would allow a systematic way to evaluate patients and their health status.

Objectives: The purpose of an integrative literature review was to identify signs and symptoms that precede acute cardiac deterioration within a critical care setting, and to establish a new recognition protocol to ameliorate patient care outcomes. Cardiac deterioration is a major public health problem with over 350,000 in-hospital cardiac arrests happening each year in the United States (American Heart Association, 2016). Nurses need to be better educated on the signs and symptoms that antecede a cardiac arrest, and have a protocol to identify and to initiate intervention.

Method: An integrative literature review was conducted undergoing an extensive integrative search to identify acute cardiac deterioration within a critical care setting and recognizing protocol measures. Whittemore and Knaf's (2005) approach to amalgamate review writing was used as a framework to synthesize and organize the literature found.

Results: Vital signs, level of consciousness, lab values, EKG, and age were found to be the most supported symptoms, which lead to acute cardiac deterioration within a critical care setting (Soar & Subbe, 2012; Hodgetts, et al, 2006; Preece et al., 2012). It is unknown if the the current protocols for nurses to recognize these signs are effective in treating patients. Recommendations for a new protocol include the development of an early warning score system.

Conclusions: This review found five clinical symptoms related to cardiac deterioration; however, these symptoms in current nursing protocol programs are not well addressed. Thus, there is a need to develop an appropriate prevention program incorporating these symptoms to help decrease the risk for cardiac deterioration with the intensive care unit.

References

- Harrigan, Sherry S. (2007). *Developing and implementing quality initiatives in the ICU: strategies and outcomes*". *Critical care nursing clinics of North America* (0899-5885), 18 (4), p. 469.
- Meaney, P., Nadkarni, V., Kern, K., Indik, J., Halperin, H., & Berg, R. (2011). Rhythms and outcomes of adult in-hospital cardiac arrest. *Critical Care Medicine*, 38(1), 101-108. doi:10.1097/CCM.0b013e3181b43282
- Preece, M. H. W., Hill, A., Horswill, M. S., & Watson, M. O. (2012). Supporting the detection of patient deterioration: Observation chart design affects the recognition of abnormal vital signs. *Resuscitation*, 83(9), 1111-1118. doi:<http://dx.doi.org.ezproxy.depaul.edu/10.1016/j.resuscitation.2012.02.009>

Contact

sarah.a.power21@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Green Care as Psychosocial Intervention for Depressive Symptoms: What Might Be the Active Ingredients?

Rebecca Elizabeth Salomon, MSN, BA, RN, PMHNP-BC, USA

Alison Duncan Salomon, BA, USA

Linda S. Beeber, PhD, PMHCNS-BC, FAAN, USA

Abstract

Background: Green care is an umbrella term for psychosocial interventions that integrate biotic and abiotic elements of nature to promote an individual's health and well-being (Haubehofer, Elings, Hassink, & Hine, 2010). Green care interventions include animal assisted therapy, therapeutic horticulture, care farming, and others (Sempik, Hine, & Wilcox, 2010). A variety of green care interventions are used in countries such as Finland, Norway, Japan, Germany, the United Kingdom, and the United States, indicating its capacity for cultural diversity and sensitivity (Annerstedt & Währborg, 2011; Haubehofer et al., 2010). Some green care therapies, such as community gardening, can be used as low-cost health promotion and disease prevention interventions in difficult-to-target and vulnerable populations; community gardening has been used as an intervention for displaced refugees and improves physical activity, mental health, and community development (Gerber et al., 2016).

Many green care interventions can be adapted to treat depression, which directly affects approximately 350 million and is the leading cause of disability worldwide (World Health Organization, 2015). Depression is under-diagnosed, under-treated, and recurs in at least 50 percent of patients who receive treatment (Schwenk & Terrell, 2014). Many people delay seeking treatment for symptoms, causing their depression to remain undiagnosed and untreated (Thompson, Hunt, & Issakidis, 2004). When individuals do seek help, they may encounter barriers in accessing treatment (Mohr et al., 2010). Finally, treatments are sometimes ineffective and fail to decrease symptoms by at least half (McPherson et al., 2005).

Green care interventions are novel and evidence based, offering many benefits in terms of access and cost because of their alternative delivery formats. Green care interventions are rarely clinic-based, making treatment more easily integrated into community settings (Sempik et al., 2010). Many green care interventions, such as animal-assisted therapy and horticulture therapy, vary significantly from traditional psychotherapeutic approaches in terms of their settings and format. Qualitative research shows that patients seeking green care do not feel as stigmatized in this type of therapeutic environment (Iancu, 2013). Additionally, green care interventions can often be offered in a group therapy format, which can be tailored to individual needs while providing social benefits (Sempik et al., 2010).

Multiple quantitative studies have found decreased depressive symptoms following green care therapies (Gonzalez, Hartig, Patil, Martinsen, & Kirkevold, 2011; Pedersen, Martinsen, Berget, & Braastad, 2015). Key elements identified by participants in qualitative and mixed methods studies include a positive and supportive atmosphere, social engagement, increased physical activities, and increased feelings of skill and competence (Elings & Hassink, 2008; Kam & Siu, 2010; Kogstad, Agdal, & Hopfenbeck, 2014; Nordh, Grahn, & Währborg, 2009; Pedersen, Ihlebæk, & Kirkevold, 2012).

Objectives: Through a systematic review of the literature, the researchers evaluated the evidence that social support, behavioral activation, and self-efficacy mediate improvement of depressive symptoms in a range of psychosocial interventions. The findings have been used to expand the consideration of green care as an evidence based therapy and provide insight into possible active ingredients.

Design: The researchers followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines and sourced English-language articles from PubMed, CINAHL and PsycINFO through July 2016. Database searches identified 159 unique articles. To meet inclusion criteria, all studies had to examine depressive symptoms, one of the three mediators of interest, and a psychosocial intervention for adults. With that in mind, the first and second author reviewed the articles separately, excluding 139 articles based on title and abstract. The remaining twenty abstracts were

reviewed and screened again by authors, excluding another eight articles after discussion and agreement. Upon full text review, six articles were excluded for the following reasons: five did not analyze the effect of the mediator of interest on depressive symptoms and one did not measure depressive symptoms after the intervention was completed. Two additional articles that were known to the primary author and fit the requirements for inclusion were added at this stage. After screening and exclusions, eight articles were included in the synthesis. Each article was extracted independently; the data were combined into a matrix and analyzed for thematic content.

Results: Two studies addressed the mediator of behavioral activation (Losada, Marquez-Gonzalez, & Romero-Moreno, 2011; Ryba, Lejuez, & Hopko, 2014), two addressed social support (Dour et al., 2014; Roth, Mittelman, Clay, Madan, & Haley, 2005), and four addressed self-efficacy (Backenstrass et al., 2006; Kavanagh & Wilson, 1989; Oman & Bormann, 2015; White, Kendrick, & Yardley, 2009). The studies were completed in a variety of Western countries: four in the United States, one in Australia, one in Spain, one in Germany, and one in England. Studies ranged in sample size from 23 subjects to 1004 subjects. A range of interventions were performed across the studies. Out of the eight studies, four interventions included some amount of Cognitive Behavioral Therapy, one was an unspecified combination of individual, family, and group psychotherapy, one was Mantram Repetition Therapy, one utilized Behavioral Activation therapy, and one was purely based on individual physical activity. The duration of each intervention also varied, ranging from six weeks in one study to one year in another study. Evidence from the studies support behavioral activation, social support, and self-efficacy as mediators of improved depressive symptoms in psychosocial interventions.

Conclusions: Green care interventions offer a portal for individuals of different depressive symptoms and severities to be treated alongside each other while being modified to meet the needs of each individual participant. Additionally, it offers the opportunity for interventions that target all three active mediators that could be harnessed by nurses at a variety of training levels as well as community health workers.

References

- Annerstedt, M., & Währborg, P. (2011). Nature-assisted therapy: Systematic review of controlled and observational studies. *Scandinavian Journal of Public Health, 39*(4), 371–388. <http://doi.org/10.1177/1403494810396400>
- Backenstrass, M., Schwarz, T., Fiedler, P., Joest, K., Reck, C., Mundt, C., & Kronmueller, K.T. (2006). Negative mood regulation expectancies, self-efficacy beliefs, and locus of control orientation: Moderators or mediators of change in the treatment of depression? *Psychotherapy Research, 16*(2), 250–258. <http://doi.org/10.1080/10503300500485474>
- Dour, H. J., Wiley, J. F., Roy-Byrne, P., Stein, M. B., Sullivan, G., Sherbourne, C. D., ... Craske, M. G. (2014). Perceived social support mediates anxiety and depressive symptom changes following primary care intervention. *Depression and Anxiety, 31*(5), 436–442. <http://doi.org/10.1002/da.22216>
- Elings, M., & Hassink, J. (2008). Green Care Farms, A Safe Community Between Illness or Addiction and the Wider Society. *Therapeutic Communities, 29*(3), 310–322.
- Gerber, M. M., Callahan, J. L., Moyer, D. N., Connally, M. L., Holtz, P. M., & Janis, B. M. (2016). Nepali Bhutanese Refugees Reap Support Through Community Gardening. *International Perspectives in Psychology: Research, Practice, Consultation*. <http://doi.org/10.1037/ipp0000061>
- Gonzalez, M. T., Hartig, T., Patil, G. G., Martinsen, E. W., & Kirkevold, M. (2011). A prospective study of group cohesiveness in therapeutic horticulture for clinical depression. *International Journal of Mental Health Nursing, 20*(2), 119–129. <http://doi.org/10.1111/j.1447-0349.2010.00689.x>
- Haubenhofer, D. K., Elings, M., Hassink, J., & Hine, R. E. (2010). The development of green care in western European countries. *Explore: The Journal of Science and Healing, 6*(2), 106–111. <http://doi.org/10.1016/j.explore.2009.12.002>
- Iancu, S. C. (2013). *New dynamics in mental health recovery and rehabilitation: The case of care farms*. Amsterdam: Vrije Universiteit.
- Kam, M. C. Y., & Siu, A. M. H. (2010). Evaluation of a horticultural activity programme for persons with psychiatric illness. *Hong Kong Journal of Occupational Therapy, 20*(2), 80–86. [http://doi.org/10.1016/S1569-1861\(11\)70007-9](http://doi.org/10.1016/S1569-1861(11)70007-9)
- Kavanagh, D. J., & Wilson, P. H. (1989). Prediction of outcome with group cognitive therapy for depression. *Behaviour Research and Therapy, 27*(4), 333–343. [http://doi.org/10.1016/0005-7967\(89\)90003-X](http://doi.org/10.1016/0005-7967(89)90003-X)
- Kogstad, R. E., Agdal, R., & Hopfenbeck, M. S. (2014). Narratives of natural recovery: Youth experience of social inclusion through green care. *International Journal of Environmental Research and Public Health, 11*(6), 6052–6068. <http://doi.org/10.3390/ijerph110606052>

Losada, A., Marquez-Gonzalez, M., & Romero-Moreno, R. (2011). Mechanisms of action of a psychological intervention for dementia caregivers: Effects of behavioral activation and modification of dysfunctional thoughts. *International Journal of Geriatric Psychiatry*, 26(11), 1119–1127. <http://doi.org/10.1002/gps.2648>

McPherson, S., Cairns, P., Carlyle, J., Shapiro, D. A., Richardson, P., & Taylor, D. (2005). The effectiveness of psychological treatments for treatment-resistant depression: A systematic review. *Acta Psychiatrica Scandinavica*, 111(5), 331–340. <http://doi.org/10.1111/j.1600-0447.2004.00498.x>

Mohr, D. C., Ho, J., Duffecy, J., Baron, K. G., Lehman, K. A., Jin, L., & Reifler, D. (2010). Perceived barriers to psychological treatments and their relationship to depression. *Journal of Clinical Psychology*, 66(4), 394–409. <http://doi.org/10.1002/jclp.20659>

Nordh, H., Grahn, P., & Währborg, P. (2009). Meaningful activities in the forest, a way back from exhaustion and long-term sick leave. *Urban Forestry and Urban Greening*, 8(3), 207–219. <http://doi.org/10.1016/j.ufug.2009.02.005>

Oman, D., & Bormann, J. E. (2015). Mantram repetition fosters self-efficacy in veterans for managing PTSD: A randomized trial. *Psychology of Religion and Spirituality*, 7(1), 34–45. <http://doi.org/10.1037/a0037994>

Pedersen, I., Ihlebæk, C., & Kirkevold, M. (2012). Important elements in farm animal-assisted interventions for persons with clinical depression: A qualitative interview study. *Disability and Rehabilitation*, 34(18), 1526–1534. <http://doi.org/10.3109/09638288.2011.650309>

Pedersen, I., Martinsen, E. W., Berget, B., & Braastad, B. O. (2015). Farm animal-assisted intervention for people with clinical depression: A randomized controlled trial. *Anthrozoös*, (Pedersen 2011), 2011–2013.

Roth, D. L., Mittelman, M. S., Clay, O. J., Madan, A., & Haley, W. E. (2005). Changes in social support as mediators of the impact of a psychosocial intervention for spouse caregivers of persons with Alzheimer's disease. *Psychology and Aging*, 20(4), 634–644. <http://doi.org/10.1037/0882-7974.20.4.634>

Ryba, M. M., Lejuez, C. W., & Hopko, D. R. (2014). Behavioral activation for depressed breast cancer patients: The impact of therapeutic compliance and quantity of activities completed on symptom reduction. *Journal of Consulting and Clinical Psychology*, 82(2), 325–335. <http://doi.org/10.1037/a0035363>

Schwenk, T. L., & Terrell, L. B. (2014). Guidelines for Clinical Care: Depression.

Sempik, J., Hine, R., & Wilcox, D. (2010). Green Care€ : A Conceptual Framework, 1189.

Thompson, A., Hunt, C., & Issakidis, C. (2004). Why wait? Reasons for delay and prompts to seek help for mental health problems in an Australian clinical sample. *Social Psychiatry and Psychiatric Epidemiology*, 39(10), 810–817. <http://doi.org/10.1007/s00127-004-0816-7>

White, K., Kendrick, T., & Yardley, L. (2009). Change in self-esteem, self-efficacy and the mood dimensions of depression as potential mediators of the physical activity and depression relationship: Exploring the temporal relation of change. *Mental Health and Physical Activity*, 2(1), 44–52. JOUR. <http://doi.org/10.1016/j.mhpa.2009.03.001>

World Health Organization. (2015). Media Centre: Depression Fact Sheet NO 369. Retrieved from <http://www.who.int/mediacentre/factsheets/fs369/en/index.html>

Contact

rsalomon@email.unc.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Lessons Learned in Creating Evidence-Based Electronic Oncology Care Plans

Meghan Coleman, DNP, RN CRNP-BC, AOCNP, USA
Karen J. Hammelef, DNP, RN, USA

Abstract

The delivery of patient-facing treatment summaries and symptom management care plans has been an important step forward in the provision of evidence-based, patient-centered cancer care. This has also been accelerated by the Institute of Medicine's recommendation to address the quality chasm in oncology care. Studies of the use of evidence-based electronic care plans in the cancer population have demonstrated an improvement in the overall patient care experience, decreased negative outcomes, and enhanced physician/patient communication. Electronic delivery of these plans can streamline the documentation process, provide an overview of the patient's care in one concise document, and enhance provider and patient communication through identification of goals of care. Despite this evidence, use of electronic evidence-based care plans remains low.

This presentation details a nurse-led process of creating electronic patient facing care-plans (responsive to unique patient-reported symptoms), that are supported by high level evidence and clinical practice guidelines. Lessons learned, barriers and facilitators to their development and clinical considerations for future products will be reviewed.

This electronic care plan addressed oncology patient needs at one of three phases of the cancer treatment spectrum: treatment planning, active treatment (including distress and symptom management), and survivorship. An over-arching goal of providing the electronic care plan was to reduce distress, improve the quality of patient cancer care, as well as improve patient involvement in care through patient action items supported by high level evidence. Nurse led electronic care plan development can enhance patient understanding and education, which can reduce patient distress. The novel care plan delivery fosters interdisciplinary involvement. Further analytics are needed to assess the effectiveness of reaching these goals.

Clinical nursing staff used the care plans to review common symptom experiences during the treatment planning, active and survivorship care periods. Development of evidence matrixes supported clinician and patient interventions in managing symptom experiences. These interventions were translated into an electronic patient care plan that provided symptom management strategies along with cancer-specific education, recommended referrals and potential treatment-related side-effects. The strength of the care plan content was in the rigorous evidence-based review process which included an expert panel review and consensus building for interventions with low-level supporting evidence. To facilitate implementation of the care plan readability of the content was reviewed by a health educator and targeted at a 7th grade level; plan length was monitored as was ease of electronic use (e.g. connecting to education documents through hyperlinks).

Barriers identified to the process include the continued burden of evidence review and content maintenance to ensure alignment with current best practices (a process facilitated by the electronic nature of this product). Additionally, obtaining resources such as national clinical practice guidelines and oncology experts' review required unanticipated fees, permissions and consents, resulting in the re-evaluation of the project budget and timeline.

Future nursing research efforts should focus on the electronic care plan's ability to improve provider-patient communication and document its impact on the patient symptom experience. With a standardized approach to literature review and a process to sustain current supporting evidence, the electronic patient care plan offers the opportunity to close the quality chasm through an effective and patient centered approach.

References

Basch, E., et al. (2016). Monitoring With Patient-Reported Outcomes During Routine Cancer Treatment: A Randomized Controlled Trial. *Clinical Oncology*. 34:6, 557-565

Basch, Ethan. (2015). Missing Patients' Symptoms in Cancer Care Delivery—The Importance of Patient-Reported Outcomes. *Journal of the American Medical Association-Oncology*. 2(4):433-434. doi:10.1001/jamaoncol.2015.4719

Jensen, R., Gummerson, S., and Chung, A. (2016). Overview of Patient-Facing Systems in Patient-Reported Outcomes Collection: Focus and Design in Cancer Care. *Journal of Oncology Practice*. 12:10, 873-875

Institute of Medicine (U.S.). Committee on Quality of Health Care in America. (2001). Crossing the quality chasm: A new health system for the 21st century. Washington, D.C.: National Academy Press

Smith, T., Castro, K., Troeschel, A., Arora, N., Lipscomb, J., Jones, S., Treiman, A., Hobbs, C., McCabe, R., and Clauser, S. (2016). The rationale for patient-reported outcomes surveillance in cancer and a reproducible method for achieving it. *Cancer*. 122(3):344-51. doi: 10.1002/cncr.29767.

Contact

meghancoleman17@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Compare the Traditional Brush Hand or Dry Hand Disinfection Methods: A Randomized Controlled Trial

Jui-Chen Tsai, MSN, RN, Taiwan

Abstract

OBJECTIVE: Effective perioperative hand antisepsis is crucial for the safety of patients and medical staff in surgical rooms. The antimicrobial effectiveness of different antiseptic methods including conventional scrubbing and waterless rubbing has not been well evaluated. **DESIGN, SETTING, AND PARTICIPANTS:** A randomized controlled trial (RCT) was conducted to investigate the effectiveness of the three antiseptic methods in surgical staff of Taipei Medical University-Shuang Ho Hospital. Each group enrolled 80 participants.

INTERVENTION: Surgical hand cleansing with conventional 10% povidone–iodine scrub, conventional 4% chlorhexidine scrub, or waterless rub (1% chlorhexidine gluconate and 61% ethyl alcohol).

Materials and methods: This study was a single-center, single-blind, randomized trial. Participants were recruited from the surgical staff members of Taipei Medical University-Shuang Ho Hospital between December 1, 2014 and January 31, 2015. This trial was approved by the institutional review boards of Taipei Medical University and registered with ClinicalTrials.gov, NCT02294604.

Outcomes and statistical analysis: Required Sample size was calculated based on an intermediate effect size of 0.25, power of 80%, and two-sided test with type I error of 5%. G*Power was conducted to carry out the calculation.²¹ Based on the abovementioned parameters, the estimated sample size was 231. The primary outcome of this study was the CFU count per plate of each participant before surgical hand disinfection, after surgical hand disinfection, and immediately after surgery. The centrality of continuous variables was expressed as the mean, whereas the degree of variations was presented as the standard error of the mean. Analysis of variance (ANOVA) was used to examine the group difference in the antiseptic effect at specific time points and for specific surgery durations. Within-group comparisons of CFU counts between time points were performed using the paired t test. To adjust for CFU counts before disinfection, analysis of covariance (ANCOVA) was used to compare the effectiveness of the antiseptic methods. Multiple linear regression was used to adjust for potential risk factors to determine the effectiveness of the antiseptic methods. The Statistical Analysis System (SAS), Version 9.4, was used for all statistical analyses.

RESULTS: The mean colony-forming unit (CFU) count were collected using the hand imprinting method before and after disinfection and after surgery. After surgical hand disinfection, CFU count of the conventional chlorhexidine (0.48 ± 0.22 , $P < 0.01$) and waterless rub groups (1.38 ± 0.74 , $P < 0.05$) was significantly lower than that of the conventional povidone group (4.29 ± 1.25). No significant difference was observed in the mean CFU count among the groups after surgery. Similar results were obtained when preexisting differences before disinfection were considered in the analysis of covariance. Furthermore, multivariate regression indicated that the antiseptic method ($P = 0.0036$), but not other variables, predicted the mean CFU count.

CONCLUSIONS: Conventional chlorhexidine scrub and waterless rub were superior to conventional povidone–iodine in bacterial inhibition. We recommend using the conventional chlorhexidine scrub as a standard method for perioperative hand antisepsis. Waterless rub may be used if the higher cost is affordable.

References

1. Thomas M, Hollins M. Epidemic of postoperative wound infection associated with ungloved abdominal palpation. *Lancet* 1974;1:1215-1217.
2. Kralj N, Beie M, Hofmann F. Surgical gloves--how well do they protect against infections? *Gesundheitswesen* 1999;61:398-403.

3. Rotter ML. Hand washing and hand disinfection. In: Mayhall CG, editor. Hospital epidemiology and infection control. 2nd ed. Philadelphia PA: Lippincott Williams & Wilkins; 1999. p. 1339e55.
4. Larson EL, Aiello AE, Heilman JM, et al. Comparison of different regimes for surgical hand preparation. *AORN J* 2001;73:412-432.
5. Weight CJ, Lee MC, Palmer JS. Avagard hand antisepsis v. traditional scrub in 3600 pediatric urologic procedures. *Urol* 2010;76:15-17.
6. World Health Organization. WHO guidelines on hand hygiene in health care. First global patient safety challenged clean care is safer care. Geneva: WHO Press; 2009.
7. Rotter ML. Hand washing, hand disinfection, and skin disinfection. In: Wenzel RP, editor. Prevention and control of nosocomial infections. 3rd ed. Baltimore MD: Williams & Wilkins; 1997. p. 691-709.
8. Parienti JJ, Thibon P, Heller R, et al. Hand-rubbing with an aqueous alcoholic solution vs traditional surgical hand-scrubbing and 30-day surgical site infection rates: a randomized equivalence study. *JAMA* 2002;288:722-727.
9. Marchand R, Theorate S, Dion D, Pellerin M. Clinical implementation of a scrubless chlorhexidine/ethanol pre-operative surgical hand rub. *Can Oper Room Nurs J* 2008;26:21-31.
10. Hobson DW, Woller W, Anderson L, Guthery E. Development and evaluation of a new alcohol-based surgical hand scrub formulation with persistent antimicrobial characteristics and brushless application. *Am J Infect Control* 1998;26:507-512.
11. Hajipour L, Longstaff L, Cleeve V, Brewster N, Bint D, Henman P. Hand washing rituals in trauma theatre: clean or dirty? *Ann R Coll Surg Engl* 2006; 88:13-15.
12. Herruzo-Cabrera R, Vizcaino-Alcaide MJ, Fdez-Aciñero MJ. Usefulness of an alcohol solution of N-duopropenide for the surgical antisepsis of the hands compared with handwashing with iodine-povidone and chlorhexidine: clinical essay. *J Surg Res* 2000; 94:6-12.
13. Pietsch H. Hand antiseptics: rubs versus scrubs, alcoholic solutions versus alcoholic gels. *J Hosp Infect* 2001;48 Suppl A:S33-6.
14. Chen CF, Han CL, Kan CP, Chen SG, Hung PW. Effect of surgical site infections with waterless and traditional hand scrubbing protocols on bacterial growth. *Am J Infect Control* 2012;40:e15-17.
15. Gupta C, Czubytyj AM, Briski LE, Malani AK. Comparison of two alcohol-based surgical scrub solutions with an iodine-based scrub brush for presurgical antiseptic effectiveness in a community hospital. *J Hosp Infect* 2007; 65:65-71.
16. Pereira LJ, Lee GM, Wade KJ. An evaluation of five protocols for surgical handwashing in relation to skin condition and microbial counts. *J Hosp Infect* 1997;36:49-65.
17. Hsieh HF, Chiu HH, Lee FP. Surgical hand scrubs in relation to microbial counts: systematic literature review. *J Adv Nurs* 2006;55:68-78.
18. Bauer AW, Kirby WM, Sherris JC, Turck M. Antibiotic susceptibility testing by a standardized single disk method. *Am J Clin Pathol* 1966;45:493-496.
19. Barry AL, Garcia F, Thrupp LD. An improved single-disk method for testing the antibiotic susceptibility of rapidly-growing pathogens. *Am J Clin Pathol* 1970; 53:149-158.
20. Clinical and Laboratory Standards Institute. Approved standard: M2-A9. Performance standards for antimicrobial disk susceptibility tests, 9th ed. Wayne PA: Clinical and Laboratory Standards Institute; 2006.
21. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods* 2009;41:1149-1160.
22. Lai KW, Foo TL, Low W, Naidu G. Surgical hand antisepsis-a pilot study comparing povidone iodine hand scrub and alcohol-based chlorhexidine gluconate hand rub. *Ann Acad Med Singapore* 2012;41:12-16.
23. Shen NJ, Pan SC, Sheng WH, et al. Comparative antimicrobial efficacy of alcohol-based hand rub and conventional surgical scrub in a medical center. *J Microbiol Immunol Infect* 2015;48:322-328.
24. Darouiche RO, Wall MJ Jr, Itani KM, et al. Chlorhexidine-Alcohol versus Povidone-Iodine for Surgical-Site Antisepsis. *N Engl J Med* 2010;362:18-26.
25. Tuuli MG, Liu J, Stout MJ, et al. A Randomized Trial Comparing Skin Antiseptic Agents at Cesarean Delivery. *N Engl J Med* 2016;374:647-655.
26. World Health Organization. WHO guidelines on hand hygiene in health care. First global patient safety challenged clean care is safer care. Chapter 15: Factors to consider when selecting hand hygiene products. Geneva: WHO Press; 2009.
27. Widmer AF. Surgical hand hygiene: scrub or rub? *J Hosp Infect* 2013;83 Suppl 1:S35-S39.

Contact

10024@s.tmu.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Collaborative Use of KDOQI Guideline to Improve Chronic Kidney Disease Care

Ann Hallock, DNP, APRN, NP-BC, CNN, USA

Abstract

Chronic kidney disease (CKD) is a silent yet deadly disease affecting millions of people worldwide. It is the gradual loss of kidney function, measured and stratified by estimated glomerular filtration rate (eGFR); it is often secondary to chronic diseases such as diabetes, hypertension, or intrinsic kidney disease. Risk factors for CKD are common problems in primary care such as diabetes, hypertension, chronic use of NSAIDs, low socioeconomic status, older age and ethnic minority. The National Kidney Foundation (NKF) estimates one-half of people with at least one risk factor for CKD have the disease, but few even know it. Research shows that early detection and intervention can save lives and costs associated with disease progression. Use of the NKF Kidney Disease Outcomes Quality Initiative (KDOQI) evidence-based clinical guideline for evaluation, classification, and stratification of CKD has been shown to be effective in identifying the disease early and slowing complications and loss of kidney function by screening annually and intervening early, especially in the primary care setting. Patients at a free nurse managed health center in the southeastern US were not routinely screened for CKD. Subsequently, the disease was going unidentified in a population with known high incidence of diabetes, hypertension, and low socioeconomic status. An interprofessional team at the nurse managed health center consisting of NPs, social worker, technical support manager, nurses, medical assistants, and community resources director agreed to work collaboratively to initiate a pilot project using the KDOQI guideline. The purpose of the project was to implement a change in the way patients at risk for CKD were identified and subsequently managed. The team worked to develop a routine clinical order set based on the KDOQI guideline that would trigger the assessment for risk factors and markers of CKD in all patients scheduled for a routine visit. The project goals were to increase the identification of those with CKD, reduce risk and progression, and improve the management of those with CKD by modifying treatment plans such as improved B/P control and halting the use of NSAIDs. All patients scheduled for a routine visit during a two month interval were evaluated for inclusion in the pilot. Inclusion criterion was clinical evidence of CKD, exclusion criteria was no clinical evidence of disease. Clinical Indicators of eGFR, blood pressure, evidence of urine protein evaluation, use of NSAIDs and ICD-9 coding for CKD were selected by the team as the measures to evaluate how effectively the NP providers applied the KDOQI guideline. Of the 200 patients screened in two months, 56 were identified with evidence of CKD, of these, 22 enrolled in the pilot. The 22 patients were managed per the KDOI guided order set for a period of 5 months. Post intervention data showed ICD-9 coding increased from 0% to 80% and urinary protein checks increased from 59% to 90% which was an expected result of the intervention. Uncontrolled blood pressure decreased from 59% to 40% and use of NSAIDs decreased from 32% use to 5% which was also an expected result. The baseline mean eGFR (69.94 ml/min) increased to 76.23 ml/min which was an expected result related to the improvements in blood pressure control and reduced use of NSAIDs. Use of the KDOQI guideline successfully changed the way this nurse managed health center evaluated for risks and presence of CKD in the pilot population. "Our project has changed the way I practice; I use my GFR calculator everyday now and I think twice before I prescribe an NSAID" (anonymous NP provider). In order to sustain the change the order set was imbedded into the electronic medical record. In addition, steps to further ensure the quality of the practice change included periodic review of CKD outcomes, continued review of the literature for best practice enhancements, continuing education of all providers, and development of nephrology referral network.

References

- Barrett, B. J., Garg, A. X., Goeree, R., Levin, A., Molzahn, A., Rigatto, C., ... Et al. (2011). A nurse-coordinated model of care versus usual care for stage 3/4 chronic kidney disease in the community: A randomized controlled trial. *Clinical Journal of American Society of Nephrology*, 6(6), 1241–7. doi:10.2215/CJN.07160810
- Coritsidis, G. N., Linden, L., & Stern, A. S. (2011). The role of the primary care physician in managing early stages of chronic kidney disease. *Post Graduate Medicine*, 123(5), 177–185.
- Fink, H., Ishani, A., Taylor, B., Greer, N., MacDonald, R., Rossini, D., ... Wilt, T. (2012). *Screening for, monitoring, and treatment of chronic kidney disease stages 1 to 3: A systematic review for the U.S. Preventive Services Task*

Force and for an American College of Physicians clinical practice guideline. Retrieved from <http://www.uspreventiveservicestaskforce.org/uspstf12/kidney/ckdart.htm>

Contact

ann.hallock@armstrong.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Therapeutic Hypothermia Improvement Project

Shiao-Pei Wang, MSN, RN, Taiwan

Abstract

Background: Therapeutic hypothermia (TH) is a standard care of post-cardiac arrest (CA), several studies have showed that TH can improve anoxia neurological outcomes. According to the evidence, TH should be initiated as soon as possible after CA. However, TH is a complicated and labor intensive treatment. Therefore, in order to enhance the efficacy of TH, we must shorten the time from return-of-spontaneous circulation (ROSC) after CA to initiation of TH and improve the integrity of nursing care process.

Methodology:

Improvement project:

1. Form a trans-unit TH team
2. Renew and propose TH operational process and nursing care practice standards
3. Put medical treatments into a doctor's order package
4. Develop a nursing care checklist include all nursing care activities
5. Held in-service education

Project implementation:

1. A trans-unit TH team was formed which included attending physician, residents, clinical nursing staff and administrator of emergency department and intensive care unit, one pharmacist also involved in this team. Team members met once a month and discussed the difficulties of TH in practice.
2. Renewed and proposed the TH operational process and nursing care practice standard, which approved by department and became a formal practice guideline. The shared decision making concept was applied into the process while physician explained TH to patient's family.
3. Put all medical treatments into a doctor's order package and made it more convenient when doctor prescribed TH orders and reduced missing.
4. Developed and integrated all nursing care activities into a nursing care checklist, avoiding incomplete nursing care.
5. ED and ICU physicians and nurses undergo at least one hour education about TH, and advocated the new TH protocol and nursing care practice guideline.

Results: The time from ROSC after CA to initiation of TH was shortened from 151 minutes to 122 minutes. The time from ROSC after CA to target temperature was shortened from 431 minutes to 316 minutes. Care completeness increased from 81.5% to 95%.

Discussion: Through the trans-unit cooperation, this improvement project shortened the time from ROSC to initiation of TH, time from ROSC to target temperature and improve care completeness successfully. Besides, medical staff had increased knowledge about TH. In the future, we should parallel promote TH protocol and care standard to other ICU.

References

Avery, K. R., O'brien, M., Pierce, C. D., & Gazarian, P. K. (2015). Use of a nursing checklist to facilitate implementation of therapeutic hypothermia after cardiac arrest. *Critical Care Nurse*, 35(1), 29-38. doi:10.4037/ccn2015937

Uribarri, A., Bueno, H., Pérez-Castellanos, A., Loughlin, G., Sousa, I., Viana-Tejedor, A., & Fernández-Avilés, F. (2015). Impact of time to cooling initiation and time to target temperature in patients treated with hypothermia after cardiac arrest. *European Heart Journal Acute Cardiovascular Care*, 4(4), 365-372. doi: 10.1177/2048872614557241

Vaitis, C., Al-Subaie, N., & Cecconi, M. (2015). Cooling techniques for targeted temperature management post-cardiac arrest. *Critical Care*, 19, 103. doi: 10.1186/s13054-015-0804-1.

Contact

shiaopei@ntuh.gov.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Depression and Sleep Impairment Impact on Pain and Quality of Life for Sickle Cell Patients

Sheran Maxwell Simo, DNP, APRN, ACHPN, FNP-BC,

Abstract

Vaso-occlusive crisis pain is both an acute and chronic factor for patients with sickle cell disease (SCD). Many of the complications associated with SCD have some aspect of pain associated with them, beginning in infancy and continuing throughout the lifespan as a result of sickled red blood cells (Ballas, 2011; Ballas et al., 2012). Acute, recurrent, and unrelenting pain is often joined by other affective disorders that affect pain chronicity, and some patients with SCD have depression and/or sleep disturbances that may affect pain levels and quality of life (Ballas et al., 2012; Vichinsky, 2014). According to Treadwell, Barreda, Kaur and Gildengorin (2015), patients with SCD have a higher incidence of depression and anxiety compared to those in the general population, and these psychiatric conditions may develop as a result of unmanaged acute or chronic pain (Ballas et al., 2012).

The purpose of this quality improvement project is to improve the process of evaluation and treatment of depression and sleep disturbance in patients admitted with vaso-occlusive crisis. The five phases of the Stetler Model were used to guide the process of translating existing research regarding the impact of depression and sleep impairment on pain and quality of life, in patients presenting with acute sickle cell pain crisis, into evidence-based practice for this quality improvement project. An interdisciplinary sickle cell team created the *Guideline for the Evaluation and Treatment of Depression and Sleep Impairment in Sickle Cell Disease*, to guide the evaluation and treatment of depression and sleep impairment, and evaluate their impact on pain levels and quality of life. The sickle cell team initiated implementation of the guideline in August, 2016 as standard of care.

Patients are evaluated using four reliable and validated tools, that were incorporated in the guideline, appropriate for use in the assessment of depression, sleep impairment, pain and quality of life in patients with sickle cell disease. These tools include *The Patient Health Questionnaire (PHQ-9)*, *The Pittsburgh Sleep Quality Index (PSQI)*, *The Quality of Life Scale (QOLS)* and *the Numerical Rating Pain Scale (NRS)* and *Simple Descriptive Pain Scale (SDPS)*. Patients are initially assessed, then reassessed each time the patient is admitted for sickle cell pain crisis, regardless of the results of the initial evaluation, and treatments are offered, if appropriate, based on the guideline. A chart review will be conducted with patient informed consent to collect data on initial and follow-up evaluations, as well as any treatment provided.

Descriptive statistics will include mean, standard deviation and frequencies of depression, sleep impairment, pain and QOL. Pearson correlations and *t*-tests will be performed to examine the linear relationships between pain, depression, sleep and QOL scores. A random-effects time series regression model using a numbered patient identifier as a panel variable will be used to account for within-person correlation. A *p* value of less than 0.05 will be considered statistically significant. It is anticipated that outcome data collection and analysis will be completed by April 1, 2017.

The goal of this quality improvement project is to improve overall pain levels and quality of life for patients with SCD through efficient and effective evaluation and treatment for depression and sleep impairment. Persons living with SCD are at risk for many complications associated with both the acute and chronic effects of sickling red blood cells. Close attention to the physiological and biochemical aspects of the disease, as well as, the psychological aspects associated with it, is important in order to prevent increased morbidity and mortality in this vulnerable population.

Palliative care advanced practice nurses (APNs) provide support and symptom management to patients with life-limiting and serious illnesses, including patients with SCD, as a means of improving quality of life. This project has significance for APNs in both palliative care and specialty SCD/Hematology care as a means to translate existing research into evidence-based practice; as well as provide an efficient and

effective means to evaluate and treat depression and sleep impairment and their impact on pain and quality of life.

References

- Ballas, S. (2011). Update on pain management in sickle cell disease. *Hemoglobin*, 35(5-6), 520-529.
- Ballas, S. K., Kesen, M. R., Goldberg, M. F., Luty, G. A., Dampier, C., Osunkwo, I., Wang, W. C., . . . Malik, P. (2012). Beyond the definitions of the phenotypic complications of sickle cell disease: An update on management. *The Scientific World Journal*, 2012(949535), 1-55. doi: 10.1100/2012/949535.
- Treadwell, M. J., Barreda, F., Kaur, K., & Gildengorin, G. (2015). Emotional distress, barriers to care, and health-related quality of life in sickle cell disease. *Journal of Clinical Outcomes Management*, 22(1), 10-20.
- Vichinsky, E. P. (2014). Overview of the clinical manifestations of sickle cell disease. Retrieved from <http://www.uptodate.com/contents/overview-of-the-clinical-manifestations-of-sickle-cell-disease>

Contact

ssimo0856@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Follow-Up of the Joint Function and Quality of Life After Total Joint Arthroplasty

Pi-Chu Lin, EdD, RN, Taiwan

Abstract

As the population ageing, more and more patients suffer from joint disease in Taiwan. Joint replacement surgery performed in Taiwan is about 10,000 to 20,000 cases yearly. The purpose of this study was to investigate the Quality of life and joint functions of TKR (total knee replacement) and THR (total hip replacement) patients 6 weeks and 3 months after surgery. Convenience sampling was used and a total 126 patients were recruited. Average age was 72.75 (SD = 9.046). THR surgery was 21 (16.7 %) and TKR surgery was 105 (83.3 %). One hundred and twenty patients (95.2 %) lived with family and six (4.8 %) was lived alone. Mean score of perceived the convenience of home environment was 3.90 (SD = .74), with 18.7% of patients felt a little inconvenience or very inconvenience, 81.7% felt convenience or very convenience. The patients had moderate satisfaction about the surgery, with mean score 17.68 (SD = 2.13) 6 weeks and 17.75(SD = 2.55) 3 months after surgery. There was significant difference between TKR patients and THR patients on pre-operation ($t = 3.225, p < .05$) and 6 weeks after surgery ($t = 2.32, p < .05$) on EQ5D utility index. Repeated measures ANOVA was used to analyze TKR patients on joint function ($F = 61.38, p = .000$) and perceived health score ($F = 3.74, p < .05$) on pre-operation, 6 weeks and 3 months after surgery. Repeated measures ANOVA was used to analyze THR patients on joint function and perceived health score on pre-operation, 6 weeks and 3 months after surgery, it showed no significant difference ($p > .05$). Because of small sample size of THR patients, it May affect the results of inference. It is recommended to keep track of longer surgical outcomes, and increase the number of THR patients, to improve the results of inferential.

References

Fujita K, Makimoto K, Tanaka R, Mawatari M, Hotokebuchi T. (2013). Prospective study of physical activity and quality of life in Japanese women undergoing total hip arthroplasty. *Journal of Orthopaedics Science*, 18(1), 45-53.
Lin PC, Fujita K, Chang SY, Liu YY.(2016). Patient Life Experience and Activity of Daily Living before and after Total Knee Arthroplasty. *Open Journal of Nursing*, 6, 658-671.

Contact

pclin@tmu.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Effects of a Nursing Intervention on Illness Perceptions and Quality of Life in Injured Patients

Bih-O Lee, PhD, RN, Taiwan
Mei-fang Liang, BSN, RN, Taiwan

Abstract

Background. Illness representations and quality of life are important health outcomes for injured patients. A nursing intervention that utilizes cognitive behavioral therapy skills is increasingly being applied to improve injured patients' outcomes, but there is limited evidence of its effectiveness.

Objectives. This study evaluated the long-term effects of a nursing intervention in changing the illness perceptions and quality of life of injured patients.

Design. A prospective randomized controlled trial was used.

Settings. Data were collected at a medical center in Taiwan.

Participants. Participants were screened through the trauma database of the hospital's computer system. A total of 94 patients were randomly assigned either to the experimental group or the control group.

Methods. Data were collected from 2013 to 2015. Based on a self-regulatory theory, the intervention was conducted by trained nurse practitioners. In recording the outcomes, illness perceptions of injury were measured by the Brief Illness Perception Questionnaire, and quality of life was measured by the World Health Organization's Quality of Life questionnaire. Follow-ups on the experimental and control groups were conducted by telephone to complete the survey at 3, 6, and 12 months after their discharge from the hospital.

Results. The intervention positively changed patients' illness perceptions for "personal control" ($B = 1.26$, $P < 0.05$) and "treatment control" ($B = 1.50$, $P < 0.01$) 3 months after being injured, and it changed their "emotional representations" 6 months after being injured. The intervention also positively affected the overall illness perceptions 3 months ($B = -0.60$, $P < 0.05$) and 6 months ($B = -0.82$, $P < 0.001$) after the injury. The intervention also promoted the patients' quality of life in the "social domain" 6 months ($B = 1.38$, $P < 0.01$) and 12 months ($B = 1.38$, $P < 0.01$) after the injury.

Conclusions. The results indicated the intervention had positively changed the patients' illness representations and quality of life. This study adds new knowledge that proves nursing interventions have longer-term effects on injured patients. A multidisciplinary care plan and retesting of the intervention protocol are needed in the future.

References

- Schneiderman, J., Van Aswegen, H., & Becker, P. (2013). Health related quality of life of survivors of trauma six months after discharge. *South African Journal of Physiotherapy*, 69(1), 10–16.
- Mohammed, S., Nagla, S., Morten, S., Asma, E., & Arja, A. (2015). Illness perceptions and quality of life among tuberculosis patients in Gezira, Sudan. *African health sciences*, 15(2), 385-93.

Contact

bih-olee@gw.cgust.edu.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Best Practices for Reducing Catheter-Associated Urinary Tract Infections (CAUTIs) in the Medical Intensive Care Unit

Joanna Marie Trinidad, BSN, RN, WTA-C, CCRN, USA

Abstract

Description: Recognize effective interventions to reduce CAUTI rates in the MICU through unit-based protocol formulation, aggressive staff education and hands-on simulation.

Purpose: The purpose of this unit-based study is to provide answers to the best practice question: "What are the best practices for preventing catheter-associated urinary tract infections (CAUTIs) in critically-ill adult patients?"

Significance: Findings from the 2014 NDNQI Data led the Medical Intensive Care Unit (MICU) Council to establish unit-based initiatives including MICU CAUTI Bundles and aggressive staff education and hands-on simulation. A review of the current literature and guidelines (Flodgren et al., 2013, Wald et al., 2012) led to the formulation of the unit-based protocol during the fourth quarter of 2014, including indwelling catheter indication, early catheter removal, bladder scanner utilization, and good nursing practice. Commencement of staff education during the first quarter of 2015 in the form of annual skills fair, monthly Unit Council meetings, and daily charge nurse huddles ensured fast dissemination of information and skills. Laminated badge cards specifying elements of the CAUTI Bundles are also distributed to the staff during this timeframe. Additionally, designation of a CAUTI Unit Champion for both day and night shifts monitored staff compliance and performed inpatient rounding twice a week.

Evaluation: From the first quarter of 2014, the MICU had 12.16 cases of CAUTI per 1,000 catheter days. A drastic fall in CAUTI rates starting in the first quarter of 2015 (0 cases per 1,000 catheter days) proved that evidence-based changes in nursing interventions are indispensable in preventing CAUTIs. Based on 2015 NDNQI data, MICU's CAUTI rate is well below the national benchmark. The utilization of the MICU CAUTI Bundles and aggressive staff education proved, and continue to be a success.

Implications for Practice: Nursing implications include assessment of catheter indication, early catheter removal, and continuing assessment of skills and knowledge of nursing staff to be successful indicators of decreased CAUTI rates (Wald et al., 2012).

References

- Flodgren, G., Conterno, L. O., Mayhew, A., Omar, O., Pereira, C. R., & Shepperd, S. (2013). Interventions to improve professional adherence to guidelines for prevention of device-related infections. *Cochrane Database of Systematic Reviews*. doi:10.1002/14651858.cd006559.pub2
- Wald, H. L., Fink, R. M., Makic, M. B., Oman, K. S. (2012). Catheter-associated urinary tract infection prevention. In M. Boltz, E. Capezuti, T. Fulmer, & D. Zwicker (Eds.), *Evidence-based geriatric nursing protocols for best practice* (pp. 388-408). New York, NY: Springer.

Contact

joanna.trinidad@jax.ufl.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Developing a Guideline for Transferring Premature Infants From Incubator to Open Crib in the NICU

Ani Jacob, DNP, RN, RN-BC, RNC-NICU, USA
Joanne Casatelli, DNP, CNNP, USA

Abstract

In the neonatal intensive care units (NICU) achieving stable temperature in an open crib is one of the criteria for discharging premature infants. This physiologic criterion is attained by the premature babies at varying post menstrual ages (PMA) of a stable preterm in the NICU. For a stable preterm infant, majority of the NICUs across the nation recommend maintenance of an axillary temperature between 36.5-37.2 as the normal skin temperature (Barone et al. 2014; Knobel, 2014; Schneiderman et al. 2009; Zecca et al. 2010). Due to concerns over the thermal instability and poor weight gain, the traditional incubator weaning protocols have mostly been depended upon individual physicians' preferences and standard infant weights between 1600-2000 gm.

There are very few studies done to examine the weaning process of a stable preterm infant and policies and procedures vary between institutions. A few studies examined the feasibility of transferring preterm infants at varying birth weights, as low as 1600 gm. (Barone et al., 2014; Schneiderman et al. 2009; Zecca et al., 2010). Barone et al. (2014) conducted a study on early weaning process of infants at 1600 gm weight and concluded that early weaning decreases length of stay and PMA at discharge. Their study also showed an increased growth velocity of these infants compared to those infants who were weaned at 1800 weight or higher. Yet, a standard protocol or guideline regarding the weight, PMA, and/or incubator temperature prior to transfer to an open crib has not been established in transferring stable preterm infants from an incubator to an open crib.

The purpose of the study is to identify criteria for successful transfer of stable preterm infants from an incubator to an open crib maintaining the thermoregulation within the acceptable range of axillary temperature between 36.5⁰-37.2⁰ C. All the infants will be diapered, dressed in a t-shirt, cap, and wrapped in blanket during the transfer process.

Research Questions:

1. What is the optimal weight to have a successful transfer from an incubator to an open crib for a medically stable growing premature infant from 23- 34 6/7 weeks gestational age?
2. What is the appropriate gestational age to have a successful transfer from an incubator to an open crib for a medically stable growing premature infant from 23- 34 6/7 weeks gestational age?
3. What is the optimal axillary temperature to have a successful transfer from an incubator to an open crib for a medically stable growing premature infant from 23- 34 6/7 weeks gestational age?

Definition of terminologies:

Medically stable – the infant will have no episodes of clinically significant apnea, bradycardia, or desaturation during the weaning period 24 hours prior to transfer and 24 hours post transfer.

Successful transfer- the infant will be able to maintain his/her axillary temperature within the range of 36.5-37.5⁰ Celsius in the crib with standard swaddling (diaper, t-shirt, blanket, and hat) until discharge; able to take the entire feeding by mouth/tube and tolerate; and steadily gain weight daily without any lose.

All neonates admitted to the NICU at North Shore University Hospital (NSUH) from 1/1/2010 to 12/31/2015 between 23-34 6/7 weeks of gestational age will be eligible for the study. Other eligibility criteria include a minimum weight of 1500 gm, consistent weight gain for at least 5 days, and enteral nutrition prior to the transfer. Infants who were medically unstable such as ventilator assistance and apnea & bradycardia episodes at the time of transfer from incubator to crib will be excluded from the study.

A retrospective chart review will be conducted on all infants between 23-34 6/7 gestational ages at birth and who are medically stable at the time of transfer from an incubator to an open crib from January 2010-December 2015. These infants will be further stratified into 23-26 6/7 weeks, 27- 30 6/7 weeks and 31-34 6/7 weeks of gestational age. The data collection tool template is given in appendix I.

As the suggested study is a retrospective chart review, an informed consent is not sought for the study. No identifiable data will be extracted from the chart for study purposes. There will be no interventions or deviations from the current protocol. Currently the transfers are done based on individual attending physician's discretion.

This is a chart review, and the proposed sample size is based on feasibility and availability of resources, and not on a formal power calculation. The charts of all neonates meeting the inclusion/exclusion criteria from January 2010 to December 2015 will be reviewed. It is estimated that there are between 700 and 1000 such charts. Approximately 80% of such transfers are successful. Therefore, it is estimated that of the 700-1000 charts, between 700 and 800 will have been successfully transferred, and between 200 and 300 will have been unsuccessful. In order to obtain stable estimates when using logistic regression, approximately 10 events per variable are required. (ref: van Belle, *Statistical Rules of Thumb*, John Wiley & Sons, Inc, 2002). Therefore, the proposed sample size will be sufficient to examine models including 8 to 10 variables. (It should be noted that for purposes of this calculation, the "event" would be unsuccessful transfer, as that is the lower proportion).

The data collected will be based on the infants' PMA, weight at transfer, and the range of incubator temperatures. Then the data will be stratified based on the stratified age group of the study subjects-23-26 6/7 weeks, 27- 30 6/7 weeks and 31-34 6/7 weeks of gestational age. A normally distributed data will be analyzed as mean and standard deviation or as median and interquartile range if the normal distribution is unacceptable. The baseline characteristics will be expressed as numbers and percentages.

References

- Barone, G., Corsello, M., Papacci, P., Priolo, F., Romagnoli, C., & Zecca, E. (2014). Feasibility of transferring intensive cared preterm infants from incubator to open crib at 1600 grams. *Italian journal of pediatrics*, 40(1), 41.
- Knobel, R. B. (2014). Thermal stability of the premature infant in Neonatal Intensive Care. *Newborn and Infant Nursing Reviews*, 14(2), 72-76.
- New, K., Flenady, V., & Davies, M. W. (2011). Transfer of preterm infants from incubator to open cot at lower versus higher body weight. *The Cochrane Library*.
- New, K., Flint, A., Bogossian, F., East, C., & Davies, M. W. (2012). Transferring preterm infants from incubators to open cots at 1600 g: a multicentre randomised controlled trial. *Archives of Disease in Childhood-Fetal and Neonatal Edition*, 97(2), F88-F92.

Contact

ajacob1@northwell.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Evaluating the Effectiveness of a Community Partnership to Raise Toxic Stress Awareness in Early Childhood

Michelle A. Beauchesne, DNSc, RN, CPNP, FAAN, FAANP, FNAP, USA
Patrice Farquharson, EdD, CSDE, PC, USA

Abstract

Statement of Problem: The American Academy of Nursing (the Academy) has listed the reduction of toxic stress associated with adverse childhood experiences (ACEs) as a top priority for improving the health of the population (Mason & Cox, 2014). Exposure to ACEs or trauma in childhood places children at higher risk for developing both short-term and long-term negative physical and psychological health outcomes (Horner, 2015). Toxic stress is defined as the prolonged activation of stress response systems in the absence of protective relationships (Center for Child Development, 2016). Research has shown that children who have protective factors that promote resilience to such stress do not experience negative consequences (AAP, 2012). In 2016 the Academy issued a policy statement to encourage partnerships between health care professionals and other child and family organizations advocating for policies that strengthen and expand access to programs and services for families at risk for toxic stress to help promote optimal mental health and well-being, including enhancing protective factors (Gross et al., 2016). This project exemplifies such a partnership.

Purpose: The purpose of this poster is to share the evaluation of the effectiveness of a community partnership to raise awareness of toxic stress in early childhood and increase resilience and protective factors in children and families. The evaluation process uses the *Social Ecological Model* guided by the Center for Disease Control (CDC) *Six-Step Public Health Program Evaluation Framework*.

Setting: The Early Childhood Council and the Early Childcare Center, designated by the American Academy of Pediatrics (AAP) as a promising medical home, located in a suburban city in northeastern United States, partnered in this endeavor. The multi-strategy toxic stress awareness intervention implemented over a 12-month period is serving approximately 150 children ages 2-5 years of primarily low or moderate income working families from culturally diverse backgrounds. The team consists of a Pediatric Nurse Practitioner (PNP) consultant, a school nurse, a social worker, the executive director, teachers, staff, families and interprofessional university students.

Summary of Intervention: All staff received training in developmental assessment using the Ages & Stages Questionnaires (ASQ) with an emphasis on social emotional development. Family engagement is key to positive outcomes for children and families. Resources were created to ensure continuity of prevention education in the home, classroom and broader community utilizing social media. Families at risk meet with the social worker to develop individual family plans. A peer-mentoring program involving families as peer mentors is designed to reduce conflict, foster problem-solving skills, and promote healthy relationships within the family. Educational materials and learning activities are designed at all 4 levels of the *Social Ecological Model- child, family, school, and broader community* with emphasis on emergent literacy and current curricular threads on social emotional development and resiliency building in early childhood.

Outcomes: Indicators of success are evidenced against the performance standards of utility, feasibility, propriety, and accuracy. Multiple measures based on the six-step CDC process include parent and staff surveys, focus groups with key informants, curricular changes, and analyses of children's stories and drawings. The results of Ages and Stages Social Emotional Questionnaires (ASQ-SE) administered at recommended intervals to identify children at risk are discussed.

Implications for Practice: Distinguishing principles between research and program evaluation methodology are outlined. Outcome evaluations, future plans, and implications for public health are discussed. Strategies to assist professionals to support children and families meet the challenges of

addressing the effects of toxic stress and increasing awareness are explored. Suggestions on implementing similar comprehensive community program evaluation processes are shared.

Funding & Support: The National Center on Early Childhood Health and Wellness' (NCECHW): Early Childhood Education (ECE) /Medical Home Toxic Stress Learning Collaborative grant.

References

- Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics. (2012). Early childhood adversity, toxic stress, and the role of the pediatrician: Translating developmental science into lifelong health. *Pediatrics*, 129, 224-231.
- Center for the Developing Child, Harvard University. (2016). Toxic Stress. Retrieved from <http://developingchild.harvard.edu/science/key-concepts/toxic-stress/10.23.16>
- Gregory, K.E. (2015). Differentiating between research and quality improvement. *Journal of perinatal and neonatal nursing*, 29 (2), 100-102.
- Gross, D., Beeber, L., DeSocio, J., & Brennaman, L. (2016). Toxic stress: urgent action needed to reduce exposure to toxic stress in pregnant women and young children. *Nursing Outlook*, 64, 513-515.
- Horner, G. (2015). Childhood trauma exposure and toxic stress: What the PNP needs to know. *Journal of Pediatric Health Care*, 29, (2), 191-198.
- Mason, D.J. & Cox, K. (2014). Toxic stress in childhood: Why we all should be concerned. *Nursing Outlook*, 62, (6), 382-383.

Contact

m.beauchesne@neu.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Impact of NICHE Preparation on Nursing Knowledge of Geriatric Patient Care

Tru Brynes, MSN, RN, CNL, CMSRN, USA

Abstract

The aging of the United States population has profound implications for nursing practice and health care costs (Capezuti, Bolt, Cline, Dickson, Rosenberg, Wagner, Shuluk, & Nigolian, 2012). Their health care utilization are three to five times more than younger patients, which accounted for \$444 billion or 23% of the health care spending in 2008 and 13 % of the U.S federal budget (Wier, Pfuntner, & Steiner, 2010). Research shows units that have implemented the Geriatric Resource Nurse (GRN) model have better patient outcomes in terms of preventing falls and fall related injuries, decreased restraint use, early recognition of confusion or delirium, and decreased hospital acquired infections (Boltz, Capezuti, Bowar-Ferres, Norman, Secic, Kim, Fairchild, Mezey, & Fulmer, 2008; Kim, Capezuti, Boltz, and Fairchild, 2009). 5 Tower, a post-surgical unit, experienced a shift in its patient population in 2015 after the addition of the telemetry monitors to the unit. Since then, there was an in-flux of a geriatric population with both medical and surgical comorbidities. 5Tower served 734 older adults in 2015 ranking the fifth highest unit within the Central Division (CMC-Main and Mercy). Recognizing the special needs of geriatric patients, 5T implemented the GRN model by training staff nurses to better understand the normal signs of aging and contraindications related to caring for the geriatric population to recognize and identify resources available within the community and anticipate risks associated with care of the geriatric patients.

Purpose: The purpose of this project is to increase the number of GRNs on 5T to better serve the geriatric patients.

Clinical Question: Will there be an improvement in nurses' knowledge related to the geriatric population after the completion of the Nurse Improve Care for Healthcare Elderly (NICHE) Geriatric Nurse modules?

Theoretical Framework: Using the King's Goal Attainment Theory guided this study. The Goal Attainment Theory is comprised of three major systems: personal systems, interpersonal system, and social systems. In this study, the personal system will be an individual nurse who recognizes the importance of self-growth in pursuing the advanced knowledge of the geriatric population with the desire of becoming a GRN. The unit will have a group of GRNs (interpersonal system) serve as a resource for the unit in order to help improve care for geriatric patients. The hospital administration (social system) provides a supportive environment and tools for staff to practice so they can better care for their patients.

Methods: Using the pre-test and post-test method to assess nurses' knowledge before and after they completed the NICHE GRN modules. A 25 item survey questionnaires related to geriatric patient care is used to assess nurse's knowledge about geriatric care before and after completing the modules. The modules cover 14 topics, which take about 20 hours to complete. There is a free 20 contact hours at the end of the 14 modules.

Result: The survey results will be analyzed using descriptive statistic. Aggregate mean of the pre-survey and the post-survey will be analyzed using pair t-test. The final result will be calculated when the project is completed in December 2016.

Conclusion/Implication: Geriatric patients have higher acuity, experience more hospital complications, and have longer lengths of stay; thus, resulting in an increase in health care cost and poor health outcomes. It is important for hospital to support and equip nurses with advanced knowledge to better serve the geriatric patients. This project not only help improve geriatric patient outcomes, but also help the nurses become a geriatric specialist. The next step after forming a team of GRNs, we will be examining geriatric patient outcomes, includes delirium screening, fall prevention, and discharge planning.

References

Bolt, M., Capezuti, E., Bowar-Ferres, S., Norman, R., Secic, M., Kim, H., Fairchild, S., Mezey, M., & Fulmer. (2008). Changes in the geriatric care environment associated with NICHE (Nurses Improving Care for HealthSystem Elders). *Geriatric Nursing, 29*(3), 176-185.

Capezuti, E., Boltz M., Cline, D., Dickson, V. V., Rosenberg, M-C., Wager, L., Shuluk, J., & Nigolian, C. (2012). Nurses Improving Care for Healthsystem Elders – a model for optimizing the geriatric nursing practice environment. *Journal of Clinical Nursing, 21*, 3117-3125. Doi: 10.1111/j.1365-2702.2012.04259.

Kim, H., Capezuti, E., Boltz, M., & Fairchild, S. (2009). The nursing practice environment and nurse perceived quality of geriatric care in hospitals. *Western Journal of Nursing Research, 31* (4), 480-498.

Wier, L., Pfunter, A., & Steiner, C. (2010). *Hospital utilization among oldest adult*. Retrieve from <http://www.hcup.us.ahrq.gov/reports/statbriefs/sb103.jsp>

Contact

tru.byrnes@carolinashealthcare.org

EBP PST 1 - Evidence-Based Practice Poster Session 1

In-Home Air Pollution is Associated With Respiratory Symptoms in Patients With Chronic Obstructive Pulmonary Disease

Su-Er Guo, PhD, RN, Taiwan

Abstract

Background: Ambient particulate matter (PM) has shown adverse effects of health on respiratory diseases. To date, although studies have demonstrated that PM was associated with increased morbidity, readmission rates, resource utilization, and the mortality in chronic obstructive pulmonary disease (COPD), few studies investigated the influences of indoor PM on respiratory symptoms, lung function, and acute exacerbations in patients with COPD. **Objective:** In this longitudinal study, we investigated the relationships between indoor PM (PM_{2.5} & PM₁₀), respiratory symptoms, lung function, and acute exacerbations in patients with moderate to very severe COPD. **Methods:** Indoor air quality (PM_{2.5} and PM₁₀ levels) was monitored by using an aerosol spectrometer (Model TSI8532) in the patients' bedroom, kitchen, living room, and front door at baseline and every two months until one year. At each home visit, the patients were asked to complete spirometry and questionnaire testing, including respiratory symptoms and clinical characteristics. Respiratory symptoms were evaluated using a modified version of the symptoms section of the St. George's Respiratory Questionnaire (SGRQ). Clinical characteristics included Charlson comorbidity index (CCI), FEV₁ at first visit, and length of COPD diagnosis in years. Exacerbations were assessed by chart review. Generalized estimating equation (GEE) analysis was used to analyze data. **Results:** The results of the present study ($n = 83$) showed that the level of wheezing was significantly higher in patients whose living room and kitchen had abnormal (higher than the maximum accepted) PM_{2.5} ($B = 0.80$; $B = 1.03$, respectively) and PM₁₀ levels ($B = 0.36$; $B = 0.38$, respectively). **Conclusions and clinical application:** Increased PM levels were associated with worse respiratory symptom and increased admission rate in patients with moderate to very severe COPD. Future investigations are needed to determine the effectiveness of environmental interventions or self-management programs to reduce PM concentrations and improve health outcomes in this susceptible population.

References

1. Peacock, J. L., Anderson, H. R., Bremner, S. A., Marston, L., Seemungal, T. A., Strachan, D. P., et al. (2011). Outdoor air pollution and respiratory health in patients with COPD. *Thorax*, 66(7): 591-596. doi: 10.1136/thx.2010.155358
2. World Health Organization (WHO). 2014 Mar [cited 15 July 2016]. Ambient (outdoor) air quality and health [Internet]. Geneva. Retrieved from <http://www.who.int/mediacentre/factsheets/fs313/en/>.
3. Ministry of Health and Welfare, Executive Yuan. 2016 Jun 17 [cited 15 July 2016]. 2014 death causes annual report in statistics [Internet]. Taipei City.

Contact

sxg90huang@gmail.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Implementing Project Echo: Complex Care Management, Using Technology to Support Primary Care Nurses

Mary L. Blankson, DNP, APRN, FNP-C, USA

Sarahi Y. Almonte, MS, RN, USA

Katie Ann Lainas, BS, USA

Abstract

Project ECHO is a telehealth model of knowledge transfer that connects expert faculty teams with primary care providers. The primary goal of Project ECHO is to improve health care outcomes through case-based learning. It aims to do so by equipping participants with the knowledge and skills needed to care for unique patient populations. While there are several established Project ECHOs specifically addressing the knowledge needs of primary care providers, Project ECHO Complex Care Management (CCM) is one of the first specifically targeting primary care nurses. It is uniquely designed to build nurse leadership and to directly support nurses as they engage in complex care management. A faculty team of multidisciplinary specialists advise the nurses on next steps to manage their patients with complex medical, psychosocial, and behavioral issues.

As part of a larger complex care management initiative at the Community Health Center, Inc. (CHCI), Project ECHO Complex Care Management (CCM) was uniquely designed to build nurse leadership skills and experience. The CHCI is one agency with 14 different integrated patient-centered primary care sites across the state of Connecticut. These sites provided care for uninsured and underinsured patients. The CHCI translated this provider-centric design using the Knowledge To Action framework to a model centered on nurses. Through twice monthly didactics and case presentations, nurses from all over CHCI's statewide network connect via videoconference to receive expert advice from a variety of specialists on how to care for their most complex patients. The faculty team is made up of a nurse practitioner and Chief Nursing Officer, a medical provider, behavioral health provider, pharmacist, registered dietician, certified diabetes educator, care management specialist and homecare nurse. The first thirty minutes of a session are focused on didactic education, and the latter 1.5 hours on case presentations by nurses. There is a standard presentation form that was designed to support nurses in organizing the case information as well as the questions they are requesting the faculty to address. Through videoconferencing and case-based learning, the faculty lends real-time support and supports nurses as they address the needs of their complex patients. Nurses are empowered to practice to the top of their license and provide patients with high quality, low cost care. Through case presentations nurses learn valuable care management skills and gain the confidence to develop their roles as leaders on health care teams.

Project ECHO CCM develops nurses as leaders and care managers in the primary care setting. It is an effective tool in training both new and experienced nurses as they transition into primary care roles that include a significant amount of care management. Project ECHO CCM is an important platform for improving nurses' knowledge and self-efficacy. Project ECHO CCM connects every nurse throughout the CHCI on a regular basis. It provides them with the chance to learn from one another, creating a knowledge network, and a stronger team dynamic. The opportunity to communicate in this way across each of the CHCI's sites would not be possible without Project ECHO. This technology has the potential to connect nurses without regard to geography, linking teams together to learn from each other, and to share best practices.

Operational data from Project ECHO CCM further demonstrates the impact through case analysis, and also general metrics of the % of nurses who have presented, as well as the number of continuing nurse education credits granted. As of July 2016, 42 cases have been presented, representing 35 discrete patients with 66% of nurses at CHCI having had presented at least one case, and 1 nurse having presented eight cases. This number will continue to rise and more and more nurses are likely to full engage in this intervention in the coming year. Topics covered during the didactic portion of Project ECHO CCM have included chronic pain, substance abuse, diabetes, asthma, COPD, self-management goal setting, motivational interviewing and even medical nutrition therapy to name a few. This poster will

be updated with the most current operational data to better describe the overall impact and global implications for Project ECHO CCM.

References

Arora, S., Kalishman, S., Thornton, K., Komaromy, M., Katzman, J., Struminger, B., & Rayburn, W. F. (2016). Project ECHO (Project Extension for Community Healthcare Outcomes): a national and global model for continuing professional development. *Journal of Continuing Education in the Health Professions*, 36, S48-S49.

Scott, J. D., Unruh, K. T., Catlin, M. C., Merrill, J. O., Tauben, D. J., Rosenblatt, R., & Spacha, D. H. (2012). Project ECHO: A model for complex, chronic care in the Pacific Northwest region of the United States. *Journal of Telemedicine and Telecare*, 18(8), 481-484.

Contact

mary@chc1.com

EBP PST 1 - Evidence-Based Practice Poster Session 1

Text Message Quality Improvement Intervention Improves Influenza Vaccination Rate Among Pediatric Patients With Asthma

Elizabeth Sloand, PhD, RN, PNP-BC, FAAN, USA
Augusta MacQueen, BSN, RN, USA
Sarah Polk, MD, ScM, USA
Annie Holm, MSN, RN, USA

Abstract

Background: The Centers for Disease Control (CDC) and the World Health Organization (WHO) recognize that children with asthma are at an increased risk of severe complications due to influenza infection. The CDC highly recommends that all children with asthma, 6 months and older, receive an annual influenza vaccine. Clinicians are challenged to educate families about the recommendations and insure that these high risk children are vaccinated each year.

Methods: For the 2015-2016 influenza season (Year 1), a reminder text message campaign was implemented at an ambulatory pediatric clinic to improve influenza vaccination adherence rates among children with asthma. The majority of the clinic's patients have public insurance and are Latino children with immigrant parents. Using the electronic medical record, a list of children with asthma and their family's phone number was generated. A three-part text message in English or Spanish was sent with information about the vaccine, a link to an informational video for parents, and instructions for making an appointment to get the vaccine. The Year 1 campaign was evaluated and revised accordingly. The text-based campaign was relaunched for the 2016-2017 influenza season, Year 2, which will include October 2016 to April 2017. For Year 2, the text message was clarified and the text response options were simplified. Follow up phone calls were made as needed. Responses for each year were tallied. Results for both years were analyzed and compared.

Results: For Year 1, text messages were sent to 381 households, representing 399 clinic patients. The response rate was 11.5%. For Year 2, text messages were sent to 441 households. Preliminary results indicate an increase in both response rates and influenza vaccination rates. These early results from Year 2 will be further refined and analyzed in order to further improve the influenza vaccine program for next year.

Conclusions: The text message project showed that family responses and influenza vaccine rate improved from Year 1 to Year 2. This project sets the stage for future quality improvement research on text message reminder/recall systems to increase annual influenza vaccination rates in pediatric patients with asthma. Such text message interventions may increase population/family engagement and influenza vaccination rates, ultimately decreasing preventable, severe health complications in children with asthma. This is particularly important because of the inclusion of minority immigrant children, an under-represented population that is not routinely included in health outreach efforts.

References

- Bloch, S. A., & Bloch, A. J. (2013). Using Video Discharge Instructions as an Adjunct to Standard Written Instructions Improved Caregivers' Understanding of Their Child's Emergency Department Visit, Plan, and Follow-Up. *Pediatric Emergency Care, 29*(6), 699-704. doi:10.1097/pec.0b013e3182955480
- Bloom B, Freeman G. (2015). Tables of Summary Health Statistics for U.S. Children: 2014 National Health Interview Survey. Available from: <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>.
- Centers for Disease Control and Prevention (2015). Flu and People with Asthma. Retrieved from <http://www.cdc.gov/flu/asthma/>
- Cooper, S. N., & Walton-Moss, B. (2013). Using Reminder/Recall Systems to Improve Influenza Immunization Rates in Children With Asthma. *Journal of Pediatric Health Care, 27*(5), 327-333. doi:10.1016/j.pedhc.2011.11.005
- Jordan, E. T., Bushar, J. A., Kendrick, J. S., Johnson, P., & Wang, J. (2015). Encouraging Influenza Vaccination Among Text4baby Pregnant Women and Mothers. *American Journal of Preventive Medicine, 49*(4), 563-572. doi:10.1016/j.amepre.2015.04.029

Contact
esloand1@jhu.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Assessing Nurse Learners' Stress Using Technology to Measure Physiologic Adaptation Within Interprofessional Patient Care Simulation

Jill Van Der Like, DNP, MSN, RNC, USA

Lela Hobby-Burns, DNP, MSN, APHN-BC, USA

Eric Greska, PhD, CSCS, CPT, USA

Abstract

Background: Recent public reports find that communication-based errors contribute to medical errors as the third leading cause of death in America (Fikes, 2016; Kaiser Health News, 2016). Safe, efficient reporting of patient information is perplexing, especially for newly graduated nursing staff. Communication skills cannot develop through memorization and knowledge, but, rather, through practice and experience during the education process (Goh, 2016). Interprofessional communication is pivotal for patient safety as nurses accumulate patient information and transfer the important facts to physicians, psychologists, pharmacists, dietitians, social workers, technicians and other key team members. The Simulation (SIM) laboratory provides a safe, realistic setting for learners to become familiar with accommodating their stress while practicing teamwork and communication skills.

Nurses frequently report job dissatisfaction related to the stressful work environment. Current turnover rates among nursing staff are approaching 15%, which has led to a focus on retention strategies (AACN, 2016). Newly graduated nurses especially feel overwhelmed about a lack of team support when building their practice competencies (AACN, 2016; IOM, 2011). Simulation Interprofessional education (SIM-IPE) practice during the undergraduate learning process builds confidence in team communication, knowledge, and skills (AACN, 2016; Ruebling et al., 2014). SIM-IPE is an effective teaching strategy that facilitates learning while building confidence and reducing anxiety. During SIM-IPE, learners from multiple disciplines role-play decision-making to communicate vital information among team members. These SIM-IPE learning experiences promote familiarity with the complex roles and responsibilities among the healthcare team. New graduates use these foundational team skills from their first day and on as a member of the healthcare team.

The autonomic nervous system (ANS) regulates vital involuntary functions of the body. The system is divided into sympathetic nervous system (i.e., heart rate acceleration, blood vessel constriction, increase in blood pressure) and the parasympathetic nervous system (i.e., slows the heart rate, increases intestinal and gland activity and relaxes sphincter muscles). Current technology can measure the ANS response and indicate stress adaptation.

Methods: The purpose of this descriptive longitudinal study is to examine nurse learners' biological stress adaptation during SIM-IPE experiences. These adaptation indicators were monitored 8 times as learners (n=57) progressed through their first semester, and 31 times the second semester as junior-year Bachelor of Science in Nursing (BSN) students.

During the simulation sessions, students were fitted with a Bioharness (Medtronic, Annapolis, MD) physiologic module to monitor heart rate variability (HRV). Post-processing of the HRV data utilized KubiosHRV software (version 2.2, Kuopio, Finland) to assess the frequency domains during simulation participation and peer-to-peer debriefing sessions. The high-frequency domain is relative to parasympathetic (vagus) response, whereas the low-frequency domain measures a combination of parasympathetic and sympathetic (i.e., parasympathetic when respiration is below 7 bpm, otherwise sympathetic).

Sample and Setting: In the United States, the setting is a School of Nursing in a Florida mid-sized public university. The University's Nursing and Exercise Science faculty collaborated on SIM-IPE design and data collection. The nurse faculty conducted the SIM-IPE laboratory experiences, while the Exercise Science faculty set up, monitored and analyzed the data collected. SIM-IPE learners were informed of the research study details, and signed a university-approved IRB consent before participating. A convenience

sample of junior-year nurse learners (n=57) was selected in a prelicensure Bachelor of Science in Nursing (BSN) program. The SIM-IPE experience occurred in the nursing school's SIM laboratory, debriefing room, and Home Hospice SIM room. Learners were assigned one (1) of three (3) roles primary nurse, secondary nurse, and resource nurse. The primary nurse leads the care decisions with secondary nurse assisting, while resource nurse communicates important patient information to the team. Each participant completed 5 SIM-IPE experiences over 2 semesters, and the roles were randomly rotated per student volunteers. The nurse instructor briefed the learners with a nurse report of important patient information prior to care.

Data Collection: During the SIM-IPE briefing, Exercise Science faculty fitted learners with a Zephyr BioHarness™3 sensor that was worn next to learners' skin beneath their uniform shirt. This technology senses and records the physiologic indicators of stress (i.e., heart rate, heart rate variability, respiration rate, and trunk inclination level). The Zephyr BioHarness™3 sensor continuously monitors the learner's activity throughout the SIM experience and instructor's debriefing period. Exercise Science faculty monitored and used a time-stamp marker to define the learner's stress indicators during simulated patient care and debriefing. Learners' roles were carefully identified and recorded so faculty could analyze the real-time changes in stress adaptation. The data is automatically recorded and stored into a password protected laptop, and backed up by a university lab password protected intranet.

Results: The Zephyr BioHarness™3 sensor measured physiological stress indicators during each SIM nurse role and debriefing. Data was analyzed collectively to determine when stress adaptation were more prevalent. Findings revealed that during the semester's initial SIM-IPE sessions, nurse learners demonstrated an increase in stress indicators while involved in patient care activities. However, over time and after five (5) SIMs, stress indicators were lower, indicating learners adapted to stress, and, perhaps more confident when performing the patient care activities (i.e., sensor data demonstrated an increase in high-frequency relative power, with an equivalent reduction in the low-frequency relative power from the beginning to the end of the semester). This change in heart rate variability frequency bands demonstrates a change in neural influence from sympathetic to more parasympathetic controls, thus indicating stress adaptation. Learners, as the semester progressed, appeared to adapt to stress during SIM patient care activities. However, during all the post-SIM debriefing peer-analysis sessions, throughout both semesters, learners' physiologic stress indicators remained high.

Analysis of these debriefing sessions finds these same learners displayed no changes in their frequency relative power, indicating that stress, brought on by peer-to-peer accountability, still remained high. Learners' stress levels remained high, unchanged, when explaining their patient care and decision-making.

Conclusion: Conclusion: The IOM (2011) states that interprofessional collaboration and coordination should be the norm for quality patient care. This study supports the SIM-IPE environment as a safe learning environment to reduce stress and promote teamwork. The SIM-IPE environment provides nurse learners practice to adapt to the stress of patient care, and perhaps indicates more confidence of their patient care skills and interactions. However, these same learners continue to have unchanged stress adaptation levels during the peer-to-peer debriefing session.

More research is needed on learners' stress adaptation during peer-to-peer debriefing. SIM-IPE should be integrated across the learning continuum, where learners build knowledge, skills and positive attitudes across practice settings and professions (IPEC, 2011).

References

American Association of Colleges of Nursing (2016). *AACN advances nursing's role in interprofessional education*. Retrieved from www.aacn.nche.edu/news/articles/2012/ipec_20160604141839828850269

American Association of Colleges of Nursing (2016). *Nursing Shortage*. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-shortage>.

Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing At the Institute of Medicine; Institute of Medicine 2011 future of nursing.

Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, At the Institute of Medicine; Institute of Medicine (2011). *The future of nursing*. Retrieved from <http://www.iom.edu/Reports/2010/The-future-of-Nursing-Leading-Change-Advancing-Health.aspx>

Fikes, B.J., (2016, May 3). *Medical errors 3rd leading cause of death, study finds*. Retrieved from www.sandiegouniontribune.com/news/2016/may/03/medical-errors-3rd-leading-cause-death/

Kaiser Health News (2016, May 4). *Researchers call for better tracking of medical errors as they climb to no. 3 cause of deaths*. Retrieved from khn.org/morning-breakout/researchers-call-for-better-tracking-of-medical-errors-as-they-climb-to-no-3-cause-of-deaths/

Fikes Interprofessional Education Collaborative Expert Panel. (2011). *Core competencies for interprofessional collaborative practice: Report of an expert panel*. Washington, D.C.: Interprofessional Education Collaborative.

Interprofessional Education Collaborative. (2016). *Core competencies for interprofessional collaborative practice: 2016 update*. Washington, DC: Interprofessional Education Collaborative.

Ruebling, I., Pole, D., Breitbach, A. P., Frager, A., Kettenbach, G., Westhus, N., Carlson, J. (2014). A comparison of student attitudes and perceptions before and after an introductory interprofessional education experience. *Journal of Interprofessional Care*, 28(1), 23-27. doi: 10.3109/13561820.2013.829421

Goh, Y., Selvarajan, S., Chng, M., Tan, C., & Yobas, P. (2016) Using standardized patients in enhancing undergraduate students' learning experience in mental health nursing. *Nurse Education Today*, 45, 167-172. doi: 10.1016/j.nedt.2016.08.005

Contact

jvanderlike@uwf.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Development of Smartrek a Theory Driven Mobile App to Prevent Alcohol Use Among College Students

Donna Kazemi, PhD, MSN, CNE, FIAAN, USA

Abstract

Background Hazardous alcohol consumption use and its related consequences is a foremost global public health issue facing individuals, families, and society contributing to significant morbidity among youth college students. More than one third of college students report engaging in heavy episodic drinking (4+/5+ drinks in a single sitting for females/males) at least once in the past two weeks, and 8% (females) to 20% (males) consume at least twice on a binge (i.e., 8+/10+ drinks) Alarming numbers of college students drink heavily, often in binges, bringing negative consequences such as blackout, rape, HIV-related sexual risk-taking, academic failure, suicide and violence The most recent survey conducted by the 2015 National College Health Association found that among the 34,208 students who responded, 63% reported drinking in the last 30 days. Alcohol is the most commonly used substance, with one out of three young adults reporting binge drinking Binge drinking is associated with substantial negative consequences including annual rates of 646,000 physical assaults, 97,000 sexual assaults, 599,000 unintentional injuries, and 1,825 deaths. Excessive alcohol use is one of the greatest societal medical burdens with an annual cost exceeding \$250 billion per year.

Today's college students are the first generation raised in a media environment; known as 'Net Generation', they have always had access to digital technologies In the United States, 91% of adults use a mobile phone with over 50% owning Smartphones. Those in "Generation Z" who have extensive access to digital technology view communication using this technology. Technologies such as mobile apps, text messaging and online chat increase receptivity to new information and verbalization in this age group. Mobile apps represent a novel growing market, and environment in which to disseminate health behavior change interventions. App features are delivered as individual components (e.g., text only) or in combination. New technologies, such as smartphones, offer more efficient delivery to college students, who access their phones multiple times a day.

Given the familiarity and comfort that students have with mobile phones and their willingness to adopt new trends, there are exciting opportunity to use mHealth to deliver interventions. One approach to reducing high-risk drinking is Motivational Intervention (MI), a person-centered approach to strengthening motivation for change. MI is an empirically supported, evidence-based intervention for students aged 18-25 that uses a directive but non-confrontational approach with personalized feedback to resolve ambivalence and reduce alcohol misuse and its harms. A growing body of research demonstrates the effectiveness of computerized MI deliveries. Computerized interventions simulate face-to-face interventions by giving personalized feedback on characteristics related to behavior change. In addition, web interventions that incorporate personalized feedback and harm reduction strategies have shown some promise with mandated college students and could be of use with students during the summer months. The widespread use of evidence-based Brief Motivational Interviewing (BMI) on campuses has been hindered by logistical issues and the financial costs of implementation. Interventions have been developed to reduce alcohol use among student that would be related in real-life, real-time situations. There is mounting evidence that mobile-based technology is a promising approach for reducing substance use and warrants further investigation.

Objective: The objectives of this current study were 1) to translate the motivational intervention to mobile delivery, 2) based on the translations to design and develop a smartphone (SP) application (or "app") to deliver a modified intervention through mobile phones and use electronic communications (e.g., text messaging) for interactions and 3) once development of the app was completed, we then tested the app by conducting theater testing and field testing to determine acceptability with the college population. Thus we designed an innovative app by refining the original MI to address drinking by college students and tested college students' responses to and acceptance of delivery of our adapted app.

We aim to develop a mobile app intervention based on motivational interviewing that will 1) development of a mobile intervention that would be applied in real-life, real-time environments to reduce hazardous drinking amongst college students. We developed a smartphone (SP) application (or “app”) to deliver a modified intervention through mobile phones and use electronic communications (e.g., text messaging) for interactions. 2) Once modifications are complete, we examined the feasibility of the intervention by conducting theater testing and field testing to determine acceptability with the college population.

Methods: Using components of intervention mapping as a guide we designed a Smartphone app by translating Motivational Intervention techniques conducted in three phases, 1) first in phase 1 we adapted the MI constructs for mobile delivery and developed preliminary app designs, 2) then based on the preliminary designs we developed the app and system server, and 3) finally in phase 3 we tested the app by conducting theater and field testing ($n=20$) to determine feasibility and acceptability among college students.

Results: The components of motivational interviewing (MI) and MI spirit were integrated into the SmarTrek features (e.g., engaging, focusing, evoking, planning, acceptance, compassion, and partnership). A suite of mobile features was developed based on ME and EMI constructs which enable effective change of the students drinking behaviors. The mobile app features that were developed within this framework included integrated tools of surveys and assessments, personalized feedback reports, real-time email communication (Coach), motivational text messaging, and educational games. SmarTrek average overall usability score was 5.97 out of 7 (SD=1.20, Cronbach's $\alpha=0.916$). Looking at the three sub-scales, the usefulness of the APP was measured using 4 items and the average score was 5.68 (SD=1.06, $\alpha=0.781$). Ease of use was measured using 15 items and the average score was 6.03 (SD=1.24, $\alpha=0.951$). The satisfactory was measured using 7 items and the average score was 6.02 (SD=1.20, $\alpha=0.648$). 90% of the participants would like to recommend the APP to friends; 50% of the participants agreed/strongly agree that they drank less while using the APP; 60% at least agreed on a positive effect of the APP; 80% of the participants would like to continue using the strategies learned and 40% participants thought they were motivated to reduce drinking while using the APP.

Conclusion: SmarTrek was developed and tested with multiple features to deliver BMI to college students with risky alcohol behaviors. The integration of theory into SmarTrek a mHealth self-monitoring app provides support for future research to feasibly assimilate theoretical constructs into existing hazardous drinking among college students. This important work would best be accomplished by a global multi-disciplinary collaboration to include nurses, health service providers, computer scientists, mathematicians, internet technical specialists, government/community services, and public citizens.

References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control: From cognition to behavior*. Berlin, Heidelberg, New York: Springer-Verlag. (pp. 11-39).
- Alberani, V., Pietrangeli, P.D., Mazza, A.M. (1990). The use of grey literature in health sciences: A preliminary survey. *Bulletin of the Medical Library Association*, 78(4), 358-363.
- Bakken, S., Jia, H., Chen, E. S., Choi, J., John, R. M., Lee, N.-J., . . . Currie, L. M. (2014). The effect of a mobile health decision support system on diagnosis and management of obesity, tobacco use, and depression in adults and children. *The Journal for Nurse Practitioners*, 10(10), 774-780. doi: <http://dx.doi.org/10.1016/j.nurpra.2014.07.017>.
- Bandura, A., (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, N.J.: Prentice-Hall.
- Ben-Zeev, D., Kaiser, S. M., & Krzos, I. (2014). Remote 'hovering' with individuals with psychotic disorders and substance use: Feasibility, engagement, and therapeutic alliance with a text-messaging mobile interventionist. *Journal of Dual Diagnosis*, 10(4), 197-203. doi:10.1080/15504263.2014.962336.
- Bernhardt, J., Usdan, S., Mays, D., Martin, R., Cremeens, J., & Arriola, K. (2009). Alcohol assessment among college students using wireless mobile technology. *Journal of Studies on Alcohol & Drugs*, 70(5), 771-775 5p.
- Bewick, B., Trusler, K., Barkham, M., Hill, A., Cahill, J., & Mulhern, B. (2008). The effectiveness of web-based interventions designed to decrease alcohol consumption--a systematic review. *Preventive Medicine*, 47(1), 17-26.
- Bingham, C., Barretto, A., Walton, M., Bryant, C., Shope, J., & Raghunathan, T. (2010). Efficacy of a Web-based, tailored, alcohol prevention/intervention program for college students: Initial findings. *Journal of American College Health*, 58(4), 349-356. doi:10.1080/07448480903501178.

Bock, B. C., Rosen, R. K., Barnett, N. P., Thind, H., Walaska, K., Foster, R., . . . Traficante, R. (2015). Translating behavioral interventions onto mHealth platforms: Developing text message interventions for smoking and alcohol. *JMIR Mhealth And Uhealth*, 3(1), e22-e22. doi: 10.2196/mhealth.3779.

Center for Behavioral Health Statistics and Quality (CBHSQ). (2015). *2014 National Survey on Drug Use and Health: Detailed Tables*. Substance Abuse and Mental Health Services Administration, Rockville, MD.

Christie, A., Dagfinrud, H., Dale, O., Schulz, T., & Hagen, K. B. (2014). Collection of patient-reported outcomes; Text messages on mobile phones provide valid scores and high response rates. *BMC Medical Research Methodology*, 14(1), 52-52 1p. doi:10.1186/1471-2288-14-52.

Cingel, D. P., & Sundar, S. S. (2012). Texting, techspeak, and tweens: The relationship between text messaging and English grammar skills. *New Media and Society*, 14(8), 1304-1320.

Cohn, A. M., Hunter-Reel, D., Hagman, B. T., & Mitchell, J. (2011). Promoting behavior change from alcohol use through mobile technology: The future of ecological momentary assessment. *Alcoholism: Clinical & Experimental Research*, 35(12), 2209-2215 7p. doi:10.1111/j.1530-0277.2011.01571.x

Cooray, C., Matusевичius, M., Wahlgren, N., & Ahmed, N. (2015). Mobile phone-based questionnaire for assessing 3 months modified rankin score after acute stroke: A pilot study. *Circulation: Cardiovascular Quality & Outcomes*, 8S125-S130 6p. doi:10.1161/CIRCOUTCOMES.115.002055.

Donoghue, K., Patton, R., Phillips, T., Deluca, P., & Drummond, C. (2014). The effectiveness of electronic screening and brief intervention for reducing levels of alcohol consumption: a systematic review and meta-analysis. *Journal of Medical Internet Research*, 16(6), e142-e142 1p. doi:10.2196/jmir.3193.

Elliott, J., Carey, K., & Bolles, J. (2008). Computer-based interventions for college drinking: A qualitative review. *Addictive Behaviors*, 33(8), 994-1005 12p.

Emanuel, R., Adams, J., Baker, K., Daufin, E.K., Ellington, C., Fitts, E., Himsel, J., Holladay, L., Okeowo, D. (2008). How college students spend their time communicating. *International Journal of Listening*, 22(1), 13–28.

Fjeldsoe, B., Marshall, A., & Miller, Y. (2009). Behavior change interventions delivered by mobile telephone short-message service. *American Journal Of Preventive Medicine*, 36(2), 165-173 9p. doi:10.1016/j.amepre.2008.09.040.

Gajecski, M., Berman, A. H., Sinadinovic, K., Rosendahl, I., & Andersson, C. (2014). Mobile phone brief intervention applications for risky alcohol use among university students: A randomized controlled study. *Addict Sci Clin Pract*, 9, 11-11. doi: 10.1186/1940-0640-9-11.

Geck, C. (2006). The Generation Z connection: Teaching information literacy to the newest net generation. *Teacher Librarian*, 33(3), 19-23.

Gerber, B., Stolley, M., Thompson, A., Sharp, L., & Fitzgibbon, M. (2009). Mobile phone text messaging to promote healthy behaviors and weight loss maintenance: A feasibility study. *Health Informatics Journal*, 15(1), 17-25 9p. doi:10.1177/1460458208099865.

Goodwin, G. P., & Johnson-Laird, P. N. (2013). The acquisition of Boolean concepts. *Trends in Cognitive Sciences*, 17(3), 128-133.

Gonzales, R., Ang, A., Murphy, D. A., Glik, D. C., & Anglin, M. D. (2014). Substance use recovery outcomes among a cohort of youth participating in a mobile-based texting aftercare pilot program. *Journal of Substance Abuse Treatment*, 47(1), 20-26. doi: <http://dx.doi.org/10.1016/j.jsat.2014.01.010>.

Gonzalez, V. M., & Dulin, P. L. (2015). Comparison of a smartphone app for alcohol use disorders with an Internet-based intervention plus bibliotherapy: A pilot study. *J Consult Clin Psychol*, 83(2), 335-345. doi: 10.1037/a0038620.

Hanley, M., Becker, M. (2008). Cell phone usage and advertising acceptance among college students: A four-year analysis. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication, Marriott Downtown, Chicago, IL Online <PDF>. 2011-05-14 retrieved from http://www.allacademic.com/meta/p272340_index.html.

Haug, S., Lucht, M. J., John, U., Meyer, C., & Schaub, M. P. (2015). A pilot study on the feasibility and acceptability of a text message-based aftercare treatment programme among alcohol outpatients. *Alcohol & Alcoholism*, 50(2), 188-194 7p. doi:alcalc/agu107.

Haug, S., Schaub, M. P., Venzin, V., Meyer, C., John, U., & Gmel, G. (2013). A pre-post study on the appropriateness and effectiveness of a Web- and text messaging-based intervention to reduce problem drinking in emerging adults. *Journal of Medical Internet Research*, 15(9), e196-e196. doi: 10.2196/jmir.2755.

Hester, R., & Miller, J. (2006). Computer-based tools for diagnosis and treatment of alcohol problems. *Alcohol Research & Health*, 29(1), 36-40 5p.

Kazemi, D. M., Cochran, A. R., Kelly, J. F., Cornelius, J. B., & Belk, C. (2014). Integrating mHealth mobile applications to reduce high risk drinking among underage students. *Health Education Journal*, 73(3), 262-273 12p. doi:10.1177/0017896912471044.

Kuntsche, E., & Robert, B. (2009). Short message service (SMS) technology in alcohol research--a feasibility study. *Alcohol & Alcoholism*, 44(4), 423-428 6p. doi:alcalc/agg033.

Landis J.R., Koch G.G. (1977). The measurement of observer agreement for categorical data. *Biometrics*,33(1),159-174.

Litvin, E. B., Abrantes, A. M., & Brown, R. A. (2013). Computer and mobile technology-based interventions for substance use disorders: An organizing framework. *Addictive Behaviors*, 38(3), 1747-1756. doi: <http://dx.doi.org/10.1016/j.addbeh.2012.09.003>.

Lucht, M. J., Hoffman, L., Haug, S., Meyer, C., Pussehl, D., Quellmalz, A., & ... Schomerus, G. (2014). A surveillance tool using mobile phone short message service to reduce alcohol consumption among alcohol-dependent patients. *Alcoholism: Clinical & Experimental Research*, 38(6), 1728-1736 9p. doi:10.1111/acer.12403.

Mason, M., Benotsch, E. G., Way, T., Kim, H., & Snipes, D. (2014). Text messaging to increase readiness to change alcohol use in college students. *J Prim Prev*, 35(1), 47-52. doi: 10.1007/s10935-013-0329-9.

Milward, J., Day, E., Wadsworth, E., Strang, J., & Lynskey, M. (2015). Mobile phone ownership, usage and readiness to use by patients in drug treatment. *Drug Alcohol Depend*, 146, 111-115. doi: 10.1016/j.drugalcdep.2014.11.001.

Moher D, Liberati A, Tetzlaff J, Altman DG. 2009. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *PLoS Medicine*;6(7):e1000097-e1000097.

National Center for Health Statistics (NCHS). (2014). *Morbidity and Mortality Weekly Report*. U.S. Department of Health and Human Services –Center for Disease Control (CDC), 64(37), 1042-1046. Retrieved from <http://www.cdc.gov/nchs/hs/previous.htm>.

National Institute on Drug Abuse (NIDA) (year?). *Prescription drugs and cold medicines*. Retrieved from <http://www.drugabuse.gov/drugs-abuse/prescription-drugs-cold-medicines>.

National Institute on Drug Abuse (NIDA). (2015) *DrugFacts:Marijuana*. Retrived from National Institutes of Health. Retrived from <http://www.drugabuse.gov/publications/drugfacts/marijuana>.

Pal, K., Eastwood, S. V., Michie, S., Farmer, A. J., Barnard, M. L., Peacock, R., . . . Murray, E. (2013). Computer-based diabetes self-management interventions for adults with type 2 diabetes mellitus. *Cochrane Database of Systematic Reviews*(3).

Patrick, K., Griswold, W., Raab, F., & Intille, S. (2008). Health and the mobile phone. *American Journal Of Preventive Medicine*, 35(2), 177-181 5p.

Pew Research Center (PRC). (2016). 15% of American adults have used online dating sites or mobile dating apps. *Numbers, Facts, and Trends Shaping the World*. Retrieved from www.pewresearch.org.

Quanbeck, A., Ming-Yuan, C., Isham, A., Johnson, R., & Gustafson, D. (2014). Mobile delivery of treatment for alcohol use disorders. *Alcohol Research: Current Reviews*, 36(1), 111-122 12p.

Riley, W., Obermayer, J., & Jean-Mary, J. (2008). Internet and mobile phone text messaging intervention for college smokers. *Journal of American College Health*, 57(2), 245-248 4p.

Rizvi, S. L., Dimeff, L. A., Skutch, J., Carroll, D., & Linehan, M. M. (2011). A pilot study of the DBT coach: An interactive mobile phone application for individuals with borderline personality disorder and substance use disorder. *Behavior Therapy*, 42(4), 589-600.

Sacks, J. J., Gonzales, K. R., Bouchery, E. E., Tomedi, L. E., & Brewer, R. D. (2015). 2010 national and state costs of excessive alcohol consumption. *American Journal of Preventive Medicine*, 49(5), e73-e79 1p. doi:10.1016/j.amepre.2015.05.031.

Savic, M., Best, D., Rodda, S., & Lubman, D. I. (2013). Exploring the focus and experiences of Smartphone applications for addiction recovery. *Journal of Addictive Diseases*, 32(3), 310-319 10p. doi:10.1080/10550887.2013.824331.

Shrier, L. A., Rhoads, A., Burke, P., Walls, C., & Blood, E. A. (2014). Real-time, contextual intervention using mobile technology to reduce marijuana use among youth: A pilot study. *Addict Behav*, 39(1), 173-180. doi: <http://dx.doi.org/10.1016/j.addbeh.2013.09.028>.

Shillington, A. M., Woodruff, S. I., Clapp, J. D., Reed, M. B., & Lemus, H. (2012). Self-reported age of onset and telescoping for cigarettes, alcohol, and marijuana: Across eight years of the National Longitudinal Survey of Youth. *Journal of Child & Adolescent Substance Abuse*, 21(4), 333-348 16p. doi:10.1080/1067828X.2012.710026.

Smith, A. (2013). *Pew Internet and Americann life project: Smartphone ownership 2013*. Retrived from http://pewinternet.org/media/Files/Reprots/2013/PDF_Smartphone_adoption_2-13_PDF.pdf.

Underwood, M. K., Rosen, L. H., More, D., Ehrenreich, S. E., & Gentsch, J. K. (2012). The BlackBerry project: Capturing the content of adolescents' text messaging. *Developmental Psychology*, 48(2), 295-302. doi: 10.1037/a0025914.

Walters, S., Hester, R., Chiauzzi, E., & Miller, E. (2005). Demon rum: high-tech solutions to an age-old problem. *Alcoholism: Clinical & Experimental Research*, 29(2), 270-277 8p.

White, A., Castle, I. P., Chen, C. M., Shirley, M., Roach, D., & Hingson, R. (2015). Converging patterns of alcohol use and related outcomes among females and males in the United States, 2002 to 2012. *Alcoholism: Clinical & Experimental Research*, 39(9), 1712-1726 15p. doi:10.1111/acer.12815.

Whittaker, R., McRobbie, H., Bullen, C., Borland, R., Rodgers, A., & Gu, Y. (2012). Mobile phone-based interventions for smoking cessation. *Cochrane Database of Systematic Reviews*(11).

Wieland, S. L., Falzon, L., Sciamanna, C. N., Trudeau, K. J., Brodney, S., Schwartz, J. E., & Davidson, K. W. (2012). Interactive computer-based interventions for weight loss or weight maintenance in overweight or obese people. *Cochrane Database of Systematic Reviews*(8).

Contact

dkazemi@uncc.edu

EBP PST 1 - Evidence-Based Practice Poster Session 1

Factors Associated With Development of Pressure Ulcers in Patients With Assist Device Tubes in ICUs

Li Chuan Chang, BSN, RN, Taiwan

Hui-Ju Chung, RN, Taiwan

Hui-Ting Kuo, MSN, RN, Taiwan

Abstract

Purpose of the study: Critically ill patients are a high risk group for pressure sores due to insufficiency of blood perfusion and oxygenation. Particularly, patients in the cardiovascular surgery department have a significantly higher incidence of pressure ulcers than those in other departments due to poor blood circulation in combination with physical constraints caused by assist device tubes. Patients with heart failure mainly need to be installed with the tubes of the following assist devices: intra-aortic balloon pump (IABP) and extracorporeal membrane oxygenation (ECMO) or ventricular assist device (VAD). Cardiac surgery ICUs provide care for patients after various major cardiac surgeries as well as IABP depending on the severity of the patient's conditions to reduce cardiac afterload and increase myocardial blood flow, or install ECMO for the patient's heart to recover and to gain time for treatment. Whether in the case of heart failure caused by sudden acute myocardial infarction, awaiting a heart transplant due to chronic heart failure, or acute heart failure following an open-heart surgery, ECMO and VAD can be used when IABP assist fails to bring about any improvement. Although both being machine-assisted circulation systems, IABP and ECMO differ in timing of use and effectiveness. Therefore, choices still depend on patient needs. Assist systems are relied upon to allow the patient's heart and lungs to rest and gain time to treat the patient's disease itself. The purpose of this study is therefore to investigate factors associated with development of grade 1-2 pressure ulcers in patients installed with assist device tubes in cardiovascular surgery ICUs.

Methods: This study was conducted using case analysis and review of medical records over the period between January 2012 and March 2016. The sample consisted of 139 patients who had experienced pressure ulcers in cardio surgery ICUs. An analysis table for causes of pressure ulcers was developed based on the proof from the literature. With the analysis table, 33 patients who were installed with the tubes of assist devices (IABP, ECMO and VAD) and developed pressure ulcers were selected for the investigation of factors associated with development of pressure ulcers in patients installed with assist device tubes and data analysis using SPSS.

Results: During the study, 33 of the 139 patients who had experienced pressure ulcers in cardiovascular surgery ICUs developed pressure ulcers due to installation of the tubes of assist devices (IABP, ECMO and VAD) required for their conditions, constituting an incidence of 23.74% (33/139). Factors associated with development of pressure ulcers in patients installed with assist device tubes include demographical variables, such as gender and age, surgical wounds, with males accounting for 84% and average age at 62, surgical wounds (90%). The analysis of associated factors reveals variables to be: cachexia (diabetes, kidney disease, anemia etc.) (75.7%), limb edema (81.8%), surgical wounds (90%), no and incorrect anti-pressure measures (33.3%). In the Braden Scale for Predicting Pressure Ulcer Risk, patients with pressure ulcers scoring equal to or greater than 16 account for 15.1%, those scoring 4 in sensory perception for 15.1%, and those with malnutrition for 48.4%.

Conclusions: This study shows that factors causing development of pressure ulcers in patients installed with assist device tubes are: cachexia, score of 4 in sensory perception, malnutrition, no and incorrect anti-pressure measures. Patients in cardiovascular surgery ICUs have a significantly higher incidence of pressure ulcers than those in other departments due to heart failure in combination with poor blood circulation, poor nutrition, pains from surgical wounds and physical constraints caused by the installation of assist device tubes on lower limbs or the chest. It is therefore suggested that further research should focus on enhancing education on preventive measures for pressure ulcers and knowledge of care associated with assist device tubes for medical staff and improving alertness in nursing staff for development of pressure ulcers in patients installed with assist device tubes to prevent this problem.

References

- Brindle, C. T., & Wegelin, J. A. (2012). Prophylactic dressing application to reduce pressure ulcer formation in cardiac surgery patients. *Journal of Wound, Ostomy, and Continence Nursing*, 39(2), 133–142. doi:10.1097/WON.0b013e318247cb82
- Association of Operating Room Nurses. (2013). *Recommended practices for positioning the patient in the perioperative practice setting*. Retrieved from <http://www.mediteksurgi cal.ca/wp-content/uploads/2013/02/AORN-Recommended Practices-for-Positioning-the-Patient-in-the-Perioperative Practice-Setting.pdf> National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. (2014). *Prevention and treatment of pressure ulcers: Quick reference guide*. Retrieved from <http://www.npuap.org/wp-content/uploads/2014/08/Updated-10-16-14-Quick-Reference-Guide-DIGITAL-NPUAP-EPUAPPPPIA-16Oct2014.pdf>
- Serpa, L. F., & Santos, V. L. C. G. (2014). Validity of the braden nutrition subscale in predicting pressure ulcer development. *Journal of Wound, Ostomy and Continence Nursing*, 41(5), 436–443. doi:10.1097/WON.0000000000000059

Contact

day4100@yahoo.com.tw

EBP PST 1 - Evidence-Based Practice Poster Session 1

Simulation Training for Obstetrical Emergencies: Improving Nurse's Clinical Skills During a Shoulder Dystocia

Katie SuAnn Caldwell, MSN, CNM, USA

Abstract

Introduction: Perinatal mortality and morbidity are a significant problem with the mortality rates attributed to antenatal and intrapartum complications. After reducing perinatal mortality and morbidity by way of good maternal health, obstetrical emergencies still can occur. To further decrease mortality and morbidity, health care professionals need to be properly trained to handle such emergencies.

Background and Significance: A pregnancy related maternal death has been defined as a death occurring during pregnancy or the year following the end of a pregnancy due to a pregnancy complication (CDC, 2014a). In 1987, there were 7.8 deaths per 100,000 live births, and in 2011 there were 17.8 deaths per 100,000 live births. Obstetrical emergencies identified as causing poor perinatal outcomes consist of shoulder dystocia, eclamptic seizures, postpartum hemorrhage, umbilical cord prolapse, and emergency cesarean section (CDC, 2014b).

According to the United Nations, approximately half of the mortality rate of children under five years old includes preterm birth complications and intrapartum-related complications (World Health Organization, 2016). Reducing intrapartum-related complications can be achieved by having adequately trained staff to handle the complications and evidence has shown that outcomes have improved by using simulation training programs of high and low technology (Cass, Crofts, & Draycott, 2011).

Review of Literature: From a global perspective, simulation is a common modality of training, which helps to train staff, and implement evidence-based practice (EBP) into perinatal care. The United Kingdom and Australia utilize the Practical Obstetric Multi-Professional Training (PROMPT) program using high technology simulators that mimic vital signs, fetal heart tones, uterine bleeding, etc., to simulate obstetrical emergencies ("Evidence based multi-professional training package for obstetric emergencies - Prompt Maternity," n.d.).

Cass et al. (2011) performed a meta-analysis, which described simulation training to teach necessary skills to handle shoulder dystocia, postpartum hemorrhage, eclampsia, and umbilical cord prolapse. The shoulder dystocia data showed that 42.9% of participants were able to successfully relieve the shoulder dystocia before the training session and 83.3% after the training session. In a systematic review by Meri n, van de Ven, Mol, Houterman, and Oei (2010), the effectiveness of multidisciplinary teamwork training in a simulation setting on adverse outcomes in obstetrical emergencies were shown to improvement of knowledge, practical skills, team performance and communication. Grobman et al. (2011) assessed outcomes that were associated with the implementation of a shoulder dystocia protocol/simulation that focused on team response, which resulted in a decrease in brachial plexus injuries from 10.1% to 4.0%.

Purpose of Project: The purpose of the EBP change project was to evaluate, educate, and demonstrate improvement of clinical skills necessary to handle shoulder dystocia emergencies. The project consisted of a pretest, posttest and simulation sessions for participants using information obtained from Gnosis OB by Advanced Practice Strategies (APS) educational platform (Advanced Practice Strategies, n.d.). The desired outcomes of the project is to show improvement in knowledge and clinical skills of participants regarding shoulder dystocia.

Methods: Project Description - The project consisted of a pretest and posttest using information obtained from Gnosis OB by Advanced Practice Strategies (APS) educational platform (Advanced Practice Strategies, n.d.). After the pre-test, a shoulder dystocia simulation was performed; followed by debriefing, an informational PowerPoint, second shoulder dystocia simulation, and finally a posttest. The

desired outcomes of the project were to show improvement in knowledge and clinical skills of participants regarding shoulder dystocia.

Participants and Setting - The individuals recruited for the EBP change project are Registered Nurses of all skill/experience level and level of education from the labor and delivery (L&D) unit at the clinical facility site. The facility where the EBP change project was implemented was a tertiary hospital located in Southwestern Pennsylvania. The hospital was the first to achieve Magnet Recognition status in southwestern Pennsylvania from the American Nurses Credentialing Center and Magnet re-designation.

Implementation Steps - The first step was the recruitment process, which consisted of flyers hung on the unit, emailed to nursing and posted on the unit Facebook page with instructions on how to sign up. There was a maximum of two participants per session and the date and time offerings were weekday, weekday evening and weekends to accommodate all schedules.

The second step was the distribution and collection of the pretest via Survey Monkey. The pretest was composed of five demographic questions and 24 questions based off content from APS Gnosis Shoulder Dystocia module content.

The third step was the shoulder dystocia simulation scenarios that took place at the Simulation, Teaching and Academic Research (STAR) Center. Noelle birth simulator was the manikin available at the simulation center to simulate shoulder dystocia. A background of the patient history and current hospital situation were given to the group and then the simulation began. The group was evaluated on competency using the shoulder dystocia simulation evaluation tool created by the project manager with guidance from the Creighton Competency Evaluation Instrument (CCEI). Once the scenario was completed, there was a debriefing session.

The fourth step was the debriefing session. During this time, the participants practiced different skills and roles that allowed for feedback from the project manager unlike during the simulation. After all questions, skills and roles were worked through; participants proceeded to the PowerPoint presentation that contains information from the APS Gnosis Shoulder Dystocia module. The risks factors for, appropriate maneuvers, the role of the nurse, documentation, patient inclusion in debriefing were reviewed. The debriefing session lasted about 30-45 minutes.

The fifth step was the exact same step as the third. A second shoulder dystocia scenario was performed and the groups were evaluated using the shoulder dystocia simulation evaluation tool. The repeat simulation also lasted about 15 minutes. The last step was the distribution and collection of the posttest via Survey Monkey.

Expected Outcomes - There were two outcomes measured in this EBP change project: knowledge and competency. The level of knowledge the nurses possessed in regards to shoulder dystocia was evaluated using the pre and posttest. The outcome of competency was based on the performance of clinical skills performed during a simulation experience using the simulation evaluation tool.

Data Analysis - In order to evaluate the chosen outcomes to see if they were effective, different data analysis techniques were utilized. In order to analyze whether there was an increase in shoulder dystocia knowledge there was a comparison between the pre and posttest scores. That was done by using a dependent t-test for paired samples with a p value < 0.05. The benchmark for test scores were 80% or better, which was, based on facility continuing education standards.

The second outcome of competency of nursing skills were analyzed using the simulation evaluation tool and a pre and post intervention instrument scoring comparison. The benchmark for the tool score was 75% or better on the post intervention instrument scoring as used by the creators of the CCEI instrument. There was also a dependent t-test for paired samples with the p value < 0.05 because the pre intervention score could meet the benchmark and an improvement or lack thereof needed to be demonstrated.

Results: The results, discussion, and summary of findings are pending following completion of the EBP simulation sessions and posttest completion. The data collection phase is still ongoing at this time.

Clinical Implications: The results of the EBP project can be used to better prepare and orient new labor and delivery nurses. The training can also be useful for seasoned nurses as shoulder dystocias are rare and the skills necessary are not utilized on a regular basis. The simulation trainings can become a part of an annual competency testing for the labor and delivery staff to stay sharp on those skills.

Future Projects: In the future, the EBP project can be expanded to include other disciplines. When a shoulder dystocia occurs, there is more than just nurses that are involved in the emergency. There are also attending physicians and midwives, residents from OB/GYN and anesthesia, and the NICU staff. In order to decrease adverse outcomes, increase patient safety, all members of the team need to practice for the unexpected.

Generalizability: The EBP project can be generalized to simulate and practice other obstetrical emergencies. Other emergencies that occur on labor and delivery are eclamptic seizures, cord prolapse, postpartum hemorrhage, and emergency cesarean section. Simulation training can improve the skills needed for all obstetrical emergencies, not just shoulder dystocia.

Conclusion: The obstetrical emergencies that occur are luckily a rare occurrence but that does not help to keep health care providers knowledge and skills up to date for when they do occur. Research has shown that for those incidences that do not occur on a regular basis, simulation training is effective in keeping skills and knowledge up to date and reduces adverse outcomes. The purpose of the EBP change project was to demonstrate that simulation training for shoulder dystocia could improve knowledge and competency in labor and delivery nurses. Those skills will be transitioned back real practice so that the nursing staff can be better equipped and knowledgeable when a shoulder dystocia arises.

References

- Advanced Practice Strategies. (n.d.). Gnosis OB. Retrieved from <http://www.aps-web.com/gnosis-ob-obstetrics>
- Cass, G. K. S., Crofts, J. F., & Draycott, T. J. (2011). The Use of Simulation to Teach Clinical Skills in Obstetrics. *Seminars in Perinatology*, 35, 68–73. <http://doi.org/10.1053/j.semperi.2011.01.005>
- Center for Disease Control. (2014a). Pregnancy Mortality Surveillance System - Maternal and Infant Health - Reproductive Health. Retrieved from <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/PMSS.html>
- Center for Disease Control. (2014b). Pregnancy-related Deaths - Maternal and Infant Health - Reproductive Health. Retrieved from <http://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-relatedmortality.htm>
- Evidence based multi-professional training package for obstetric emergencies - Prompt Maternity. (n.d.). Retrieved from <http://www.promptmaternity.org/>
- Grobman, W. A., Miller, D., Burke, C., Hornbogen, A., Tam, K., & Costello, R. (2011). Outcomes associated with introduction of a shoulder dystocia protocol. In *American Journal of Obstetrics and Gynecology* (Vol. 205, pp. 513–517). <http://doi.org/10.1016/j.ajog.2011.05.002>
- World Health Organization. (2016). Millennium Development Goals. Retrieved from <http://www.un.org/millenniumgoals/bkgd.shtml>

Contact

katiescaldwell@hotmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Establishing an American Heart Association International Training Center in Port-au-Prince, Haiti

Becky M. Baird, MS, RN-BC, CMSRN, CNE, USA

Ellen L. Palmer, PhD, RN, USA

Marie Jocelyne Arnoux, MS, RN, Haiti

Abstract

For more than fifteen years several nurse educators from the Dallas-Fort Worth, Texas area have participated in educational activities for health care promoters at Grace Children's Hospital (GCH). GCH was founded in 1967 and has been serving the lower Delmas area of Port-au-Prince since that time, providing outpatient care for both pediatric and adult patients as well as inpatient care for pediatrics. GCH is supported by International Child Care USA, which is a Christian health development organization that supports health programs in Haiti and the Dominican Republic. A collaborative effort began when the U.S.A. nurse educators first developed a trusting relationship with their colleagues at GCH upon realizing a shared vision. Collaborative tasks such as defining how the work gets done, mentoring, identifying what could be accomplished at GCH and following through with commitments has been key to the success of the activities. Through the years, the nurse leaders of GCH have become more and more proficient in many aspects of developing educational programs. These include all elements of activity planning, marketing, conducting learning needs assessments, evaluation of activities, and budget development to include expenses for AV equipment, handouts, electricity costs (in some situations), refreshments, lunches and translators.

In 2015, a simulation laboratory was established at GCH. Although the sim lab has started out modestly, it occupies a large dedicated space in the education division of the hospital. At this time, the director of nurses is responsible for the management of the simulation laboratory. Primarily funded by a grant from the United Methodist Women and anonymous donations, the simulation laboratory features several types of manikins. Resuscitation training is now possible with eight sets of infant, child and adult CPR manikins, and eight French language automatic external defibrillator trainers. Other manikins are used for core pediatric and adult in-hospital clinical skills training, insertion of pediatric IV catheters and the simulation of normal or complex birthing deliveries.

The simulation laboratory has been the site of several trainings thus far. In November 2015, the first course of Helping Babies Breathe (HBB) and Essential Care for Every Baby (ECEB) was taught to 12 traditional birth attendants with both mother and newborn responsibilities. Students were selected by senior nursing staff at GCH. Instructors for the course included two HBB/ECEB Master Trainers (volunteer pediatricians from the U.S.A.) and two pediatric residents trained in HBB and ECEB, assisted by several U.S.A. nurse educators. Course work was taught over a two day period. Tools to facilitate learning included a newborn resuscitation algorithm, learner workbooks, facilitator flip-charts, neonatal simulators and equipment. All written material was available in French. Knowledge checks (written exams) were conducted at the end of the course, which are standardized Helping Babies Survive course material. The second course conducted in February 2016 was a half-day review course and included hands-on practice sessions, and re-administration of the knowledge checks. Nine of the 12 students participated in the second course. The knowledge check exams were provided in both English and French and translators assisted with all teaching as well as assisting with hands-on skills.

Resuscitation training held in June 2016 at the simulation laboratory includes five classes focusing on the 2015 guidelines of the American Heart Association (AHA) for basic life support (BLS). The total number of students included 20 health care promoters and 17 lay persons. The classes were conducted by the U.S.A. nurse educators, one of whom is an AHA BLS instructor. The health care promoter students were nursing staff members of GCH and the Kings Organization Hospital and clinical instructors at several local Port-au-Prince nursing schools. The U.S.A. nurse educators returned in November 2016 to conduct BLS classes to 14 more health care promoters from the Port-au-Prince area. Introduction to electrocardiography classes were provided to the same audience during this time period.

The large death rate numbers from cardiovascular disease in low income countries such as Haiti is a concern. This is a global phenomenon, and in 2011, the United Nations addressed the issue by setting a target of reducing the risk of premature noncommunicable disease deaths by 25% by 2025. Known as the 25 by 25 target, this goal will focus on the reduction of risk factors for cardiovascular disease and the Global Cardiovascular Disease Taskforce will be the disseminator of information and approaches to reach the 2025 targets. With the increase in the numbers of persons with cardiovascular disease, the implication for nurse educators is to work with the AHA to provide the opportunity to teach lifesaving CPR training to both laypersons and health care promoters in low-income countries such as Haiti.

Resuscitation training is a highly requested educational activity for the Haitian health care promoters. However, there are no American Heart Association Training Centers in Port-au-Prince through which an AHA Instructor could request support for training. The process by which American Heart Association Instructors can conduct courses and issue AHA cards is in the country of incorporation. Permission to provide training may be obtained through the approval of the AHA's Global Training department. Approval is not automatic, and the application must have a letter of support from the Instructor's Training Center. Unfortunately, the Training Center in which one of the U.S. Instructors is aligned does not support training outside the Instructor's state.

Through a review of the Grace Children's Hospital simulation laboratory, staff and equipment, the decision has been made to participate in the American Heart Association's International Training Center (ITC) Selection Criteria and Accreditation Process. An ITC is an educational, health-related organization outside the United States that signs an agreement with the AHA to provide the AHA's Emergency Cardiovascular Care programs and issue AHA cards. There are many requirements to become an ITC including legal, administrative, general liability insurance, instructors, facilities, equipment, commitment, territory and number of people trained. The process of evaluation and approval of new International Training Centers takes several steps. There is the presentation of a letter of intent and application form, assessment process, information verification and preliminary approval. The application has to gain legal approval through the AHA International Operations department. Upon approval, the ITC will appoint a Training Center Coordinator, and will be responsible for submitting reports to the AHA twice a year. A quality assurance plan will need to be written as well.

References

- Singhal N., Lockyer, J., Fidler, H., Keenan, W., Little, G., Bucher, S., ...Niermeyer, S. (2011). Helping babies breathe: Global neonatal resuscitation program development and formative educational evaluation. *Resuscitation*, 1-7. doi:10.106/j.resuscitation.2011.07.010.
- American Heart Association (2016). *Emergency cardiovascular care programs. International training center selection criteria and accreditation process*. Dallas, TX: Author.
- Sacco, R. L., Roth, G. A., Reddy, S., Arnett, D. K., Bonita, R., Gaziano, T. A., ...Zoghbi, W. A., (2016). The heart of 25 by 25: achieving the goal of reducing global and regional premature deaths from cardiovascular diseases and stroke. *Circulation*, 133, e674-e690. doi: 10.1161/CIR.0000000000000395

Contact

becky.baird@uta.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Xiangya-UCLA HIV Nursing Research Training Program: A Global Health Collaboration Between the U.S. and China

Deborah Koniak-Griffin, EdD, RNC, FAAN, USA

Honghong Wang, PhD, RN, China

Xianhong Li, PhD, RN, China

Abstract

This paper describes an international collaboration between academic health institutions in the U.S. and China to promote knowledge exchange and research of post-doctoral degree nurses and mental health specialists (psychologists/psychiatrists) to advance research in the area of HIV/AIDS prevention and treatment and related nursing care. The partnership involves the University of California, Los Angeles, School of Nursing and the Xiangya School of Nursing of Central South University (CSU) and affiliating institutions in Hunan Province, China. Hunan is the 11th largest province of China, located in the southeast. The project is supported by a Fogarty Global Health Training (D43) National Institutes of Health grant that provides funding to foster the next generation of global health scientists in low- and middle-income countries and at established biomedical and health research sites in the U.S. The evidence-based success of Fogarty International educational programs is demonstrated by over 1,200 peer-reviewed publications in infectious and non-communicable disease areas by trainees (U.S. Department of Health and Human Services [DHHS], 2016).

The purpose of this collaborative international global health educational project is to 1) develop research expertise in a cadre of Chinese nurses and psychologists/psychiatrists who will conduct HIV/AIDS behavioral research, and 2) enhance the institutional capacity for behavioral HIV/AIDS research at Xiangya School of Nursing and affiliating health care institutions. The educational project responds to and extends ongoing HIV/AIDS collaborations that have demonstrated the need for additional postdoctoral training in order to conduct rigorous studies of emerging questions related to mental health and behavioral aspects of HIV/AIDS in China.

The rationale for the program is that while Xiangya/CSU has strengthened its doctoral studies program for nurses and psychologists, local expertise is limited regarding the behavioral research methods that are essential to rigorous studies of psychosocial and self-management issues of interest to nurse-researchers and mental health professionals. The specialized training provided in this project enhances the ability of trainees to conduct high quality research needed to prevent and treat HIV/AIDS as well as help people living with HIV (PLHIV) to self-manage their infections. The number of cases of HIV/AIDS continues to grow in China despite the remarkable progress made by that country in tackling their epidemic during the past 2 decades. By the end of 2013, it was estimated that the number of people living with AIDS in China was 810,000 (0.0598%), and new HIV infections remained at approximately 50,000 each year between 2007-2011, but increased to 80,000-100,000 each year in 2012-2014 (Huang et al., 2016). The Hunan Provincial Center for Disease Control had recorded 20,556 HIV/AIDS cases at the end of 2015, including 2,247 new cases in 2015 and 4,621 new cases in 2014 (C. Xi, personal communication, December 5, 2016). The longer survival of people living with HIV/AIDS as a result of effective antiretroviral therapy partially contributes to the increasing number of HIV infections, particularly in the aging population (Huang et al., 2016; see also OAR Working Group on HIV and Aging, 2012; Watkins & Treisman, 2015). The expanded epidemic among Chinese men who have sex with men (MSM) is another contributing factor (Zhou et al., 2014). Research shows that in some regions, 26%-31% of MSM have had female partners in the last 6 months (Yun et al., 2011; Zhang et al., 2013).

Major components of the program are designed to prepare trainees to address the AIDS epidemic in China and related factors. Components of the training program include:

1. Mentored long-term (9-month) postdoctoral research training in HIV behavioral studies for four nurses and four psychologists/psychiatrists at the University of California, Los Angeles. Each trainee develops an Individual Development Plan (IDP) that identifies coursework relevant to enhancing their knowledge and

skills in rigorous research design, ethical issues and protection of human subjects, the HIV/AIDS epidemic, and other areas relevant to their proposed research. In addition, trainees meet with their research mentorship team on a regular basis.

2. Part-time training in behavioral research methods, the HIV/AIDS epidemic, and related areas is provided in China for a cohort of 20 Chinese nurses and psychologists. This training, including biannual conferences and workshops, is designed to increase the ability of trainees to conceptualize and think through research problems with increasing independence.

3. Support is provided for mentored research projects conducted by the long-term trainees following their return to China from the U.S.

As part of this training program, a process for recruitment and selection of trainees was designed and implemented. Research support was allocated for trainees with mentored studies approved by the Institutional Review Boards of the partnering institutions. The program evaluation plan tracks the progress of trainees and outcomes related to their career development as well as the research capacity of participating Chinese institutions. Benchmarks used include the number of research projects conducted by trainees, peer-reviewed publications and professional presentations, successful applications for external funding, and courses taught and individuals mentored by trainees. The achievements of six scholars who have completed the training program are highlighted in this paper to illustrate outcomes of the training.

This project is significant because it is designed to substantially increase the number of young and mid-career nurse-scientists, psychologists, and others conducting research related to mental health and behavioral aspects of HIV/AIDS. The international collaboration design to enhance research training may be replicated by similar countries with maturing HIV epidemics.

References

- Department of Health and Human Services (2016, May 23). *Fogarty global health training program (D43), RFA-TW-16-002*. Retrieved from <http://grants.nih.gov/grants/guide/rfa-files/RFA-TW-16-002.html>
- Huang, M.-B., Ye, L., Liang, B.-Y., Ning, C.-Y., Roth, W. W., Jiang, J.-J. ...Bond, V. C. (2016). Characterizing the HIV/AIDS epidemic in the United States and China. *International Journal of Environmental Research and Public Health*, *13*, 30-38.
- OAR Working Group on HIV and Aging (2012). HIV and aging: State of knowledge and areas of critical need for research: A report to the NIH Office of AIDS Research by the HIV and Aging Working Group. [Supplemental material]. *Journal of Acquired Immune Deficiency Syndromes*, *60*, 1-18.
- Watkins, C. C. & Treisman, G. J. (2015). Cognitive impairment in patients with AIDS: Prevalence and severity. *HIV/AIDS - Research and Palliative Care*, *7*, 35-47.
- Yun, K., Xu, J. J., Reilly, K. H., Zhang, J., Jiang, Y. J., Wang N., & Shang H. (2011). Prevalence of bisexual behaviour among bridge population of men who have sex with men in China: A meta-analysis of observational studies. *Sexually Transmitted Infections*, *87*, 563-570.
- Zhang, L., Xiao, Y., Lu, R., Wu, G., Ding, X., & Qian, H. (2013). Predictors of HIV testing among men who have sex with men in a large Chinese city. *Journal of Sexually Transmitted Diseases*, *40*, 235-240.
- Zhou, Y., Li, D., Lu, D., Ruan, Y., Qi, X., & Gao, G. (2014). Prevalence of HIV and syphilis infection among men who have sex with men in China: A meta-analysis. *BioMed Research International*, 2014.

Contact

honghong_wang@hotmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Evaluation of PFDs by Vietnamese Commercial Fishermen in the Gulf of Mexico

Ann K. Carruth, DNS, RN, USA
Jeffrey Levin, MD, MSPH, USA
Jennifer M. Lincoln, PhD, CSP, USA
Julie Sorensen, PhD, MA, USA
Eileen Creel, DNS, RN, USA

Abstract

Purpose: From 2000-2009, 504 commercial fishing deaths occurred in the United States, 31% of which resulted from a person falling overboard and drowning (Lucas, Lincoln, Somervell, and Teske, 2012). Of the 504 commercial fishing deaths that occurred across the United States between 2000 and 2009, 116, or 23%, occurred in the Gulf of Mexico fishery (NIOSH, 2015). Similar to other countries, there is no requirement for U.S. commercial fishing crews to wear personal flotation devices (PFDs) while fishing (MAIB, 2016). Yet the leading cause of death among fishermen is drowning due to the loss of a vessel or a fall overboard. The majority of people that have died due to falls overboard were alone while on deck, and none of them had on a personal flotation device (PFD) (NIOSH, 2015). Vietnamese fishermen make up one-third of the licensed fishermen population working on the Gulf Coast. This study is part of a 3 phase NIOSH-funded study, with the long-term goal to develop and evaluate a social marketing campaign to increase PFD use. The purpose of this study is to determine which type of commercially available PFD results in the highest satisfaction and preferences among Vietnamese commercial fishing crews in the Gulf of Mexico. Attitudes/beliefs among Vietnamese shrimp fishermen of the Gulf of Mexico may influence behaviors that are risk factors for both fatal and nonfatal injuries.

Method: Project partners, USCG Safety Inspection Examiners, recruited subjects in three Louisiana fishing communities: 9 captains and 24 deckhands participated in this pre-post test repeated measures study. The captains and members of crews provided baseline data and were then asked to wear three different types of PFDs for a minimum of 3 hours while shrimp fishing in the Gulf. Once the crew returned to dockside, a follow-up survey was distributed. For each of the three types of PFDs: ski belt, inflatable belt, inflatable suspender, crew members were asked to evaluate 11 PFD attributes: weight, tightness, constricting motion, chaffing skin, bulkiness, snagging gear, comfort, how the PFD fit their body, interfering with work, donning and cleaning.

Results: Fishermen averaged 22 years of commercial fishing experience, and worked roughly eight months out of the year. At baseline, only 12% indicated wearing a PFDs frequently and none stated always. Yet 48% reported PFDs are effective if fall overboard. The PFD considered least constrictive of movement was the inflatable suspender (43.5%) compared to the inflatable belt (47.5%) and ski belt (28.3%). The inflatable suspender was rated to interfere the least with work compared to the other 2 types of PFDs. 54.2% ranked the suspender type as very comfortable to wear. When assessing the extent they would wear each type, 66.7 % reporting they would wear the inflatable suspender; 50% of the participants would wear the ski belt and 20.8 % would wear the inflatable belt most or all of the time. Respondents indicated they were willing to pay the most for the suspender type. Fishermen were most likely to wear PFDs if the captain told them to, working alone, working during bad weather, and working on or near the edge of the boat. Less than half of the respondents were influenced to wear any of the PFDs because other crew members wore PFDs.

Conclusions: Although the common barriers reported by fishermen to wearing PFDs are bulkiness and discomfort, some of the PFDs evaluated in this study received high scores for comfort and satisfaction. Given the availability of PFDs that are comfortable to wear while working, fishing vessel captains and owners should consider implementing policies mandating the use of PFDs while working on deck. The inflatable suspender PFD received high scores in terms of weight, comfort and fit. Other studies have found comfort to be one of the most important considerations for wearing various types of PFDs. Interventions to increase PFD use in the fishing industry should be tailored to focus on addressing the significant barriers to PFD use. The development of suitable and effective interventions requires

consideration of cultural influences influencing behavioral change. Additionally, captains are considered key to safety culture on the vessels. When deckhands respect the captain, they are more likely to do the work taking cues from the captain on safe work practices.

References

Lucas, D., Lincoln, J., Somervell, P, & Teske, T. (2012). Worker satisfaction with personal floatation devices (PFDs) in the fishing industry, *Applied Ergonomics*, 43, 747-752.

Marine Accident Investigation Branch (2016). Life jackets: A review. www.gov.uk/maib. Accessed December 7, 2016.

National Institute for Occupational Safety and Health (NIOSH). Commercial Fishing Safety: Falls Overboard. In *Workplace Safety and Health Topics* (2015). Retrieved from

<http://www.cdc.gov/niosh/topics/fishing/fallsoverboard.html>. Accessed on 07 December 2016.

Contact

acarruth@selu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Facilitation on the Run: Enabling Work-Based Facilitation in the Midst of Practice

Michele Hardiman, MA, RGN, RPN, United Kingdom

Abstract

The vision of person-centred cultures is core to all policy and standards in healthcare in Ireland (Health Information and Quality Authority, 2012) and globally (World Health Organisation, 2016) implementing these strategies and standards require focused development of staff who deliver care in our health services (Department of Health and Children, 2010). In the acute hospital setting in Ireland this staff development has largely been technical in its approach to date. Evidence suggests that for person centred cultures to emerge, purposeful Practice Development (PD) needs to be facilitated within the workplace (McCormack et al, 2010). The role of clinical nursing leaders is pivotal in developing and sustaining of the person-centred cultures and is therefore a key element of all PD activity (McCormack et al, 2010). If PD is to become more meaningful to nursing leaders as part of their daily work, more focus must be placed on making the development and 'doing' of facilitation easier. Although complex facilitation frameworks such as Critical Companionship (Titchen, 2002) remain an exemplar in the development of expert facilitation skills, use of this particular framework has been minimal due largely to its complexity (Gribben and Cochrane, 2006; Dewing and Wright, 2004).

Two sequential facilitation models Critical Allies and Critical Friends emerge as first steps in the development of work based facilitation skills for novice and proficient facilitators. Thereby enabling nurses to work with colleagues' to help them to learn in and from work, grow their expertise and contribute to developing person-centredness in the workplace.

During the process, Facilitation on the Run (FoR) cards were used to focus conversations and quickly create reflective spaces within the work place. The 28 pack of cards, depict the breakdown of the critical allies and Critical Friends Frameworks unpicking the elements into three sections in each framework (1) prerequisite for facilitative relationships to begin (2) strategies (3) Expected Outcomes. The cards subsequently served as an everyday tool to remind novice and proficient facilitators of the steps that they should be working through to facilitate the learning of colleagues. The FoR cards became an invaluable resource as part of the associated doctoral research study which used insider researcher approaches to work with clinical nursing leaders within their own workplace.

It also makes a contribution to the methods for achieving communicative spaces and discourse in busy workplaces and proposes that facilitation is not stationary space.

References

- McCormack, B., & McCance, T. (2016). *Person-Centred Practice in Nursing and Health Care: Theory and Practice*. John Wiley & Sons. Oxford
- Hardiman, M. and Dewing, J. 2014. Critical Ally and Critical Friend: stepping stones to facilitating practice development. *International Practice Development Journal*, 4 (1) 05.

Contact

mhardiman@gmu.ac.uk

EBP PST 2 - Evidence-Based Practice Poster Session 2

Muslim Patients and Carers Satisfaction on the Hospital Hygienic Practices in Meeting Their Spiritual Needs

Munikumar Ramasamy Venkatasalu, PhD, RMN, RN, RNT, Brunei Darussalam

Abstract

Introduction Spiritual needs often associated with diverse rituals relevant to religious affiliation of the individuals, for example Muslims are allowed to perform prayers after with strict personal hygiene. Yet, little is known on how well current hygienic practices would support in meeting spiritual and religious needs of patients with limited mobility during hospitalization.

Aim To explore views of patients with limited mobility and their family carers on the current personal hygienic practices in meeting their religious obligations during their hospitalization.

Design A 19 item self-developed questionnaire survey were administered to adult patients who were undergoing an outpatient rehabilitation programme and their carers in one of the hospitals in Brunei Darussalam, a small Muslim monarchical South East Asian country. Quantitative data were analysed descriptively with R software (version 3.3). Participants' opinions were analysed using a descriptive qualitative approach.

Result 69% of patients had used soaked cotton or wet wipes to meet their personal hygiene needs. 78% of the patients were satisfied with their care of personal hygiene when hospitalized. Qualitative data indicated that this satisfaction had resulted from the use of 'high quality' tissue that was able to hold more water when soaked in comparison to normal cotton. 55% of patients did not carry out their religious obligation, while 46% of the patients agree that they faced difficulties in meeting their spiritual needs because of the hygienic care provided did not meet their satisfaction. Patients stated that they preferred the use of sufficient flow water that resembles common cultural practice when meeting their personal hygiene needs.

Conclusion We conclude that current hospital hygienic practices were not effectively meeting patients' personal hygiene is one of the requirement for them to perform Islamic ritual prayers in meeting their psycho-spiritual needs and wellbeing. Innovative medical equipment needs to be developed to achieve patients' satisfaction in hygienic practice.

References

- Ahmadi, Z., Darabzeh, F., Nasiri, M. & Askari, M. (2015). The Effects of Spirituality and Religiosity on Well-Being of People With Cancer: A Literature Review on Current Evidences. *Jundishapur Journal of Chronic Disease Care*, 4(2): e28386
- Nabolsi, M. M. & Carson, A. M. (2011). Spirituality, illness and personal responsibility: the experience of Jordanian Muslim men with coronary artery disease. *Scandinavian Journal of Caring Sciences*, 25: 716-724

Contact

kumar.venkatasalu@ubd.edu.bn

EBP PST 2 - Evidence-Based Practice Poster Session 2

Developing a Culturally Tailored Social Risk Assessment Tool for Depression Among Hispanic Women

Giovanna De Oliveira, PhD, ARNP, ANP-C, PMHNP-BC, USA

Abstract

Purpose: Depression is the number one cause of disability in the world, affecting over 350 million people. In the United States, Hispanic women experience depression around twice the rate of Hispanic males and are at a higher risk for depression than Caucasian and African American women due to multiple social determinants of health that affect the individual, family, aggregates, and community. The social determinants of health refer to conditions in which people are born, live, grow, work, and age. Mental health in the U.S. is affected by disparities among ethnic/racial groups. Barriers to assessment in the Hispanic populations subsequently lead to poor care for mental health illnesses. This is evident in the vast research on depression in Hispanics, which suggests that in the U.S., depression in this group is underdiagnosed and undertreated. The underdiagnosis is in part due to an inadequate screening or assessment of the social factors that are linked to depression among Hispanics, such as level of education (which leads to poor health literacy), acculturation level (adaptation process to a new culture), immigration-related issues (family separation), etc. Based on an extensive literature reviewed, a culturally tailored risk assessment tool that highlights the social determinants of depression in Hispanic women is nonexistent. This tool could be used in conjunction with other screening tools, such as the Patient Health Questionnaire-9 (PHQ-9) in settings where Hispanic women of reproductive age are seen.

Methods: This study is a secondary analysis study that uses cross-sectional data from SEPA III: The Effectiveness Trial. SEPA stands for Salud, Educacion, Prevencion y Autocuidado, which translates to Health, Education, Prevention, and Self-Care. SEPA III, the parent study, is a randomized controlled experimental study with adult Hispanic women in Miami-Dade County, Florida, U.S.A. The sample of this study was $n = 280$ self-identified Hispanic women who completed baseline assessments from May 2013 to October 31, 2014. Descriptive statistics will be presented to show the characteristics of the study sample. Then, CFA models using Mplus (version 7.0) will be presented.

Results: Multiple models were analyzed. The prevalence of depression among the sample was 37.5% (mild to severe depression). Social determinants were subdivided as (a) intrapersonal factors (income, education, acculturation, health status, health insurance status, and employment status); and (b) interpersonal factors (relationship status, living with partner, and living with children). The final model, containing CFA and path analysis for both intra- and interpersonal level factors of the social determinants of depression, revealed that, even though the variables income, education, and employment status loaded significantly onto the latent intrapersonal factors, the latent variable did not significantly predict depression. A CFA was no longer possible to test the latent variable "interpersonal factors" due to being left with two variables after further analysis.

Conclusion: Findings of this study point out several important aspects about depression and social determinants among Hispanic women living in South Florida. Based on an extensive literature reviewed, a culturally tailored risk assessment tool that highlights the social determinants of depression in Hispanic women is nonexistent. The American Psychiatric Association (APA) clearly highlights the crucial importance of cultural issues for proper clinical practice in its DSM-V. Concepts such as cultural syndromes, cultural idioms of distress, and cultural explanation or perceived causes need to be taken into account during clinical encounters, as they assist in accepting or rejecting a specific diagnosis. Having taken this into consideration, this study will serve as a starting point to the development of such a screening tool, which could serve as a filter to help identify Hispanic women who may be prone to depression. In order to develop a comprehensive tool, many other possible social determinants of depression need to be explored, such as: *familismo*, *marianismo*, *machismo*, discrimination, separation from family, and family and partner conflict. Moreover, this tool would also need to be piloted, and checked for acceptance and feasibility. This study certainly informs and adds to the existent knowledge in

order to effectively intervene and implement health care practices to reduce health disparities related to depression.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.

Ertel, K. A., Rich-Edwards, J. W., & Koenen, K. C. (2011). Maternal depression in the United States: Nationally representative rates and risks. *Journal of Women's Health, 20*(11), 1609-1617. doi:10.1089/jwh.2010.2657

March, D., Luchsinger, J. A., Teresi, J. A., Eimicke, J. P., Findley, S. E., Carrasquillo, O., & Palmas, W. (2014). High rates of depressive symptoms in low-income urban Hispanics of Caribbean origin with poorly controlled diabetes: Correlates and risk factors. *Journal of Health Care for the Poor and Underserved, 25*(1), 321-331. doi:10.1353/hpu.2014.0027

Contact

g.deoliveira@umiami.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Effectiveness of Cultural Competence Educational Intervention on Patient and Health Professional Outcomes: A Systematic Review

Duckhee Chae, PhD, RN, Korea, Republic of (South)
Jin-Hee Kim, PhD, RN, Korea, Republic of (South)
Jin-A Lee, MSN, RN, Korea, Republic of (South)
Seo-Jin Park, MSN, RN, Korea, Republic of (South)

Abstract

Purpose: The primary aim of this systematic review was to assess the effectiveness of cultural competence educational interventions for health professionals working in health settings on patient outcomes and health professional outcomes. Also it was conducted to identify an effective way to educate health professionals.

Methods: We performed electronic searches in three international databases (Ovid-Medline, Ovid-Embase, Cochrane Library) and six Korean databases (KoreaMed, KMBase, KISS, RISS, NDSL, and KisTi) for original articles published in either English or Korean in July 2016. We included randomized controlled trials (RCTs) and quasi-experimental design studies. Studies that had reported cultural competence educational intervention for health professionals and measured impact on patient or health professional outcomes were included. Cochrane Risk of Bias (RoB) was utilized to evaluate the quality of the studies. Two groups (two authors in each group) independently screened all articles and extracted the data. The qualitative analysis was conducted due to the heterogeneity of the study caused by the diversity of participants (doctor, nurse, nursing assistant, social worker, patients, etc.), training programs, and training periods.

Results: Initial search identified 1,792 potentially relevant studies and only nine (health professional = 778, patient = 7,991) met the inclusion criteria. Six out of nine studies were RCTs and three were quasi-experimental design studies. And seven were from USA and two were Korea. All reported health professional outcomes and two reported patient and health professional outcomes. Seven studies reported the effectiveness of education on health professional outcomes. It also proved to have benefits on patient outcomes. However, teaching methods and the duration of training included in these studies were diverse. The risk of bias was high.

Conclusion: Cultural competence training of health professionals has been proven as beneficial to improve both health professional and patient outcomes. However, it is undeniable that there is a considerable lack of research assessing whether increased health professionals' cultural competence improved patient outcomes. Also, since previous studies used differentiating teaching methods, it is seemed as difficult to determine the most effective way of training. Therefore further research in this field is considered necessary.

References

- Gallagher, R. W., & Polanin, J. R. (2015). A meta-analysis of educational interventions designed to enhance cultural competence in professional nurses and nursing students. *Nurse education today, 35*(2), 333-340.
- Renzaho, A., Romios, P., Crock, C., & Sønderlund, A. (2013). The effectiveness of cultural competence programs in ethnic minority patient-centered health care—a systematic review of the literature. *International Journal for Quality in Health Care, 25*(3), 261-269.
- Truong, M., Paradies, Y., & Priest, N. (2014). Interventions to improve cultural competency in healthcare: a systematic review of reviews. *BMC health services research, 14*(1), 1.

Contact

dheechae@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Growing in Recovery: A Service Learning Case Study

Amanda Eymard, DNS, APRN, PMHNP-BC, CNE, USA

Heidi Rodrigue, BSN, RN, USA

Abstract

This qualitative case study utilized heuristic phenomenology to explore the potential impact of initiating a garden at a halfway house. For the service learning project, a garden was developed by nursing students in collaboration with clients at the facility. A grant from Sigma Theta Tau funded the project. During this project, one client emerged as the primary caretaker of the garden. This male client, undergoing rehabilitation for drug abuse, became the subject of the case study. A senior nursing student mentored by a faculty member conducted the case study. Over a period of five months, the subject was interviewed extensively during several different encounters to gain an understanding of his lived experience regarding drug abuse, rehabilitation, and the garden. The interviews were transcribed, and then line by line analysis was performed by the nursing student and faculty mentor. This opportunity was the student's first exposure to nursing research and allowed the student to participate in an actual research study. Coding was implemented to identify five themes: new beginning, growth, bumps in the road, hard work, and fruits of labor. Over the course of the case study, the student discovered correlations and illustrates these with a five month timeline. While the garden benefitted the halfway house by providing vegetables for the clients to eat, the experience also impacted the nursing student. The nursing student was able to establish a rapport with the client and over time, better understood addiction and the treatment of addiction. Nursing students need to engage in positive experiences with patients struggling with addiction so they can better relate to the clients and reduce the stigma associated with drug addiction. In conclusion, the subject, the nursing student, and the garden grew and flourished as a result of the service learning project involving a few plants, water, and much hard work and dedication.

References

- Eymard, A., Breaux, P., & Dozar, K. (2012). Transformative learning in nursing students through a service learning project with a vulnerable community. *Journal of Nursing Education and Practice*, 3, 35-43.
- Kaiser, S., Prendergast, K., & Ruter, T. (2008). Nutritional links to substance abuse recovery. *Journal of Addictions Nursing*, 19, 125-129.
- Kvale, S. (2008). *Doing interviews*. Thousand Oaks, CA: Sage Publications.
- Mark, M. (2008). Sewing seeds of recovery. *Mental Health Today*, 2, 1-2.
- Silverman, D. (2006). *Interpreting qualitative data*. Thousand Oaks, CA: Sage Publications.
- Willis, J. (2007). *Foundations of qualitative research: Interpretive and critical approaches*. Thousand Oaks, CA: Sage Publications.

Contact

amanda.eymard@nicholls.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Cultivating a Culture of Resilience

Joyce J. Fitzpatrick, PhD, RN, FAAN, USA
Deirdre O'Flaherty, DNP, RN, NE-BC, APRN-BC, ONC, USA
Mary Joy Garcia-Dia, DNP, RN, USA

Abstract

Resilience is a concept that has been applied to research and practice in nearly every possible area of life and academia- from science to sociology, psychology, nursing and medicine. Given the high degree of stress in today's society, nursing has become a focus for studies and interventions that foster resilience in the workplace. Investigators such as Jackson, Firthko, and Edenborough (2007) McDermid (2016) and others have taken the approach that resilience can be learned or developed once the characteristics that exemplify resilience are identified. Active participation of nurses through mentorship workshops for critical thinking and building hardiness aids in the development and strengthening of personal resilience (Jackson et al 2007 and Hart et al 2012).

Nursing management can facilitate resilience in the workplace through strategies that create work- life balance, assist in critical reflection to problem solve and build resolutions to help guide in future situations, and use a shared or professional governance as a nursing care model (Garcia-Dia & O'Flaherty, 2016). Nurse leaders that empower and encourage their staff to develop supportive relationships, provide a positive and optimistic work environment and communicate the importance of quality of life for their team members will also see the benefit of work force retention or decreased staff turnover. This is a key factor in maintaining and staying compliant with the increasing demand to strive for quality and decrease associated turnover and recruitment cost.

Now more than ever, with recent traumatic events associated with gun violence, and terrorism nurses are in the frontline taking care of victims and families, and at the same time dealing with their own personal vulnerabilities. This proposed presentation would explore mobile app interventions that promote mindfulness and healthy engagement in conjunction with debriefing and journaling activities in order to cultivate nurses' own resilience in the workplace. Additionally this presentation will facilitate methods for assessing one's own resilience and methods to cope positively, personally and professionally.

By the end of this presentation the participants will be able to identify leadership strategies and initiatives that lead to developing resilience in nursing staff. Additionally participants will be able to identify the significance of the leaders role in sustaining a work environment that fosters staff engagement, satisfaction, quality and retention.

References

Garcia-Dia, M.J O'Flaherty, D., Nursing Concept Analysis *Applications to Research and Practice, Resilience a Concept Analysis*

p. 251-268, Springer Publishing Company April 2016

Garcia-Dia, M.J., DiNapoli, J.M, Garcia-Ona, L., Jakubowski, R., O'Flaherty, D. (2013). Concept Analysis: Resilience *Archives of Psychiatric Nursing*. 27, 264-270.

Purdy N, Laschinger H.K., Finegan J. Kerr, M. & Olivera F. Effects of work environments on nurse and patient outcomes. *Journal of Nursing Management*. 2010; 18: 901-913

Jackson, D. & Daly, J. (2011). All things to all people: Adversity and resilience in leadership. *Nurse Leader*, 9(3), 21,22, 30.

Jackson, D., Firthko, A., & Edenborough, M. (2007). Personal resilience as a strategy for surviving and thriving in the face of workplace adversity: A literature review. *Journal of Advanced Nursing*, 60, 1-9.

Contact

doflaherty1@northwell.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

De-Stigmatization of Mental Illness and Addiction Requires Increased Content in Undergraduate Nursing Curricula Globally

Arlene E. Kent-Wilkinson, PhD, RN, CPMHN(C), Canada
Leigh Blaney, PhD, RN, CPMHN(C), Canada
Marlee Groening, MSN, RN, Canada
Elaine E. Santa Mina, PhD, RN, Canada
Carmen Rodrigue, MScN, RN, CPMHN(C), Canada
Carmen Hust, PhD, MScN, RN, Canada

Abstract

Problem: In 2017, stigma towards persons with mental health conditions and addiction still occurs around the world, unconfined by demographics or national boundaries. Societal stigma towards persons with mental health conditions and addiction remains an overwhelming barrier to safe, comprehensive mental health assessment and care. **Issue of project:** Canadian undergraduate nursing curricula contains limited mental health and addiction content in some nursing education programs. Furthermore, nurse educators may perpetuate societal stigma if their programs do not expose students enough to persons and families experiencing mental health conditions and addictions. **Brief description/ Background:** Mental health conditions and addictions persist as serious health concerns that affect the lives of 20% of Canadians. Attempts by patients to access mental health and addiction services continue to be met with widespread stigma in hospitals, workplaces, and schools, and in both rural and urban communities. Tragically, persons who seek help for mental health conditions report that they often experience some of the most deeply felt stigma from front-line health care personnel. For this reason, health care providers remain one of the target groups of anti-stigma initiatives. Negative beliefs and attitudes exist among health care providers (including nurses) towards persons with mental health challenges and mental illnesses. Nursing students, like all members of society, are not immune to societal perceptions and discrimination towards people with mental health and addiction challenges. **Solutions/De-stigmatization through evidence-informed education:** Reducing stigma in society requires education, and a change in behaviour and attitudes so that people living with mental illnesses can be assured of acceptance, respect, and equitable treatment. The most effective response to increase knowledge and decrease stigma is to ensure evidence-informed education of future nurses through a significant increase of psychiatric mental health and addictions theory and practice in undergraduate nursing curricula. **Relevance:** The author(s) will overview the national stigma campaigns and the role and responsibility of nursing and nursing education in the de-stigmatization of mental illness and addiction. The quality and quantity of mental health and addiction education in undergraduate nursing curricula is critical to de-stigmatization, and to the visibility and advancement of the overall mental health of people globally. **Application to other settings:** Because nursing professionals constitute a strong and influential stakeholder group that can change both mental health care and social attitudes, pre-practice mental health educational programs would benefit nurses, and communities in which they practice.

References

Kent-Wilkinson, A., Blaney, L., Groening, M., Santa Mina, E., Rodrigue, C., & Hust, C. (2016). *CFMHN's 3rd position paper 2016: Mental health and addiction curriculum in undergraduate nursing education in Canada*. Prepared by members of the Canadian Federation of Mental Health Nurses' Education Committee. Toronto, ON: CFMHN. Retrieved from <http://www.cfmhn.ca/positionpapers>

Mental Health Commission of Canada. (2012). *Changing directions, changing lives: The mental health strategy for Canada*. Calgary, AB: Author. Retrieved from <http://strategy.mentalhealthcommission.ca/pdf/strategy-text-en.pdf>

Mental Health Commission of Canada. (2013). *Issue: Stigma*. Calgary, AB: Author. Retrieved from <http://www.mentalhealthcommission.ca/English/issues/stigma>

Contact

arlene.kent@usask.ca

EBP PST 2 - Evidence-Based Practice Poster Session 2

Changing the Delivery Landscape of Native American Health

Jennifer L. Allis Vazquez, MSN, RN, CPTC, USA

Abstract

Native American populations are plagued with health disparities. The Pine Ridge Reservation, situated in the southwest corner of South Dakota, is noted to be one of the poorest counties in the country. Statistics about the health of Pine Ridge residents provided by The American Indian Humanitarian Foundation ("AIHF") indicate that 97% of residents living on the Reservation live below the poverty line with an average household per capita income of less than \$6,000. There is an 85% or higher unemployment rate (AIHF, 2015). The average life expectancy on the reservation is between 45 and 48 years of age. Health statistics reported by AIHF include diabetes rates of 800 times the national average, infant mortality 300%-500% higher than the national average, teen suicide 150% higher than the national average, and tuberculosis at 800% higher than the national average.

The Pine Ridge Reservation is a large Native American Reservation in South Dakota. Geographically, the Reservation covers almost 3,500 square miles, making the Reservation close in size to the State of Connecticut. The population of Pine Ridge Reservation is reported at approximately 40,000 people (Friends of Pine Ridge, 2015). Healthcare on the Reservation is provided primarily by Indian Health Services ("IHS") and facilities include Pine Ridge Hospital, Kyle Health Clinic, Wanblee Health Clinic and smaller sites at Porcupine, Allen and Manderson (IHS, 2015). Fieldwork was completed at Wanblee Health Clinic in Wanblee, South Dakota. This clinic is staffed by a physician, advanced practice nurse, pharmacist, nurse and part time radiology staff and treats both pediatric and adult patients. The Wanblee Clinic offers care of patients, as well as pharmacy, radiology (two days per week) and dental services. The clinic is limited in services that it can offer. Regular physicals, sick visits, and follow up care can easily be provided. Radiology is only available twice per week, so patients are often transferred to another facility for urgent needs. No orthopedic or surgical services are offered. Pine Ridge Hospital is a 90 minute drive from the Wanblee Clinic. Pine Ridge Hospital is a 45 bed hospital. More complex needs will be referred to the hospital in Rapid City, South Dakota, which is off the Reservation, about two hours away. Ambulance service is also limited and may take several hours for an ambulance to arrive.

This DNP fieldwork project was made possible through collaboration with a group of health professionals from a large health system. Achieving buy in from the group to allow an individual that was not part of the health system took years. Initial planning and networking with this group began in early 2010. Travel was originally supposed to take place in 2014, but due to a change in workplace, the travel was not possible at that time and was deferred to August 2015. Personal goals for the fieldwork included travel to South Dakota, observation of life and healthcare on the Reservation and to identify how skills and resources could be devoted to improving the care of the residents of the Reservation. Significant time was spent on planning of the trip, travel to South Dakota, background checks and fingerprinting, and cultural orientation. Once in South Dakota, further cultural orientation was completed and computer training on the electronic medical record ("EMR") was completed with IHS staff at the Pine Ridge Hospital. After these initial requirements were met, work in the clinic could begin.

Fieldwork at the clinic included direct patient care, observation and discussion with clinic staff and Native American patients. Knowledge that was brought to this experience included cardiothoracic patient care, emergency room care, and case management. Patients of the clinic can make appointments to be seen or can show up and request to be seen. There is no triage system in place, making prioritization of patients and protection of staff difficult. Many patients travel long distances to be seen at the clinic. Patients are seen for everything from well visits/physical exams, follow up for chronic conditions, sick visits and diagnosis of new conditions.

This project will focus on creating a training program to train home health aides to care for elders or disabled members of the tribe. This will not only create jobs for many unemployed tribal members, but will

also allow the elders or disabled members to remain in their homes with assistance for self-care, ambulation, and other factors which affect safety and health.

Nursing leadership is vital to changing the landscape of healthcare delivery to the Native American populations in the western United States. Through leadership and collaboration, this DNP project will continue to build relationships and influence change to improve the lives and health of Native Americans.

References

- Abramson, C. M., Hashemi, M., & Sánchez-Jankowski, M. (2015). Perceived discrimination in U.S. healthcare: Charting the effects of key social characteristics within and across racial groups. *Preventive Medicine Reports*, 2, 615-621. doi:<http://dx.doi.org.libraryproxy.quinnipiac.edu/10.1016/j.pmedr.2015.07.006>
- Baldwin, L., Hollow, W. B., Casey, S., Hart, L. G., Larson, E. H., Moore, K., Grossman, D. C. (2008). Access to specialty health care for rural American Indians in two states. *Journal of Rural Health*, 24(3), 269-278 10p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=105692650&site=ehost-live&scope=site>
- Bauer, U. E., & Plescia, M. (2014). Addressing disparities in the health of American Indian and Alaska native people: The importance of improved public health data. *American Journal of Public Health*, , S255-7 1p. doi:10.2105/AJPH.2013.301602
- Boccuti, C. L. (2015). Chronic disease and limited access to healthcare still beset American Indians and Alaska natives. *Aging Today*, 36(2), 5-13 9p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=109790494&site=ehost-live&scope=site>
- Begay, K., Gavlak, G. and McIver, L. (2015). A call to action: Eliminating diabetes disparities in native communities. (2015). *Clinical Diabetes*, 33(4), 206-207 2p. doi:10.2337/diaclin.33.4.206
- Braun, K. L., & LaCounte, C. (2014). The historic and ongoing issue of health disparities among native elders. *Generations*, 38(4), 60-69 10p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=103786045&site=ehost-live&scope=site>
- Hartnett, T. (2013). Research in tribal communities : Health disparities research must be met with respect for tribal communities. *Research Practitioner*, 14(6), 143-149 7p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=107925127&site=ehost-live&scope=site>
- Jones, D. S. (2006). The persistence of American Indian health disparities. *American Journal of Public Health*, 96(12), 2122-2134 13p. doi:10.2105/AJPH.2004.054262
- Kim, G., Bryant, A. N., Goins, R. T., Worley, C. B., & Chiriboga, D. A. (2012). Disparities in health status and health care access and use among older American Indians and Alaska natives and non-Hispanic whites in California. *Journal of Aging & Health*, 24(5), 799-811 13p. doi:10.1177/0898264312444309
- Malach, R. S., & Segel, N. (1990). Perspectives on health care delivery systems for American Indian families. *Children's Health Care*, 19(4), 219-219 1p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=106098427&site=ehost-live&scope=site>
- Nesdole, R., Voigts, D., Lepnurm, R., & Roberts, R. (2014). Reconceptualizing determinants of health: Barriers to improving the health status of first nations peoples. *Canadian Journal of Public Health*, 105(3), e209-13 1p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=103843492&site=ehost-live&scope=site>
- O'Connell, J., Yi, R., Wilson, C., Manson, S. M., & Acton, K. J. (2010). Racial disparities in health status: A comparison of the morbidity among American Indian and U.S. adults with diabetes. *Diabetes Care*, 33(7), 1463-1470 8p. doi:10.2337/dc09-1652
- Poor health outcomes in Native Americans and Alaska natives. (2014). *Lancet*, 383 North American Edition(9928), 1522-1522 1p. doi:10.1016/S0140-6736(14)60731-5
- Stoner, L., Page, R., Matheson, A., Tarrant, M., Stoner, K., Rubin, D., & Perry, L. (2015). The indigenous health gap: Raising awareness and changing attitudes. *Perspectives in Public Health*, 135(2), 68-70 3p. doi:10.1177/1757913915569965
- Trossman, S. (2015). A cultural experience. *American Nurse*, 47(6), 10-10 2/3p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=111874165&site=ehost-live&scope=site>

Contact

javazrn@comcast.net

EBP PST 2 - Evidence-Based Practice Poster Session 2

Nursing Self-Care: Current Evidence and Implementation Strategies for Improving Patient Outcomes and Nurse Well-Being

Kady L. Martini, DNP, RN, NEA-BC, USA

Steffanie Schweitzer, BS, RN, USA

Jessica Wood, RN, RN, USA

Christine Mayer, RN, USA

Shana Straka, RN, USA

Olivia Bonnano, RN, USA

Corryn Christy, RN, USA

Abstract

The American Nurses Association (ANA) defines a healthy nurse as actively focusing on creating and maintaining a balance of physical, intellectual, emotional, social, spiritual, personal, and professional well-being (Healthy Nurse, Healthy Nation, 2016). While this recommendation may appear simple, the complexity and difficulty of implementing self-care behaviors into a nurse's professional and personal environment is challenging. Poor self-care is a prevalent issue in healthcare (Levtak, 2013). The purpose of this project is to explore the current literature on nursing self-care and its' impact on patient safety, satisfaction, and nurse well-being. Strategies for cultivating self-care behaviors throughout ones' nursing career, and integrating self-care at the unit, and more broadly, promoting a culture within hospitals, which foster staff self-care, will have the greatest impact on patient outcomes, as measured by pre and post intervention patient and staff questionnaires.

A lack of self-care contributes to increased stress, which negatively impacts patient care in a multitude of ways. The 2011 ANA Health and Safety Survey found that the top health and safety concern among nurses is the acute and chronic effects of stress and overwork. (ANA Health and Safety Survey, 2016). Nurses who work with pain or depression reported more medication errors, patient falls and provided a lower quality of care (Levtak, Ruhm, & Gupta, 2014), however, frequent self-care behavior can facilitate stress reduction. A literature review by Letvak (2013) showed 18 studies on improving nurse health. On-site wellness programs, offering Tai-Chi, fitness classes, ergonomic training programs, message, CBT programs, and grief debriefing, significantly improved nurse health. Additionally, hospitals and nursing managers who promote self-care behaviors for staff, as a means of personal empowerment, report fewer falls and nurse-assessed risks (Purdy et al., 2010). These findings support the need for evidence-based interventions to foster self-care.

Self-care is a skill which must be introduced early, and cultivated throughout one's' nursing career. Nursing curriculum should include self-care coursework. Once in the workforce, nurses need the continued support of nursing managers and hospital administrators to ensure self-care is incorporated into the working environment. Adequate staffing, support programs, activities providing opportunities for self-care, and a culture which values wellness are presented in detail. This project will aide in increasing self-care behaviors, and ultimately provide the highest level of care and satisfaction for patients.

References

American Nurses Association. (2016). 2011 ANA Health and Safety Survey. Retrieved from:

<http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Healthy-Work-Environment/Work-Environment/2011-HealthSafetySurvey.html>

American Nurses Association. (2016). Healthy Nurse, Healthy Nation. Retrieved from:

<http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Healthy-Nurse>

Blum, C., (2014) "Practicing Self-Care for Nurses: A Nursing Program Initiative" OJIN: The Online Journal of Issues in Nursing Vol. 19, No. 3, Manuscript 3.

Lown, B. A., & Manning, C. F. (2010). The Schwartz Center Rounds: evaluation of an interdisciplinary approach to enhancing patient-centered communication, teamwork, and provider support. *Academic Medicine : Journal of the Association of American Medical Colleges*, 85, 6, 1073-81.

Levtak, S., (2014) "Overview and Summary: Healthy Nurses: Perspectives on Caring for Ourselves" OJIN: The Online Journal of Issues in Nursing Vol. 19, No. 3, Overview and Summary.

Letvak, S. (January 01, 2013). We cannot ignore nurses' health anymore: a synthesis of the literature on evidence-based strategies to improve nurse health. *Nursing Administration Quarterly*, 37, 4.)

Guadagnino, C. (2012, January 01). Patient Satisfaction Critical to Hospital Value-Based Purchasing Program - The Hospitalist. Retrieved November 27, 2016, from <http://www.the-hospitalist.org/article/patient-satisfaction-critical-to-hospital-value-based-purchasing-program/>

Poghosyan, L., Clarke, S. P., Finlayson, M., & Aiken, L. H. (2010). Nurse Burnout and Quality of Care: Cross-National Investigation in Six Countries. *Research in Nursing & Health*, 33(4), 288–298. <http://doi.org/10.1002/nur.20383>

Purdy, N., Laschinger, H., Finegan, J., Kerr, M., & Olivera, F. (2010). Effects of work environments on nurse and patient outcomes. *Journal Of Nursing Management*, 18(8), 901-913. doi:10.1111/j.1365-2834.2010.01172.

Stafseth, S. K., Solms, D., & Bredal, I. S. (2011). The characterization of workloads and nursing staff allocation in intensive care units: A descriptive study using the Nursing Activities Score for the first time in Norway. *Intensive & Critical Care Nursing*, 27, 5, 290-294.

Contact

schweitzer.95@osu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Working With the Obese Client: Helping Achieve Lifestyle Changes to Meet Their Weight Loss Goals

Anna Marie Hefner, PhD, MSN, BSN, RN, MaEd, CPNP, USA

Renee Pozza, PhD, MSN, RN, CNS, CFNP, FAASLD, USA

Tarek I. Hassanein, MD, FACP, FACG, AGAF, USA

Catherine McCoy Hill, MSN, RN, CCRN, CNS, ANP-C, USA

Abstract

Background and Significance: Obesity is an epidemic in the United States and worldwide. In the United States, 35% of adults are considered obese and 20-30% of the populations is estimated to have non-alcoholic fatty liver disease (NAFLD) as a result of obesity. There is no current cure, but the literature shows lifestyle modifications for weight loss as the accepted standard of care. The assumption in this study was that participants expressed the desire be healthy and make positive changes in their life. Change theory considers the motivation for change during various stages. Motivational interviewing addresses the process of guiding clients through change.

Purpose: The purpose of this analysis was to evaluate the use of change theory principles incorporating motivational interviewing on weight loss in obese clients.

Methods: This was a retrospective analysis of data from self-selected obese clients from May 2015 to June 2016. A total of 34 clients met the inclusion criteria of BMI greater than 30 and less than or equal to 40. Routine lab tests of liver function tests, CBC, lipid panel, and a Fibroscan to evaluate liver stiffness were performed at baseline, 6 months, and 12 months. The Nurse Practitioner saw the client every 3 months or more frequently as the client requested or condition of health warranted. Nutritional counseling was provided individually with a Registered Dietician for 30 minutes monthly. Exercise was also encouraged. Both providers utilized motivational interviewing to assist the client to achieve their weight loss goals. Categorical variables were analyzed with descriptive statistics and paired t-tests to evaluate changes in BMI, weight, ALT AST, and liver stiffness. The participant data was retrieved over a year time period.

Results: Between May 2015 and June 2016, 34 patients were identified with a diagnosis of obesity-32 females with a mean age of 47 years and 2 males with a mean age of 35 years. The etiology of obesity from the client's perspective was overeating, stress, poor dietary habits, lack of exercise, and stress of everyday life. The initial laboratory values indicated a mild increase in liver injury tests. The combined initial average weight was 220.5 pounds (range was 175-250 pounds) and at 12 months decreased to 190.9 pounds. Waist circumference was initially 39.7 inches collectively and decreased to 37.9 inches. BMI was initially 36.2 and decreased to 34.21 collectively over 12 months. There was significance in weight, waist circumference and BMI over 12 months($p=.001$).

All 34 clients were interviewed individually at 6 months and 1 year for program feedback. Collectively the themes that emerged were 1) the importance of a nutritionist guide how to eat better through portion size and healthy food choices; 2) how to say no; and 3) the tools to help continue on this journey. Clients found the once per month visits with the nutritionist and weighing in was too infrequent. Suggestions made by the clients included 1) weekly weights to increase accountability; 2) included a walking exercise program to receive encouragement and support from others; and 3) continue to have availability of the Nurse Practitioner for questions and concerns.

The dietician discussed monthly the food intake and caloric expenditure of the patient. Though most studies have used a balanced diet with caloric restriction, we focused on the food pyramid and healthy choices of complex carbohydrates and a decrease in fats. Each month the patient would bring in their diet and it was reviewed with the dietician. Suggestions were made for improvement, discussion of exercise patterns and again ways to increase exercise throughout the day. We choose to start small and increase as tolerated.

Conclusion: Obesity is identified as a risk factor for the top five causes of death in the United States- cardiovascular, diabetes, cancer, stroke and kidney disease. Lifestyle modification has been repeatedly shown to achieve modest long-term weight loss. It is critical to identify factors contributing to and maintaining obesity status. Obesity can be moderated or controlled by “behavior change”. However, changing a client’s dietary habits is daunting. Motivational interviewing principles have been successfully used within clinical settings, having a profound potential impact on cardiovascular disease, diabetes, and hypertension.

Most people have the desire to lose weight, and we encouraged them with various suggestions. When a client is allowed to talk, providers actively listen, and reflecting back with what they have heard, there is no more than three minutes to the encounter. Partnering with clients to achieve a meaningful weight loss and investigating novel methods of achieving and maintaining weight loss can we hope to change the tide.

The client’s states motivation is a key factor to success. Contact with providers and a nutritionist provides a structure which the client finds helps with motivation.

References

- Annesi, J., Johnson, P., McEwen, K., Annesi, J. J., Johnson, P. H., & McEwen, K. L. (2015). Changes in self-efficacy for exercise and improved nutrition fostered by increased self-regulation among adults with obesity. *Journal Of Primary Prevention, 36*(5), 311-321. doi:10.1007/s10935-015-0398-z
- Annesi, J. J., & Tennant, G. A. (2013). Mediation of social cognitive theory variables in the relationship of exercise and improved eating in sedentary adults with severe obesity. *Psychology, Health & Medicine, 18*(6), 714-724. doi:10.1080/13548506.2013.766354
- Barnes, E. R., Theeke, L. A., & Mallow, J. (2015). Impact of the Provider and Healthcare team Adherence to Treatment Guidelines (PHAT- G) intervention on adherence to national obesity clinical practice guidelines in a primary care centre. *Journal Of Evaluation In Clinical Practice, 21*(2), 300-306. doi:10.1111/jep.12308
- Nelson, D. A., Ruffalo, L. A., Dyer, A. J., & Nelson, K. H. (2016). Patient perceptions of weight loss. *International Journal Of Psychiatry In Medicine, 51*(4), 325-336. doi:10.1177/0091217416659269
- Resnicow, K., McMaster, F., Bocian, A., Harris, D., Yan, Z., Snetselaar, L., & ... Wasserman, R. C. (2015). Motivational Interviewing and Dietary Counseling for Obesity in Primary Care: An RCT. *Pediatrics, 135*(4), 649-657. doi:10.1542/peds.2014-1880
- Simpson, S. A., McNamara, R., Shaw, C., Kelson, M., Moriarty, Y., Randell, E., & ... Hood, K. (2015). A feasibility randomised controlled trial of a motivational interviewing-based intervention for weight loss maintenance in adults. *Health Technology Assessment, 19*(42), 1-378. doi:10.3310/hta19500

Contact

ahefner@apu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Healthcare Literacy and Communication With Health Professionals: Achieving Healthy Outcomes Among Diverse Populations

Mary Lou De Natale, EdD, MSN, RN, CNL, USA

Abstract

The importance of understanding the culture and literacy in working with individual and families in the community is essential for nurses and health care providers. Whether an individual is accessing food or nutrition for their daily nutritional needs or seeking medical services at a community clinic it is the opportunity to listen to the conversations and respond in a caring and compassionate way to clients at their point of care in the community. Effective communication that is client-centered with knowledge of health resources is necessary in directing the health of the community with diversity in culture, language, and access to health care services. The community resources that are available to support health promotion of their community should have the availability of resources for the clients in order to deliver quality care that can support: (1) access to a consistent health provider locally, (2) time with the physician to clarify the causes of misunderstanding related to health care, lack of compliance of medications and (3) follow-up as needed with a teach-back with a translator at the point of care. Medical follow-up with primary physician can influence overall health promotion and wellness (U.S. Department of Health and Human Services, 2016).

Health providers must be knowledgeable and assist in the navigation of health care services and provide help with literacy and communication that is delivered with care and communication that is client-center and based on the identified health care need. The health and wellness of the person in health care can be compromised if the client's perception of health and wellness is different from that of the primary providers and health team. Additionally, nurses and health care providers can support education in health care and primary language preference with effective communication at the client's appointment or in follow-up by telephone or referrals to case management and social services in the community. It takes a community of providers taking time to understand culture and communication.

Being able to communicate and deliver health care to populations at risk and support literacy skills are important. Keeping language, it is important to keep language simple and being able to define technical terms in the plan of care (National Institute of Health, 2016; U.S. Department of Health and Human Services, 2016). The availability of the health care provider to be able to know their patient, review their plan of care, diet to be maintained, or medication to be taken in the total plan of care is essential. This is important with only 12% of adults having proficiency in health literacy (Center of Disease Control, 2015). The lack of knowledge and misinformation that can be due to health care literacy, primary language, or ease of access to services in the community has been important for disease prevention and healthy lifestyle.

This research project was directed at the client accessing food and nutrition at a local Community Center particularly those with lower incomes or homeless families and older adults. A survey was distributed to clients in English, Spanish, and Mandarin speaking denoting their current health, access to medical care and services, consistency of the care provider, and the quality of their time and communication with the physician and health team. The value of communication and a partnership in understanding health care needs, assisting in health care decisions, and supporting personal concerns in critical to managing care and partnerships in practice in the local community.

Overall, this research project has the potential for nurses and health providers to better understand human presence and communication at community centers or other points of care for all individuals and families. Whether assisting with food choices or being available for a health care concern or offer blood pressure screening there are options for health promotion and wellness. For nurses or health providers there is a need to develop new strategies to assist the individual, family, or older adult with chronic health care needs whether heart disease, stroke, diabetes, and / or cancer. Communication is an integral part of the quality of care in the community and it is important to consistently the options available, accessibility to health care, and social services to meet the priorities of care. This project could provide a foundation for

the health care teams learning to communicate and offer opportunities caring for diverse populations in order to manage care and support quality of life.

References

American Nurses Association (2015). *Scope and Standards of Practice* (3 ed). American Nurses Association: Washington, DC.

Campinha-Bacote, J. (2015). The process of cultural competence in the delivery of health care services. Retrieved from Center of Disease Control (2015). Health literacy: Understanding Literacy and Numeracy. Retrieved from <http://www.cdc.gov/healthliteracy/learn/understandingliteracy.html>

Coleman, C.A., Hudson, S., Maine, L.L (2013). Health literacy practices and educational competencies for health professionals: A consensus study. *Journal of Health Communication*, 18, 82-102. DOI. 10.1080/10810730.2013.829538

National Institute of Health (2016). Health literacy. Retrieved from <https://www.nih.gov/institutes-nih/nih-office-director/office-communications-public->

U.S. Department of Health and Human Services Office of Minority Health (2016). Center for linguistic and cultural competency in health care. Retrieved from <http://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=34>

Contact

denatalem@usfca.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Community-Based Nurse Led Biomedical HIV Prevention Service: A Tale of Two Sites

Kellie Freeborn, MSN, RN, ANP-BC, FNP, USA

Abstract

Purposes/Aims: To describe the development and implementation of a nurse-led HIV prevention program utilizing Pre-Exposure Prophylaxis for HIV prevention at two urban sites serving high risk populations.

Pre-exposure prophylaxis (PrEP), using oral tenofovir/emtricitabine in the form of Truvada® was approved by the United States of America Federal Drug Administration in 2012. In October, 2014, the Centers for Disease Control and Prevention (CDC) guidelines were utilized to develop practice protocols for a PrEP program in an urban, community based sexual health clinic for individuals aged 18 and over who identify as men who have sex with men (MSM) or transgender (site one). A free program was launched in November, 2014, using 1.6 full time equivalent nurse practitioners (NPs) offering appointments Monday through Saturday, and benefits navigators to assist clients in obtaining coverage for the cost of PrEP.

Initial visits included complete history and physical, review of co-morbidities and contraindications to PrEP, adherence and safer sex practices counseling, and sexually transmitted infection (STI) testing. In order to meet the prescribed safety criteria, point of care testing was utilized for rapid complete metabolic panel (CMP), HIV and hepatitis C antibody testing, enabling the NPs to prescribe medication at the initial visit. Follow-up visits included HIV and STI testing, CMP, review of adherence to PrEP, STI treatment as needed and safe sex counseling.

Demand for PrEP was high, and those accessing the service were predominately white (55%). Other races included, Hispanic (24%), Asian Pacific Islander (12%) and Black (4%). Trans-men accessed services but trans-women and intravenous drug users did not. The age range was 18-72, the median age was 35 and the mean number of sexual partners was 17.

Feedback from community partners revealed that the location of the clinic—in a gay friendly predominately white area—was a barrier to access for HIV prevention services for trans-women, sex workers, and MSM of color. In order to address this disparity, in September, 2015, a satellite PrEP clinic (site 2) was launched in a high poverty urban neighborhood within an existing HIV community services site. This second PrEP program was available two mornings a week. One NP registered the clients, collected their blood work, anal and pharyngeal swabs, and urine samples and then completed the HIV, Hepatitis C and renal function point of care testing. The NP then collected a health history, completed a physical assessment, and provided education regarding PrEP, adherence counseling and safe sex counseling.

The development of the second site expanded services to sex workers, transgender persons, intravenous drug users, persons of color and MSM unaware of the primary site. The age range for clients at the second site was 20-54, and the median age 31. Although this site also predominately attracted white MSM (47%), 20% of clients reported being unaware of site 1 and its services. This site also attracted Blacks (10%), and Other Race (7%). There were proportionately fewer Asian Pacific Islanders (9%) and Hispanics (21%) at site 2 than at site 1.

Community referrals created a need to expand the PrEP services at both sites, and to accomplish this, phlebotomists and benefits navigators from existing HIV testing services were utilized. In addition, nursing protocols were developed, within the scope of practice of California registered nurses (RNs), to allow RNs to complete follow-up visits, allowing the NPs to offer more PrEP enrollment visits at both sites. Further feedback from community partners led to the clinic times being changed to one morning and one afternoon per week, with 2 new visits with 2-3 follow up visits available during each session.

Currently the two sites provide HIV prevention services to over 1,600 individuals and enroll up to 40 new clients a week. There have been zero HIV infections in this program and ways to increase PrEP services throughout the San Francisco community are being explored.

References

- Centers for Disease Control and Prevention. (2014a). HIV Risk, Prevention, and Testing Behaviors— National HIV Behavioral Surveillance System: Men Who Have Sex With Men, 20 U.S. Cities, 2011. *HIV Surveillance Special Report 8*. Retrieved from <http://www.cdc.gov/hiv/library/reports/surveillance/#special>.
- Centers for Disease Control and Prevention. (2014b). *PrEP Fact Sheet USA*: Division of HIV/AIDS Prevention. Grant, R. M., Lama JR, Anderson, Peter L, Anderson PI, McMahan V, Liu, A Y, Vargas L , Goicochea P ,Casapia M ,Guanira-Carranza JV Ramirez-Cardich, Maria E, Ramirez-Cardich ME, Montoya-Herrera O ,Fernandez T ,Veloso VG ,Buchbinder SP, Chariyalertsak S, Schechter M, Bekker LG ,Mayer KH, Kallas EG, Amico KR, Mulligan K, Bushman LR, Hance RJ, Ganoza C, Defechereux P F ,Postle B, Wang F , McConnell JJ, Zheng JH Lee J, Rooney JF, Jaffe HS Martinez AI Burns DN, Glidden, D. V. (2010). Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. (1533-4406 (Electronic)). doi:D - NLM: NIHMS264954, D - NLM: PMC3079639
- Liu, A. Y., Cohen, S. E., Vittinghoff, E., Anderson, P. L., Doblecki-Lewis, S. Bacon, O. Chege, Postle, B. S., Matheson, T., Amico, K. R., Liegler, T., & Rawlings, M. K., Trainor, N., Blue, R. W., Estrada, Y, Coleman, M. E., Cardenas, G., Feaster, D. J., Grant, R., Philip, S. S., Elion, R., Buchbinder, S., Kolber, M. A. (2015). Preexposure Prophylaxis for HIV Infection Integrated With Municipal- and Community-Based Sexual Health Services. *JAMA Intern Med*, 1-11. doi:10.1001/jamainternmed.2015.4683
- Marcus, J. L., Glidden, David V., Mayer, Kenneth H., Liu, Albert Y., Buchbinder, Susan P., Amico, K. Rivet, McMahan, Vanessa, Kallas, Esper Georges, Montoya-Herrera, Orlando, Pilotto, Jose, Grant, Robert M. (2013). No Evidence of Sexual Risk Compensation in the iPrEx Trial of Daily Oral HIV Preexposure Prophylaxis. *PLoS One*, 8(12), e81997. doi:10.1371/journal.pone.0081997
- McCormack, S., Dunn, D. T., Desai, M., Dolling, D. I., Gafos, M., Gilson, R., . . . Gill, O. N. Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): effectiveness results from the pilot phase of a pragmatic open-label randomised trial. *The Lancet*. doi:[http://dx.doi.org/10.1016/S0140-6736\(15\)00056-2](http://dx.doi.org/10.1016/S0140-6736(15)00056-2)
- McCormack, S., Dunn, D. T., Desai, M., Dolling, D. I., Gafos, M., Gilson, R., . . . Gill, O. N. (2015). Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): effectiveness results from the pilot phase of a pragmatic open-label randomised trial. *The Lancet*. doi:10.1016/S0140-6736(15)00056-2

Contact

kelliefreborn@yahoo.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Combining Literature Review, Qualitative Descriptive Analysis, and Computerized Lexical Analysis to Investigate HRQoL in Schizophrenia

Carlos M. Janela, BSN, BA, MA (Econ), RN, United States Minor Outlying Islands

Abstract

Background: People with schizophrenia experience hallucinations, emotional withdrawal, and cognitive impairment as well as a variety of comorbidities that lessen their health-related quality of life (HRQoL) (Barnes et al., 2012; WHO, 2016). HRQoL refers to ways in which health, illness, and medical treatment influence a person's perception of functioning and well-being (Chan et al., 2007). Optimizing HRQoL is a goal set by leading national and international health organizations such as the Centers for Disease Control and the World Health Organization (Healthy People 2020, 2016; WHO, 2016). Recently, the National Institute of Nursing Research (NINR) 2016 draft strategic plan identified the improvement of QoL for individuals with chronic conditions as a current research priority (NINR, 2016). Mental health services focus increasingly on alternative and complementary approaches that take into account people's well-being and functioning (Bouwman et al., 2015). Recent efforts have focused on supporting patients and improving their QoL in the community (Nakamura, Watanabe & Matsushima, 2014). Gaining more information about HRQoL in groups of people with low perceived health could lead to improved treatments/strategies to improve their situations (CDC, 2016). Yet, the current methods used to define and measure QoL in serious mental illness represent a challenge for researchers and clinicians (Barnes et al., 2012). Authors have recently called for a need to assess HRQoL in people with schizophrenia (Montgomery et al., 2015) and to identify its influencing factors (Chou et al., 2014).

To date, most HRQoL studies in people with schizophrenia have identified discrete measurable factors that contribute to or detract from HRQoL in this population. Few studies, however, have explored what concerns persons with schizophrenia identify related to their HRQoL. In order to develop more comprehensive treatment strategies for people with schizophrenia, it is important to understand how they experience HRQoL from their own perspectives.

Although HRQoL concerns reported by people with schizophrenia have great value, low insight and impaired cognition in this population (Zhou et al., 2015) raise concerns about the accuracy of findings resulting from subjective interviews (Lysaker et al., 2005). An approach to address some of the concerns related to accuracy is to use multiple data sources to enhance the validity and reliability of qualitative analyses (Creswell, 2012).

Today researchers can use innovative technologies to advance science and influence clinical nursing practice. In recent years, researchers started to use computerized lexical analysis to count words in text data, to sort them into pre-defined word categories, and to investigate the topics most represented in the data (Firmin et al., 2016). Lexical analysis can further inform our understanding of commonly observed deficits in schizophrenia that are linked to emotions and social processes (Buck et al., 2015). Cognitive deficits are the most likely to impact QoL in people with schizophrenia (WHO, 2015). Since cognitive deficits include language dysfunction, further investigation of language patterns in people with schizophrenia is warranted.

Yet, few studies have used lexical analysis in people with schizophrenia (Buck et al., 2015; Minor et al., 2015). Most of previous studies implementing lexical analysis in this population have focused on comparing word use between people in the schizophrenia spectrum disorder and control groups. For example, people with schizoaffective disorder use more sadness words compared to the general population (Minor et al., 2015). Although computerized lexical analysis can conveniently and reliably analyze text data and relate word use to clinical variables, there is little work on how qualitative studies and computerized lexical analysis can inform each other and draw on their respective strengths (Firmin et al., 2016). To our knowledge, no study investigated the relationship between word use and reported HRQoL concerns in people with schizophrenia.

Research project: The overall purpose of this research project is to better understand HRQoL in people with schizophrenia to provide foundational information that can later be used to develop strategies to improve the HRQoL in this population. This project will occur in three phases:

1- We have conducted an integrative review with the aims to complete a formal assessment of the research of HRQoL in people with schizophrenia by examining its conceptual definitions, identifying its influencing factors, and identifying its methodological limitations. We sought to clarify our understanding of the concept, further support the validity of existing research, and direct future research.

The major findings were (1) that the conceptual ambiguity of HRQoL limits its ability to contribute to practice and research; (2) that there is strong evidence that HRQoL in people with schizophrenia is influenced by the severity of psychiatric symptoms, the presence of medical comorbidities, the impact of treatments, and opportunities for social contacts; (3) that there is moderate evidence that HRQoL in people with schizophrenia is influenced by the engagement in leisure and physical activity, the physical living setting of individuals, and the quality of interactions with health care providers; and (4) that the studies reviewed unequally spanned the population of people with schizophrenia, thus producing a selection bias. The manuscript that presents these findings will be submitted to SAGE Open Nursing journal.

2- We are currently conducting a qualitative descriptive study with the aim of describing common HRQoL concerns in persons with schizophrenia based on narratives in which they describe their life experiences. Qualitative descriptive methods as described by Sandelowski (2000) guide the analysis and are expected to provide a coherent and useful summary of events that could be relevant to practitioners and policy makers. Data for this study were drawn from a larger on-going study exploring language, thinking, and symptoms in people with schizophrenia. Twenty participants completed the Indiana Psychiatric Illness Interview survey (IPII), a semi-structured narrative interview in which they shared in as much details as possible their life stories.

For the current study, narratives are analyzed with conventional content analysis as described by Miles, Huberman, & Saldaña (2014). To begin the organization of the codes into meaningful categories, the research team used Ferrans' (2005) HRQoL domains (biological function, symptoms, functional status, general health perceptions, and overall quality of life). A person-by-topic matrix (Miles, Huberman, & Saldaña, 2014) was developed to provide a structure by which the data could be organized and displayed.

The analysis is currently in progress. Initial results suggest that participants are primarily concerned about their social dysfunction with family and friends, their symptoms, their occupational challenges, their health perception, their financial constraints, their lack of romantic relationships, and their uncertainty about the future. I anticipate that the final product will be a typology that identifies the major concerns of people with schizophrenia related to their HRQoL. The manuscript that describes this typology will be submitted to the Journal of the American Psychiatric Nurses Association.

3. Building on the findings from the qualitative descriptive study, I plan to design a mixed methods study that has the purpose of investigating the potential of computerized lexical analysis to assess HRQoL concerns reported by people with schizophrenia.

Although this study has not yet been designed, I anticipate to use a convergent mixed method design (Creswell, 2015) to integrate the qualitative and the quantitative findings. I anticipate (1) to quantitate the qualitative descriptive data to display the relative importance of HRQoL concerns for each participant; (2) to translate the participants' narratives into percentages of word use through computerized lexical analysis; and (3) to investigate the relationship between agreed-upon pairs (Qualitative HRQoL concern / lexical analysis category). The qualitative HRQoL concerns will be numerically represented and summarized in frequency tables displaying the relative frequencies of HRQoL concerns for each participant.

For the purpose of this study, Linguistic Inquiry and Word Count (LIWC) will be used because it provides more nuanced categories of words compare to other software and because of its prior use in the schizophrenia population (Buck & Penn, 2015). The LIWC2015 (Pennebaker, 2015), examines words in a text file and matches each word to a dictionary of more than 6400 word stems, organized into 90 categories.

A joint display will merge HRQoL concerns and their associated relative frequencies, as well as the agreed upon matching LIWC categories and their associated percentage of word use. (e.g., social functioning 20% / social words 15%). I anticipate that the more overlap there is between the description of HRQoL concerns (e.g., negative symptoms, work related concerns, social functioning) and the description of their matched LIWC categories (e.g., negative words, achievement, social words), the more strongly HRQoL concerns will be related to LIWC categories.

Conclusion: By advancing the understanding of HRQoL in people with schizophrenia, this project advocates for the needs of this marginalized group. Results could help identify additional targets and avenues for intervention and lead to comprehensive strategies for improving the lives of all people with schizophrenia. Today, nurse researchers are well placed to integrate traditional qualitative methods and innovative technologies to advance the science of HRQoL in people with schizophrenia and to influence clinical practice.

Recommendations for future research include (1) developing a theory that connects the biological, psychological, and social determinants of HRQoL in schizophrenia and (2) testing the feasibility of computerized lexical analysis as a supplemental means to assess HRQoL concerns in clinical practice.

References

- Chou, C., Ma, M., & Yang, T. (2014). Determinants of subjective health-related quality of life (HRQoL) for patients with schizophrenia. *Schizophrenia Research*, 154(1-3), 83-88 6p. doi:10.1016/j.schres.2014.02.011
- Firmin, R. L., Bonfils, K. A., Luther, L., Minor, K. S., & Salyers, M. P. (2016). Using Text-Analysis Computer Software and Thematic Analysis on the Same Qualitative Data: A Case Example. *Qualitative Psychology*, doi:101037/qap0000050
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage.

Contact

cjanela@imail.iu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Enhancing Nursing Knowledge and Application of Education to Opioid Addicted Pregnant Women: A Literature Review

Jennifer Lynn Davis, BSN, RN, USA
Jeanette Rossetti, EdD, RN, USA

Abstract

Purpose: Nursing care of the opioid addicted pregnant woman, postpartum mother, and her newborn demands a multi-disciplinary, non-stigmatic approach that meets the patient's physical, psychological, and psycho-social needs. Based on a review of existing literature this presentation will identify the demand for an updated evidence-based nursing protocol that encompasses the care, treatment, and educational needs of this complex patient dyad as well as share pertinent nursing considerations.

Methods: In order to develop an educational plan regarding the care, treatment, and education protocols of the opioid addicted pregnant woman, postpartum mother, and her newborn; research of current, evidence-based articles and professional healthcare websites were evaluated. A literature search was conducted during August and September 2016 using CINAHL, PubMed, Medline, and the Cochrane databases. Keywords and phrases used were: 'opioid dependency', 'nursing care of addicted pregnant women', 'patient education needs of addicted pregnant women', 'effects of opioid addiction with pregnancy', 'postpartum care and substance abuse', 'addiction treatment during pregnancy' and 'neonatal abstinence'. Health-based website resources were also evaluated for relevance and quality using the Health on the Net Code of Conduct. No date restrictions were imposed during the initial search. However, upon review of the over one-hundred research articles and tens of health-based websites, the sources utilized were all written within the last five years.

Results: Within the United States the rate of opioid addiction of pregnant women has become a public health issue of epidemic proportions (Meyer & Phillips, 2015). Specific to the pregnant population, there was a 5-fold increase of antenatal substance abuse and a 3-fold increase for neonatal abstinence syndrome (NAS) regarding occurrence and treatment between 2000 to 2009 (Meyer & Phillips, 2015). The Substance Abuse and Mental Health Services Administration (SAMHSA) report an increase in the use of illicit substances to 5.9% of pregnant women (Amatetti & Young, 2016). These staggering statistics reveal the need for change in healthcare practices specifically; the care, treatment, and education of the opioid abusing pregnant woman during the antepartum period as well as the mother-newborn within the postpartum period. The overarching principles of a new plan of care would be inclusive of ensuring this vulnerable population have access to treatment services, receives respectful care with patient autonomy, are provided with comprehensive medical and psychological care and education, and are safeguarded against discrimination and stigmatization (World Health Organization [WHO], 2014). These principles should be employed into patient care and education through the initiation of a standardized substance abuse screening assessment, physical and psychological assessment and support, medication-assistance treatment (MAT), pain control assessment and management, breastfeeding assistance, mother-newborn bonding, neonatal abstinence syndrome assessment and treatment, as well as maternal and newborn discharge needs.

Conclusion: It is apparent based upon the intensive literature review this vulnerable patient dyad requires comprehensive, holistic, and ongoing care and education. The protocols in place currently do not appear to meet the patients' physical and psychological needs. Therefore, nurses working collaboratively with varied healthcare providers (HCPs) need to enable a change in the plan of care promptly as it would affect healthy outcomes for the opioid addicted pregnant woman, postpartum mother, and her newborn. Implementation of an opioid care and education protocol reflective of the physical, psychological, and psycho-social needs would be most effective toward a holistic positive outcome. Providing these comprehensive services in a non-threatening, and non-stigmatic approach throughout the hospitalization would improve treatment success and lead to improved patient addiction recovery and a healthier future for the mother and newborn family (Amatetti & Young, 2016; WHO, 2014). Each article and organizational resource significantly confirmed the mandate for an enhanced care and education protocol, wherein the

opioid abusing pregnant woman, postpartum mother, and newborn would receive collaborative holistic care and education leading to addiction treatment compliance and improved health outcomes.

References

- Amatetti, S., & Young, N. K. (Producer). (2016). *A collaborative approach to the treatment of pregnant women with opioid use disorders: Practice and policy considerations for child welfare, collaborating medical, and service providers* [Video webinar]. Retrieved from <https://ncsacw.samhsa.gov/resources/opioid-use-disorders-and-medication-assisted-treatment/default.aspx>
- Brandon, A. R. (2014). Psychosocial interventions for substance use during pregnancy. *The Journal of Perinatal and Neonatal Nursing, 28*(3), 169-177. doi:10.1097/JPN.0000000000000041
- Jones, H. E., Deppen, K., Hudak, M. L., Leffert, L., McClelland, C., Sahin, L., ... Creanga, A. A. (2014). Clinical care for the opioid-using pregnant and postpartum women: The role of obstetric providers. *American Journal of Obstetrics and Gynecology, 210*(4), 302-310. Retrieved from <http://dx.doi.org/10.1016/j.ajog.2013.10.010>
- Krans, E. E., Cochran, G., & Bogen, D. L. (2015). Caring for opioid dependent pregnant women: Prenatal and postpartum care considerations. *Clinical Obstetrical Gynecology, 58*(2), 370-379. doi: 10.1097/GRF.0000000000000098
- McKeever, A. E., Spaeth-Brayton, S., & Sheerin, S. (2014). The role of nurses in comprehensive care management of pregnant women with drug addiction. *Nursing in Women's Health, 18*(4), 284-293. doi: 10.1111/1751-486X.12134
- Meyer, M., & Phillips, J. (2015). Caring for pregnant opioid abusers in Vermont: A potential model for non-urban areas. *Preventive Medicine, 80*(2015), 18-22. Retrieved from <http://dx.doi.org/10.1016/j.yjmed.2015.07.015>
- Moran, B. A. (2015). Substance abuse in pregnancy. In S. Mattson & J. E. Smith (Eds.), *Core curriculum for maternal-newborn nursing* (5th ed., pp. 564-579). Philadelphia, PA: W. B. Saunders Company.
- Morris, M., Seibold, C., & Webber, R. (2012). Drugs and having babies: An exploration of how a specialist clinic meets the needs of chemically dependent pregnant women. *Midwifery, 28*(2012), 163-172. doi: 10.1016/j.midw.2011.03.002
- Pritham, U. A., Paul, J. A., & Hayes, M. J. (2012). Opioid dependency in pregnancy and length of stay for neonatal abstinence syndrome. *Journal of Obstetrical, Gynecological, and Neonatal Nursing, 41*(2), 180-190. doi: 10.1111/j.1552-6909.2011.01330.x.
- Rizzo, R. A., Neumann, A. M., King, S. O. C., Hoey, R. F., Finnell, D. S., & Blondell, R. D. (2014). Parenting and concerns of pregnant women in buprenorphine treatment. *American Journal of Maternity Child Nursing, 39*(5), 319-324. doi: 10.1097/NMC.0000000000000066
- World Health Organization. (2014). Management of substance abuse. *Guidelines for the identification and management of substance use and substance use disorders in pregnancy*. Retrieved from http://www.who.int/substance_abuse/publications/pregnancy_guidelines/en/

Contact

Z1760455@students.niu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Deaf and Hard-of-Hearing Youth: Needs for Health Risk Prevention Interventions?

Huey-Shys Chen, PhD, RN, MCHES, FAAN, USA

Ying Xue, BSNc, RN, USA

Yu-ku Chen, BSN, RN, USA

Yu-han Zheng, BSN, RN, USA

Abstract

Introduction: Although the number of sign language users in the United States has not been measured by census efforts, estimates range between 500,000 and 2 million users. 17.1% lost their hearing before age 19 and 6.6% lost their hearing before age 3. Compared with the hearing population, they have poor health knowledge and inequitable access to medical and behavioral care in our health system due to cultural and language barriers. The deaf populations are at high risk for health disparities.

Purpose: The purposes of this literature review are to synthesize current literature on health risk behaviors of deaf and hard-of-hearing youth and to summarize health risk preventive interventions that have been used in deaf and hard-of-hearing youth population.

Search Strategy: The CINAHAL, PubMed, Google Scholar, and Proquest were used to obtain evidences and unpolished students' dissertations and theses. Keywords included deaf, hard of hearing, health needs, risk behaviors, health promotion. The Limits included date of publication no earlier than 2000, English language, peer reviewed journals, and opinions of authorities or expert committees.

Results: The search resulted in 16 articles that met inclusion criteria. The level of evidence ranged from level 3 to 7 with no systematic literature review and no randomized controlled trials. Studies have found that previous studies focused on health risk behaviors of deaf and hard-of-hearing you include mental health (suicide), physical abuse, unintentional injuries, alcohol, tobacco, and other drug use; risky sexual behaviors; HIV prevention, overweight; and physical inactivity.

Conclusions: This population is clearly in need of linguistically and culturally accessible health risk prevention interventions. Synthesis of evidence supported that deaf individuals have higher rates of suicide and mental disorder, higher rates of obesity, higher rates of unintentional injury risk, higher rate of substance abuse (alcohol, tobacco, and other drug use), and increased rates of HIV and sexually transmitted infections than those who are hearing.

Implications: Limited evidence has emerged to support health preventive interventions for deaf and hard-of-hearing youth. It's suggested that further research using a variety of study designs is needed to close gap in our understanding of health risk prevention issues in this population. Understanding needs of health risk prevention interventions is critical to developing interventions for this culturally and linguistically unique population.

References

Berman, B. A., et al. (2011). "Development and testing of an antitobacco school-based curriculum for deaf and hard of hearing youth." *American Annals of the Deaf* 155(5): 592-604.

Berman, B. A., et al. (2010). "Alcohol and Other Substance Use among Deaf and Hard of Hearing Youth." *Journal of Drug Education* 40(2): 99-124 126p.

Goldstein, M. F., et al. (2010). "What do deaf high school students know about HIV?" *AIDS Education AndPrevention: Official Publication Of The International Society For AIDS Education* 22(6): 523-537.

Contact

hueyshys@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Purposeful Proactive Hourly Rounding: A Positive Influence on Outcomes and Experience

Deirdre O'Flaherty, DNP, RN, NE-BC, APRN-BC, ONC, USA

Renee Murray-Bachmann, EdD, CDN, RN, CDE, CPT, USA

Mary J. Deady-Rooney, MSN, RN, CCRN-K, USA

Emily Alter, BSN, ONC, USA

Linda R. DiCarlo, MS, RN, USA

Abstract

Lenox Hill Hospital (a member of the Northwell Health System) is a comprehensive acute care facility located in New York City. It is recognized nationally for its outstanding patient care, as well as its innovative medical/surgical modalities. The market shift from volume to value based care, coupled with Lenox Hill Hospitals' own mission to provide exceptional patient centered health care with compassion and respect, is the foundation on which nursing leadership develops an environment that engenders staff contribution.

Patients' perception of their care significantly impacts their response to both Press Ganey and HCHAPS surveys, which directly correlates to incentive payments. Communication with the nurse is paramount in that it optimizes care, increases satisfaction and facilitates safe discharge thus enhancing survey response ratings.

In order to achieve high performance scores in the communication with nurse dimension and patient satisfaction, several best practices must be adopted. These include consistent and purposeful hourly rounding, bedside shift reporting (hand-off), use of scripts and the recruitment of nursing candidates that exhibit strong interpersonal skills. In addition, leadership rounding has proven to sustain quality outcomes.

The Institute of Medicine (IOM) endorses empowering all members of the healthcare team to engage in creating a culture that promotes patient safety. This recommendation is further validated by nursing research involving the effect of empowerment and the importance of consistent workplace strategies to promote staff and patient satisfaction.

The theory of Structural Empowerment has been widely applied in nursing research and practice. This philosophy is defined as the ability to accomplish goals in an organization by having access to information, resources, opportunity and support. Kanter, the founding theorist, acknowledged that management plays a significant role in the provision of these structural factors and postulates that empowered leaders are more effective in endowing their employees. This results in an increased commitment to ensuring that the organizational goals are achieved (DiNapoli, & O'Flaherty 2015; DiNapoli et al., 2016; Boamah & Laschinger, 2014). In espousing this theory, the leadership team has developed strategies that empower the staff, have positively impacted patient and staff satisfaction and increased engagement scores (Clavelle et al., 2013). The nursing leadership team fosters an environment that promotes competence and confidence in our nurses (Purdy et al, 2010; Neville et al., 2016). This has resulted in the delivery of safe and outstanding care as evidenced by the outcomes in our patient satisfaction scores and quality data.

References

- Boamah S. & Laschinger H. Engaging new nurses: the role of psychological capital and workplace empowerment. *Journal of Research in Nursing*. 2014; 1744987114527302.
- Clavelle J., Porter O'Grady, T. & Drenkard K. Structural empowerment and the nursing practice environment in magnet organizations. *J Nurs Adm*.2013; 43 (11): 566-573.
- DiNapoli J., O'Flaherty D. & Garcia-Dia M.J. *Theories Guiding Nursing Research and Practice. Theory of Empowerment*. New York. NY: Springer; 2014:303-322.

DiNapoli J., O'Flaherty D., Musil, C., Clavelle, J. & Fitzpatrick, J. The Relationship of Clinical Nurses' Perceptions of Structural and Psychological Empowerment and Engagement on their Unit. *The Journal of Nursing Administration* 2016; 46 (2): 95-100

Neville K., DiBona C. & Mahler. An Exploratory Study of the Influence of Shift Work on Nurses' Perception of Patient Rounding. *Orthopedic Nursing*, 2016; 35 (2). 84-90

Purdy N, Laschinger H.K., Finegan J. Kerr, M. & Olivera F. Effects of work environments on nurse and patient outcomes. *Journal of Nursing Management*. 2010; 18: 901-913

Contact

doflaherty1@northwell.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

A Pilot Study Evaluating the Effectiveness of Diabetes Prevention in a Medically Underserved Community

Stefanie A. Schroeter, DNP, APRN, FNP-BC, USA
Kelley Anderson, PhD, RN, FNP, USA
Andrew C. Robie, MD, USA

Abstract

Purpose: This pilot study evaluated the effectiveness of participation in the National Diabetes Prevention Program (NDPP) for weight reduction in a sample of prediabetic individuals in an urban medically underserved community. The study also evaluated the challenges of implementing the NDPP into such a community, where rates of low education, poverty, medical comorbidities and psychosocial comorbidities are high. The NDPP was developed from a large multicenter study by Knowler and co-authors (2002), Diabetes Prevention Program Research Group, demonstrating a reduced risk for diabetes in prediabetic individuals who participated in an intensive lifestyle intervention program aimed at reducing weight and improving lifestyle habits. There is limited literature describing the use of the NDPP in medically underserved communities.

Methods: The NDPP was integrated into existing health services within a federally qualified health center (FQHC) in an urban medically underserved community. Participants were identified prediabetics receiving primary health care services within the FQHC, with hemoglobin-A1c levels between 5.7 and 6.4 percent, over the age of 18 years, with a body mass index (BMI) 24 and higher. Participants were excluded if they had a previous or current diagnosis of type I or II diabetes, or a prior hemoglobin-A1c level of 6.5 percent or higher. The participants received weekly to biweekly group sessions aligning with the 2012 NDPP curriculum. Study data was obtained through the 16-session core program of the NDPP. A pre-test, post-test paired group *t*-test was completed to evaluate the change in mean weight and BMI at the beginning and end of the core program. Correlational analyses were completed to evaluate the association between weight change, age, gender, number of sessions attended, and total minutes of physical activity. Anecdotal evidence regarding successes and challenges of implementation of the program within the FQHC were noted.

Results: Twelve participants initiated the program, and eight completed at least four of the 16 sessions. The mean weight loss for all participants was 5.3 pounds, and 7.4 pounds for those who completed at least four sessions. There was a significant difference in pre-weight, post-weight and BMI ($p < 0.05$) for all participants and those who completed a minimum of four sessions. Weight loss was independent of age or gender. Weight loss was more significant when the lowest weight attained was considered in place of the last recorded weight. A significant positive correlation was found between weight loss and number of sessions attended ($p < 0.05$), and between weight loss and total minutes of physical activity ($p < 0.05$).

Conclusion: Participation in the core portion of the NDPP significantly reduced weight and BMI in a group of prediabetic individuals in an urban medically underserved community, with weight loss unrelated to age and gender. These results are consistent with prior research that demonstrated the effectiveness of an intensive lifestyle intervention on reduction in diabetes risk. A greater level of weight loss was associated with higher levels of program participation through session attendance and physical activity. There was an observable discrepancy between the final program weight and the lowest weight attained, suggesting the importance of considering weight fluctuations in evaluating program effectiveness. Challenges such as low literacy and education, and medical and psychosocial comorbidities were documented and suggested a potential negative impact on weight loss.

References

District of Columbia Department of Health (2013). District of Columbia Community Health Needs Assessment, Volume 1. Retrieved from [http://doh.dc.gov/sites/default/files/dc/sites/doh/page_content/attachments/2nd%20Draft%20CHNA%20\(v4%202\)%2006%2004%202013%20-%20Vol%201.pdf](http://doh.dc.gov/sites/default/files/dc/sites/doh/page_content/attachments/2nd%20Draft%20CHNA%20(v4%202)%2006%2004%202013%20-%20Vol%201.pdf).

Knowler, W. C., Barrett-Connor, E., Fowler, S. E., Hamman, R. F., Lachin, J. M., & Walker, E. A., Diabetes Prevention Program Research Group (2002). Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *New England Journal of Medicine*, 346(6), 393-403.

University of Pittsburgh (2012). 2012 CDC-Developed Curriculum and Handouts. Based on the DPP research trial supported by cooperative agreement number U01-DK48489 from the U.S. Department of Health and Human Services, which has certain rights in the material. Retrieved from <http://www.cdc.gov/diabetes/prevention/lifestyle-program/curriculum.html>.

Contact

sas974@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

I Got the Money! Key Strategies to Secure Grant Funding for Research and Evidence-Based Practice

Rebecca Clark, PhD, MSN, BSN, RN, USA
Kimberly Ferren Carter, PhD, RN, USA

Abstract

With today's tight healthcare budgets, nurses often struggle to secure the resources needed to support research studies and evidence-based practice projects to improve outcomes. Nurses must compete with organizational priorities and find innovative ways to fund their projects. While grants can provide resources for these projects, they can be challenging to identify and secure. The mere mention of the word "grant" can instill angst for nurses, and few nurses have the experience and expertise required for writing the successful grant application. Competition for funding is intense, and only outstanding applications are funded. Therefore, the valuable time that a nurse spends writing grants to support new knowledge and innovation must be used efficiently and effectively. There is limited professional literature to provide guidance for nurses who wish to expand their skillset as grant seekers.

Grant funders view grants as investments in improving the future and furthering their mission and reject projects that do not address these priorities. The successful grant application presents a novel proposal that is feasible, well written and advances the goals of the funding organization. It also requires that grant seekers find appropriate funding sources, ones that closely match the goals of the project, the expertise and experience of the primary investigator and the infrastructure of the organization to support the implementation of the project. While these points may sound obvious, it takes practice, team-work, time and energy to craft the successful application. It is process that has vast rewards, both professionally and personally, when successful and it is a process that can be learned!

In this presentation, two nurses who have secured over \$2 million grants for clinical and academic projects will explore approaches that have led to successful funding from federal, national and local sources. They will share strategies for finding funding sources, with attention to types available, including public, private, and non-traditional grant opportunities. In addition, they will discuss best practices for a systematic approach to writing a successful grant application. These practices include: crafting a feasible workplan, developing an attention-garnering introduction, writing the outstanding narrative and crystalizing the details of the work, processes, outcomes and parameters. In addition to developing writing skills through the writing process, certain professional endeavors contribute to composing that successful application. The presenters will discuss the importance of collaborating with others on writing; reviewing grant application for professional organizations and developing skill in writing for publication and presentations.

Examples of grant applications will be discussed with insights into components that contributed to successful (or not-so-successful) funding.

The importance of obtaining grant funding is clear. While the grant application process is time-consuming, difficult and daunting, it is possible for nurses to secure funding by learning how to identify appropriate funding sources and write compelling applications! These funds can be used to provide the financial support for developing the nursing knowledge and practice to advance health across the globe. Indeed, becoming the recipient of grant funding can help launch future endeavors to impact practice.

References

- Bliss D. (2010). Letters of support for a research grant proposal. *J Wound Ostomy, Continence Nursing*, 37(4), 358-9.
- Grant proposals, University of North Carolina Writing Center: <http://writingcenter.unc.edu/handouts/grant-proposals-or-give-me-the-money/> accessed November 28, 2016.
- Hess, K. and Steffes, A. (2011). What one takes for granted about grant writing. *The Kansas Nurse*, 86 (3), 12-15.
- Lindquist, R. and Hadid, N. (2013). Develop grant writing skills to translate practice dreams into reality. *AACN Advanced Critical Care* 24 (2), 177-185.

Wurmser, T. and Hedges, C. (2009). Primer for successful grant writing. *AACN Advanced Critical Care* 20 (1), 102-107.

Contact

rebeccaclark04@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Improving Hypertension Management Through Computer-Based Staff Education, Simulation, and Incentivization: One Organization's Quality Improvement Journey

Nancy J. Slizewski, DNP, RN, CDE, USA
Caroline H. Fender, BBA, ADN, RN, USA
Patti E. Reinagle, MS, RN, USA
Krissy L. Flick, MBA, BBA, USA

Abstract

Background: Hypertension is a risk factor for cardiovascular disease which is a leading cause of death in the United States (Centers for Disease Control [CDC], 2014; Coogan, Marra, & Lomonaco, 2015). Although approximately one-third of the adult population has hypertension, almost one-half of those diagnosed are not meeting target blood pressures of less than 140/90 (CDC; Coogan et al.). Proper diagnosis and management of hypertension is based on blood pressure readings. Correct blood pressure measurement technique by staff is critical (American Association of Critical-Care Nurses, 2016; Bland & Ousey, 2011; Coogen et al.; Giorgi, & Ganem, 2016; Rabbia et al., 2013; Vieira da Silva, Mendes da Silva, 2016). Error in blood pressure measurements by staff can result in an incorrect diagnosis of hypertension or over/under treatment of the patient (Coogen et al.; Rabbia et al.; Vieira da Silva et al.). Education and evaluation of staff blood pressure measurement techniques has been shown to improve the accuracy of patient blood pressure readings (Ballard, Piper and Stokes, 2012; Coogan et al.; Garcia, Ahmad & Lim, 2012; Grim & Grim, 2013).

A rural health care organization sought to improve hypertension management of their patients. The organization's target for achieving blood pressure of less than 140/90 in patients with a diagnosis of hypertension was set at 88% or greater. Since 2008 this quality metric had remained relatively unchanged with 71-74% of patients achieving blood pressure control as reported by Wisconsin Collaborative for Healthcare Quality (WCHQ). These percentages did not meet the organization's target. Additionally, the organization's ranking for blood pressure control among other state health care organizations was 13 of 21 and declining (WCHQ). A quality improvement project to address this issue was developed and initiated in 2014.

Methods and Findings: Recognizing the critical piece staff education and training play in management of patients with hypertension, the health care organization began mandatory blood pressure education for all medical assistants, registered nurses and licensed practical nurses performing blood pressure testing in the primary care areas in 2014. Staff were required to complete a yearly computer-based learning module that tested knowledge of correct procedure. In-person manual blood pressure testing using a simulation arm was done. Proper technique and accuracy of the reading were assessed. In addition, staff were required to measure a clinical staff educator's blood pressure using an automatic blood pressure machine. Proper cuff size, placement, technique and positioning of the educator were assessed. If deficiencies were noted, immediate remediation was done. If staff could not accurately hear the manual blood pressure on the simulation arm, recommendations for possible hearing evaluations were sent to the manager.

In addition to educational requirements, the primary care staff began verifying the accuracy and correct technique for use of patient blood pressure home monitors. Patients were encouraged to bring in their home monitors at least yearly for comparison to a blood pressure taken either manually by staff or with the clinic's automatic device. Once the home device accuracy and correct patient technique was verified, patient blood pressure home records could be entered into the electronic health record. Patients were given directions on testing technique, frequency and when to contact the provider with readings.

Utilizing the electronic health care record and the population health dashboard, reports listing patients aged 18-74 with a diagnosis of hypertension who were not meeting blood pressure goals of less than 140/90 were generated. Staff received education and training on how to generate reports and the

management of these patients which included contacting patients for follow-up blood pressures or reporting home blood pressure measurements.

The results of the 2014 quality improvement project showed the percentage of patients aged 18-74 meeting target blood pressures of less than 140/90 had increased. WCHQ's first report for 2015 showed an increase from 73% to 81% of patients in control (Quarter 3/14 to Quarter 2/15). In an effort to improve blood pressure management, an incentive program was initiated in 2015 with a small percentage of the primary care physician's salary tied to achieving a minimum target of 82% of hypertensive patients in control. While primary care physicians were responsible for treating blood pressures greater than 140/90, they were not always aware of a patient's increased blood pressure reading. If a patient had an elevated blood pressure in a specialty area, this blood pressure was recorded in the electronic medical record but the primary care physician was not notified. The organization recognized the need to expand participation in this quality improvement project to the entire organization. As a result, starting in January 2015, all of the organization's staff performing blood pressure testing (excluding providers) received computer-based and in-person training using simulation and live subjects. An emphasis was also placed on the need to perform a second blood pressure measurement on all patients having an initial elevated blood pressure.

The increased number of staff needing training required a coordinated effort with the organization's education department responsible for the training and the departments requiring education. The education department training assistant and educators worked with managers to set up in-person training times and places. Training was ideally done within the learner's department, but was also done in classrooms. Thirty minutes of individual training time was allotted per learner.

The results of the 2015 quality improvement project showed patients meeting target rose from 81-82% (WCHQ). This did not meet the benchmark of 88%; therefore, the quality improvement project was expanded for 2016 to include specialty care areas. Staff testing continued to include all staff (excluding providers) performing blood pressure measurements on patients. In addition, staff in all areas were required to take a second blood pressure on patients having an initial blood pressure of 140/90 or greater. If the second reading was still 140/90 or greater, a referral to their primary care provider was mandated. The specialty care physicians were required to ensure this was done in order to receive their incentive bonus. There was also a potential for staff incentive if the organization's budget allowed and hypertension targets were met. The primary care provider's incentive would continue as per the previous year.

In an effort to meet this new initiative, computerized reports of patients not at target, reports of missing second blood pressure readings and missing referrals for elevated blood pressures were generated. Each provider was able to view these reports and staff were assigned to contact patients via phone call or letter for follow-up. All follow-up visits to recheck elevated blood pressure measurements were done free of charge.

The quality improvement project ended December 2016 with WCHQ reporting 85% of patients meeting blood pressure targets at that time, thus increasing the state's organizational ranking to 6/24. Education of all staff performing blood pressures on patients continues. The organization continues to track patients not meeting hypertension goals.

Conclusions: The management of hypertension is essential in preventing cardiovascular disease and complications. Correct techniques utilized by staff measuring patient blood pressures are essential in correct diagnosis and treatment of hypertension. Through computer-based training, simulation, one-to-one education and staff incentive programs, one health care system improved patient blood pressure management outcomes 12% over a three year period of time. Recommendations for the future are to assess the percentage of patients meeting target blood pressures when incentivization is no longer used and to assess the rate of decay for proper blood pressure measurement by staff.

References

American Association of Critical-Care Nurses. (2016). *Obtaining accurate noninvasive blood pressure measurements in adults*. Retrieved from www.aacn.org.

Ballard, G., Piper, S., & Stokes, P. (2012). Effect of simulated learning on blood pressure measurement skills. *Nursing Standards*, 27(8), 43-7. doi: 10.7748/ns2012.10.27.8.43.c9363

Bland, M. & Ousey, K. (2011). Preparing students to competently measure blood pressure in the real-world environment: A comparison between New Zealand and the United Kingdom. *Nurse Education in Practice*, 12(1), 28-35. doi:10.1016/j.nepr.2011.04.009

Centers for Disease Control and Prevention. (2015). *High blood pressure facts*. Retrieved from www.cdc.gov/bloodpressure/facts.htm.

Coogan, N., Marra, A., & Lomonaco, E.A. (2015). Assessing accurate BP measurement: Size and technique matter! *Nursing* 45(4), 16-18. doi: 10.1097/01.NURSE.0000461838.55540.6e

Garcia, M.G.U., Ang, E., Ahmad, N.M. & Lim, C.C. (2012). Correct placement of blood pressure cuff during blood pressure measurement. *International Journal of Evidence-Based Healthcare*, 10(3), 191-196. doi: 10.1111/j.1744-1609.2012.00274.x.

Grim, C. & Grim, C. (2013). Office Blood Pressure Measurement. In Black, H. & Elliot, W. (Eds.), *Hypertension: A companion to Braunwald's heart disease* (2nd ed.) (pp. 34-44). Philadelphia, PA: Saunders.

Rabbia, F., Testa, E., Bertello, C., Rabbia, S., Practico, S., Colasanto, C.,... Veglio, F. (2013). Effectiveness of a blood pressure educational and evaluation program for the improvement of measurement accuracy among nurses. *High Blood Pressure and Cardiovascular Prevention*, 20(2), 77-80. doi: 10.1007/s40292-013-0012-5

Vieira da Silva, M.A., Mendes da Silva, A.P., Artigas Giorgi, D.M., Ganem, F. (2016). Successive blood pressure measurements to evaluate suspected and treated hypertension. *Blood Pressure Monitoring*, 21(2), 69-74. doi: 10.1097/MBP.000000000000161

Wisconsin Collaborative for Healthcare Quality. (2016). *View our reports*. Retrieved from <http://www.wchq.org/reporting/>

Contact

slizewski.nancy@marshfieldclinic.org

EBP PST 2 - Evidence-Based Practice Poster Session 2

Nursing Rounds: A Best Practice Implementation

Juli Daniels, PhD, CCRN, CNE, NEA-BC, LHRM, USA

Abstract

Background: Purposeful and timely rounding is a best practice intervention to routinely meet patient care needs, ensure patient safety, decrease the occurrence of patient preventable events, and proactively address problems before they occur. The Institute for Healthcare Improvement (IHI) endorsed hourly rounding as the best way to reduce call lights and fall injuries, and increase both quality of care and patient satisfaction. Nurse knowledge regarding purposeful rounding and infrastructure supporting timeliness are essential components for consistency with this patient centered practice.

Objectives: The project aimed to improve patient satisfaction and safety through implementation of purposeful and timely nursing rounds. Goals for patient satisfaction scores and fall volume were set. Specific objectives were to determine current compliance with evidence-based criteria related to rounding times and protocols, improve best practice knowledge among staff nurses, and increase compliance with these criteria.

Methods: For the objectives of this project the Joanna Briggs Institute's Practical Application of Clinical Evidence System and Getting Research into Practice audit tools were used. Direct observation of staff nurses on a medical surgical unit in the United States was employed to assess timeliness and utilization of a protocol when rounding. Interventions were developed in response to baseline audit results. A follow-up audit was conducted to determine compliance with the same criteria. For the project aims, pre- and post-intervention unit-level data related to nursing-sensitive elements of patient satisfaction and safety were compared.

Results: Rounding frequency at specified intervals during awake and sleeping hours nearly doubled. Use of a rounding protocol increased substantially to 64% compliance from zero. Three elements of patient satisfaction had substantive rate increases but the hospital's goals were not reached. Nurse communication and pain management scores increased modestly (5% and 11%, respectively). Responsiveness of hospital staff increased moderately (15%) with a significant sub-element increase in toileting (41%). Patient falls decreased by 50%.

Conclusions: Nurses have the ability to improve patient satisfaction and patient safety outcomes by utilizing nursing round interventions which serve to improve patient communication and staff responsiveness. Having a supportive infrastructure and an organized approach, encompassing all levels of staff, to meet patient needs during their hospital stay was a key factor for success. Hard-wiring of new practices related to workflow takes time as staff embrace change and understand how best practice interventions significantly improve patient outcomes.

References

1. Ford B. Hourly rounding: a strategy to improve patient satisfaction scores. *Medsurg Nurs*. 2010; 19(3):188-191.
2. Bluni R, O'Shaughnessy J. Words that save. Ensuring that "never events" never happen. *Marketing Health Services*. 2009; 29(3):13-17.
3. Boushon B, Nielson G., Quigley P, Rutherford P, Taylor J, Shannon, D, Rita S. (December 2012) How-to Guide: Reducing Patient Injuries from Falls. Cambridge, MA: Institute for Healthcare Improvement. [internet]. [cited February 1st, 2014]. Available from: <http://www.ihp.org>.
4. Reimer R, Herbener L. Round and round we go: rounding strategies to impact exemplary professional practice. *Clin J Oncol Nurs* 2014 18(6):654-659.
5. Olrich T, Kalman M, Nigolian C. Hourly rounding: a replication study.. *Medsurg Nurs* 2012; 21(1): 23-36.
6. Gnida, J.]; [Audio podcast].;CAHPS update [January 8th, 2015]. Omaha, Nebraska.
7. Grellner L. Put your money where your scores are HCAHPS and VBP. *Okla Nurse*. 2012; 57(3):4.
8. Berg K, Sailors C, Reimer R, O'Brien Y, Ward-Smith P. Hourly rounding with a purpose. *Iowa Nurse Reporter*. 2011; 24(3):12-4.

9. Blakley D, Kroth M, Gregson J. The impact of nurse rounding on patient satisfaction in a Medical- Surgical Hospital Unit. *Medsurg Nurs*. 2011; 20(6):327-32.
10. Butcher L. Hospitals work to prevent patient falls. [Internet]; [cited June 1st 2013]. Available from: http://www.hhnmag.com/Magazine/2013/Jun/0613HHN_coverstory.
11. Culley T. Reduce call light frequency with hourly rounds. *Nursing Management*. 2008; 39(3):50-52.
12. Deitrick L, Baker K, Paxton H, Flores M, Swavely D. Hourly rounding: challenges with implementation of an evidence-based process. *J Nurs Care Qual*. 2012; 27(1):13-9.
13. Gardner G, Woollett K, Daly N, Richardson B. Measuring the effect of patient comfort rounds on practice environment and patient satisfaction: a pilot study. *Int J Nurs Pract*. 2009; 15(4):287-293.
14. Halm M. Hourly rounds: what does the evidence indicate? *Am J Crit Care* 2009; 18(6): 581-584.
15. Kessler B, Claude-Gutekunst M, Donchez A, Dries R, Snyder M. The merry-go-round of patient rounding: assure your patients get the brass ring. *MEDSURG Nursing*. 2012; 21(4):240-245.
16. Meade C, Kennedy J, Kaplan J. The effects of emergency department staff rounding on patient safety and satisfaction. *J Emerg Med*. 2010; 38(5):666-674.
17. Meade C, Bursell A, Ketelsen L. CE Credit: Effects of nursing rounds on patients' call light use, satisfaction, and safety. *Am J Nurs* . 2006; 106 (9): 58-70.
18. Mitchell M, Lavenberg J, Trotta R, Umscheid C. Hourly rounding to improve nursing responsiveness. *J Nurs Adm*. 2014; 44(9):462-472.
19. Rondinelli J, Ecker M, Crawford C, Seelinger C, Omery A. Hourly rounding implementation: a multisite description of structures, processes, and outcomes. *J Nurs Adm*. 2012; 42(6):326-332.
20. Saleh BS, Nusair H, Al Zubadi N, Al Shoul S, Saleh U. The nursing rounds system: effect of patient's call light use, bed sores, and satisfaction level. *Int J Nurs Pract*. 2011; 17(3):299-303.
21. Tucker S, Bieber P, Attlesey-Pries J, Olson M, Dierkhising R. Outcomes and challenges in implementing hourly rounds to reduce falls in orthopedic units.. *Worldviews Evid Based Nurs* 2012; 9(1):18-29.
22. Woodward JL. Effects of rounding on patient satisfaction and patient safety on a medical-surgical unit. *Clin Nurse Spec*, 2009; 23,(4):200-6.
23. Montalvo I. The National Database of Nursing Quality Indicators™ (NDNQI®). *Online J Issues Nurs* 2007; 12(3) Manuscript 2
24. Studer, O. Serious about service. [Internet]. [cited November 7th, 2007]. Available from: http://www.studergroup.com/content/tools_and_knowledge/articles/associated_files/QuintNov07HealthExecutive.pdf.
25. Chu V. JBI Evidence Summary/Nursing Rounds: Clinician Information. Joanna Briggs Institute. 2014 [Internet]. [cited July 6th, 2014]. Available from: <http://paces.jbiconnectplus.org/AuditHome.aspx>
26. Maslow A. A theory of human motivation. *Psychol Rev* 1943; 50(4):370-96
27. American Nurses Credentialing Center. Pathway to Excellence. 2015. [Internet]. [cited July 3rd, 2014]. Available from: <http://nursecredentialing.org/Pathway.aspx>.

Contact

jdanielsphd@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Incorporating a Collaborative Perioperative Training Program in Undergraduate Nursing Education

Linda Wilson, PhD, RN, CPAN, CAPA, BC, CNE, CHSE-A, ANEF, FAAN, USA

Rosalyn McGrath, MSN, RN, CNOR, USA

Marianne Saunders, MSN, RN, CNOR, USA

Colleen Mattioni, DNP, RN, CNOR, USA

Donna Trinkaus, MSN, RN, USA

Deanna Lynn Schaffer, PhD, RN, CNE, ACNS-BC, USA

Abstract

In nursing today we have heard the many concerns of the nursing shortage in many specialty areas including nursing education. According to an article by Dr. Rose O'Sherman (2012) perioperative nursing is ground zero for the coming nursing shortage. The specialty of perioperative nursing workforce has been experiencing a shortage for many years now due to the aging workforce (O'Sherman, 2012). Many perioperative leaders already report they are having problems with recruitment and they expect that difficulty to increase over the next five years (O'Sherman, 2012). An additional problem is the absence of perioperative curricula in most nursing programs (Ball, Doyle, Oocumma, 2015) and lack of perioperative experiences and exposure to any of the perioperative areas (operating room, holding area, post anesthesia care unit, interventional radiology, endoscopy, etc.) has been eliminated from the nursing curriculum in most nursing programs in the United States (O'Sherman, 2012).

This session will present a Collaborative Perioperative Training Program developed between a university-based undergraduate nursing program and a hospital perioperative services department in an urban setting in Philadelphia, United States.

Planning for the Collaborative Perioperative Training Program was initiated in 2014 with several group planning meetings. The collaborative decided to initiate the program with the Accelerated Career Entry (ACE) undergraduate nursing students with a call for applications for the "ACE Perioperative Immersion Experience" in December 2105. The ACE students have a bachelor's degree in another field and are completing the BSN program in 11 months. Once the selection process was completed the participants completed the Association of Perioperative Registered Nurses (AORN) Perioperative 101 Fundamentals Course Modules. The immersion portion of the experience took place during break week between sessions where the participants completed 40 hours of education, simulation and clinical experiences with preceptors in the perioperative environment. The immersion included experiences in Pre-operative Observation, Operating Room, Post Anesthesia Care Unit, Surgical Center, and training on Introduction to Perioperative Nursing, Perianesthesia Nursing, Surgical Environment, Scrubbing Gowning Gloving, Aseptic Technique, Preoperative Assessment, Quality & Safety, Skin Antisepsis, Nursing Leadership, Shared Governance, Patient and Equipment Safety, Professionalism and much more. The feedback following the immersion experience was overwhelmingly positive from both the student participants and the clinical training site and six participants were hired full time out of the first cohort. The "ACE Perioperative Immersion Experience" continues to be offered two times a year in June and December with an additional seven students hired out of the second ACE cohort.

The second phase of the Collaborative Perioperative Training Program included implementing an "Introduction to Perioperative Nursing" minor for the traditional (4 year) undergraduate nursing students. Phase two was initiated in the fall of 2016. This "Introduction to Perioperative Nursing" minor program includes two courses and one week long immersion experience offered in the senior year. This program includes completion of the Perioperative 101 Course Modules along with lecture, simulation and clinical experiences and concludes with a 40 hour intensive immersion experience.

This Collaborative Perioperative Training Program developed between a university-based undergraduate nursing program and a hospital based perioperative services department in an urban setting in Philadelphia, United States has proven to be very effective in introducing nursing students to the specialty

of perioperative nursing and successful for recruitment of new graduates as perioperative nurses into the clinical environment. This collaborative team is looking forward to a continued successful relationship for many years to come.

References

Ball, K., Doyle, D., Oocumma, N., (2015). Nursing shortages in the OR: Solutions for new models of education. AORN Journal, 101 (1), 115-136.

O'Sherman, R. (2012). Why we should be concerned about a shortage of operating room nurses. Emerging RN Leader. <http://www.emergingrnleader.com/periop/>

Contact

Lbw25@drexel.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Starting the Conversation on Hypertension Self-Management in Primary Care to Improve Cardiovascular Outcomes

Jean Ann Davison, DNP, RN, FNP-BC, USA

Abstract

Background: Cardiovascular disease (CVD) – heart disease and strokes - caused one in three deaths in the USA in 2014 and The American Heart Association (AHA) projects that by 2030, 40.5% of the U.S. population will have some form of CVD, with an estimated cost to the national health care system of \$1 trillion per year (Tomaselli, Harty, Horton, & Schoeberl, 2011). In 2012 the U.S. Department of Health and Human Services (HHS) launched the *Million Hearts* initiative, (<http://millionhearts.hhs.gov/>) to prevent 1 million heart attacks and strokes in 5 years (2012-17). Strategies were directed at the leading modifiable risks for CVD to support improved outcomes in the "**ABCS**" - **A**spirin for those at risk, **B**lood pressure control, **C**holesterol control, **S**moking cessation and **S**odium reduction in the diet. The focus of this campaign is to empower Americans to make healthy lifestyle choices to reduce CVD risks and for healthcare providers to support their patients in these healthy lifestyles.

Hypertension (HTN) is the single most independent and modifiable risk factor for cardiovascular disease (CVD), stroke, congestive heart failure, and chronic renal disease (CRD) (Chobanian et al., 2003). The *Million Hearts* campaign set a clinical quality measure for blood pressure control goal at 70% in the clinical population with a diagnosis of hypertension; the measurement was defined as the "percentage of patients 18 to 85 years of age with a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year". In the Southeast Region of the United States, it is currently reported by the Department of Health and Human Services (2016) that only 53% of the of the population has achieved the clinical control blood pressure (BP < 140/90) - a large gap from the 70% goal (<http://millionhearts.hhs.gov/data-reports/cqm.html>, 2016).

The Centers for Disease Control and Prevention (CDC, 2013) *Hypertension Control: Action Steps for Clinicians* recommends to:

- Provide patients who have hypertension with a written self-management plan at the end of each office visit.
- Encourage or provide patient support groups.
- Use all staff interactions with patients as opportunities to assist in self-management goal-setting and practices.
- Print visit summaries and follow-up guidance for patients.

Purpose: The aim of this nurse led quality improvement (QI) project was to improve the clinical performance in the management of hypertension (HTN) with a focus on self-management support (SMS) among adult patients (18-75 years) at a rural primary care clinic with an exceptionally high rate of cardiovascular disease. The six-month QI initiative was designed with a goal to have 80% or more of the adult patients with a diagnosis of HTN actively setting goals in collaboration with their providers for CVD risk reduction.

Data Sources and Implementation: The study design was a six month long quality improvement study. Data included a retrospective baseline of meaningful use population data (N = 1210) generated six months prior to the QI study start date and an analysis of the data during the six-month QI study (N = 1409). Interventions included provider and staff quality improvement training along with patient education and lifestyle goal setting for self-management support (SMS) of HTN. All adult patients with a diagnosis of HTN or an elevated BP reading at their office visit were offered the brochures *Starting the Conversation on Blood Pressure* by the NC Prevention Partners(2011) and *Start with Your Heart Prescription for Better Health* from the NC Department of Health and Human Services(2011) in English and Spanish. Questions were answered on hypertension and risk reduction by all health care providers throughout the office visit. **Specific, Measurable, Attainable, Realistic and Time specific (SMART)** goal setting and action plans were encouraged and a written self-management plan was given at the end of each office visit. Electronic

medical record data was used to compile population statistics for blood pressure (BP), LDL cholesterol, tobacco use, body mass index, and self-management goals monthly throughout the QI study. Pre and post results of the QI six month period were compared.

Results: The primary objective, > 80% of adults aged 18 to 75 years would have documented self-management goals, was achieved and significantly improved from baseline. **SMART** goals discussed included following the recommendations for the Dietary Approaches to Stop Hypertension (DASH) diet, aerobic physical activity, weight loss for healthy body mass index, tobacco cessation, moderate alcohol consumption, stress reduction, medication adherence, home BP monitoring, and, as applicable, blood sugar control. A secondary objective was to see significant improvement in controlled HTN (BP < 140/90) for this population, but this did not occur. A limitation of this QI study was the short length (six months) of observation time.

Implications for Practice: The goal of this QI project to help patients in self-management support for modifiable risk reduction of HTN was achieved to help reduce the burden of CVD in this population. Nurses can have a vital role in meeting the current demand for HTN management in primary care, to support patients in their self-management. Working with patients to achieve healthy lifestyle CVD risk reductions and medication management could help reduce the burden of CVD at a population level.

References

- Borjesson, M., Onerup, A., Lundqvist, S., & Dahlof, B. (2016). Physical activity and exercise lower blood pressure in individuals with hypertension: Narrative review of 27 RCTs. *British Journal of Sports Medicine*, 50(6), 356–361. doi:10.1136/bjsports-2015-095786
- Centers for Disease Control and Prevention (2013). *Hypertension Control: Action Steps for Clinicians*. Atlanta, GA: Centers for Disease Control and Prevention, US Dept of Health and Human Services.
- Ehrlich, C., Kendall, E., Parekh, S., & Walters, C. (2015). The impact of culturally responsive self-management interventions on health outcomes for minority population: A systematic review. *Chronic Illness*, 12(1), 47–57.
- Epstein, D. E., Sherwood, A., Smith, P. J., Craighead, L., Caccia, C., Lin, P. H., . . . Blumenthal, J. A. (2012). Determinants and consequences of adherence to the dietary approaches to stop hypertension diet in African American and white adults with high blood pressure: Results from the ENCORE trial. *Journal of the Academy of Nutrition and Dietetics*, 112(11), 1763–1773. doi:10.1016/j.jand.2012.07.007
- Go AS, Mozaffarian D, Roger VL, et al. (2014) Heart disease and stroke statistics—2014 update: a report from the American Heart Association. *Circulation* 2014;129:e28–292.
- Hinderliter, A. L., Sherwood, A., Craighead, L. W., Lin, P. H., Watkins, L., Babyak, M. A., & Blumenthal, J. A. (2014). The long-term effects of lifestyle change on blood pressure: One-year follow-up of the ENCORE study. *American Journal of Hypertension*, 27(5), 734–741. doi:10.1093/ajh/hpt183
- James, P. A., Oparil, S., Carter, B. L., Cushman, W. C., Dennison-Himmelfarb, C., Handler, J., . . . Ortiz, E. (2014). 2014 evidence-based guideline for the management of high blood pressure in adults: Report from the panel members appointed to the Eighth Joint National Committee (JNC 8). *JAMA*, 311(5), 507–520. doi:10.1001/jama.2013.284427
- Lynch, E., Liebman, R., Ventrelle, J., Avery, E., & Richardson, D. (2014). A self-management intervention for African Americans with comorbid diabetes and hypertension: A pilot randomized controlled trial. *Preventing Chronic Disease*, 11, 130349. doi:10.5888/pcd11.130349
- Ndanuko, R. N., Tapsell, L. C., Charlton, K. E., Neale, E. P., & Batterham, M. J. (2016). Dietary patterns and blood pressure in adults: A systematic review and meta-analysis of randomized controlled trials. *Advances in Nutrition*, 7(1), 76–89. doi:10.3945/an.115.009753
- U.S. Department of Health and Human Services. (2015). Heart disease and stroke. Retrieved from <http://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke/objectives>

Contact

Jeanfnp@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Teaching Strategies for the Promotion of Effective Patient Communication in Vulnerable Women

Ginny Moore, DNP, WHNP-BC, USA

Abstract

Effective communication skills are an essential component in the ability to obtain necessary information regarding medical conditions and treatment plans (Institute of Medicine [IOM], 2004). The inability to obtain this information may result in erratic medication dosing, non-adherence to treatment plans, and missed follow-up appointments. These are factors associated with higher rates of hospital admissions, increased costs, and poorer health outcomes (Fetter, 2009; IOM, 2004).

Patients need to know what questions to ask and possess the confidence to ask those questions during the clinical encounter. At highest risk for lack of essential communication skills, are vulnerable populations. Vulnerable populations include those with low income (poverty-level or below), low education level (high school or less), chronic medical conditions, minorities, and homeless (Glassman, 2011; IOM, 2004). The purpose of this project was to educate vulnerable patients through the use of evidence-based written instruction and skills training about questions they could ask their health care providers to better understand their health.

The relevance of this problem for current society is multifaceted. Effective patient-provider communication is an essential component in patient outcomes. A decrease in the areas of patient recall of information, treatment adherence, and satisfaction has been associated with ineffective patient-provider communication (Cegala, McClure, Marinelli, & Post, 2000; Kaplan, Greenfield, Gandek, Rogers, & Ware, 1996; Rao, Anderson, Inui, and Frankel, 2007; Street et al., 2010). Conversely, effective patient-provider communication has been associated with increased effectiveness of pain management, treatment plan adherence, and patient satisfaction with care (Street et al., 2010; Wright, Sparks, & O'Hair, 2008).

Research evidence for interventions to improve patient-provider communication can be divided into provider focused and patient focused categories. Categories of patient focused interventions can be further divided into the communication skills of information seeking, provision of information, and verification of information. Cegala, McClure, Marinelli, and Post (2000) provided written instruction on these communication skills in the form of a training booklet delivered to participants two to three days prior to their scheduled provider appointments. The booklets afforded participants the opportunity to record relevant details of their medical histories, and to list questions and concerns for health care providers. Study results indicated that participants receiving this intervention provided more detailed information, asked more questions, and verified the information received during the clinical encounter more often than participants who did not receive the intervention.

After a systematic review of the evidence on patient communication interventions, Rao, Anderson, Inui, & Frankel (2007) reported that patients who received interventions containing a skills practice component were better able to begin and direct discussions with healthcare providers. They also obtained more information through the questions they asked than controls who did not receive the interventions. The use of both written information and skills practice was supported by Street et al. (2010) in a study that examined the effects of "tailored education –coaching" (TEC; p. 42) on patients' ability to effectively communicate their cancer related pain concerns. The TEC interventions were delivered in the form of a written information booklet and skills practice. Skills practice consisted of preparation for visits, and role-playing exercises where patients practiced asking questions, and expressing their needs and preferences. Patients who received the TEC intervention demonstrated greater efficacy in communicating their concerns which led to reported improvement in health outcomes.

A community education forum consisting of a 20 page "How to Talk to Your Doctor" guidebook, video clips of effective patient-provider communication, and role-playing of techniques to enhance communication was implemented by Tran et al. (2004). The forum was developed as community

education rather than a clinical intervention in an effort to reach diverse communities of people who might not otherwise have access to communication skills training. Participants were encouraged to employ an ABC (Ask questions, Be prepared, express Concerns) mnemonic during health care encounters. After completing the forum, participants reported increased confidence in the ability to effectively communicate with care providers.

Evidence findings indicate that written instruction and skills training have been equally efficacious in improving patient-provider communication. Patients receiving both interventions obtained more information and expressed a greater degree of confidence in their ability to communicate effectively with care providers after implementation of the interventions. These findings support the use of both written instruction and skills training interventions to promote effective patient communication skills.

This project involved the review of written information followed by the opportunity to practice application of the information through role-play. Written information included a wallet sized card from the Agency for Healthcare Research and Quality (AHRQ) used for listing medications and medical conditions and three basic questions that the National Patient Safety Foundation (NPSF) recommend be asked during every healthcare encounter. After reviewing the written material, application of the information during any scheduled healthcare encounters was discussed.

A pilot of the project was conducted during May and June 2012 with 20 women in a two-year residential recovery program for women who have survived lives of prostitution, addiction and violence. Study findings indicated self-reported increases in knowledge of questions and confidence in asking questions during health care encounters. The project replication was conducted from January 2015 through April 2015 in a six-month residential transition program for women recovering from addiction, trauma and incarceration. All women in the program had co-occurring substance use and mental health disorders. Both pilot and replication project programs were located in the southeastern United States.

The effectiveness of the practice change was evaluated with a pre-and post-intervention, self-report survey rating participants' knowledge of questions to ask healthcare providers and self-perceived confidence in asking those questions. The survey was a self-developed, pen and paper, Likert scale tool. Expert opinion was sought for validation. The outcomes measured were knowledge of questions to ask providers during healthcare encounters and self-perceived confidence in the ability to ask those questions during encounters. The difference in pre-and post-survey scores were calculated to determine project effectiveness in addressing the clinical problem.

A total of 13 active members in the recovery program participated in this EBP change project. The responses of "No", "Not Sure", and "Yes" were naturally ordered and hence ranked as 1,2, and 3, respectively, for the analysis; i.e., the higher the rank, the more positive response to the questions. Wilcoxon signed-rank tests were used to test whether the ranked responses after the intervention would be higher than those before the intervention. The scores (ranks) of responses after the intervention were significantly higher than those before the intervention for both survey items ($p=0.009$ and $p=0.009$, respectively).

On the pre-intervention survey, 2 of the 13 project participants responded "No" to the statement regarding knowledge of questions to ask providers during health care encounters. Two of the participants responded "Not Sure" and 6 responded "Yes". On the post-intervention survey, all 13 participants responded that they knew what questions to ask to get information about their health. Larger increases were reported in confidence. Prior to the intervention, 5 participants responded "No" and 2 responded "Not Sure" regarding confidence about talking with health care providers. Post-intervention, all 13 participants responded that they felt confident about talking with their health care providers.

Project findings indicate self-reported increases in knowledge of questions to ask and confidence in asking those questions. These findings confirm the value of teaching essential communication skills. Application of these interventions may enhance clinical care particularly with vulnerable and marginalized populations. Nurses can use this information to proactively guide patient education in the clinical setting,

empower patients in the community setting and educate students in the academic setting regarding essential patient communication strategies.

References

- Agency for Healthcare Research, & Quality. (2011b, May). *Medicine wallet card*. Retrieved from <http://www.ahrq.gov/consumer/safemeds/walletform.pdf>
- Cegala, D. J., McClure, L., Marinelli, T. M., & Post, D. M. (2000). The effects of communication skills training on patients' participation during medical interviews. *Patient Education and Counseling*, 41(2), 209-222. doi:10.1016/S0738-3991(00)00093-8
- Fetter, M. S. (2009). Promoting health literacy with vulnerable behavioral health clients. *Issues in Mental Health Nursing*, 30, 798-802. doi:10.3109/01612840902887725
- Glassman, P. (2011, June 7). In National Network of Libraries of Medicine (Ed.), *Health literacy*. Retrieved July 18, 2011, from <http://nnlm.gov/outreach/consumer/hlthlit.html>
- Institute of Medicine. (2004, April 8). In L. N. Neilsen-Bohlman, A. M. Panzer, & D. A. Kindig (Eds.), *Health literacy: A prescription to end confusion* (Consensus Report). Retrieved from <http://www.iom.edu/Reports/2004/Health-Literacy-A-Prescription-to-End-Confusion.aspx>
- Kaplan, S. H., Greenfield, S., Gandek, B., Rogers, W. H., & Ware, J. E. (1996). Characteristics of physicians with participatory decision-making styles. *Annals of Internal Medicine*, 124(5), 497-504. Retrieved from <http://www.annals.org.proxy.library.vanderbilt.edu/content/124/5/497.full>
- National Patient Safety Foundation. (n.d.). *Ask Me 3*. Retrieved July 11, 2011, from http://www.npsf.org.askme3/download/AskMe_8-pg_EN_ref_sample.pdf
- Rao, J. K., Anderson, L. A., Inui, T. S., & Frankel, R. M. (2007). Communication interventions make a difference in conversations between physicians and patients: A systematic review of the literature. *Medical Care*, 45(4), 340-349. doi:10.1097/01.mlr.0000254516.04961.d5
- Street, R. L., Slee, C., Kalauokalani, D. K., Dean, D. E., Tancredi, D. J., & Kravitz, R. L. (2010). Improving physician-patient communication about pain with a tailored education-coaching intervention. *Patient Education and Counseling*, 80(1), 42-47. doi:10.1016/j.pec.2009.10.009
- Tran, A. N., Haidet, P., Street, R. L., O'Malley, K. J., Martin, F., & Ashton, C. M. (2004). Empowering communication: A community-based intervention for patients. *Patient Education and Counseling*, 52, 113-121. doi:10.1016/S0738-3991(03)00002-8
- Wright, K. B., Sparks, L., & O'Hair, H. D. (2008). Health campaigns and community health initiatives. In *Health Communication in the 21st Century* (pp. 233-261). Malden, MA: Blackwell Publishing.

Contact

ginny.moore@vanderbilt.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

A Prospective Evaluation of Health-Related Quality of Life in Lymphedema Treatment

Chia Yu Lin, MS, RN, Taiwan
Hsueh-Erh Liu, PhD, RN, Taiwan

Abstract

Background: The vascularized lymph node flap transfer was the flap of choice for lower extremity lymphedema. Although physical rehabilitation is important for lymphedema treatment, there is no standardized procedure for different stage lymphedema. This study was conducted to investigate the vascularized lymph node transfer (VLNT) and Complete Decongestive Therapy (CDT) long term result in lymphedema.

Methods: An IRB-approved prospective study was performed of patients who underwent vascularized lymph node transfer for symptomatic upper (ULL) or lower limb (LLL) lymphedema. Patients who had either submental or groin VLN transfer for upper or lower limb lymphedema were isolated. Outcomes were assessed using improvement of circumference reduction, decreased number of episodes of cellulitis and health-related quality of life (HRQOL) metric.

Result: A total 138 patients were identified and met inclusion criteria. More identified patients underwent VLN (50.7%) as compared to CDT (49.3%) for lymphedema. Patient age, BMI, tobacco use, diabetes, hypertension, lymphedema grading and lymphedema reason were similar between groups ($p=0.4$; $p=0.2$; $p=0.6$, $p=0.5$, $p=0.5$, $p=0.7$, $p=0.7$, respectively). Circumference reduction was higher in the VLN group (35.3%) as compared to the CDT group (23.4%) and post-operative episodes of cellulitis was higher in the CDT group (4 ± 1.5 times per years) as compared to the VLN group (1.4 ± 1.3 times per years) during the 12-month follow-up evaluation, have statistical significance ($p=0.03$ and $p=0.04$, respectively). In HRQoL part, overall quality of life and function, body appearance, symptom, and mood domains were all significantly improved in the VNL group ($p<0.01$ within each domain).

Conclusion: The vascularized lymph node transfer and complete decongestive therapy VLN and are both valuable treatment options in treating lymphedema especially VLN transferred in severe lymphedema (Grade III to IV) was more effective. These improvements are mirrored by improvements in patient-reported outcomes and quality of life measures. These changes can be seen 12 month post-operatively and continued steady improvement can be expected.

References

- Ridner, S. H., Fu, M. R., Wanchai, A., Stewart, B. R., Armer, J. M., & Cormier, J. N. (2012). Self-management of lymphedema: a systematic review of the literature from 2004 to 2011. *Nurs Res*, *61*(4), 291-299. doi: 10.1097/NNR.0b013e31824f82b2
- Wanchai, A., Beck, M., Stewart, B. R., & Armer, J. M. (2013). Management of lymphedema for cancer patients with complex needs. *Semin Oncol Nurs*, *29*(1), 61-65. doi: 10.1016/j.soncn.2012.12.001
- Shigaki, C. L., Madsen, R., Wanchai, A., Stewart, B. R., & Armer, J. M. (2013). Upper extremity lymphedema: presence and effect on functioning five years after breast cancer treatment. *Rehabil Psychol*, *58*(4), 342-349. doi: 10.1037/a0034657
- Rodrick, J. R., Poage, E., Wanchai, A., Stewart, B. R., Cormier, J. N., & Armer, J. M. (2014). Complementary, alternative, and other noncomplete decongestive therapy treatment methods in the management of lymphedema: a systematic search and review. *PM R*, *6*(3), 250-274; quiz 274. doi: 10.1016/j.pmrj.2013.09.008

Contact

chiayumiffy@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Identifying Exercise Barriers for Nurses Working in Sedentary Work Roles

Carol M. Patton, DrPH, RN, FNP-BC, CNE, USA

Abstract

More and more nurses and nurse educators are working in sedentary work roles that require them to be sedentary for long periods of time. Typically nurses working in sedentary roles know intellectually they need to engage in physical activity to stay healthy; however, there are many barriers and challenges preventing nurses working in sedentary roles to engage in adequate physical activity. Contemporary literature indicates there are numerous physiological impacts on the health status and outcomes for nurses completing fewer than 5000 steps per day. Nurses completing fewer than 5000 steps per day are considered to have a sedentary work role. Nurses completing fewer than 5000 steps per day are at increased risk of developing chronic disease. Nurses working in sedentary work roles are at increased risk of mortality and morbidity from elevated body mass index (BMI). For example, nurses with an elevated BMI are more likely to experience poor health status and chronic disease resulting in higher rates of work absence, earlier exit from the nursing workforce, or retire early from the nursing workforce. Obesity is a compelling health issue for nurses and is linked to inactivity and sedentary occupational roles. Fewer than 50% of American adults currently meet the National Guidelines for Physical Activity when compared to the National Clinical Guidelines for *Physical Activity Guidelines for Americans*. For example, the National Center for Chronic Disease Prevention and Health Promotion indicates all adults should engage in 150 minutes of moderate-intensity aerobic physical activity weekly or have 75 minutes of vigorous-intensive physical activity weekly. Following the recommended guidelines of the Physical Activity Guidelines for Americans decreases risk of chronic diseases including heart disease, diabetes, and many cancers. The Exercise Benefits-Barriers Scale (EBBS) is a valid and reliable measurement tool that helps identify cognitive and perceptual factors and barriers of persons with regard to exercise and physical activity. The EBBS provides participant responses and insight into one's ideas about exercise. The EBBS is a valid and reliable for use in adults age 18 and older. The purpose of this evidence-based intervention is to administer the EBBS to nurses working in sedentary work roles to identify barriers and challenges for these nurses with regard to daily exercise and physical activity. Based on the data and outcomes from the EBBS, an at-work exercise program will be designed for nurses working in sedentary roles to improve their health status and reduce risk of chronic disease.

References

- Olander, E.K., Fletcher, H., Williams, S., Atkinson, L., Turner, A., & French, D.P. (2013). What are the most effective techniques in changing obese individuals' physical activity self-efficacy and behavior: A systematic review and meta-analysis. *International Journal of Behavioral Nutrition and Physical Activity*, 10, 28–43.
- Parry, S., & Straker, L. (2013). The contribution of office work to sedentary behavior associated risk. *BMC Public Health*, 13(1), 1-10.
- Taylor, N., Conner, M., & Lawton, R. (2012). The impact of theory on the effectiveness or worksite physical activity interventions: A met-analysis and meta-aggression. *Health Psychology Review*, 6(1), 33-73.

Contact

patton@windstream.net

EBP PST 2 - Evidence-Based Practice Poster Session 2

Polysubstance Use, Decision Making, and Geosocial Networking App Use Among MSM

Michael Sanchez, DNP, CRNP, FNP-BC, USA
Deborah S. Finnell, DNS, RN, FAAN, USA
Jose Bauermeister, PhD, MPH, USA
Jason Farley, PhD, MPH, RN, CRNP, FAAN, USA
Rob Stephenson, PhD, MSc, USA

Abstract

Men who have sex with men (MSM) exhibit the greatest risk for HIV and are disproportionately affected by HIV infection. At current rates, 1 in 6 MSM will be diagnosed with HIV in their lifetime, including 1 in 2 black MSM, 1 in 4 Latino MSM, and 1 in 11 white MSM. MSM account for 55% of people living with HIV in the United States in 2013. While it is estimated that MSM represents 2% of the male population in the US, this group accounts for 66.7% of HIV infections diagnosed in 2014². From 2005 to 2014, HIV diagnoses steadily decreased in the United States by 19%, however, the incidence continues to rise among MSM aged 13 and older. Among males, MSM accounted for 83% (29,418) of the estimated new HIV diagnoses. Within this sexual minority group, diagnoses rates continue to rise among certain racial/ethnic minority populations (e.g., African American and Hispanic/Latino MSM) in contrast to the noted drop among other racial/ethnic groups.

Geosocial networking (GSN) applications (e.g., Grindr, Scruff, and Jack'd) have become a new environment through which young MSM can meet potential sex partners. Smartphones and GSN applications have changed the traditional paradigm for identifying sexual partners and provides new means for MSM to locate partners outside of traditional venues. GSN applications facilitate the identification of sex partners nearby. Sexual encounters between MSM are often expedited by the use of these GSN. These meetings may occur quickly, with little discussion of each partner's HIV status or sexual history. Users of these applications may rely on incorrect perceptions of what types of people are HIV-positive to make decisions regarding their sexual practices with their potential partners. The role that GSN applications play in potential exposure to HIV among young MSM is of particular interest given that MSM in the 13 to 24 year age group accounted for 92% of new HIV diagnoses among this age group overall, and 27% of new diagnoses among all gay and bisexual men.

Little is known about the associations of polysubstance use and decision-making process among MSM in the realm of GSN applications use. Social networks may influence members' sexual behavior via social comparison, social sanctions and rewards, socialization, and information exchange. These processes may be exacerbated/confounded by polysubstance use, but has not been extensively studied. It is known that alcohol and substance use among MSM is a significant predictor of risky sexual behavior. Moreover, alcohol consumption directly affects sexual-decision making and is associated with increased risk behaviors linked to HIV infection. One study found that the effects of alcohol on intentions to engage in unprotected sex were stronger when sexual arousal was heightened. Additionally, alcohol consumption, particularly binge drinking, has been significantly associated with more unplanned sexual encounters and can also affect sexual communication and negotiation.

Many of the studies evaluating polysubstance use and decision making among MSM were conducted before 2009, before new technologies, particularly GSN applications were developed and broadly adopted. Thus, these studies did not consider or evaluate the implications of substance use in association with sex-seeking behaviors among MSM specifically within the context of GSN application utilization. Additionally, some of these GSN applications target varying subcultural identities of MSM, highlighting the heterogeneity of this population that is often overlooked¹⁰. Given that GSN applications are increasing in popularity as a means of meeting sexual partners, further research in this area is warranted to aid the development of novel and effective HIV/STI prevention programs.

References

Benotsch, E. G., Snipes, D. J., Martin, A. M., & Bull, S. S. (2013). Sexting, substance use, and sexual risk behavior in young adults. *Journal of Adolescent Health, 52*(3), 307-313.

Beymer, M. (2012). Grindr and other geosocial networking applications: Advent of a novel, high-risk sexual market place. *2012 National STD Prevention Conference*, Centers for Disease Control and Prevention. (2014). *Diagnoses of HIV Infection in the United States and Dependent Areas, 2011, HIV Surveillance Report, 2013, Vol.23*, Centers for Disease Control and Prevention. (2016). Lifetime risk of HIV infection.

Fisher, J. D. (1988). *Possible effects of reference group-based social influence on AIDS-risk behavior and AIDS-prevention*. American Psychological Association.

Goedel, W. C., Halkitis, P. N., & Duncan, D. T. (2016). Behavior-and partner-based HIV risk perception and sexual risk behaviors in men who have sex with men (MSM) who use geosocial-networking smartphone applications in new york city. *Journal of Urban Health, 93*(2), 400-406.

Holloway, I. W. (2015). Substance use homophily among geosocial networking application using gay, bisexual, and other men who have sex with men. *Archives of Sexual Behavior, 44*(7), 1799-1811.

Latkin, C., Mandell, W., Oziemkowska, M., Celentano, D., Vlahov, D., Ensminger, M., & Knowlton, A. (1995). Using social network analysis to study patterns of drug use among urban drug users at high risk for HIV/AIDS. *Drug and Alcohol Dependence, 38*(1), 1-9.

Lehmiller, J. J., & loerger, M. (2014). Social networking smartphone applications and sexual health outcomes among men who have sex with men. *PLoS One, 9*(1), e86603.

Lyons, A., & Hosking, W. (2014). Health disparities among common subcultural identities of young gay men: Physical, mental, and sexual health. *Archives of Sexual Behavior, 43*(8), 1621-1635. doi:10.1007/s10508-014-0315-1

Phillips II, G., Magnus, M., Kuo, I., Rawls, A., Peterson, J., Jia, Y., . . . Greenberg, A. E. (2014). Use of geosocial networking (GSN) mobile phone applications to find men for sex by men who have sex with men (MSM) in washington, DC. *AIDS and Behavior, 18*(9), 1630-1637.

Rice, E., Holloway, I., Winetrobe, H., Rhoades, H., Barman-Adhikari, A., Gibbs, J., . . . Dunlap, S. (2012). Sex risk among young men who have sex with men who use grindr, a smartphone geosocial networking application. *Journal of AIDS & Clinical Research, 2012*

Scott-Sheldon, L. A., Carey, K. B., Cunningham, K., Johnson, B. T., Carey, M. P., & MASH Research Team. (2016). Alcohol use predicts sexual decision-making: A systematic review and meta-analysis of the experimental literature. *AIDS and Behavior, 20*(1), 19-39.

Stall, R., & Purcell, D. W. (2000). Intertwining epidemics: A review of research on substance use among men who have sex with men and its connection to the AIDS epidemic. *AIDS and Behavior, 4*(2), 181-192.

Contact

msanchez@jhu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Food and Activity: A Competence Enhancement Project for Persons With Developmental Disabilities and Caregivers

Solrun G. Holm, MSN, RN, Norway
Ragnhild Holdal Rasmussen, BSN, RN, Norway

Abstract

Background: In Norway persons with developmental disabilities live in community-based settings. Managers and caregivers are expected both to promote residents' health and to support their autonomy. Ideas that serve as guiding principles in today's care of persons with intellectual disabilities are Individualization and participation. Persons with intellectual disabilities have the right to be included in the community and to make their own choices in everyday life. Persons with developmental disabilities both obesity and malnutrition are problems (Hove, 2004; Ruud, Raanaas, & Bjelland, 2016). In our municipality most persons with developmental disabilities have these problems. Staff shifts make it difficult to keep track of persons with developmental disabilities' nutritional status, diet and activity. Persons with developmental disabilities do not have sufficient knowledge or understanding relating to own diet. The competence of the caregivers in the field of nutrition and activity varies much. They assist with grocery shopping, preparation, and implementation of meals, and follow up the wishes of users. The need for increase in competence in nutrition and physical activity, both persons with developmental disabilities and caregivers, is huge.

Purpose: The main purpose of the project is that persons with developmental disabilities should have a better diet and increased activity level.

Method: Quality improvement intervention involving persons with developmental disabilities and their caregivers.

Results: Based on the cookery courses the caregivers and persons with developmental disabilities developed a spiral booklet with recipes and shopping list tailored to one person. Tuesday Club got a better structure with regular activities like disco, party games and fitness activities. Persons with developmental disabilities participate in planning what to eat and they also participate in cooking.

Persons with developmental disabilities and their caregivers made a walking trail in the neighborhood with 5 checkpoints where the person who walk the trail get a mark in a card with a ticket punch. Five marks give a reward.

Conclusion: Persons with developmental disabilities and their caregivers got better knowledge of how to conduct a healthier diet. Cooking courses gave the persons with developmental disabilities increased expertise on practical cooking, and how to make single servings. Spiral booklet helps persons with developmental disabilities and their caregivers planning purchase of healthier groceries. The caregivers seem the spiral booklet is useful for guidance and motivation. The walking trail leads to increased physical activity outdoors and now the persons with developmental disabilities demand more checkpoints.

References

Hove, O. (2004). Weight survey on adult persons with mental retardation living in the community. *Research in Developmental Disabilities, 25*(1), 9-17. doi:<http://dx.doi.org/10.1016/j.ridd.2003.04.004>
Ruud, M. P., Raanaas, R. K., & Bjelland, M. (2016). Caregivers' perception of factors associated with a healthy diet among persons with intellectual disability living in community residences: A Concept mapping method. *Research in Developmental Disabilities, 59*, 202-210. doi:<http://dx.doi.org/10.1016/j.ridd.2016.09.006>

Contact

solrun.holm@nord.no

EBP PST 2 - Evidence-Based Practice Poster Session 2

Bed Climate for Infants and Their Mothers: From the Viewpoint of Absolute Humidity

Rie Ikeda, PhD, RN, RM, Japan
Sachiko Takahashi, EdD, Japan

Abstract

Objective: The microclimate created between bedding and the body is referred to as the "bed climate", with a bed temperature of 33°C and relative humidity of 50-60% considered optimal. In 2005, the guidelines for the prevention of SIDS (sudden infant death syndrome) referred to the issue of sleep environments, including "the types of bed" and "overheating". Wilson (2005) reported that infants' bed climate of the eastern countries was warmer than them of the western countries. Overheating is one of the chief risk factors for SIDS¹⁾. The objective of the present study was that bed climate of Japanese infants and mothers is examined from the point of relative and absolute humidity for safe and comfortable sleep environment.

Methods: Data were collected from four infants (age range, 2-5 months) and their mothers. Bed climate and sleep-wake status while using the following three different mattress types (a cotton futon, cotton pad and a polyester futon) were monitored for three nights. A data logger was used to record the temperature and relative humidity associated with each mattress under the back and at the feet of each infant and mother for one minute. Absolute humidity was calculated from Relative humidity by computer. Sleep-wake status was assessed using an actigraph. Data associated with each bedding material for each night were then analyzed and compared.

Results: Regarding bed climate, use of the cotton futon and the cotton pad resulted in lower bed temperature and humidity compared with the polyester futon. The bed climate was found to be influenced by the bedding when a water-proof sheet was used. Regarding infants' sleep, total sleep time was longer with use of the cotton futon and pad. Sleep of mothers was influenced by sleep of their infants.

Conclusion: The cotton futon and the cotton pad appeared to provide favorable bed temperature and humidity. Use of them were indicated to positively affect the infants' sleep.

References

- 1) Basu R, Pearson D, Sie L, Broadwin R. (2015). A Case-crossover study of temperature and infant mortality in Clifornia. *Paediatr Perinat Epidemiol*, 29,407-15. doi: 10.1111/ppe.12204.
- 2) Arnold C. (2015). New risk factor for SIDS? Peaks in cot deaths associated with heat waves. *Environ Health Perspect*, 123(7):A185. doi: 10.1289/ehp.123-A185.

Contact

r-ikeda@fhw.oka-pu.ac.jp

EBP PST 2 - Evidence-Based Practice Poster Session 2

Determining the Level of Engagement in the Ohio State University Wellness Innovator Program

Megan E. Amaya, PhD, CHES, AFAA, USA

Leah Colleen Mitchell, MPH, USA

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN, USA

Lauren Battista, MPH, USA

Abstract

Background: A wellness champion team is an essential component of a worksite wellness program initiative. The role of the wellness champion team is to communicate, participate in, motivate colleagues, and support the worksite wellness program. Champions are often the “voice of the employee” for wellness offering considerations. However, very little is known about the impact and level of participant engagement of these teams. Developed 4 years ago under the direction of the University Chief Wellness Officer, the wellness team at a large academic institution in the United States includes 500 faculty/staff members who are Wellness Innovators from across the university. **Methods:** A pre-experimental, cross-sectional study design to study multiple variables in a single point in time. An anonymous 9-item survey was developed and administered to all participants in the Wellness Innovator program. Items were created based upon an extensive review of the literature. **Analysis:** Means of continuous variables (e.g., age) will be compared across groups using two-sample t-tests (engaged vs. less engaged Wellness Innovators). Chi-squared tests will be used to compare distributions of categorical variables (e.g., gender) across groups. If differences in demographics across groups are found, then linear and logistic regression models will be used to test for differences in manager support across the groups to control for demographic differences by including them as covariates in the models. **Results:** Survey items include questions about engagement and support of Wellness Innovators in their current role. To provide consistency, definitions of these terms are provided in the survey. Demographic information on participants will be presented, as well as current level of engagement in the program and perceived manager/supervisor support for their role in the program. Data will be presented on the following two research questions: 1) are there demographic differences among Wellness Innovators that are engaged and less engaged within the Wellness Innovator program? and 2) are there perceived differences in direct manager support among Wellness Innovators that are engaged and less engaged within the Wellness Innovator program? **Conclusion:** Measuring level of engagement of a worksite wellness team is vital to the longevity and support of the program. Although many worksite wellness programs employ wellness champion teams, the field as a whole has little understanding of how level of engagement and manager/supervisor support can influence the champion’s decision to remain committed to the wellness program. Implications exist for not only a worksite wellness program but for other environments where wellness champion teams exist, such as community health promotion efforts, medical centers, and patient advocacy populations.

References

- Kuehl, H., Mabry, L., Elliott, D., Kuehl, K. S., & Favorite, K. C. (2014). Factors of Adoption of a Fire Department Wellness Program: Champ and Chief Model. *Journal of Occupational Environmental Medicine*, 1-15.
- Michaels, C. N., & Greene, A. M. (2013). Worksite Wellness: Increasing Adoption of Workplace Health Promotion Programs. *Health Promotion Practice*, 473-479.
- Scarduzio, J. A., & Geist-Martin, P. (2015). Corporate Wellness Campaigns. In T. R. Harrison, & E. A. Williams, *Organizations, Communication and Health*. Routledge.
- Spoonheim, J. B., & Pronk, N. P. (2016). Wellness Champion Networks; A Best Practice Resource for Workplace Wellness Programs. *ACSM's Health and Fitness Journal*, 36-39.

Contact

Amaya.13@osu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

The Association with Social Skills and Self-Monitoring in Japan

Mio Sato, MSN, RN, Japan
Riho Mitsubayashi, BSN, RN, Japan
Chizuru Mori, PhD, RN, Japan

Abstract

Background: Japanese people have difficulty with certain interpersonal interactions such as expressing and explaining their opinions, expressing their feelings, and face to face communication. In order to communicate with others, it is necessary to develop one's social skills. Social skills are cognitive processes that enable an expression of interpersonal action and include both verbal and nonverbal actions that are used to react adequately and effectively in an interactive situation. In Japanese culture, social interactions are very strongly directed by the social context in which they occur. Furthermore, Japanese people tend not to give clear verbalization of their thoughts or feelings. Japanese people are, therefore, required to understand subtleties in one another's words and behavior in order to act appropriately and meet certain group or social expect actions. Thus, social skills are important to expand one's social life by helping individuals to adapt to various social situations such as in school or in the work place.

To meet social expectations, it is necessary to control one's behavior an ability that comes from a personality train known as self-monitoring. Self-monitoring involves being conscious of one's own behavior during interpersonal contexts in order to accommodate to that situation. People with a high self-monitoring tendency can easy modify their behavior, while people who have a low self-monitoring tendency act according to their own beliefs and volition. Self-monitoring, therefore, involves not only the ability to regard one's self objectively, but also to control and adjust one's behavior accordingly. So while social skills are generally competences relates to understanding and associating with others, self-monitoring is an introspective consciousness process that dictates one's behavior. Thus, self-monitoring is an important factor for effective social skills, particularly in a Japanese cultural context.

Concern over interpersonal relationships is a major factor that contributes to emotional suffering in the lives of Japanese people, while, social interaction with in communities is known to raise well-being in daily life. Therefore, it is important to investigate the causes of difficulties that arise in interpersonal relationships in Japan, and find ways to help construct and maintain such relationships.

Objective: The purpose of this study is to show the association between social skills and self-monitoring in a Japanese population.

Methods: Participants - A total of 203 participants were recruited for this study.

Measurement Instrument: Social skills - To gather data for this study, we used the Social Skills Self-Rating Scale for Adults (SSSA), which was developed in Japan by Aikawa et al (2005). The SSSA instrument, which includes 6 subscales and 35 items, is able to comprehensively assess communication and interaction skills. The 6 subscales are: 1) Construction of relationships (the skill to construct relationship with others); 2) Decoding (the skill to decode an expression and feelings of others); 3) Assertion (the skill to express one's opinion by an appropriate way); 4) Control of emotion (the skill to control one's emotional expression); 5) Maintenance of relationships (the skill to behave in consideration for others' emotion); and 6) Symbolization (the skill to express one's mental state with expression and non-verbal gesture). Participants gave each item a profile score, ranging from 1 (hardly suitable) to 4 (very suitable), and the range of score is from 35 to 140. A high profile score indicates high levels of social skills.

Self-monitoring - To measure self-monitoring, we used the Cognitive Behavioral Self-Monitoring Scale (CBSMS) developed by Tsuchida et al (2007) in Japan. This instrument is an appropriate way to objectively measure self-monitoring. The CBSMS is self-rating scale that consists of 3 subscales with a

total of 17 items. Each item is scored, from 1 (hardly suitable) to 5 (very suitable) and the maximum total score is 85. A high total score indicate that self-monitoring function is high. The 3 subscales are: 1) Behavior monitoring (indicate a tendency to control oneself along the situation); 2) Circumstance monitoring (indicate a tendency to monitor others and atmosphere, and catch them analytically); and 3) Monitoring cognition (indicate a tendency to recognize a state of the self, such as feelings, thought, and sense of values).

Analysis - We used Spearman's correlation test to identify the relationship between the SSSA and CBSM scales, and age. The Mann-Whitney U test was used to detect variations between genders. For the analysis we used the Statistical Package for Social Sciences (SPSS) version 21, at a 95% confidence level.

Ethical considerations - This study was approved by the Ethics Committee of the University of Tsukuba, Faculty of Medicine. Written informed consent was obtained from all participants included in this study.

Results: A total of 177 participants (70 men and 107 women) were included in the assessment, (mean age: 34.6 years [SD = 15.6]). Cronbach's alpha score for the SSSA and CBSMS were .90 and .81, respectively.

The mean overall score for SSSA was 94.1 ± 11.9 (range: 52-133). The mean scores for each subscale, when divided by the number of the items, were: 'Construction of relationships' = 2.7; 'Decoding' = 2.8; 'Assertion' = 2.4; 'Control of emotion' = 2.5; 'Maintenance of relationships' = 3.1; and 'Symbolization' = 2.8. The CBSMS mean overall score was 61.9 ± 8.4 (range: 17-85). The mean score for each subscale, when divides by the number of the items, were: 'Behavior monitoring' = 3.5; 'Circumstance monitoring' = 3.7; and 'Monitoring cognition' = 3.8.

The overall score for SSSA was significantly correlated with the overall score for CBSMS ($r_s = .43, P < .01$). The score for 'Behavior monitoring,' which is subscale of CBSMS, was correlated with: overall score for SSSA ($r_s = .55, P < .01$); 'Decoding' ($r_s = .47, P < .01$); and 'Maintenance of relationships' ($r_s = .55, P < .01$). SSSA and CBSMS had no significant correlation with age.

Discussion: The results of the subscale scores pertaining to social skills perhaps indicate a typical characteristics of the Japanese. While Western cultures are said to be individualistic, Japanese culture is typically more group-oriented; Japanese are more likely to express a community-oriented and relationship-centered opinion rather than an individual opinion. The score for 'Assertion' and 'Maintenance of relationships' reflect a tendency of the Japanese to not insist upon their own opinion and the importance they place on cooperation with others.

Our results suggest that a tendency towards self-monitoring in interactive situations is associated with an effective influence on social skills. In the CBSMS subscale 'Behavior monitoring' was correlated with 'Decoding' on the SSSA subscale. Items in the 'Behavior monitoring' subscale, indicate tendencies of the ability to adapt one's behavior according to a particular situation, and items in the 'Decoding' subscale indicate skills to interpret the mental states of others. Where there is a strong tendency to adapt one's behavior to a particular situation, there is an accompanying high level of skill to interpret the mental states of others (intentions, desires, expectations) and understand the social expectations.

The CBSMS subscale 'Behavior monitoring' was significantly correlated with the SSSA subscale 'Maintenance of relationships', for which the items are about adapting ones behavior to suit the social context that one is in. Our results demonstrated that a strong tendency to adapt behavior is associated with social skills that are thoughtful and considerate of others.

Implication: Problems arising from interpersonal interactions are one of the major causes of stress and trouble in daily life. This problem is particularly acute in Japan because of its strongly group-oriented culture. In order to promote mental well-being and it is important to address such problems. Self-monitoring is an important character trait in an interactive situation as it serves to adjust a person's behavior appropriately to the situation. Thus, for people with difficulty in interpersonal relationships it is important that they have support available to help them develop self-monitoring and social skills.

Acknowledgement: This study received Japan Academy of Psychiatric and Mental Health Nursing grant (2016). This abstracts got the English proofreading by Thomas D Mayers, Assistant Professor, University of Tsukuba Faculty of Medicine, Medical English Communications Center.

References

Aikawa,A., Fujita,M.(2005). An attempt to construct a social skills self-rating scale for adults. The Bulletin of Tokyo Gakugei University,56,87-93.

Tsuchida,T., Fukushima,O. (2007). The development of the cognitive behavioral self-monitoring scale. Mejiro journal of Psychology,3,85-93.

Wakabayashi,A., Baron-Cohen,S., et al. (2007). Empathizing and systemizing in adults with and without autism spectrum condition: Cross-Cultural stability. Journal of Autism Development Disorder,37,1823-1832.

Contact

orange.mi310to@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Unspoken: Decreasing Attitudes of Stigma Towards Obese Women By Healthcare Providers

Mary Ellen A. Burke, MSN, RN, CNM, USA

Abstract

There is evidence of significant implicit and explicit bias towards obese individuals by health care providers (Sabin, Marini, & Nosek, 2012). Goffman's theory of stigma states that when a person is perceived different from others in a negative way, they become discounted as a full person. Stigma is a relationship between an attribute and a stereotype (Goffman, 1963). Adult obese women may delay or avoid gynecological care due to stigma secondary to implicit or explicit bias of health care providers, exacerbated by societal stigma, resulting in decreased empathy caused by lack of knowledge and training about the care of obese women (Mold & Forbes, 2013).

This will be a quality improvement project with a pre and post test of explicit and implicit bias of health care providers in an OB/GYN practice. The post-test will be conducted after an intervention that includes provider education on improving the environment of care for obese women as well as viewing a video of obese women's experience of stigma and bias in the health care setting. Data about explicit and implicit bias will be collected from providers. Demographic data about providers will be collected including professional role, age, gender, years of practice, race, ethnicity, and BMI. The Implicit Association Test for obesity and the Anti-fat Attitudes Test for explicit bias will be administered pre and post intervention. The Implicit Association test has been validated by a multitrait, multimethod validation that has found the instrument to be a credible measure of implicit attitudes (Nosek and Smyth, 2007). The Antifat Attitudes Test of explicit bias has 47 items in 3 major categories found to have r values $>.60$ validating the acceptable quality of this instrument (Lewis, Cash, Jacobi, & Bubb-Lewis, 1995). Data will be collected and the educational intervention will be facilitated over approximately 1 month at a chosen OB/GYN practice.

The goal of this project is to improve the quality of care and empathy towards obese women by health care providers in an OB/GYN practice through provider education about experience of obese women who receive healthcare and provision of resources to improve comfort and quality of care to obese women in an OB/GYN practice.

References

- Mold, F. & Forbes, A. (2013). Patients and professionals experiences and perspectives of obesity in health care settings: A synthesis of current research. *Health Expectations* 16, 119-142. doi: 10.1111/j.1369-7625.2011.00699.x
- Sabin, J.A., Marini, M. & Nosek, B. (2012). Implicit and explicit antifat bias among a large sample of medical doctors by BMI, race/ethnicity and gender. *PLOS ONE* 7 (11) e48448. Retrieved from www.plosone.org.
- Swift, J.A., Tischler, B., Markham, S., Gunning, I., Glazebrook, C., Beer, C., & Puhl, R. (2013). Are anti-stigma films a useful strategy for reducing weight bias among trainee health professionals? Results of a pilot randomized control trial. *Obesity Facts: The European Journal of Obesity* 6, 91-102. doi: 10/1159/00348714.

Contact

mburke@nursing.umass.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

The Risk Factors Affecting Survival in Colorectal Cancer in Taiwan

Shu-Fen Wu, MSN, RN, Taiwan
Chao-Hsien Lee, PhD, Taiwan
Shu-Chen Cheng, MS, RN, Taiwan
Hong-Yi Tung, MS, MD, Taiwan
Shih-Chang Chang, MD, Taiwan
Ching-Yun Ching, BSN, RN, Taiwan

Abstract

Background: Colorectal cancer (CRC) is the second and third most commonly diagnosed cancer type in females and males, respectively, representing almost 10% of the global cancer incidence. The incidence of colorectal cancer (CRC) in Taiwan is rising. Cancer survival is an indicator of the overall effectiveness of health services in the management of patients. In this study, we sought to determine the five-year survival rate of patients diagnosed with CRC and to determine factors affecting survival. **Methods:** In this study, we conducted a single-center, retrospective cohort study to estimate the survival outcome of patients diagnosed with colorectal carcinoma at medical center hospital in North Taiwan between 2007 and 2013. Data were extracted from medical records and the cancer database by trained data collectors. In all, 869 patients with CRC were included in this study. Survival analysis was performed using Kaplan-Meier curves, and differences between the curves were analyzed using the log-rank test. Cox proportional hazards regression models were used to analyze survival by each variable. **Results:** We retrospectively evaluated 869 CRC patients from 2007 to 2013. Of these, 454 subjects were males (52.24%), and the remaining (47.76%) were females. The mean and median ages at diagnosis were 63.70 years (SD = 0.45) and 64 years (range, 17-97), respectively. The mean survival time was 71.27±1.27 months. CRC-specific survival was 95.3%, 79.4% and 68.7% at 1, 3 and 5 years. The five-year survival rate for patients with stage I, II, III and IV disease was 91.20%, 82.20%, 63.20% and 21.70%. The Cox forward stepwise regression model revealed a significant potentially curable disease and risk of CRC death. The following factors were associated with a relative excess hazard for death: age ≥ 65 years (HR = 2.36, 95% CI: 1.76 - 3.17, $P < 0.001$); high grade of pathological differentiation (HR = 1.84, 95% CI: 1.27 - 2.66, $P = 0.001$); perineural nerve invasion (HR = 2.90, 95% CI: 2.03 - 4.14, $P < 0.001$); metastasis to distant organs (HR = 2.78, 95% CI: 2.00 - 3.87, $P < 0.001$); intestinal obstruction (HR = 1.38, 95% CI: 1.04 - 1.84, $P = 0.026$); and multiple regional lymph node metastases (HR = 1.81, 95% CI: 0.28 - 2.57, $P = 0.001$). **Conclusion:** Long-term survival from colorectal cancer remains good with 68.7% of patients being a live five years after their diagnosis. In this study, we found that perineural nerve invasion, distant metastasis, age, pathological differentiation grade, obstruction and regional lymph node metastasis are independent predictors of the survival and prognosis of patients with CRC. Perineural nerve invasion and distant metastasis appeared to be important prognostic factors affecting the entire patient cohort, and the earlier detection of CRC would improve patient survival. One limitation of this study was the small sample size; in addition, the findings were generated using data from a single medical center hospital in North Taiwan. Thus, the results of some survival comparisons were not significant. These limitations should be considered when applying these results to other districts in Taiwan that may have demographic differences. Furthermore, multicenter studies should be conducted to merge patient datasets for further research in Taiwan.

References

- Beckmann, K. R., Bennett, A., Young, G. P., Cole, S. R., Joshi, R., Adams, J., . . . Roder, D. (2016). Sociodemographic disparities in survival from colorectal cancer in South Australia: A population-wide data linkage study. *BMC Health Services Research*, 16, 24. doi:[10.1186/s12913-016-1263-3](https://doi.org/10.1186/s12913-016-1263-3)
- Cancer.Net. (2015). Colorectal cancer – statistics. Retrieved from <http://Cancer.Net/cancer-types/colorectal-cancer/statistics>
- Hsu, Y. J., Tsai, W. S., Hsieh, P. S., Yeh, C. Y., You, J. F., Hung, H. Y., & Chen, J. S. (2016). Worse survival in rectal cancer patients with preoperative radiotherapy compared to without radiotherapy in same postoperative pathologic pN1 classification. *Journal of Society of Colon and Rectal Surgeons (Taiwan)*, 27, 7-14. doi:[10.6312/SCRSTW.2014.25\(4\).10316](https://doi.org/10.6312/SCRSTW.2014.25(4).10316)

Contact

y355400@gmail.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

From Novice to Competent: Developing an Innovative Nurse Residency to Increase Confidence and Job Satisfaction

Karri Davis, DNP, RN, NE-BC, USA

Peg Parniawski, MSN, RN, NE-BC, USA

Meredith Wallace Kazer, PhD, APRN, FAAN, USA

Abstract

The purpose of this presentation is to highlight the innovative components of a nurse residency program including how each of the residency sessions are comprised of all of the following: a specific body system and the associated disease processes, patient experience segments, simulations, tales from the bedside: discussing challenging first year situations, support, mentoring, journaling, case studies, and senior executive leadership segments to promote a global healthcare perspective. The goal of this evidence-based project was to improve nursing confidence and job satisfaction.

New graduate nurses today are entering healthcare at a time when the Affordable Care Act has created the need for rapid changes in care delivery. Patients are admitted to the acute care setting requiring highly skilled, complex medical and nursing care. Hospitals are faced with trying to provide treatment for these patients using evidence based best practices while maintaining economic viability. Registered nurses utilize critical thinking in conjunction with policies, procedures, and care pathways to provide safe and effective patient care in an often-stressful environment. New graduate nurses are expected to care for these complex patients just as their experienced counterparts while still learning how to function as a novice nurse. New graduate registered nurses experience a 6-9 month "honeymoon" phase as they transition into their professional role. At the end of this phase, new nurses lose confidence as they realize the expectations of the role based on educational preparation did not meet the actual required responsibilities of the position. The concept of reality shock was just accepted as an inevitable part of the profession (Stacey & Hardy, 2011). Decreasing new graduate turnover is a priority in order to decrease the direct and indirect costs associated with replacing the nurse.

Initial job satisfaction, retention and workforce engagement are directly linked to the initial employment experience. New graduate nurses transitioning into the professional role of registered nurse have verbalized a variety of concerns that would benefit from the additional support of a nurse residency program. Issues, many of which increase dissatisfaction, include: workplace stress, physician communication (Zinsmeister & Schafer, 2009), high performance expectations, increased accountability relating to quality indicators, inadequate preparation (Reinsvold, 2008), fear of making a mistake, interpersonal conflicts, bullying, or incivility (Danque, Serafica, Lane, & Hodge, 2014), delegating to unlicensed personnel, managing multiple priorities of the patients and families (Anderson, Hair, & Todero, 2012) and a general lack of confidence to organize and manage the workload (Dyess & Sherman, 2009).

Nursing administration and education has the unique opportunity to improve, advance, and promote the profession of nursing (Phillips & Hall, 2014). There is a well-documented body of evidence surrounding the positive results of a year-long new graduate nurse residency program including confidence, decreased turnover resulting in cost savings, increased retention rates, and job satisfaction (Ulrich, Ashlock, Kroek, Africa, Early, & Carman, 2010). There is a gap in the literature that includes all components of the residency program that encompassed the success. This interactive presentation of the Medical Surgical Nurse Residency Program created to meet the needs of the new medical surgical nurse will use lecture, videos, and audience participation in a low fidelity simulation to discuss the development and implementation of a successful, cost effective, nurse residency program. The design and content outline of the residency program will be shared in depth including and how each of the residency sessions are comprised of all of the following components:

- A specific body system and the associated disease processes
 - Gastrointestinal (GI): GI Bleed, Nutrition, Colitis, Liver Failure, Colostomies, etc
- Patient experience segments

- “I woke up with a colostomy” –Residents wear a colostomy filled with chocolate pudding for the day.
- Simulations
 - NG Tube placement during a GI Bleed
- Case studies
 - The patient with Liver Failure
- Tales from the bedside: discussing challenging first year situations
 - Has anyone made a medication error? Let’s talk about it.
- Support
 - You are doing a great job; I heard last week about how well you did with that patient and the family
- Mentoring
 - Senior leaders offer during presentations
- Journaling
 - Write about how you applied what you learned today to improve patient care
- Leadership segments: From Bedside to Boardroom

Examples: Finance, political advocacy, quality, regulatory agencies, and risk management are presented by directors and senior executives to promote the global perspective beyond the bedside into the boardroom and provide a knowledge base for growth to future leadership positions.

The implementation of this evidence based project also fostered the opportunity for further research. A quasi-experimental design was used. The survey tools used are available from the American Academy of Medical Surgical nursing entitled Confidence Scale for New Nurses Scale and Job Satisfaction Scale. The surveys use a Likert Scale to measure confidence and job satisfaction. The surveys were determined to have psychometric validation prior to use. Power analysis revealed that an n of 19 would achieve statistical significance however this project achieved an n of 31 participants. Participants were surveyed prior to the start of the program, at the halfway point of the program, and at program completion. Descriptive statistics were utilized to analyze demographic data. Bonferroni ANOVA analysis was utilized to measure mean differences amongst nursing confidence and job satisfaction over the one year with a P = 0.001 through the first two cohorts. The presenters will share both quantitative and qualitative data from the first two cohorts of this evidenced based; quality improvement project.

References

- Anderson, G., Hair, C., & Toderò, C. (2012). Nurse residency programs: An evidenced based review of theory, process, and outcomes. *Journal of Professional Nursing, 28*(4), 203-212.
- Danque, C., Serafica, R., Lane, S., & Hodge, M. (2014). Incivility in the hospital environment. *Journal for Nurses in Professional Development, 30*(4), 185-189.
- Dyess, S.M., & Sherman, R.O. (2009). The first year of practice: New graduate nurses’ transition and learning needs. *The Journal of Continuing Education in Nursing, 40*(9), 403-410. doi:10. 3928/00220124-20090824 -03
- Faul, F., Erdfelder, E., Lang, A.G., & Buchner, A. (2009). G*Power 3.1: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 41*, 1149-1160. Doi: 10.3758/BRM.41.4.1149
- Grindel, C., & Hagerstrom, G. (2009). Nurses nurturing nurses: outcomes and lessons learned. *Medsurg Nursing, 18*(3), 183-194.
- Kelly, J., & Ahern, K., (2008). Preparing nurse for practice: A phenomenological study of the new graduate in Australia. *Journal of Clinical Nursing, 18*, 910-918.
- Reinsvold, S. (2008). Nursing residency: Reversing the cycle of new graduate RN turnover. *Nurse Leader, 6*(6), 46–49.
- Zinsmeister, L. and Schafer, D. (2009). The exploration of the lived experience of the graduate nurse making the transition to registered nurse during the first year of practice. *Journal for Nurses in Staff Development, 25*, 28–34

Contact

Karri.Davis@bpthosp.org

EBP PST 2 - Evidence-Based Practice Poster Session 2

Meeting the Needs of Women Veterans in Civilian Primary Care Practices

Alicia Gill Rossiter, DNP, FNP, PCPNP-BC, FAANP, USA
Catherine G. Ling, PhD, FNP-BC, FAANP, USA

Abstract

Problem/Purpose: Women are the fastest growing segment of the veteran population—approximately 1.8M are currently serving in the armed forces and 220,000+ have deployed in support of the wars in Iraq and Afghanistan. Women are now eligible to perform duties in more than 90% of all military career fields. Women in the military have steadily progressed from serving in support roles to serving in combat support roles to ultimately evolving to women currently serving with men, not only in combat zones, but in wars where there is no defined frontline, thus placing them in the direct line of fire. Due to the influx of women serving during this latest conflict and the increase in the number of women veterans seeking care in Veteran Administration (VA) clinics requiring a wide variety of physical and psychological health services, women veteran health issues have become a population of interest for the VA and the Department of Defense (DoD).

The DoD has prioritized programs to address rising rates of veteran homelessness, divorce, and suicide. The Institute of Medicine (IOM) and Congress have indicated a need for increased funding for educating health care providers to care for veterans to minimize enduring military service related physical and psychological co-morbidities. These issues appear to be increasing amongst the women veteran population. According to a study conducted by the VA, women veterans are “2.1 times more likely to be homeless than their nonveteran counterparts” and regardless of age or race, all women veterans are at an increased risk from homelessness⁴. In 2010, the Pentagon acknowledge concern regarding the divorce rate of women in the military—7.8% of women as compared to 3% of men in the military. The rates of divorce among women in the enlisted corps are estimated to be slightly higher at approximately 9%. Finally, according to a 2015 VA report, the risk of suicide for women veterans ages 18-29 is 12 times the rate of non-veteran women. Between 2000 and 2010, suicide claimed the lives of more than 170,000 veterans of which suicides among female veterans rose by 40 percent during the decade. A study conducted by the VA looked at the differences between male and female OEF/OIF/OND veterans and VA healthcare utilization for mental and physical health services and results showed that women had more visits to primary care and mental health clinics as well as higher use of community care outside the VA.

The realization that women veterans' healthcare needs are inherently different than male veterans and an increase in women veterans seeking care in the civilian sector has created a need for increased knowledge and expertise regarding identification of women veterans in civilian healthcare practices as well as a need for continuous improvement and evaluation of women veteran specific services. Studies show that less than 20% of all veterans are actually seen in the VA Health care system by providers who are aware and knowledgeable about their patient's military status and possible service connected risk factors and exposures. This leaves roughly 80% of veterans, many of whom are women, receiving care in the civilian sector where military status and women veteran specific healthcare needs are unknown to providers.

Fredricks et al., 2015 concluded that more than half of the 141 physician respondents they surveyed were not comfortable discussing health-related exposures and associated risks experienced by veterans and more than half expressed unfamiliarity with referral/consultation services available to veterans. There is a lack of knowledge regarding the military, the military culture, and the effect of military service on the overall mental and physical health of veterans, in particular women veterans, which leaves the veteran at a significant disadvantage in regards to their overall healthcare needs. Women veterans have unique physical and psychological healthcare needs that vary from their male counterparts and it is important that civilian healthcare providers are educated on the importance of screening women for military service and are aware of the unique healthcare needs of this population.

Methods: This study will pilot test a 42-item survey amongst a minimum of 100 APRNs who are members of the AANP. The sample will include APRNs who are at least 18 years or older. We will recruit from AANP by posting recruitment e-flyers through the AANP listserv. The survey link will be included on the recruitment materials. Data will be collected from an online survey posted on Qualtrics and all data will be collected anonymously.

Results: The study is currently in progress. To our knowledge this will be the first study looking at the knowledge and comfort level of Advanced Practice Registered Nurses caring for women veterans in civilian clinical practice. Based on data from the Fredricks et al. study, the investigators on this study hypothesizes that knowledge and comfort level of APRNs regarding caring for women veterans will have less knowledge and a decreased comfort level in regards to women veterans specifically than veterans as a whole.

Discussion: The Joining Force campaign developed by First Lady Michelle Obama and Dr. Jill Biden challenged colleges of nursing around the country to work to improve the healthcare of our veterans. To date over 660 nursing programs in all 50 states have joined forces to include veteran centric healthcare issues into nursing and advanced practice nursing curriculum with several colleges including specific needs of military families in their curriculum. In 2012, the American Academy of Nursing launched the "Have You Ever Served in the Military" campaign to meet the needs of veterans receiving care in the civilian health care system. While much work has been done, much work is still needed. APRNs are on the frontlines of healthcare often working in clinics, hospitals, and community agencies, and may be the first to encounter a woman veteran in crisis or experiencing physical and/or psychological co-morbidities secondary to their military service. Due to the potential correlation between military service and physical and psychological comorbidities, it is imperative for all healthcare providers to screen women patients for a history of military service and to be educated provide appropriate care and the knowledge regarding resources and referrals available to women veterans in the community. Prompt identification and treatment is imperative to decrease deleterious health consequences related military service and to improve the care women veterans receive in the civilian sector.

Meeting the Needs of Women Veterans in Civilian Primary Care Practices will help assess the knowledge gaps of Advanced Practice Registered Nurses (APRNs) in regards to women veteran health issues. Data gained will be used to promote early identification of women veterans in civilian clinical practice where upwards of 80% of veterans receive their care. This study will help bridge the knowledge gap of civilian providers regarding military service related risk factors and co-morbidities as well as knowledge regarding referral sources/resources in the community that would improve health outcomes of women veterans and their family members. This study has the potential to decrease the impact of homelessness, post-traumatic stress, military sexual trauma, suicide, and other co-morbidities women veterans' experience.

Conclusion: The number of women veterans in this country has increased significantly since the onset of OEF/OIF/OND. They have answered our nation's call to defend our country. Sadly, by doing so, many are at risk for service connected physical and psychological health issues that go undetected in civilian healthcare facilities due to the lack of knowledge and comfort level of civilian healthcare providers. There is a lack of knowledge regarding the military, the military culture, and the effect of military service on the overall mental and physical health of veterans, in particular women veterans, which leaves the veteran at a significant disadvantage in regards to their overall healthcare needs. Women veterans have unique physical and psychological healthcare needs that vary from their male counterparts and it is important that civilian healthcare providers are educated on the importance of screening women for military service and are aware of the unique healthcare needs of this population. It is imperative that APRNs understand the need to screen every patient, especially female patients, for a history of military service as well as receive education and training regarding the unique healthcare needs of women veterans; their risk of trauma, subsequent PTSD and other psychological co-morbidities; identification of physical co-morbidities secondary to military service; and have access to evidence-based clinical practice in the civilian sector where most women veterans receive care. This study will close the gap surrounding knowledge deficits by providing colleges of nursing, state licensure boards, veteran healthcare related stakeholders, and national agencies and provide data and guidance for inclusion of evidence based veteran centric

healthcare, to include women veteran specific healthcare, into education, training and certification programs for APRNs.

References

Street, A.E., Vogt, D., Dutra, L. (2009). A new generation of women veterans: stressors faced by women deployed to Iraq and Afghanistan. *Clinical Psychology Review* 2009; 29: 685-694.

Murdoch, M., Hodges, J., Hunt, C., Cowper, D., Kressin, N. & O'Brien, N. (2003). Gender differences in service connection for PTSD. *Medical Care*, 41, 950-961. Sd

Suris, A., Lind, L, Kashner, T.M., & Borman, P.D. (2007). Mental health, quality of life, and health functioning in women veterans: Differential outcomes associated with military and civilian sexual assault. *Journal of Interpersonal Violence*, 22, 179-197.

Fredricks, T. R. & Nakazawa, M. (2015). Perception of physicians in clinical medical practice on veterans' issues related to health care, *Journal of the American Osteopathic Association*, 115(6), 360-368.

Collins, E., Wilmoth, M., & Schwartz, L. "Have you ever served in the military?" campaign in partnership with the joining forces initiative. *Nursing Outlook*, 61(5), 375-376. DOI: 10.1016/j.outlook.2013.07.004

Contact

arossite@health.usf.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Impact of Cultural and Linguistic Diversity on Success of the First Attempt of the NCLEX-RN®

Ernestine Cuellar, PhD, RN, PMHCNS-BC, USA

Abstract

Schools of nursing and nursing faculty are struggling with high attrition rates and low NCLEX-RN first time pass rates. Many of the students identified among those with high attrition rates and low NCLEX-RN pass rates are culturally and linguistically diverse (CLD). Census data has identified a significant change in the cultural and linguistically diverse composition of the United States. Languages currently spoken in homes among CLD students in the United States include Spanish (73%), Vietnamese (2.7%), Chinese (2%), French/Haitian (2%), Hindu (2%), Korean (1.5%), Arabic (1.2%), and Russian (1%). The proportion of births among those who are from non-English speaking backgrounds is increasing; therefore our student population is representative of this growing demographic. Currently in some classrooms there are as many as 5 to 10 culturally and linguistically diverse students, representing different cultures, in one class. Students often find themselves in situations where they have difficulty understanding the accents of their peers (Rogan, Miguel, Brown & Kilstoff, 2006). There is also an increase in male nursing students that may also impact cultural diversity in the classroom. Many culturally and linguistically diverse students as well as those who are not challenged by culture and language (males, Native Americans, blacks) describe the need for emotional and moral support.

Most often CLD is used to define students whose linguistic interactions are different in comparison to other individuals in a given environment (Barrera & Cosco, 2003). Even though some blacks, Asian Americans, Pacific Islanders, Hispanic Americans, and Native Americans, may fall into this category, faculty must thoroughly investigate before automatically assuming by skin color or family history that a student is CLD. Even though there are studies that support the idea that black students speak English as a second language (Goff, Martin & Thomas, 2007); that assumption is not representative of all black students. In 1996, the Reverend Jesse Jackson stated, "Black youths around the nation need to be challenged to speak proper English," so they may be accepted into colleges and universities (Lewis, 1996). Each student must be assessed individually to determine that student's proficiency with English. Many students from diverse backgrounds are culturally acclimated; therefore we need to ensure that we address the needs of those individual students who are experiencing difficulty in the realm of CLD.

The most significant factor that impacts student success is the personal and academic relationship developed between faculty and students (Burnette, 1999). It is strongly recommended that faculty focus on how students learn so that didactic activities are focused on the skills that best address the student's needs (1999). Unfortunately incivility among students and faculty hinders the learning process. Often students are marginalized because they are identified as CLD (Altmiller, 2012; Clark, 2009; Jenkins, Kerber & Woith, 2013). There is a strong need to increase awareness of incivility among nursing students and faculty in order to adapt appropriate skills that accommodate teamwork within both clinical nursing and academic settings. Since the 1960's studies have been conducted that focused primarily on identifying and defining bad behaviors, but these studies fell short of providing meaningful evidenced-based intervention solutions. A new educational modality grounded on evidence-based research is vital to intentionally increase awareness of incivility, change negative behaviors, and influence teamwork within the clinical setting and the nursing curriculum.

Students identified as CLD may speak English but have difficulty with reading and remediation. Those students may not understand idioms or jargon in books or audiovisual aids, in addition to test questions. Some students from other cultures were educated in systems that taught students to memorize and regurgitate information rather than to think critically. Therefore it is the responsibility of faculty to assist students in developing critical thinking skills as well as to learn the new language. In nursing the most important component of learning is the need to learn to use information in the real world rather than to memorize" (Cohen & Rotem, 1983). NCLEX-RN is an assessment of the graduate nurse's ability to think critically so that patients receive safe care.

Nurse scholars have addressed multiple strategies to address retention that are focused on one or two elements. However, retention, graduation, and NCLEX-RN success encompass multiple entities. Faculty-student relationships, family support, student population (diverse CLD population) civility in the classroom and clinical setting, remediation, and student self-confidence are all components of student success. Very little literature addresses the intersection of these dynamics and the role of the intersection of these entities.

References

- Harvey, T., Robinson, C., Frohman, R. (2013). Preparing culturally and linguistically diverse nursing students for clinical practice in the health care setting. *Journal of Nursing Edu*
- Serembus, J. (2016). Improving NCLEX First-Time Pass Rates: A Comprehensive Program Approach. *Journal of Nursing Regulation*. 6 (4), pp 38-44
- Vazquez-Montilla, E., Just, M. & Triscari, R. (2014). Teachers' Dispositions and beliefs about cultural and linguistic diversity. *Universal Journal of Educational Research* 2(28), 577-587. DOI: 10.13189/ujer.2014.020806.

Contact

t.cuellar@elsevier.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Stress, Burden, and Health Status in Caregivers of Heart Failure Patients

Ya-Ching Liu, MBA, RN, Taiwan

Abstract

Background: Exploring the relationships between stress, burden, health status and disease prognosis in patients with heart failure will help to improve the care cognition in caregivers of heart failure patients. In this study, we tried to investigate the stressors, load, and health-related factors of major caregivers in patients with heart failure

Methods: During a period of one year, a total of 116 participants was recruited. A descriptive method, structured questionnaires and physiologic variables were conducted in this cross-sectional study. Received the location for the Cardiology Department of Cardiology and Cardiology Internal Medicine ward. The participants were the caregivers of patients with heart failure with grade II-IV according to the New York Heart association classification of heart failure. Patients with heart failure at least 1 year of illness, and their caregivers meet the above conditions. The assessment items included the stressors, load, health status and life quality. The blood cortisol level was also done. Using multiple regression analysis to analyze the relationships between the three main independent variables and the quality of life and Pearson's correlation was used to examine the correlation between the three principal independent variables from SF-36.

Results: The results showed that when the caregiver's stress level and load level are higher and the quality of life will be worse, especially in the psychological and physical aspects of quality of life. In addition, the blood cortisol levels of caregivers had negative correlations with the scores of physical functioning, role-physical, mental health, vitality, general health, Physical and Mental dimensions from SF-36. On the other hand, the higher the time load of the caregiver, the more likely the patient's health including the items of physical functioning, bodily pain, mental health, general health and Physical and Mental.

Conclusions: The results of this study may provide the nursing staff to assess the care and health aspects of caregivers, handle the stress of caregivers in caring and improve the quality of care of patients with heart failure.

References

- Merluzzi, T. V., Philip, E. J., Vachon, D. O., & Heitzmann, C. A. (2011). Assessment of self-efficacy for caregiving: The critical role of self-care in caregiver stress and burden. *Palliative & Supportive Care*, 9(1), 15–24.
- Cully, J. A., Phillips, L. L., Kunik, M. E., Stanley, M. A., & Deswal, A. (2010). Predicting quality of life in veterans with heart failure: The role of disease severity, depression, and comorbid anxiety. *Behavioral Medicine*, 36(2), 70–76.

Contact

ching5345@cgmh.org.tw

EBP PST 2 - Evidence-Based Practice Poster Session 2

Everything is Alright: Teaching an Online Nursing Course Using Technology

Cynthia A. Bautista, PhD, RN, CNRN, SCRN, CCNS, ACNS-BC, FNCS, USA

Abstract

This evidence-based educational project was to facilitate nursing students' learning and mastery of course outcomes by using a variety of technological applications for online nursing courses. Nursing faculty were challenged by the Academic Computing Department to improve student's engagement and satisfaction for their online courses. The Center of Academic Excellence at the university provided a 3-day course to learn about the variety of technology tools available to engage students in an online course. Online course nursing faculty used the technology tools to re-design their online courses using reverse course design. A variety of technology tools addressed the learning styles of nursing students as well as motivated them to participate online. These technological tools made the online course more meaningful to the students by encouraging collaborative-based learning peer interactions. Nursing faculty found the use of interactive technology in an online nursing course, fostered nursing students learning, engagement, and satisfaction.

Online course nursing faculty were very satisfied integrating a variety of technology tools to engage their online nursing students in meaningful learning. Collaborating with the Academic Computing Department provided a positive experience for online course nurse faculty to revise their online course to engage their students. Nursing students were satisfied and became more engaged in the online course activities to achieve successful completion of their course. Using the technology tools, online nursing students were able to learn together and from each other. Both nursing faculty and students developed strong connections with the use of technology tools in an online course.

Online course nursing faculty should assess technology tools that are available to engage the 21st century learner. Nursing faculty should select the technology tool based on the course outcome they are trying to achieve. A variety of technology tools should be integrated into online nursing courses for nursing faculty and students to achieve successful course objective outcomes as well as active participation.

References

- Mitchell, A. (2014). Online courses and online teaching strategies in higher education. *Creative Education*, 5, 2017-2019.
- Oermann, M. (2015). Technology and teaching innovations in nursing education: engaging the student. *Nurse Educator*, 40(2), 55-56.
- Vogt, M. and Schaffner, B. (2016). Evaluating interactive technology for an evolving case study on learning and satisfaction of graduate nursing students. *Nurse Education in Practice*, 19, 79-83.

Contact

cabbrain@aol.com

EBP PST 2 - Evidence-Based Practice Poster Session 2

Using Focus Groups to Explore the Facilitators and Barriers of Evidence-Based Nursing Among Clinical Nurses

Ling-Yu Wu, MSN, RN, Taiwan
Ching-Tai Hsu, MSN, RN, Taiwan

Abstract

Background: The research on the facilitators and barriers of implementing evidence-based nursing (EBN) by nursing staff has been discussed overseas currently. However that application is limited for the clinical situations in Taiwan due to cultural context differences. Even though there have been a few domestic studies exploring the facilitators and barriers when implementing EBN by nursing staff, the results were not consistent. The use of focus groups approach of the qualitative research is supposed to be helpful to comprehensively understand the facilitators and barriers of EBN by nursing staff and then to effectively promote the practice of EBN.

Aims : This study will explore the barriers and facilitators affecting the evidence-based practices in order to find out the integrated models and strategies on evidence-based practices by using a qualitative research approach -focus groups among the seeded nurses of a teaching hospital.

Methods: Data will be collected by using focus groups with purposive sampling of recruiting evidence-based seeded nurses of our hospital. They are in high homogeneity and grouped into 4 to 5 focus groups by medicine divisions. Each group consists of 4 to 6 people in turn to be interviewed for 60 to 90 minutes per time section. In each focus group, an independent moderator will instruct the guidelines with 7 semi-structural issues that were examined by 2 qualitative experts beforehand. The reliability (trustworthiness) proposed by Lincoln and Guba is expected to adopt as the stringency control. Also, a content analysis will be conducted on the data obtained.

Anticipated outcomes: The focus groups will be organized between December 2016 and May 2017. The expected results is to find out the integrated models and strategies on promoting the evidence-based practices and present it as the reference for the study hospital as well as other domestic hospitals to further promote the implementation of EBN practices and enhance the effectiveness of patient care domestically.

References

- Jun, J., Kovner, C.T., & Stimpfel, A.W. (2016). Barriers and facilitators of nurses' use of clinical practice guidelines: An integrative review. *Internal Journal of Nursing Studies*, doi: 10.1016/j.ijnurstu.2016.03.006. Epub 2016 Mar 16.
- Kc, S., Subramaniam, P.R., & Paudel, S. (2016). Barriers and Facilitators of Utilizing Research Among Nurses in Nepal. *Journal of Continuing Education in Nursing*, 47(4), 171-179.
- Doody, O., Slevin, E., & Taggart, L. (2013). Preparing for and conducting focus groups in nursing research: part 2. *British journal of nursing*, 22(3), 170–173.

Contact

slh167@sinlau.org.tw

EBP PST 2 - Evidence-Based Practice Poster Session 2

The Relationship Between Activities of Daily Living and Depression Among Community-Dwelling Older Adults

Myoungjin Kwon, PhD, RN, Korea, Republic of (South)

Youngshin Song, PhD, RN, Korea, Republic of (South)

Kawoun Seo, MSN, RN, Korea, Republic of (South)

Abstract

Background and purpose: Depression has recently become a major public health concern, not only to personal suffering but national economic burden that related morbidity and increased mortality. Physical function such as daily activity have emphasized to reduce the depressive symptoms for older adults who cognitively intact in community-dwelling. Studies have proved physiological mechanism of physical activity that not only associate with depressive symptom, but also mediate the relationship between depression and cognitive decline. Despite accumulative evidence showing the interrelatedness between depressive symptoms and ADLs among older adults, the strength of the association may differ depending on sample characteristics and methodology across the studies. For instance, the strength of the relationship between depressive symptoms and ADLs in aged living at home showed the weak correlation than in institutionalized older adults despite of similar cognitive status. Thus, this study examined this relationship among community-dwelling older adults, via a systematic review and meta-analysis. We synthesized the information obtained to calculate the strength of the relationship.

Methods: Systematic review and meta-analysis were conducted to search the existing published observational literature using 5 electronic databases. Published and unpublished studies measuring the direction and strength of the relationship between depressive symptoms and ADLs were independently extracted by the researchers. Several electronic databases, such as PubMed, EMBASE, PsycINFO, the Cochrane library, CINAHL, and Medline, were used. MeSH terms such as "Aged"[Mesh] OR "Aging"[Mesh] OR "Housing for the Older adults"[Mesh], "Depressive symptoms"[Mesh] OR "Depressive Disorder"[Mesh] AND "Activities of Daily Living"[Mesh] were used to retrieve relevant articles from June 2005 to June 2015. Studies reporting *r*-values between depressive symptoms and the ADLs of older adults were included in the meta-analysis. relationship is affected by various factors of interest, such as sample and study characteristics.

Results: Of total 11840 studies, 16 studies that reported the association *r*-values were included in the meta-analysis. A total of 7184 older adults participated in 16 studies, with sample sizes ranging from 44 to 1308. Among the 16 studies, three were designed as longitudinal surveys and the design of remaining studies was cross-sectional. The mean ages of the participants included in these studies ranged from 63 to 84 years. No significant bias was observed for the included studies. The quality of the 16 included studies was assured using the appraisal tool for descriptive/cross-sectional studies. The overall effect size suggested a moderate association between ADLs and depressive symptoms among older adults. The strength of the relationship between ADLs and depressive symptoms tended to be larger in studies in which the majority of the participants were female, under 75 years, and not Asians population. The effect size of residing in a senior residence was significantly greater compared to those studies in which the participants were living at home.

Conclusion: Based on these findings, we provisionally conclude that there is a significant negative association between ADLs and depressive symptoms, and this relationship is of moderate strength. Further meta-analysis should be conducted to confirm this relationship by using data accumulated from individual studies.

References

1. Song, H. J., Meade, K., Akobundu, U., & Sahyoun, N. R. (2014). Depression as a correlate of functional status of community-dwelling older adults: utilizing a short-version of 5-item Geriatric Depression Scale as a screening tool. *The Journal of Nutrition, Health & Aging, 18*(8), 765-707.

2. Gallagher, D., Kiss, A., Lanctot, K., & Herrmann, N. (2016). Depressive symptoms and cognitive decline: A longitudinal analysis of potentially modifiable risk factors in community dwelling older adults. *Journal of Affective Disorders, 190*, 235-240.
3. Neergaard, J. S., Dragsbæk, K., Hansen, H. B., Henriksen, K., Christiansen, C., & Karsdal, M. A. (2016). Late-life risk factors for all-cause dementia and differential dementia diagnoses in women: A prospective cohort study. *Medicine, 95*(11).
4. Gitlin, L. N., Szanton, S. L., Huang, J., & Roth, D. L. (2014). Factors mediating the effects of a depression intervention on functional disability in older African Americans. *J Am Geriatr Soc, 62*(12), 2280-2287.
5. Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*: Routledge.

Contact

mjkwon@dju.ac.kr

EBP PST 2 - Evidence-Based Practice Poster Session 2

The Doctor of Nursing Practice: Promoting Partnerships and Reducing Health Disparities Among Vulnerable Populations

Charlene D. Whitaker-Brown, DNP, MSN, FNP-C, USA
Judith B. Cornelius, PhD, MS, RN, USA

Abstract

The purpose of this presentation is to describe how a collaborative environment was created between two universities to support Doctor of Nursing Practice (DNP) students as they build their programs of scholarly activity to meet the needs of our vulnerable populations.

The University of North Carolina at Charlotte (UNC Charlotte) and Western Carolina University (WCU) established a partnership called the UNC Charlotte/WCU Dual DNP program, awarding the terminal degree of the DNP. Together these two institutions connected to provide the context for the Dual DNP program development, implementation and evaluation.

UNC Charlotte is North Carolina's urban research university. Located in the state's largest metropolitan area, UNC Charlotte is among the fastest growing universities in the UNC System (UNCC, 2016). In contrast as the westernmost institution in the University of North Carolina system, WCU provides comprehensive educational opportunities to residents in the state's western region and attracts students from around the globe to explore the region's natural diversity. Founded in 1889 Western Carolina now provides an education to more than 10,000 students in undergraduate and graduate programs (WCU, 2016).

This is a case history describing the innovative approach of the collaborative process two universities shared to build a growing and successful accredited DNP Program. The first step in developing a successful collaborative environment was planning the partnership. Next, effective approaches in assisting students with their scholarship were identified. DNP students were encouraged to engage in interdisciplinary, scholarly work as they expand and improve innovative methods to deliver care to our most vulnerable populations. Finally, program evaluation was significant in the identification of critical elements of an effective partnership.

Universities must provide the needed opportunities, resources, and mentoring to support both faculty and their students. Successful inter-institutional collaboration and university investment in the development of the Dual DNP Program has helped to increase the knowledge and skills of DNP students as they build their programs of scholarly activity to effect change in vulnerable populations served.

References

Jenerette, C. M., Funk, M., Ruff, C., Grey, M., Adderley-Kelly, B., & McCorkle, R. (2008). Models of Inter-Institutional Collaboration to Build Research Capacity for Reducing Health Disparities. *Nursing Outlook*, 56(1), 16–24. <http://doi.org/10.1016/j.outlook.2007.11.001>

The history of Western Carolina University. Retrieved from www.wcu.edu on October 31, 2016.

University of North Carolina at Charlotte data. Retrieved from www.uncc.edu on October 31, 2016.

Contact

cdwhitak@uncc.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Introducing Simulation to BSN Students and Faculty Situated in a Rural Setting in North India

Jill B. Derstine, EdD, MSN, BSN, RN, FAAN, USA
Marylou K. McHugh, EdD, MSN, BSN, RN, CNE, USA
Leland J. Rockstraw, PhD, MSN, BSN, RN, USA

Abstract

This presentation will describe a cross-cultural experience in which nursing educators from Drexel University conducted a nursing simulation workshop at Akal College of Nursing in Baru Sahib, India. As part of an on-going collaboration between Drexel and Akal, an experiential simulation workshop was conducted for Akal nursing students and faculty and visiting students and faculty from northern India. Morning lectures were followed by two simulation exercises: (1) nursing students participating in a birthing simulation using a birthing simulator, and (2) using students from Akal Department of Education as patient actors who portrayed a patient whose health history was taken by an Akal nursing student. Using two birth simulators, simulation exercises were presented that were congruent with the nurse's work with pregnant moms in rural villages. Groups of students were able to safely practice birthing a baby, educate the parents, and negotiate with the demanding father in the simulation setting. The simulators were donated to the college with the expectation that they would be not only be used to teach nursing students but also used to allow students/faculty to teach expectant mothers in the surrounding rural community. In the patient actor simulation experience, nursing students interviewed the "patients" in individual cubicles. Debriefing sessions to promote learning and critical thinking were led by the three facilitators. Students shared their thoughts and feelings about the exercises. Interestingly enough, the Department of Education Students who were the actors were just as enthusiastic about the learning and felt that they were able to apply the learning methodologies to their education practice. Nursing students at Akal have an extended community experience which includes following families throughout their four years. All students learn midwifery and can be involved in births in the community setting. Follow up activities to this workshop included a return visit within six months by two nurse midwife faculty members who assessed use of the simulators by students in the community. In another recent follow-up visit, the concept of setting up scenarios for student learning was taught to all faculty including newly hired faculty. Four young faculty began the process in October. This workshop is just one example of the successful collaboration between a private university in the United States and a faith-based university in an isolated area of northern India.

References

Crafts, J., Winter, C. & Sowter, M. (2011) Practical simulation training for maternity care-where we are and where next. *International Journal of Obstetrics and Gynecology.*, 1118: 11-10. Doi: 10:10.1/j 1471-0525-2011:03175x

Morse, J. (2012). Debriefing after simulated patient experiences. In L. Wilson & L. Rockstraw (Eds.), *Human Simulation for Nursing and Health Professions* (pp 58-68). New York, NY: Springer.

O'Connor A. B. (2015). Technology in clinical nursing education. In A. B. Connor (Ed.), *Clinical Instruction and Evaluation: A Teaching Resource* (pp142) Danbury, Connecticut: Jones & Bartlett Learning.

Morse, J. (2012). Debriefing After Simulated Patient Experiences. In L. Wilson & L. Rockstraw (Eds.), *Human Simulation for Nursing and Health Professions* (pp 58-68). New York, NY: Springer.

O'Connor A. B. (2015). Technology in Clinical Nursing Education. In A. B. Connor (Ed.), *Clinical Instruction and Evaluation A Teaching Resource* (pp142). Danbury, Connecticut: Jones & Bartlett Learning.

Wallace, P (2007). Acting: understanding How the SPs Portray the Patient. In P. Wallace (Ed.), *Coaching Standardized Patients for Use in the Assessment of Clinical Competence* (pp 17). New York, NY: Springer.

Contact

jbd43@drexel.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

A Phenomenological Exploration of the Experience of Antepartum Bed Rest in Mothers: Beyond Postpartum

Gwendelyn S. Orozco, MSN, RNC-OB, USA

Abstract

Background APBR in high- risk pregnancies such as premature rupture of membranes, pre-eclampsia, preterm labor, and advanced cervical dilation/effacement is the current prescription for the prevention of preterm birth. This prescription of bed rest is practiced by 71-81 percent of United States Obstetricians (Maloni, 2012). The current preterm birth rate remains high at 11.4 percent (World Health Organization, 2014 [WHO]).

The March of Dimes Prematurity Campaign aims to reduce preterm birth rates across the United States. Premature Birth Report Card grades are assigned by comparing 2014 preterm birth rate in a state or locality to the March of Dimes goal of 8.1 percent by 2020. This will inevitably increase the number of women who are prescribed APBR. Pregnant women who are at risk of delivering a preterm infant are hospitalized and placed on bed rest. Current evidence demonstrates that prolonged time on bed rest can have physical as well as psychosocial effects (Maloni, 2012). APBR as a treatment is based on the assumption that it is both safe and effective (Maloni, 2011). However current evidence based research indicates that bed rest treatment is ineffective in preventing preterm birth (Maloni, 2011). Psychologically, AP patients hospitalized on bed rest report higher feelings of anxiety and depression (Dunn, Handley, & Shelton, 2007). Physiological side effects include muscle atrophy, bone loss, and maternal weight loss (Maloni, 2011). Despite the questions regarding the effectiveness of APBR, as well as the negative psychological and physiological consequences, it is still widely practiced in the United States and Canada. Although there is no other therapeutic alternative, APBR is offered by physicians as a natural inclination that doing something is better than doing nothing (Biggio, 2013).

Few Qualitative as well as Quantitative studies are done on the experience of APBR as it relates to the patient when they are in the hospital. However, a limited number of studies are done on how it affects the mother in the postpartum period. In fact, no studies exist on the effects of APBR on the mother who has surpassed the postpartum six week period. This gap in the literature warrants investigating, as the negative long term effects of APBR may surpass the postpartum period for some mothers. These mothers may be feeling isolated as routine postpartum checkups have ceased. There is no research into this untreated time period to inform us of how these mothers feel about the experience.

Purpose The purpose of this study is to explore the long-term effects of APBR from the perspective of the mother who has delivered and transitioned into the home environment. The current state of the science of ante partum bed rest (APBR) provides inadequate articulation of it's long term effects. This research, using a qualitative interpretive phenomenological approach, seeks to discover meaning and extrapolate themes from semi-structured interviews with mothers who have had the experience of APBR.

Philosophical Underpinnings The qualitative phenomenological framework used for this study is Heidegger's Interpretive Phenomenology, which will study the first person's point of view. This research project will explore this from the perspective of the mother, as she interprets the meaning of her experience of APBR. This approach seeks to understand the person's reality, opinions, beliefs, knowledge, and questions pertaining to an experience (Schultz & Cobb-Stevens, 2004).

Methods Van Manen's Thematic Analysis will be used to interpret this research as Van Manen states a person cannot reflect on the lived experience until afterwards and this reflection is always retrospective (Van Manen, 1990). This qualitative framework of interpretive phenomenology provides a lens that allows discovery of essence and personal meaning from the participants' individual experiences (Holloway & Wheeler, 2002). A purposeful sample of 10-20 mothers who have had the experience of hospitalized APBR and surpassed the six week postpartum period will be studied. One on one semi structured interviews using open ended questions are used, tape recorded, and professionally transcribed verbatim.

Recruitment will be used via flyers in doctors' offices, churches, community clinics, and perinatal clinics. Inclusion criteria include women who are 18 years or older, can speak read, and write English, were diagnosed with a high-risk pregnancy and prescribed APBR weeks and maintained hospitalized bed rest at a minimum of 14 days just prior to giving birth and have surpassed the postpartum period of 6 weeks.

Nursing Implications Ways of Knowing Evidence based practice efforts today are what currently drive changes in nursing. The support of research materials that are narrative and subjective are qualitative studies of human experiences. The results of this research study can be used to improve patient outcomes by providing insights into patient needs in treatment and interaction with health professionals; evaluate programs and treatments, gain understanding of health professionals roles and identities; examine the perception and efficacy of professional education; and obtain perspectives on community and public health issues. The nursing implications for nursing science are that this study has the potential to be further researched using different inclusion criteria and populations. This informs nursing practice and provides education of nurses via changes made in nursing administration and leadership through policy changes

Results Pending

References

- Anderson, M. V., & Rutherford, M. D. (2013). Evidence of a nesting psychology during human pregnancy. *Evolution and Human Behavior*, 34, 390-397. <http://dx.doi.org/10.1016/j.evolhumbehav.2013.07.002>
- Black, B. P., Holditch-Davis, D., & Miles, M. S. (2009). Life course theory as a framework to examine becoming a mother of a medically fragile preterm infant. *Research in Nursing & Health*, 32, 38-49. <http://dx.doi.org/10.1002/nur.20298>
- Branchi, I., & Cirulli, F. (2014). Early experiences: Building up the tools to face the challenges of adult life. *Developmental Psychology*, 56, 1661-1674. <http://dx.doi.org/10.1002/dev.21235>
- Chinn, P. L., & Kramer, M. K. (2014). In *Integrated theory and knowledge development in nursing* (8th ed.). St Louis, MO: Elsevier Mosby.
- Converse, M. (2012). Philosophy of phenomenology: How understanding aids research. *Nurse Researcher*, 20. Retrieved from <http://www.nurseresearcher.co.uk>
- Creswell, J. W. (2014). . In *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed. Los Angeles, CA: Sage Publications, Inc.
- Dahnke, M. D., & Dreher, H. M. (2011). *Philosophy of science for nursing practice*. New York, NY: Springer Publishing Company, LLC.
- Dunn, L. L., Handley, M. C., & Shelton, M. M. (2007). Spiritual well-being, anxiety, and depression in antepartum women on bed rest. *Issues in Mental Health Nursing*, 28, 1235-1246. <http://dx.doi.org/10.1080/01612840701651504>
- Earle, V. (2010). Phenomenology as research method or substantive metaphysics? An overview of phenomenology's uses in nursing. *Nursing Philosophy*, 11, 286-296. Retrieved from <http://www.ebscohost.com>
- Englander, M. (2012). The interview: Data collection in descriptive phenomenological human scientific research. *Journal of Phenomenological Psychology*, 43, 13-35. <http://dx.doi.org/10.1163/156916212X632943>
- Henry, L. L. (2012). Building my nest. *Midwifery Today*, 17-20. Retrieved from <http://www.midwiferytoday.com>
- Holloway, I., & Wheeler, S. (2010). . In *Qualitative research in nursing and healthcare* (3rd ed. West Sussex, United Kingdom: Wiley-Blackwell.
- Johnston, J. (2004). The Nesting Instinct. *Midwifery Today*, 36. Retrieved from <http://www.midwiferytoday.com>
- Krishna, U., & Bhalerao, S. (2011). Placental insufficiency and fetal growth. *Journal of Obstetrics and Gynecology India*, 61, 505-511. <http://dx.doi.org/10.1007/s13224-011-0092-x>
- Maloni, J. A., & Kasper, C. E. (1991). Physical and psychosocial effects of antepartum hospital bed rest: a review of the literature. *Image: Journal of Nursing Scholarship*, 23, 187-92. Retrieved from <http://ebscohost.com>
- Maloni, J. A., Brezinski-Tomasi, J. E., & Johnson, L. A. (2001). Antepartum bed rest: Effect on the family. *Journal of Obstetric, Gynecological and Neonatal Nursing*, 30, 165-173. <http://dx.doi.org/10.1111/j.15526909.2001.tb01532.x>
- Maloni, J. A. (2002). Astronauts and pregnancy bed rest: What NASA is teaching us about inactivity. *AWHONN Lifelines*, 6, 318-323. <http://dx.doi.org/10.1111/j.1552-6356.2002.tb00496.x>
- Maloni, J. A., Park, S., Anthony, M. K., & Musil, C. M. (2005). Measurement of antepartum depressive symptoms during high-risk pregnancy. *Research In Nursing & Health*, 28(1), 16-26. doi:10.1002/nur.20051
- Maloni, J. A. (2010). Antepartum bed rest for pregnancy complications: Efficacy and safety for preventing preterm births. *Biological Research for Nursing*, 12, 106-124. <http://dx.doi.org/10.1177/1099800410375978>
- Maloni, J. K. (2012). Lack of evidence for prescription bed rest. *Expert Review Obstetrics and Gynecology*, 6, 385-393. <http://dx.doi.org/10.1586/eog.11.28>
- Mangaleshwari, M. N. (2014). Personality style: Anxiety sensitivity and perceived social support among the pregnant woman. *Language in India*, 14, 1-94. Retrieved from <http://www.ebscohost.com>

March of Dimes. (2014). [Http://marchofdimes.com/mission/prematurity.html](http://marchofdimes.com/mission/prematurity.html)

Munhall, P. L. (2012). *Nursing research qualitative perspective* (5th ed.). Sudbury, MA: Jones Bartlett Learning.

Palladino, C. L., Flynn, H. A., Richardson, C., Marcus, S. M., Johnson, T. R., & Travis, M. M. (2011). Lengthened predelivery day and antepartum complications in women with depressive symptoms during pregnancy. *Women's Health, 20*, 953-62. <http://dx.doi.org/10.1089/jwh.2010.2380>

Penticuff, J. H. (1982). Psychological implications in high-risk pregnancy. *Nursing Clinic of North America, 17*, 69-78. Retrieved from <http://www.ebscohost.com>

Polit, D. F., & Beck, C. T. (2012). *Nursing Research: Generating and assessing evidence for nursing practice* (9th ed.). New York, NY: Wolters Kluwer Lippincott Williams & Wilkins.

Rubarth, L. B., Schoening, A. M., Cosimano, A., & Sandhurst, H. (2012). Women's experience of hospitalized bed rest during high-risk pregnancy. *JOGNN, 41*, 398-407. <http://dx.doi.org/10.1111/j.1552-6909.2012.01349.x>

Sadala, M. L. (2001, October 25). Phenomenology as a method to investigate the experience lived: A perspective from Husserl and Merleau Ponty's thought. *Journal of Advanced Nursing, 3*, 282-293. Retrieved from <http://ebscohost.com>

Saldana, M., & Adorno, R. (2002). Phenomenology as a method to investigate the experience lived: A perspective from Husserl and Merleau Ponty's thought. *Journal of Advanced Nursing, 37*, 282-293. Retrieved from <http://www.ebscohost.com>

Sosa, C., Althabe, F., Belizan, J., & Bergel, E. (2006). Bed rest in singleton pregnancies. *The Cochrane Collaboration*. <http://dx.doi.org/10.1002/14651858.CD003581.pub2>

Sprague, A. E. (2004). The evolution of bed rest as a clinical intervention. *JOGNN: Journal of Obstetrics, Gynecological & Neonatal Nursing, 33*(5), 542-9. <http://dx.doi.org/10.1177/0884217504268523>

The VOICE Group. (2009). The involved ostrich: Mothers' perceptions of fathers' participation in the transition to parenthood. *Advances in Consumer Research, 36*, 254-259. Retrieved from <http://ebscohost.com>

Vivar, C. G., McQueen, A., Whyte, D. A., & Armayor, N. C. (2007). Getting started with qualitative research: Developing a research proposal. *Nurse Researcher, 13*, 60-73. Retrieved from <http://www.ebscohost.com>

Wildschut, H. J. (2006). Prepregnancy antecedents of a high risk pregnancy. In *High risk pregnancy management options* (3rd ed.). Philadelphia, PA: Elsevier Sanders.

World Health Organization. (n.d.). <http://worldhealthorganization>

Contact

gorozco@westernu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Rapid Curricular Innovation Using Lean Methodology

Jennifer L. Embree, DNP, MSN, BSN, RN, NE-BC, CCNS, USA

Abstract

Today's rapidly evolving healthcare environments converging with faculty shortages has the potential to compromise faculty's ability to stay abreast with needed curricular enhancements. The proliferation of doctor of nursing practice (DNP) programs has driven faculty to re-examine the focus for the school of nursing DNP Program. Established with previous grant funding, the DNP program was focused on providing a doctorate level program for nurse practitioners. As the program struggled with enrollment, we looked to clinical partners for assistance. Interviewing chief nursing officers helped identify gaps in the (DNP) curriculum and the transformational leadership skills needed in the current healthcare environment. Since curriculum revision in academia typically involves lengthy discourse, faculty with business acumen sought a faster mechanism to rapid curriculum change. The LEAN methodology was chosen for curriculum improvement. Lean is defined as maximizing customer value while minimizing waste and using fewer resources (Catt, 2014). Creating processes that need less human effort, space, capital and time with less defects and variability is also a benefit of LEAN. The categorized responses from the chief nursing officers were compared to the American Organization of Nurse Executives (AONE, 2011) and the American College of Healthcare Executives (ACHE, 2015) competency categories, and were identified as primary and sub-categories. The sub-categories were rank ordered by how many times they came up in the interviews. A stakeholder assessment was completed to identify necessary participants. Inviting selected stakeholders and led by a chief nursing officer, LEAN methodology guided curriculum transformation. Goals were established for the LEAN project. Curriculum revision was required to meet the community needs. The agreed upon goal was to redesign the DNP Program to proactively meet the current and anticipated future demands for transformational nursing leaders. A new project model and needed curricular enhancements were identified. Course sequence was established. Course modifications were identified. Items for faculty retreat discussion were established. The curriculum was revised using LEAN methodology.

References

1. American Association of Colleges of Nurses (2011). Retrieved from <http://www.aacn.nche.edu/dnp/Essentials.pdf>
2. American Association of Colleges of Nurses (2015). Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/dnp>
3. Catt, E. (2014). *Lean Six Sigma & A3 Thinking Workbook A Review of Basic Concepts with Exercises, Checklists, and Learning Guides*. V10.1
4. Terhaar, M. F., Taylor, L. A., & Sylvia, M. L. (2016). The Doctor of Nursing Practice: From Start-Up to Impact. *Nursing education perspectives*, 37(1).

Contact

jembree8@iu.edu

EBP PST 2 - Evidence-Based Practice Poster Session 2

Using the MDS-HC to Assess Health Status and Care Needs of the Elderly Living Alone

Chia-Chi Chang, PhD, RN, Taiwan

Yi-Jung Wu, MS, RN, Taiwan

Li-Min Kuo, PhD, RN, Taiwan

Abstract

The aim of the study was to understand the health status, care needs, and the predicative factors that influence their care needs among elderly living alone. The cross-sectional study was conducted and a total of 151 participants were enrolled. The interviewers assessed their health status and care needs by using MDS-HC instruments. The results indicated that who are predominantly male, widowed, and illiterate or with only an elementary school education; their average age is 82.18 years old. In terms of health, the ADL and IADL function are generally good. The 70.9% of participants was having visual impairment. On average, each person have two chronic disease which are most commonly high blood pressure and cataract. The 13.9% of the participants took at least nine medicines. The 87% of the participants were having poor living environment. Each of them has six to seven care needs. The most important care needs were pain control, social interaction needs, and visual function. There were no significant difference between gender and health status. However, significant differences were founded between age, marital status, education, living conditions and the health status. Regarding the result of the regression, the overall health status can predict the care needs. The main related factors of the predictive care needs, in decreasing order, are teeth ($\beta=2.265, p=0.000$), environmental condition ($\beta=0.563, p=0.000$), social function ($\beta=0.355, p=0.02$), health and preventive care ($\beta=0.128, p=0.05$), medical treatment ($\beta=0.128, p=0.012$), and physical function ($\beta=0.112, p=0.001$). The overall explanatory power is 71.4%.

Based on the study results, we should pay more attention to the condition of their teeth, living environment, social function, and health, as well as preventive care, medical treatment, and physical function. It were suggested about the community health care: (1) provide home care regarding the oral hygiene; (2) assess and improve the safety of living environments; (3) encourage seniors to participate in activities designed for them in order to reduce their social isolation and loneliness; (4) offer elderly people related health examinations and counseling, especially visual and audio and oral checks; and (5) integrate seniors' polypharmacy problem and long-term life care assistance to improve elderly people's quality of life.

References

Dickens, A.P., H.S. Richards, C.J. Greaves and J.L. Campbell (2011)'Interventions targeting social isolation in older people: a systemic review', BMC Public Health, 11, <http://www.biomedcentral.com/1471-2458/11/647>
Carole A Estabrooks, Jennifer A Knopp-Sihota and Peter G.Norton.(2013).Practice sensitive quality indicators in RAI-MDS 2.0 nursing home data.*BMC Research Notes*,6,461-466.

Contact

cchang@tmu.edu.tw

EBP PST 3 - Evidence-Based Practice Poster Session 3

Redesign of a Post-Licensure Population Health Course Using an Online Virtual Community Environment

Wendy M. Crary, PhD, RN, CNE, USA

Abstract

For purposes of curriculum assessment, the perceptions of both students and faculty were collected regarding their experience with a virtual community in a population health course.

The research question of the study was: Is the efficacy for the use of a virtual community supported; as the source for gathering information necessary for completion of assignments, and thus achieving student learning outcomes?

History of the problem: The motivation for the curricular change was the need to provide a more standardized learning experience and role specific patient interaction for the students. The necessity for change was identified based on student feedback regarding the challenges faced in arranging a practicum experience, lack of opportunity to apply new learning, and faculty report of inconsistent quality of student work related to those observation-only clinical hours. The faculty felt compelled to explore less traditional approaches for providing the students with: the opportunity for patient assessment, exploration of the community based nursing role and development of a plan of care. The choice to move in the direction of using a virtual experience was based on current literature and in-depth discussion with product providers (Fogg, L., Carlson – Sabelli, L., Carlson, K., & Giddens, J., (2013), Schuster, G., Foret Giddens, J., & Roehring, N. (2011), Cant, R., & Cooper, S., (2014).

A review of the Essentials for Baccalaureate Nursing (AACN, 2008) related to population health and clinical prevention in a community setting informed the review of current student learning objectives and writing of new ones to align with using a virtual community. Once this was accomplished, the next steps in developing the learning plan were to design the learning modules, identify from the chosen web-based program the activities to build assignments, and writing of assignment directions and rubrics. The goal was to achieve a high degree of interaction for the students with the virtual community. A scaffolding approach was followed to place the learning tools and assessments in the course design framework (Salyers, V., Carter, L., Cairns, S., & Durrer, L. (2014). A full course redesign was necessary in order to fully incorporate the scaffolding approach.

The course design moved students through activities beginning at an 'explore new concepts' level of learning, to navigating through the four nurses stories, to linking the nurses work in the virtual program stories to community based nursing role responsibilities and finally patient outcomes. Once these steps in the development were accomplished the course was subjected to faculty peer review. Slight modifications were made, then the course moved to the pilot stage and student review. In the final week of the course a free text narrative question was added seeking student feedback on the virtual community. These entries were compiled into a report for faculty review. A discussion group of teaching faculty yielded suggestions for changes to assignments, placement of assignments within the course and enhancement of rubrics. The responses provided by the students resulted in clarification of instructions for how to access the virtual community, assignment direction and more detail added in the assignment worksheets/tables.

The study results reveal that students encountered initial stress with first time access to the virtual community, but once entering the site they found it easy to navigate, the variety of information and presentation methods was appealing, as was the depth of detail on the nurses and patients. The students also report developing an emotional connection with the characters; even going beyond assigned episodes to find out what 'happened next' to the character. They also recognized that there were aspects of patients' lives outside of their acute care practice setting that have an impact on how an effective plan of care is developed; which they had not considered. Another point of new learning was the breadth of the community based nurses role and the variety of ways they interact with and care for their patients.

References

- American Association of Colleges of Nursing. (2008). *The essentials of baccalaureate education for professional nursing practice*. Retrieved from <http://www.aacn.nche.edu/education/pdf/baccessentials08.pdf>
- Cant, R., & Cooper, S. (2014). Simulation in the internet age: The place of web-based simulation in nursing education. An integrative review. *Nurse Education Today*, 34, 1435–1442.
- Fogg, L., Carlson – Sabelli, L., Carlson, K., & Giddens, J. (2013). The perceived benefits of a virtual community: Effects of learning style, race, ethnicity, and frequency of use on nursing students. *Nursing Education Perspectives*, 34(6), 390-394. doi:10.5480/11-526.1
- Salyers, V., Carter, L., Cairns, S., & Durrer, L. (2014). The use of scaffolding and interactive learning strategies in online courses for working nurses: Implications for adult and online education. *Canadian Journal of University Continuing Education*, 40(1), 1-19.
- Schuster, G., Foret Giddens, J., & Roehring, N. (2011). Emotional connection and integration: Dominant themes among undergraduate nursing students using a virtual community. *Journal of Nursing Education*, 50(4), 222-225. doi:10.3928/01484834-20110131-02

Contact

wendy.crary@cuw.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Use of Integrative Medicine Approaches for Treating Adults With Sleep Disorders

Chiung-Yu Huang, PhD, RN, Taiwan
Hui-Ling Lai, PhD, MS, MSN, RN, Taiwan

Abstract

Objectives: This study determined the prevalence, perceived efficacy, and influencing factors and evaluated the sources of information as well as the barriers and facilitators for the use of integrative medicine approaches to treat adults with sleep disorders.

Design: A cross-sectional postal survey was conducted.

Setting: The sleep center of a 1100-bed hospital in Taiwan.

Participants: Adults with sleep disorders were purposively selected.

Methods: A questionnaire designed by the researchers was used to collect data regarding the use of integrative medicine approaches within the previous 12 months and regarding the influencing factors. Descriptive statistics and binary logistic regression were used to analyze the data.

Results: The response rate was 94.5% ($n = 515$) among 545 adults. The prevalence for the use of integrative medicine approaches was 53.4% ($n = 275$). The three most perceivably efficacious integrative medicine approaches were qigong, meditation, and acupuncture. Educational attainment, the number of chronic diseases/symptoms, and healthy lifestyles (all $p < .001$) were independent predictors for the use of integrative medicine approaches. The three most common sources of information were television/radio (44%), family/friends (38.9%), and the internet (35.3%). The top three facilitators for the use of integrative medicine approaches were side effects of sleeping pills (51.3%), the perceived efficacy of integrative medicine approaches (36%), and the recommendation of health care providers (19.3%). The top three barriers to the use of integrative medicine approaches were limited accessibility (48.7%), time-consuming procedures (42.9%), and a lack of scientific evidence (41.1%).

Conclusion: Integrative medicine approaches are used by a considerable proportion of adults for treating sleep disorders worldwide. This study provides fundamental information regarding the use of integrative medicine approaches in adults with sleep disorders. Our findings suggest that additional comprehensive studies on the decision-making involved in the use of integrative medicine approaches by adults with sleep disorders are needed.

References

- Bonnet, M.H., & Arand, D.L. (2016). Treatment of insomnia. Waltham, MA., UpToDate.
National Institutes of Health. (2016). "NCCIH 2016 Strategic Plan." Retrieved August, 29, 2016, from <https://nccih.nih.gov/about/strategic-plans/2016>.
Upchurch, D.M., & Rainisch, B.W. (2015). The importance of wellness among users of complementary and alternative medicine: findings from the 2007 National Health Interview Survey. BMC Complement Altern Med 15(1): 362.

Contact

snowjade@mail.tcu.edu.tw

EBP PST 3 - Evidence-Based Practice Poster Session 3

Traveling Well: Leading Students on the Path to Human Flourishing

Llewelyn Prater, PhD, RN, CNE, USA
Shelby L. Garner, PhD, RN, CNE, USA
Lori A. Spies, PhD, RN, NP-C, USA
Cheryl Riley, DNP, RN, NNP-BC, USA

Abstract

Students enter university today for many reasons. Because many begin this experience as 18 or 19 year old young adults, they are developmentally open to new ideas. Their thought processes are being refined, and they come to university with many questions about who they are and what they actually believe. As a result of these converging factors, faculty are in a unique position to influence, encourage and mentor students not only in their academic courses but in extracurricular pursuits as well. This paper aims to present the philosophical connection between international travel and spirituality and to propose how faculty members can cultivate a richer conception and practice of teaching and learning, particularly in the discipline of nursing. Through understanding the spiritual attributes of international travel, faculty can foster students' ability to develop spiritual intelligence, build transcultural skills and learn cultural humility. The philosophical connection between elements of travel and elements of spirituality is especially important as we help our students learn to attend to themselves as a whole person.

There is a long-standing tradition of global pilgrimage; from treks to Lourdes or Machu Pichu for soul enriching experiences to other sites such as famous museums or ruins (Scriven, 2014; Warfield, Baker, & Fox, 2014; Cousineau, 2012). Many of these journeys are motivated by faith and it is not always the destination but also the journey that is of significance. Spiritual attributes of travel are linked to the desire for personal transformation that can happen when one steps outside the routine of daily life, becomes ensconced in another place and is able to view life from a different perspective.

As faculty, we desire to bring our students alongside us as we live out our passion and profess the tenets of our disciplines. By traveling with our students, either on study abroad, service learning projects, mission trips or field trips, we can help them sort out their experiences and work through the disparities that may exist between students' self-perceptions and actual cultural humility. In this way, travel with our students can be a time of spiritual transformation for both student and faculty member alike.

References

- Bremault-Phillips, S., Olson, J., Brett-MacLean, P., Oneschuk, D., Sinclair, S., Magnus, R., Weis, J., Abbasal, M., Parmer, J., & Puchalski, M. (2015). Integrating spirituality as a key component of patient care. *Religions* 6, 476-498. doi 10.3390/rel6020476
- Burganer, S. C. (1999). Predicting quality of life in caregivers of Alzheimer's patients: The role of support from and involvement with the religious community. *Journal of Pastoral Care Counsel*, 53, 433-446.
- Cousineau, P. (2012). *The art of pilgrimage: The seeker's guide to making travel sacred*. Conari Press, San Francisco, CA.
- Deifelt, W. (2007). Intercultural ethics: Sameness and otherness revisited. *Dialog: A Journal of Theology*, 46(2), 112-119.
- Emmons, R.A. (2000). Is spirituality an intelligence? Motivation, cognition, and the psychology of ultimate concern. *The International Journal for the Psychology of Religion* 10, 27-34.
- Fitchett, G., Murphy, P., Kim, J., Gibbons, J., Cameron, J., & Davis, J. (2004). Religious struggle: Prevalence, correlates and mental health risks in diabetic, congestive heart failure and oncology patients. *International Journal of Psychiatric Medicine*, 34, 179-196.
- International Council for Nurses (2012). *The ICN code of ethics for nurses*. Retrieved from http://www.icn.ch/images/stories/documents/about/icncode_english.pdf
- Laing, J. H. & Crouch, S. I. (2009). Lone wolves? Isolation and solitude within the frontier travel experience. *Journal compilation © 2009 Swedish Society for Anthropology and Geography*.
- Lawrence, B. (2009). The practice of the presence of God. *ReadHowYouWant.com*.
- Merriam-Webster (2014a). Spirit. Retrieved from <http://www.merriam-webster.com/dictionary/spirit>
- Merriam-Webster (2014b). Spirituality. Retrieved from <http://www.merriam-webster.com/dictionary/spirituality>
- Paulsell, S. (2014). Faith matters; Journey stories. *Christian Century*. March, 2014.

- Pulchaski, C., Vitillo, R., Hull, S., & Reller, N. (2014). Improving the spiritual dimension of whole person care: Reaching national and international consensus. *Journal of Palliative Medicine* 17 (6), 642-656. doi: 10.1089/j.2014.9427pm
- Schmidt, C. & Little, D. (2007). Qualitative insights into leisure as a spiritual experience. *Journal of Leisure Research*, 39 (2), 222-247.
- Scriven, R. (2014). Geographies of pilgrimage: Meaningful movements and embodied mobilities. *Geography Compass*, 8(4), 249-261. doi:10.1111/gec3.12124
- Sell, J. (2006). Travel can be a spiritual journey. *National Catholic Reporter*. 42(35), 12.
- Sharpley, R. & Jepson, D. (2010). Rural tourism: A spiritual experience? *Annals of Tourism*, 38 (1), 58-71.
- Shields, D. A. (2012). Team walking hearts: A pilgrimage of being. *International Journal For Human Caring*, 16(2), 70-72.
- Sperry, M. (2013). Sameness and differences: Cultivating cultural dialogue. *International Journal of Psychoanalytic Self Psychology*, 8, 77-91.
- Swinton, J. & Pattison, S. (2010). Moving beyond clarity: Towards a thin, vague, and useful understanding of spirituality in nursing care. *Nursing Philosophy*, 11(4), 226-237. doi: 10.1111/j.1466-769X.2010.00450.x.
- Vaughan, F. (2002). What is spiritual intelligence? *Journal of Humanistic Psychology*, 42(2), 16-33. doi: 10.1177/0022167802422003
- Warfield, H. A., Baker, S. B., & Foxx, S. B. P. (2014). The therapeutic value of pilgrimage: A grounded theory study. *Mental Health, Religion & Culture*, 17(8), 860-875.
- Watson, J. (2006). Walking pilgrimage as *caritas action* in the world. *Journal of Holistic Nursing*, 24, 289. doi: 10.1177/0898010106293597
- Watson, J. (2014). Continuing *caritas* journey—Reflections upon a shared private pilgrimage. *Journal of Holistic Nursing* 32(3), 140-146. doi: 10.1177/0898010114539393
- Wright, S. & Neuberger, J. (2012). Why spirituality is essential for nurses. *Nursing Standard*, 26 (40), 19-21.
- Zohar, D. & Marshall, I. (2012). *Spiritual intelligence: Ultimate intelligence*. Bloomsbury Publishing Plc, London, UK.

Contact

Lyn_Prater@baylor.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Professional Development of Nurse Leaders

Jennifer L. Embree, DNP, MSN, BSN, RN, NE-BC, CCNS, USA

Abstract

The purpose of this presentation is to describe curriculum innovation using a strengths-based perspective to develop graduate nurse leader talents and emotional intelligence. Health care reform and the resultant complexity require Registered Nurse (RN) leaders to demonstrate transformational skills (Institute of Medicine [IOM], 2011; Trossman, 2010). Challenges in the health care environment include current and future technologic requirements, escalated pay for performance prerequisites, and retention and recruitment of the nursing workforce (Doody & Doody, 2012). Operating in principal leadership roles, leadership students need professional leadership skills and flexibility in order to facilitate nursing care delivery change in morphing health care organizations. Competencies and expectations that leadership students need to meet future health care challenges include being able to identify personal talents, developing emotional intelligence (EI), and expanding transformational leadership skills. Identifying personal talents and EI is foundational to developing transformational leaders (O'Neill, 2013). Supported in the literature, EI and transformational leadership are essential to enhancing organizational productivity (Weberg, 2010). Preparing graduate leadership students (hereafter referred to as leadership students) to guide nursing transformation is critical to the future of health care and to the 3.6 million nurses in the United States delivering care (ANA, 2016). To provide a foundation for nursing leadership transformational skill development, the Nurse Manager Leadership Partnership's Learning Domain Framework's (NMLP) was adopted. The three spheres of the NMLP are: the science: managing the business; the art: leading the people; and the internal leader: creating the internal leader (Lee, Peck, Rutherford, & Shannon, 2008). Specifically related to the nursing leadership course content were: relationship management, influencing behaviors (the internal leader), personal and professional accountability, career planning, and personal journey disciplines (the art sphere) (Lee, Peck, Rutherford, & Shannon, 2008). Faculty developed learning activities allowed students to customize and integrate their abilities into nurse leaders' personal work roles. Since StrengthsFinder and EI assessments provide participants with their baseline strengths and EI, the results of both assessments provide additional information and opportunities for leadership students' developmental changes (Rath, 2007; Bradberry & Greaves, 2009). Threading self-assessment content into leadership assignments can assist leadership students' integration of learning into their clinical leadership practice. All leadership students described learning in relation to their strengths and EI and the importance of these talents to the nursing leadership role.

References

- American Nurses Association. (2016). <http://nursingworld.org> Accessed July 10, 2016.
- Doody, O., & Doody, C. M. (2012). Transformational leadership in nursing practice. *British Journal of Nursing*, 21(20):1212-1214, 1217-1218.
- Institute of Medicine (US). Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing. (2011). *The future of nursing: Leading change, advancing health*. Washington, DC: National Academies Press.
- Lee, B., Peck, C., Rutherford, P., & Shannon, D. (2008). Transforming care at the bedside how-to guide: Developing front-line nursing managers to lead innovation and improvement. Retrieved June, 15, 2014.
- O'Neill, J. A. (2013). Advancing the nursing profession begins with leadership. *Journal of Nursing Administration*, 43(4), 179-181
- Pinterest. Retrieved January 2, 2016. www.pinterest.com/
- Rath, T., Buckingham, M., & Clifton, D. (2007). *Strengths Finder 2.0. Now. Discover Your Strengths*. Washington, D.C: Gallup Press.
- Trossman, S. (2009). Institute of medicine report calls for more nurse leaders throughout health care. *The American nurse*, 42(6), 14-14.
- Weberg, D. (2010). Transformational leadership and staff retention: an evidence review with implications for healthcare systems. *Nursing Administration Quarterly*, 34(3), 246-258

Contact

jembree8@iu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Cinemeducation: An Innovative Way to Enhance Nursing Students' Communication Skills

Maureen Hillier, DNP, RN, CCRN, USA

Abstract

Purpose: To evaluate the use of cinemeducation with the integration of a TED Talk and a reflective assignment to augment the standard undergraduate class to teach enhanced communication skills in healthcare.

According to Adult Learning Theory, millennials are most interested in learning subjects that have immediate relevance and impact to their job or personal life (Knowles, 1984). As the standard educational lecture becomes obsolete, the combination of media mixture and practices allows knowledge to be brought to life in the 'flipped classroom' (Friesen, 2011). TED Talks which stands for technology, entertainment and design, allow speakers to present their most compelling innovative ideas, in 20 minutes or less, in a manner that most people can understand (TED.com, 2016).

Methods: Undergraduate nursing students were asked to independently view a TED Talk prior to class and write a brief narrative reflection as part of their assignment for an undergraduate lecture on communication in healthcare. Their reflective responses were assessed by two open-ended questions and were analyzed for qualitative themes. The Facilitator's Guide was used as a springboard in a subsequent session to further encourage a free exchange of ideas about effective communication skills in a healthcare setting.

Results: The TED Talk and reflective assignment was completed by 23/25 (92%) of students of which 100% provided consent to participate in the study. Qualitative analysis of the reflective writing identified three primary themes: Value of Communication, Importance of Empathy, and Professional Role Development. The TED Talk was described by the students as a unique learning experience that modeled inspiration, commitment and empowerment.

Conclusion: When incorporated into an introductory communication class session, TED Talks offer educators a way to provide interactive learning for millennial students. The Facilitator's Guide coupled with reflective writing enhances course content and promotes maximal efficiency of class time.

Practice Implications: As educational programs compete with online and open course-ware, TED Talks provide meaningful no-cost content that can easily be integrated into class discussion, on-line activities and hospital orientation programs. When accompanied by the Facilitator's Guide, this TED Talk provides a compelling form of cinemeducation to encourage nursing students to critically reflect and incorporate effective communication skills, prior to entry into practice.

References

- Anderson, C. (2016). *TED Talks: the official TED guide to public speaking*. Boston: Houghton Mifflin Harcourt.
- Donovan, J. (2013). *How to deliver a TED talk: Secrets of the world's most inspiring presentations*. New York: McGraw-Hill Education.
- Friesen, N. (2011). The lecture as a transmedial pedagogical form: A historical analysis. *Educational Researcher* 40, 95-102.
- Gallo, C. (2014). *Talk like TED: the 9 public speaking secrets of the world's top minds*. New York: St. Martin's Griffin.
- Gotwals, B. A. Scholtz, S. (2016). Video-Enhanced simulation in pediatric end-of-life care. *Nursing Education Perspectives*, 37(6), 360-362.
- Knowles, MS. (1984). *Andragogy in action: Applying modern principles of adult education*. San Francisco: Jossey Bass.
- Nowak, MK, Speakman, E, Sayers, P. (2016). Evaluating PowerPoint presentations: *A retrospective study examining educational barriers and strategies*. *Nursing Education Perspectives*, 37(1), 28-31.

Meyer, E. C. (2014). Courage brains and heart: Lessons from the Wizard of Oz for difficult health care conversations. *Australian Journal of Critical Care*, (3), 108-9.

Morse, J. M., & Field, P. A. (1995). *Qualitative research methods for health professionals*. 2nd edition. Thousand Oaks: CA: Sage Publications.

Northington, L., Wilkerson, R., Fisher, W., & Schenk, L. (2005). Enhancing nursing students' clinical experiences using aesthetics. *Journal of Professional Nursing*, 21(1), 66-71.

Prensky, M. (2001). *Teaching Digital Natives: Partnering for real learning*. Thousand Oaks CA: Sage.

Prober, C.G., & Heath, C. (2012). Lecture halls without lectures – A Proposal for medical education. *New England Journal of Medicine* 366(18): 1657-59.

TEDxLongwood. (2015). Presentation of 'On Being Present, Not Perfect'. <https://thriving.childrenshospital.org/reliving-tedxlongwood/>

Weber, R. P. (1990). *Basic Content Analysis*, Beverly Hills, CA: Sage.

Contact

maureenhillier@uri.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Transforming DNP Practice Partnerships Through Meaningful Student Initiatives and Structured Collaborations

Mary A. Hooshmand, PhD, MS, BS, RN, USA
Jessica R. Williams, PhD, MPH, RN, APHN-BC, USA
Kenya Snowden, DNP, ACNP-BC, ANP-BC, FNP-C, USA
Cynthia Foronda, PhD, CNE, ANEF, USA

Abstract

The University of Miami School of Nursing and Health Studies (UMSONHS) Doctorate of Nursing Practice (DNP) program has developed a unique approach to practice immersion. During this time, students have been exposed to an increasingly diverse array of educational experiences with a broad range of healthcare partners across local, national, and international communities. The objective is to expand students' leadership skills for serving at the forefront of the 21st century health care system by providing transformational experiences. Ensuring such opportunities remain available for each successive class requires maintaining strong bonds with an infrastructure of health providers throughout the community and continuing to build new networks on an ongoing basis, both through and with our recent graduates. The result is a veritable menu of practice immersion options tailored to each student's needs and program of study. The purpose of this presentation is to discuss the impact of collaborative partnerships involving the DNP prepared nurse with intra and interprofessional colleagues to transform healthcare, identify methods to maximize partnerships, and to further explore the cultivation of partnerships between academia and practice as we develop nursing leaders for the future.

Established in 2009, the UMSONHS DNP prepares students for the highest level of nursing practice and includes an intensive practice immersion experience affording students the opportunity to apply, integrate and synthesize the American Association of Colleges of Nursing (AACN) DNP essentials while participating in practice experiences in a variety of health care settings. Prior to 2013, students identified local projects and preceptors across the community in coordination with faculty. The projects varied in respect to scope, depth and quality of experiences, preceptor qualifications, integrations of the identified DNP essentials, outcomes, and continuity. Challenges included limited access to 'live/ real time' practice improvement projects, lack of visibility regarding the DNP, contrasting/ lack of congruent goals and priorities between academic and practice partners, and a lack of continuity and project development in projects from cohort to cohort contributing to a feel of 'lack of ownership' impacting perceived and real sense of commitment.

In 2012 – 2013, SONHS leadership initiated collaborative meetings across the community and health care organizations to develop a formalized 'DNP Practice Immersion Program' involving multiple sites, formalized collaborative agreements, a menu of ongoing live practice improvement projects, established project criteria with deliverables, business planning components, integrated DNP essential requirements with project elements, and overall developed practice initiatives as a fusion of course objectives, individual student objectives, and agency/ organizational priorities. The program transitioned in 2013 beginning with five practice partnerships and has expanded to 12 practice partners in 2016 with a menu of over 45 'live' practice projects each semester. These projects are predetermined with the practice partners and are subsequently 'matched' with students based on student requests, learning needs and goals, faculty recommendation, agency needs/ requirements, and finally mutual agreement between faculty, student, and agency representatives. Meetings are held regularly between academic and practice partners to review projects, revise current projects integrating updated deliverables, evaluate progress, assure continuity for long term projects, and develop new practice initiatives based on mutual needs, goals, and objectives. This presentation will highlight practice improvement case examples and will provide an update on overall aggregate outcomes of the UMSONHS DNP practice immersion program.

References

American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Washington, DC : Retrieved from <http://www.aacn.nche.edu/publications/position/DNPEssentials.pdf>

American Association of Colleges of Nursing. (2015). *The doctor of nursing practice: Current issues and clarifying recommendations, report from the task force on the implementation of the DNP*. Washington, DC : Retrieved from <http://www.aacn.nche.edu/aacn-publications/white-papers/DNP-Implementation-TF-Report-8-15.pdf>
IOM (Institute of Medicine). 2011. *The Future of Nursing: Leading Change, Advancing Health*. Washington, DC: The National Academies Press.

Contact

Mhooshmand@miami.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Creating a Successful Online Learning Environment for Introverted Nursing Students

Kathleen Ann Muglia, DNP, RN, APRN-BC, DNP, USA
Melissa A. Murphey, DNP, FNP-C, USA

Abstract

In order to educate more nurses, many nursing instructors are beginning to teach online, often with little instruction on how to teach online or how to teach students with different learning styles. Introverted students may be more drawn to online learning due to the attractiveness of a low-stimulation environment, yet introverts have unique learning needs that instructors are often unaware of. Instructors who understand online pedagogy and create online learning environments with the unique needs of introverted learners in mind, may notice greater student satisfaction and success. How instructors engage with students is an important factor in whether or not a student will be successful. Instructor interaction is a major component in success of online learning (Kim, Hong, Bonk & Lim, 2011). In the traditional face-to-face classroom, nursing instructors can usually identify the introverted students sitting in the back rows of the class. In an online environment however, nursing instructors may have a hard time identifying introverts. Why is it helpful to identify introverted students? Introverts are thinkers and like to take their time when answering in class. Nursing faculty may falsely conclude that the introverted online student is less engaged or less interested if the student is lagging behind others, such as being last to post to a discussion bulletin. Introverts may want to think about their response for a few days before they post their thoughts for others to see. Studies have demonstrated a relationship between learning style and the use of e-learning systems (Clark & Mayer, 2011). Nursing faculty may label the introvert as a “lurker” and assume they are not as engaged as they should be. Student personality has been shown to affect involvement in discussions as introverts prefer written assignments and extroverts may prefer a more “revealing communication medium” (Blau & Barak, 2012). When creating online exercises, introverts may appreciate asynchronous activities more than synchronous live sessions where they would be expected to spontaneously answer in class. Al-Dujaily (2013) found extroverted/introverted personal traits significantly influenced learning activity on adaptive e-learning system for computer science students. Online nursing instructors may want to consider allowing students options of assignments to complete so they may demonstrate competency in a variety of ways. An introvert may choose a written assignment and an extrovert may choose an oral report. There are multiple ways for students to demonstrate competency. Because introverted students are less vocal in class, many instructors may view them as uninterested or not as smart as their extroverted classmates (Cain, 2012). Introverted students may not be appreciated for their thoughtful nature and ability to critically think through problems. Many times the extroverted student is viewed as the ideal student because they will eagerly answer in class and participate in live discussions. Instructors who learn the positive qualities of introverted students, and learn to design exercises in which all students have an equal chance for success, may enjoy greater satisfaction and improved student outcomes. The introverted student may also benefit from the instructor gently encouraging them out of their comfort zone. Appreciating that introverted learners have unique needs and best practices in online education need to be implemented, instructors at a small, urban college of nursing received education on the unique needs of introverted online learners. After review of this information, several online master’s nursing courses were designed, considering the needs of the introverted learners. Student feedback was positive after implementing best practices for introverted learners. Faculty response was also positive after receiving education on introverts and how to implement best practices for introverted online learners. This work has implications for nursing education practice. Although there are millions of online learners, there appears to be dearth amount of work done on instruction of online introverted nursing students. As the technology and innovation revolution continues, and more nursing courses are being taught online, nursing instructors have yet another area in which they need to receive additional education and training. First, nursing faculty should not assume that introverted students are not as smart or not as engaged as their extroverted classmates, and instructors should not discriminate against students based on personality traits. Second, when nursing instructors are using innovations and technologies and teaching online, they should learn how to design and implement best practices for online education and learn how to engage students with different

personalities including the introverted learner. Finally, if more online nursing instructors understand introverted students and implement best practices, we could see more nursing students graduate, the nursing shortage may be minimized and students and faculty may have greater satisfaction with online teaching and learning.

References

- Al-Dujaily, A., Jieun, K., & Hokyoung, R. (2013). Am I Extravert or Introvert? Considering the Personality Effect Toward e-Learning System. *Journal Of Educational Technology & Society*, 16(3), 14-27.
- Blau, I., & Barak, A. (2012). How Do Personality, Synchronous Media, and Discussion Topic Affect Participation?. *Journal Of Educational Technology & Society*, 15(2), 12-24.
- Cain, S. (2012). *Quiet: The power of introverts in a world that can't stop talking*. New York: Crown Publishers.
- Clark, R., & Mayer, R. (2011). *E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning*. Richfield, CA: Pfeiffer.
- Kim, P., Hong, J., Bonk, C., & Lim, G. (2011). Effects of group reflection variations in project-based learning integrated in a Web 2.0 learning space. *Interactive Learning Environments*, 19(4), 333-349.
doi:10.1080/10494820903210782doi:10.4236/ojn.2013.37069
- Smith, J. S., & Jones, M. P. (2009).

Contact

kmuglia2@att.net

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Development and Incorporation of Combined Maternal-Child and Pediatric Global Learning Experiences Undergraduate Nursing Students

Amy McKeever, PhD, RN, CRNP, WHNP-BC, USA

Abstract

Preparing entry-level clinicians in today's complex healthcare markets requires an improved awareness of the globalizations of today's society. Healthcare providers are being challenged with providing care to an even more diverse population, and with the challenges worldwide, migration by choice, or force means that the nurses caring for patients are from vast geographic communities. As a result, cultural competence has emerged as a critical element of professional nursing practice and nursing education is challenged with meeting the need of preparing culturally competent nurses.

Nursing leaders, and educators recognize that the incoming work force has to be prepared to care for that global community and preparing this workforce has to begin with entry-level clinicians. Commonplace in traditional undergraduate baccalaureate education students receive some training, and experiences in providing cultural competent care, but international healthcare experiences vary among higher BSN education programs. Cultural competence requires both formal knowledge and clinical experiences with culturally diverse individuals and communities. The purpose of this presentation is to highlight one of the unique global service learning experiences that Villanova University developed and implemented during a curriculum revision in 2014 to continue in which threaded an international experience among several clinical courses for students to learn with and among different clinical courses. Goals of the curricular change include: marrying theory and clinical content among the maternal-child health and pediatric courses with building concepts for junior to senior nursing students, having traditional undergraduate nursing students work with second degree nursing students, allowing graduate nurse practitioner students participate in mentoring undergraduate nursing students prior to and in country, and incorporating health promotion and prevention concepts into core clinical courses. The authors will highlight how teaching across the curriculum was incorporated into this global service learning experience at home and in country and demonstrate how clinical courses can work together to achieve similar theory and clinical course and student outcomes.

References

- Harrowing, J. N., Gregory, D. M., O'Sullivan, P.S., Lee, B., & Doolittle, L. (2012). A critical analysis of undergraduate students' cultural immersion experiences. *International Nursing Review*, 500, 494-501.
- Stuart, K. & Grippon, C. (2016). Implementing recommendations for short-term medical mission. *Health Progress*, Sept/Oct, 37-41.
- Walsh, L. V., & DeJoseph, J. (2002). I saw it in a different light: International learning experiences in baccalaureate nursing education. *Journal of Nursing Education*, 266-272.

Contact

amy.mckeever@villanova.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Transformative Learning and Development of Public Health Nursing Practice From a Philosophical Perspective of Personhood

Kristina Mountain, MSc, RN, RSCPHN, United Kingdom

Abstract

Paper: Fostering transformative learning and development of practice within Specialist Community Public Health Nursing curriculum from a philosophical perspective of Personhood.

Purpose: The presentation will consider the articulation of key person-centred concepts in a post registration Masters level Specialist Community Public Health Nursing (SCPHN) curriculum based within the Division of Nursing at Queen Margaret University, Scotland, and the potential for transformative learning.

Methods: The programme was implemented in 2015-2016. A person-centred approach to facilitating learning was adopted and the critical and creative engagement of students in concept clarification and reflexivity encouraged exploring the limits of approaches that focus exclusively either on the person or on the population within the changing context of public health nursing practice. This brings to the fore the complexity of holistic assessment, judgement of risk and safeguarding, centred on the child and young person within the context of public health and wellbeing (Cowley et al 2013; Malone et al 2016). By providing a safe and authentic environment for students to critically evaluate their existing beliefs and values, build on their knowledge, and construct a new frame of reference as part of their professional and personal development is key to this process. Students, as adult learners, experience not just new practice and university settings but a different professional cultural context (Cowley et al 2013; McCormack & McCance 2010; Mezirow 2012).

Throughout the learning journey of the programme students and facilitators are encouraged to explore personhood across the lifespan (from childhood to adulthood) and the connections and relationships between persons (children, young people, families, communities). Through situated and collaborative learning, research evidence is applied to devise person-centred interventions with a view to advancing and developing practice. An ongoing dynamic process of evaluation draws on formal student feedback, presentation of group work through creative methods such as poster presentations, poetry, artwork, reflective narratives, debates, and online discussions. There is a particular focus on the core module on child and family centred practice. In our evaluation framework we will maintain an evaluative relationship with graduates to analyse their pre-graduation reflective narratives and continue to 'reflect on their reflections' in the context of impact on their practice.

Results: The evaluation is ongoing. The group work and discussions were considered thought provoking; students on the programme seem to be gaining a deeper and broader understanding of child and family centred practice from a person-centred perspective. The link of theory to practice has been identified as one of the strengths, together with the emphasis on thinking critically on the exploration of personal values and beliefs, of personhood, and of child and family centred practice.

Conclusion: Part of the process of undertaking a programme of study as an adult learner, and engaging with the transition to a new professional identity, involves challenge to the assumptions, values and beliefs that each person brings with them. It brings into play the philosophical perspective of Personhood, and what it feels and means to be a person (McCormack & McCance 2010). There are parallels between the person's (as a child and young person) journey and the person's (as a student) journey – emphasising the relationship between praxis and reflexivity and the potential for transformative learning and development of practice to take place.

References

COWLEY, S., WHITTAKER, K., GRIGULIS, A., MALONE, M., DONETTO, S., WOOD, H., MORROW, E., and MABEN, J. 2013. *Why Health Visiting?: A review of the literature about key health visitor interventions, processes*

and outcomes for children and families. (Department of Health Policy Research Programme, ref. 016 0058). National Nursing Research Unit.

McCORMACK, B. and McCANCE, T. 2010. *Person-centred Nursing: Theory and Practice*. Oxford: Wiley-Blackwell.

MALONE, M., WHITTAKER, K.M., COWLEY, S., EZHOVA, I. and MABEN, J. 2016. Health visitor education for today's Britain: Messages from a narrative review of the health visitor literature. *Nurse Education Today*. vol. 44, pp.175-186.

MEZIROU, J. 2012. *Learning to Think Like an Adult: Core Concepts of Transformation Theory*. In: TAYLOR, E.W., CRANTON, P., and ASSOCIATES. *The Handbook of Transformative Learning: Theory, Research, and Practice*. San Francisco: Jossey-Bass.

Contact

kmountain@qmu.ac.uk

EBP PST 3 - Evidence-Based Practice Poster Session 3

Using Team STEPPS® to Improve Teamwork and Collaboration in the Emergency Department

Melissa A. Pollard, DNP, CCRN, CEN, RN-BC, ARNP-BC, WCC, USA
Elizabeth Cummings, RN, CEN, USA

Abstract

This session will address an education initiative to promote the adoption of Team STEPPS tools in our emergency department. The goal of this project was to create a healthy work environment that embraces Team STEPPS tools in day to day work flow. Our Emergency Department underwent an unprecedented turn-over in staff, including a new contracted team of Emergency providers, resulting in many changes in work flow, throughput and communication. The retirement of the longtime nurse manager also prompted changes in management structure, with additional senior nurse turnover. With the many changes, it was noted that collaboration and communication among staff was inconsistent, and some interventions to improve this were pursued. Our emergency department had training in Team STEPPS six years ago, with moderate degree of buy in at the time. Our clinical professional development team continued to embrace Team STEPPS concepts and weave these tools and verbiage into our simulations facility wide, including during our American Heart Association classes such as PALS, ACLS, and Neonatal resuscitation, which the ED team attend.

It was noted that a majority of the Emergency Department team had not been present during the initial Team STEPPS training, and that revitalizing this program might show improvement in teamwork skills. A plan was drafted, and presented to senior leadership, and then to the unit based council for input. We first surveyed the department using the Team STEPPS Teamwork Perception Questionnaire (T-TPQ) prior to Team STEPPS classes or introducing interventions and then again four months after the trainings. Using the results of the survey as a guide, we are implementing tools to improve identified areas of perceived inconsistencies. The Team was surveyed again approximately one year after initiation of this initiative.

The coordinating team worked to identify issues, why the tenants of Team STEPPS was felt to be a good fit to address some identified needs of this department, and the results of this intervention. We will address how the partnership between the Unit Based Council chair, the ED physician lead, and the professional development specialist were integral to the success of this project. This initiative did not immediately demonstrate objective improvements in teamwork. However, after building on the initial program, significant improvements were found both objectively and subjectively.

References

<http://www.ahrq.gov/professionals/education/curriculum-tools/teamstepps/index.html>, accessed December 1, 2016.
Battles, J., King, H. (2010). *TeamSTEPPS Teamwork Perception Questionnaire (T-TPQ) Manual*. Washington DC: American Institute for Research
Manojlovich, M., & DeCicco, B. (2007). Healthy work environments, nurse-physician communication, and patients' outcomes. *American Journal of Critical Care*, 16(6), 536-543.

Contact

mpollard@ehr.org

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Effectiveness of Online Case Studies Among Medical-Surgical Nursing Students

Shu-Yi Wang, PhD, RN, CNS, USA
Theresa G. Buxton, PhD, CNE, USA

Abstract

Vendor provided online case studies were integrated throughout a medical-surgical nursing course. Case studies are a form of active learning that support student's development of problem solving, critical reasoning, and analytical skills, which are valuable tools needed by professional nurses. Providing simulated hands-on experience in the form of realistic patient problems allows students to identify and apply principles to new or changing situations. The purpose of this study was to examine the effectiveness of case studies integrated throughout medical-surgical nursing course and to evaluate the learning experiences among medical-surgical nursing students. A cross-sectional design was to assess 110 BSN students. 12 online case studies provided by a nursing education vendor were used in medical-surgical courses. Measurements were used to assess student perceptions of case studies regarding overall satisfaction with this type of learning activity and their effectiveness to enhance learning. Measurements included a 10-item of overall rate of case study, 11-item of satisfying found the each session of case study, 1-item of rate of the case study overall, and 1-item of descriptive question. The first category contained 10-items reviewing the overall experience of case study using a rating of 1= strongly disagree to 5= strongly agree numerical scale (strongly disagree, disagree, neutral, agree, & strongly agree), the 2nd category contained 11-items rating the satisfaction for each of the 11 online case studies ranging from 1=Very Poor- 5=Excellent (very poor, poor, average, good, & excellent), and the 3rd category had a 1-item rating from 1=Very Poor- 5=Excellent – of the overall satisfaction using case study. General comments and suggestions were also collected at end of survey to obtain additional information. Descriptive statistics were applied. The results showed there have a greater overall satisfaction using case studies among BSN students, as well as the overall rating for using case studies ranged between very good and excellent for BSN students. The online case studies emphasize practical thinking and assist students in identifying situations. Educators may choose this instructional strategy for accomplishing particular educational objectives. The results of this study can be applied as a reference for effective instructional, to extend independent online learning activities, or used as a flipped classroom teaching-learning strategy for a face-to-face classroom.

References

1. Academy of Medical-Surgical Nurse. (2015). What is medical-surgical nursing? Available at: <https://www.amsn.org/practice-resources/what-medical-surgical-nursing>
2. American Association of Colleges of Nursing. (2014). The impact of education on nursing practice. Available at: <http://www.aacn.nche.edu/media-relations/fact-sheets/impact-of-education>
3. Black, B.P. (2014). Professional nursing: Concepts & challenges. (7th ed.). St. Louis, Missouri: Elsevier.
4. Brown, J.M., Alverson, E.M., Pepa, C.A. (2001). The influence of a baccalaureate program on traditional, RN-BSN, and accelerated students' critical thinking abilities. *Holistic Nursing Practice*, 15, 4-8.
5. Dearnley, C., Dunn, G., Watson, S. (2006). An exploration of on-line access by non-traditional students in higher education: a case study. *Nurse Education Today*, 26(5), 409-415.
6. Gibbs, J., Trotta, D., Overbeck, A. (2014). Human patient simulation versus case study: which teaching strategy is more effective in teaching nursing care for the hypoglycemic patient? *Teaching and Learning in Nursing*, 9(4), 59-63.
7. Grossman, S., Krom, Z., & O'Connor, R. (2010). Innovative solutions: Using case studies to generate increased nurse's critical decision-making ability in critical care. *Dimensions of Critical Care Nursing*, 29(3), 138-142. doi: 10.1097/DCC.0b013e3181d24d86
8. Harman, T., Bertrand, B., Greer, A., Pettus, A, Jennings, J., Wall-Bassett, E. (2015). Case-based learning facilitates critical thinking in undergraduate nutrition education: students describe the big picture. *Journal of the Academy of Nutrition Dietetics*, 15(3), 378-388. doi: 10.1016/j.jand.2014.09.003.
9. Kassirer, JP. (2010). Teaching clinical reasoning: case based and coached. *Academic Medicine*, 85(7), 1118-1124.
10. Kantar L.D., Massouh, A. (2015). Case-based learning: What traditional curricula fail to

- teach. *Nurse Education Today*, 35(8),e8-14. doi: 10.1016/j.nedt.2015.03.010
11. Keefer, MW. (2005). Making good use of online case study material. *Science and Engineering Ethics*, 413-429.
 12. Kleinpell, R., Wesley, E., Williams, G., Liolios, A., Ward, N., Tisherman, S. (2011). Web-based resources for critical care education. *Critical Care Medicine*, 39(3), 541-553. doi: 10.1097/CCM.0b013e318206b5b5
 13. Koch, L. (2014). The nurse educator's role in e-learning: a literature review. *Nurse Education Today*, 34(11), 1382-1387. doi: 10.1016/j.nedt.2014.04.002.
 14. Kunselmann, J.C., Johnson, K.A. (2004). Using the case method to facilitate learning. *College Teaching*, 52(3), 82-92.
 15. Popil, I. (2011). Promotion of critical thinking by using case studies as a teaching method. *Nurse Education Today*, 31(2), 204-207. doi: 10.1016/j.nedt.2010.06.002.
 16. Shellenbarger, T., & Robb, M. (2015). Technology-based strategies for promoting clinical reasoning skills in nursing education. *Journal of Nurse Education*, 40(2), 79-82. doi: 10.1097/NNE.0000000000000111.
 17. Shin, S., Ha, J., Shin, K., David, M.K. (2006). Critical thinking ability of associate, baccalaureate and RN-BSN senior students in Korea. *Nursing Outlook*, 54, 328-333.
 18. Wyllie, A. (2011). Eager 'weavers': designing assessment for an online environment. *Nurse Education Practice*, 99-103. doi: 10.1016/j.nepr.2010.11.011.

Contact

swang@regis.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Quality Enhancement Plan: Interprofessional Educational Program to Improve Nursing Students' Self-Efficacy in Scholarly Written Communication

Jeanette Lee Plodek, PhD, MSN, RN, USA
Lela Hobby-Burns, DNP, MSN, APHN-BC, USA
Linda C. Tibbits, MA, BSN, RN, USA
Rustian C. Phelps, MA, BA, USA

Abstract

Introduction: Effective communication is essential in business and academia for professional success. RN-BSN students struggle with scholarly composition as a result of limited formal writing opportunities during their prior studies. A collaborative interprofessional education effort is described to improve students' professional writing skills.

Methods: After assessing observational qualitative data from Nursing, English and Writing Lab faculty, two (2) online, 7-week, asynchronous, 1-credit hour courses were developed and implemented. Both courses are instructed by English or Writing Lab faculty. To promote content alignment Nursing faculty are 'guest instructors' in the course.

The first course is co-requisite with the introductory course in an online RN to BSN program. The second writing course is co-requisite with the EBP Research Essentials course. Using nursing content, writing activities provide nursing students with learning opportunities for practicing grammar mechanics, writing skills, and organizing scholarly summaries.

Specifically, students receive an overview of professional and technical writing principles that focus on identified skills necessary for success in the academic and professional environments. The students develop their skills through multiple writing assignments, and constructing a professional portfolio of documents deemed essential. These documents include emails, letters, literature reviews, annotated bibliographies, and scholarly papers. Other assignments such as the annotated bibliography, curriculum vita, and portfolio creation and management are specifically designed toward the nursing educational and professional expectations.

The Interprofessional education (IPE) effort was piloted in Spring & Summer 2016. By design, the writing courses supported success in the two (2) associated nursing courses. Seventy (70) students participated in this quasi-experimental study. The validated 20-item *Post-Secondary Writing Self-Efficacy Instrument* assessed students' pre- and post- intervention belief in their ability to meet writing objectives. Scores were compared for both individual student questions, and total means of all questions. Successful course completion is another outcome measured. Upon program completion, graduates will also complete the *Professional Role Confidence* survey provided by the University Quality Enhancement Plan office.

Results: Pre- and post-intervention scores on *Post-Secondary Writing Self-Efficacy Instrument* were compared. Statistically significant improvements were found both individually, and on combined mean scores. Scores significantly improved on 15 of the 20 instrument items, and, overall pre-post mean scores ($p < 0.0001$), indicating higher confidence in students' writing ability. Student qualitative comments are overwhelmingly positive, with participants reporting that they learned valuable skills, information, and increased confidence in completing scholarly writing assignments. Faculty report a decreased need to spend time on correcting grammar, APA format, and style and an opportunity to spend more time on content evaluation and feedback.

Discussion: The interprofessional instruction in these two writing courses is key. English composition faculty provides purely grammatical feedback on students' writing practice. This division of faculty instruction focuses on word usage, paragraph organization and APA writing mechanics, all within the background of nursing context. The co-requisite practice prepares students for the concurrent Nursing

course activities. The two co-requisite courses are the initial *Transition to Nursing* course, and later, in the *Research Essentials in Evidence-based Practice* course.

Pilot course offerings were initiated during the 2016 Spring and Summer terms. The English and Writing Lab faculty continue to work closely with Nursing Department faculty to update the new courses based on student and faculty feedback.

Conclusion: These foundational writing activities help students' express scholarly language, and promote critical thinking abilities. Linking the writing workshop course assignments to selected existing nursing course assignments allows for the utilization of profession-specific academic assignments while providing a theoretical foundation of communication skills and specific feedback to enhance development and proficiency of the students' critical writing, learning, and thinking skills.

Supporting and promoting self-efficacy and competence in professional writing creates nursing students who can be successful communicators (Miller, et.al, 2014).

References

- Gazza, E. A. and Hunker, D. F. (2012). Facilitating scholarly writer development: The writing scaffold. *Nursing Forum*, 47(4), 278–285. doi: 10.1111/j.1744-6198.2012.00275.x
- McMillan, L.R., & Raines, K. (2011). Using the “write” resources: Nursing student evaluation of an interdisciplinary collaboration using a professional writing assignment. *Journal of Nursing Education*, 50(12), 697-702. doi:10.3928/01484834-20110930-01
- Miller, L. C., Russell, C. L., Cheng, A., & Skarbek, A. J. (2015). Evaluating undergraduate nursing students' self-efficacy and competence in writing: Effects of a writing intensive intervention. *Nurse Education in Practice*,(3), 174-180. doi:10.1016/j.nepr.2014.12.002
- Smith, Y. M., & Caplin, M. (2012). Teaching the literacy of professionalism: When clinical skills are not enough. *Nurse Educator*, 37(3), 121-125. doi:10.1097/nne.0b013e3182504188
- Stevens, C. J., D'Angelo, B., Rennell, N., Muzyka, D., Pannabecker, V., & Maid, B. (2014). Implementing a writing course in an online RN-BSN program. *Nurse Educator*, 39(1), 17-21. doi:10.1097/01.nne.0000437362.73347.5c
- Tesh, A.S., Hyde, Y.M., Kautz, D.D. (2014) A writing intensive introductory course for RN to BSN students. *Nurse Educator*, 39(1), 6-7. doi:10.1097/nne.0000000000000008

Contact

jplodek@uwf.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Lessons Learned: Incorporating Global Health Patient Experiences Into a BSN Curriculum

Kathryn Sridaromont, PhD, RN, USA

Wendy Renee Thal, DNP, APRN, FNP-C, APHN-BC, USA

Belinda Gallegos, MSN, RN, CNE, USA

Abstract

The development and implementation of global health experiences in our concept-infused BSN curriculum is valued at an institutional, administrative, and curriculum level to foster interconnectedness, compassion, clinical judgement and future advancement of nursing research. The institutional mission supports providing high quality culturally diverse educational opportunities for students and faculty to improve the health of people (TTUHSC Strategic Plan, 2016). Due to administrative value and support of global health experiences, our school of nursing has global health faculty representatives who collaborate with course faculty throughout the curriculum to compare the objectives of the global health experience to semester course objectives to determine synchrony and mastery and the number of clinical hours the student receives in each course after completing the global health experience. According to Glazer, Clark, and Bankston (2015), meeting the demands of the diverse 21st century population is dependent upon providing “high quality culturally competent care (p.1).” Providing students an opportunity to participate in global health experiences at an undergraduate level enhances the development of cultural competence and the likelihood of career involvement and future nursing research at the global level (Glazer, Clark & Bankston, 2015). Through the transformation of globalization the world is challenged to meet individual and collective needs of all cultures represented. Reflection, application and theory are guiding the transformation of praxis with a focus on global health and wellness. Recognizing Healthy People 2020 wellness goals for selected aggregates and populations includes health promotion across the life span and compares to the World Health Organization goals to improve health worldwide. The leading health indicators include: access to health services, clinical preventive services, environmental quality, injury and violence, maternal, infant and child health, mental health, nutrition, physical activity, and obesity, oral health, reproductive and sexual health, social determinants, substance abuse and tobacco (About Healthy People, 2016) . These indicators were used in the development of the global health experience to assist in promoting global health and wellness (Cock et. al., 2013).

References

Glazer, G., Clark, A., & Bankston, K. (2015). Legislative: From policy to practice: A case for holistic review diversifying the nursing workforce. *The Online Journal of Issues in Nursing*, 20(3), 1-4. DOI: 10.3912/OJIN.Vol20No03LegCol01

Cock, K., Simone, P., Davidson, V., & Slutsker, L. (2013). The new global health. *Emerging Infectious Diseases*, 19(8), 1192-1197. DOI: 10.3201/eid1908.130121

Contact

kathy.sridaromont@ttuhsc.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Implementation of Faculty Clinical Research Mentorship to Improve Academic Clinical Partnerships and Nurse Led Projects

Mary G. Heitschmidt, PhD, APN, CCRN, USA
Beth A. Staffileno, PhD, RN, USA
Ruth M. Kleinpell, PhD, RN, FAAN, FAANP, USA

Abstract

The American Association of Colleges of Nursing supports partnership opportunities between academic nursing and academic health centers yet information to operationalize a systematic approach connecting bedside clinical nurses interested in conducting evidence based practice projects and research, to nursing faculty, is sparsely found in the literature. Health care systems are expected to have clinical nurses participate and lead research and evidence-based practice (EBP) projects in order to achieve and maintain Magnet® status, the highest recognition for nursing excellence.

The purpose of this presentation is to describe a unique academic nursing faculty mentoring project which provides faculty with the resource tools needed to work with clinical nursing staff and multidisciplinary project teams who want to engage in clinical evidence based practice and research projects. The Center for Clinical Research and Scholarship (CCRS) was established in 2007 as a joint venture between a medical health care system that includes a college of nursing (CON), located in the Midwestern region of the United States. One of the objectives of the CCRS is to promote clinical nursing research that improves clinical practice and patient outcomes. The CCRS also supports clinical research and scholarship activities within the health care system to promote best practices in patient care and improvements in health care delivery.

Guidelines established by the members of the CCRS are provided to nursing faculty who are interested scholarship opportunities that include working with clinical nurses on EBP and research work. Projects that connect faculty to clinical nurses address a variety of patient and clinical care topics. Faculty can identify their areas of interest to be matched to a clinical project.

Referrals from health care system clinical nurses or nursing leaders requesting faculty project involvement are matched with CON faculty who have expertise and are interest in the work. The CON faculty mentor may also provide consultation and assistance to the project team with project development, IRB submission, oversight of project implementation and with dissemination (abstract development; poster presentation; manuscript preparation) of the project. Participating as a faculty mentor enables the CON faculty member to have active involvement in scholarship as well as authorship on projects related presentations and publications.

This distinctive partnership between CON faculty and clinical nurses is an example of how to systematically elevate clinical scholarship in an academic medical center with the intent of providing improved patient care outcomes from the results of EBP or research projects, opportunities for faculty to participate in scholarship as clinical mentors, and positive leadership experiences for both clinical nurses and CON faculty.

References

- Granger, B., Prvu-Bettger, J., Aucoin, J., Fuchs, M., Mitchell, P., Holditch-Davis, D., Roth, D., Califf, R., & Gilliss, C. (2012). [An academic-health service partnership in nursing: lessons from the field](#). *Journal of Nursing Scholarship*, 44(1):71-9.
- Harbman, P., Bryant-Lukosius, D., Martin-Misener, R., Carter, N., Covell, C., Donald, F., Gibbins, S., Kilpatrick, K., McKinlay, J., Rawson, K., Sherifali, D., Tranmer, J., Valaitis, R. (2016). [Partners in research: building academic-practice partnerships to educate and mentor advanced practice nurses](#). *Journal of Evaluation in Clinical Practice*. Nov 1. doi: 10.1111/jep.12630. [Epub ahead of print]
- Nearing, K., Hunt, C., Presley, J., Nuechterlein, B., Moss, M., & Manson, S. (2015). [Solving the Puzzle of Recruitment and Retention-Strategies for Building a Robust Clinical and Translational Research Workforce](#). *Clinical Translation Science*, 8(5), 563-7.

Winckler, E., Brown, J., Lebailly, S., McGee, R., Bayldon, B., Huber, G., Kaleba, E., Lowry, K., Martens, J., Mason, M., & Nuñez. (2013). [A novel program trains community-academic teams to build research and partnership capacity](#). *Clinical Translation Science*, 6(3):214-21.

Contact

mary_heitschmidt@rush.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Dietary and Supplemental Therapy in Crohn's Disease: Promoting Self-Care Through Knowledge

Jennifer Mary Senior, DNP, ARNP, NP-C, USA

Abstract

Background and Purpose: Crohn's disease affects millions of people worldwide. It is a complex inflammatory condition of the gastrointestinal tract and requires a high knowledge level in both the patient and provider for successful management. Many research studies are done on pharmaceutical options to treat Crohn's disease, but few studies detail the impact of nutritional deficiencies. The purpose of the project was to increase knowledge levels in patients with Crohn's disease regarding the latest dietary and supplemental therapies showing promise to support their disease state while promoting self-care and improving well-being. Additionally, the project demonstrates to other healthcare professionals the importance of evaluating and educating patients in a meaningful, effective way.

Methods: The clinical improvement project began with an extensive review of the literature related to dietary and supplemental therapies for Crohn's disease. The results were compiled into an educational session. The project utilized a quantitative pre-test, post-test survey method. Participants' knowledge levels on 5 key topics of fiber, probiotics, vitamin D, other vitamins and minerals, and specific diets were tested before and after the evidence-based educational session. A small qualitative component highlighting the impact of the gain in knowledge on participants' lives after the educational session was captured on a follow-up survey.

Conclusions: A statistically significant raise in knowledge level was found following the educational session ($p < 0.0001$). Pre- to post-test scores rose by 21%. Data analysis revealed participants' age, gender, level of education, and disease duration did not impact learning. Qualitative reports cited improved knowledge of diet, vitamins, and better disease management.

Implications for Practice: Creating an evidence-based educational session from a comprehensive literature review is effective at raising patients' knowledge levels. This knowledge improves patients' abilities to engage in self-care and improves their quality of life. The methods utilized in this clinical improvement project can be applied to any chronic disease state.

References

Alhagamhmad, M. H., Day, A. S., Lemberg, D. A., & Leach, S. T. (2012). An update of the role of nutritional therapy in the management of Crohn's disease. *Journal of Gastroenterology*, *47*(8), 872. doi:10.1007/s00535-012-0617-9

Brotherton, C. S., Taylor, A. G., Bourguignon, C., & Anderson, J. G. (2014). A high-fiber diet may improve bowel function and health-related quality of life in patients with Crohn's disease. *Gastroenterology Nursing*, *37*(3), 206-216.

Guagnozzi, D., & Lucendo, A. J. (2014). Anemia in inflammatory bowel disease: A neglected issue with relevant effects. *World Journal of Gastroenterology*, *20*(13), 3542-3551. doi:10.3748/wjg.v20.i13.3542

Contact

jmsjewelle@gmail.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

Is This the Profession for Me? Pre-Nursing Students Simulated Hospital Day Observations

Sarah Yvonne Jimenez, MSN, RN, USA
Melissa Wholeben, PhD, RN, USA

Abstract

How does one know if a chosen course of study in college will lead to a satisfying career upon graduation? At the University of Texas at El Paso, pre-nursing students in the Foundations of Nursing course have the opportunity to observe a simulated hospital day activity carried out by upper division nursing students. Pre-nursing students complete one-hour observations of hospital day activities and then answer a questionnaire about what they have observed. Students report that the simulated hospital day observation is an eye-opening experience that provides them with valuable insight as they prepare to apply for UTEP's nursing program and set career goals.

Simulated hospital day is a clinical simulation activity. Clinical simulation is an active learning method that promotes the development of critical thinking and clinical reasoning through experiential learning in a safe environment. Nursing students involved in clinical simulation activities benefit greatly from the experience. The use of clinical simulated experiences has been established as a best practice that maximizes retention of important concepts and solidifies the translation of theoretical knowledge into clinical practice. During a simulated hospital day, upper division nursing students engage in simulated clinical scenarios that are designed to simulate an actual hospital day. Elaborate case scenarios are acted out through role-play. Some upper division nursing students take on the role of the nurse, while other upper division nursing students take on the role of the patient. Simulated patient records are reviewed, patients are assessed, medications are administered, procedures are done, and communication with other health care professionals is facilitated per various scripts.

This observation activity is often the first exposure many pre-nursing students have to a clinical setting. Students have reported that simulated hospital day has given them an idea of what is expected of upper division nursing students as well as what is expected of nurses in professional practice. Students have stated that this observation has helped them see what nurses really do. They have reported that they found this to be an extremely beneficial activity and have expressed that they think this experience will help them as they make decisions about pursuing a career in nursing.

Students of all disciplines may realize similar benefits with early exposure to the activities of the profession they are pursuing. Students given the opportunity to observe professional practice early in their academic career may be able to make more informed decisions about their future course of study.

References

Madhavanprabhakaran, G., Al-Khasawneh, E., & Wittmann, L. (2015). Perceived Benefits of Pre-Clinical Simulation-based Training on Clinical Learning Outcomes among Omani Undergraduate Nursing Students. *Sultan Qaboos University Medical Journal*, 15(1), e105–e111.

Wholeben, Melissa. (2013). Effectiveness of a Simulated Hospital Day with Undergraduate Student Nurses: A Comparative Descriptive Design. (Doctorial dissertation). Retrived from ProQuest LLC.

Contact

syjimenez2@utep.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Implementing a Dedicated Education Unit for Senior Year Baccalaureate Nursing Students in Primary Care

Sarahi Y. Almonte, MS, RN, USA
Sharon Liann Taylor, MPH, USA
Ranbir Bains, PhD, MSN, APRN, CPNP, USA
Mary L. Blankson, DNP, APRN, FNP-C, USA

Abstract

The Dedicated Education Unit (DEU) is a clinical-education experience that allows nursing students to receive hands-on learning with frontline nurses to ensure they are reinforcing their academic teaching while also gaining the clinical pearls and practical knowledge from those who regularly perform the job. The DEU concept came out of Flinders University of South Australia School of Nursing in the 1990's due to the growing need for quality clinical placements for nursing students. This allowed for an improved strategic partnership between academia and clinical sites, to ensure an excellent student experience while also factoring in the clinical challenges of placement sites.

In the United States, clinical placements can be challenging to identify, particularly because rotations generally focus on acute settings, and because partnerships with primary care settings are typically not well established. The minimal focus on this nursing role in academic curriculum previously highlights why primary care clinical competencies are not well defined. With the growing workforce demand for primary care nurses, particularly roles in complex care management, nursing students need to have additional education and experience with frontline nurses in these settings to truly understand the care continuum and the full array of job opportunities available to them upon graduation.

A DEU was developed at the Community Health Center, Inc. (CHCI) to provide senior year baccalaureate nursing students experience in an interprofessional collaborative practice environment with frontline primary care nurses that support complex care management work for the provider panels they support. This was one facet of the implementation of a complex care management program across 12 clinical sites of CHCI. CHCI is a statewide agency providing care to individuals with low socioeconomic status, including many that are uninsured and underinsured. It has 14 integrated patient-centered primary care sites, delivering medical, behavioral health and dental services along with other ancillary care services such as those delivered by registered dietitians, podiatrists or chiropractors to name a few. CHCI delivers care in over 200 total service delivery sites, when school based clinics and health care for the homeless sites are included in the total count.

Through the DEU, nursing students learn how to deliver care to patients in the primary care setting. At the CHCI, students receive support and mentorship from clinical instructors and clinical faculty coordinators who prepare them for the rigor of caring for patients in the primary care setting. The clinical instructors are nurse care managers who have experience delivering care to patients in the primary care setting. In pre-clinical conference, students receive brief didactic to support their understanding of the role of the primary care nurse and to ensure they truly understand the shift in critical thinking needed for this setting. As the students learn about primary care competencies in their academic programming in the classroom, they are reinforced with real examples in pre-clinical conference and then concurrently practice them during their rotation time at the primary care site.

Students also experience innovative healthcare practices such as team huddles, integrated care meetings, and population management. They are trained on how to use dashboards, scorecards and other data sources to inform their practice throughout the day. They also participate in innovative training delivered to CHCI's nurses such as Project ECHO®: Complex Care Management, which is a telehealth model that creates a knowledge network for nurses. It includes both didactic and case-based learning, where frontline nurses and student nurses can present complex cases and get feedback and support from a multi-disciplinary team of experts on next steps in their care planning.

Students were part of focus groups during the first two years of DEU implementation to provide direct feedback that informed performance improvement between year one and year two. They contributed changes to the length and content of the DEU, as well as to further confirm the potential benefit. This ongoing quality improvement will ensure an optimized student experience, and hopefully will improve nursing preparation, and possibly increase the number of new nurses that choose primary care as their chosen career. One student shared during the focus group: I like how they kind of changed my view about where nursing can go...it's not just, you see a patient and that's it and you move on. You can stay with that patient and follow-up with them and make sure that everything in their life is not affecting their health.

The DEU is vital in training the next generation of nurses to understand the critical role of the primary care nurse. As students build this understanding, they also learn what it means to work on an interprofessional collaborative practice team. Simultaneously, they have the opportunity to build their leadership and collaboration skills to better care for complex patients once they enter the nursing workforce, no matter which part of the care continuum.

References

Mulready-Shick, J., & Flanagan, K. (2014). Building the evidence for dedicated education unit sustainability and partnership success. *Nursing education perspectives*, 35(5), 287-293.

Rhodes, M. L., Meyers, C. C., & Underhill, M. L. (2012). Evaluation outcomes of a dedicated education unit in a baccalaureate nursing program. *Journal of Professional Nursing*, 28(4), 223-230.

Contact

almontes@chc1.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

Evidence-Based Tool Dissemination to Assess Bruising as a Forensic Bio-Marker of Abuse in Nursing Homes

Brenda Sheingold, PhD, MBA, RN, FNAP, USA

Abstract

Purpose: To improve the assessment of bruising as a forensic biomarker of abuse in older adults receiving healthcare in long-term care facilities.

Problem Statement: Older Americans experience between 2-5 million episodes of abuse annually in multiple forms which is under-reported.

Background: Long term care facilities are required to report allegations of abuse per the Center for Medicare and Medicaid Services. All alleged violations involving resident abuse as well as injuries of unknown origin are required to be reported no later than 24 hours following discovery (CMS, 2016). A bruise is a recognized sign of physical abuse, (DHHS, 2015), however some bruises are accidental and no effective assessment of whether bruising is indicative of abuse currently exists.

The Elder Justice Roadmap (DHHS, 2014) identifies that a strategic investment of resources toward research can expand the knowledge needed to better understand abuse and “make a difference.” A valid and reliable assessment tool would not identify all cases of physical abuse; however, the tool should assist in identifying causes that are not abuse related and wide-reaching education is needed.

Aim: To improve patient safety and support the delivery of efficient, effective, timely, and equitable patient centered care by improving the ability of all stakeholders to assess bruising as a possible sign of abuse by disseminating web-based education.

Methodology (Tool development) - Literature Search: An extensive literature review utilizing PubMed, Medline Ovid, and Cinahl databases was conducted with key words, yielding 399 articles for review. The application of inclusion and exclusion criteria narrowed the yield to 78.

Expert Identification: From the literature review, characteristics of bruises associated with intentional bruising (vs. accidental) were identified; potential experts with respect to bruise assessment and analysis also were identified within the clinical, legal, and social science disciplines.

Delphi Consensus: A list of 100 potential experts identified through the literature was narrowed to 74 based on self and/or investigator elimination. The pool was further narrowed to 68 due to poor contact information; The survey sent in one round resulting in 23 responses.

Focus Groups: Ten groups were scheduled to review the draft bruise assessment tool.

Field Testing: Testing of the resultant tool occurred in two long term care facilities.

This phase has been completed and was funded by the Center for Medicare and Medicaid through the State of Maryland Office of Healthcare Quality.

Methodology (Tool dissemination) - The dissemination phase is to provide wide-spread education on the instrument for assessing bruises experienced by nursing home residents to determine if they may or may not have been caused by abuse.

A 20-minute documentary style educative video has been scripted and designed in partnership with WETA television studios. The aim of the video will be to raise awareness of bruising as a forensic bio-marker of abuse in nursing homes and to introduce the newly developed Bruising Assessment Rubric (BAR) to variety of stakeholders. An overview of how to utilize the tool will be included. The roll-out of this

evidence based deliverable will include in-studio and field shoots, still shots of bruises, and the acquisition of all permissions/releases for production in preparation of video distribution for educational purposes.

Hosting of Video Online Training via Website will be sponsored by the Beacon Institute, 10280 Old Columbia Road, #220, Columbia, Maryland 21046. The Beacon Institute is the largest provider of education for elder care on the East Coast of the United States and trains thousands of providers annually.

Online provision of an expert educational video program to professionals, caregivers, providers and other relevant stakeholder groups with supportive competency-based testing is also planned. This phase is a work-in-progress and is currently funded by the Center for Medicare and Medicaid through the State of Maryland Office of Healthcare Quality.

References

U.S. Department of Health and Human Services. (DHHS) National Center on Elder Abuse Administration on Aging. Elder Justice Roadmap Project Report (2014).
Centers for Disease Control and Prevention <http://www.cdc.gov/features/elderabuse/> Accessed December 5, 2016.

Contact

bsheingo@gwu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Implementing Care Coordination and Transition Management in a Critical Care Telemetry Unit

Helen S. Kane, MSN, MBA, RN, CCRN, USA

Linda Wilson, PhD, RN, CPAN, CAPA, BC, CNE, CHSE-A, ANEF, FAAN, USA

Abstract

This session will present the process for the implementation of care coordination and transition management in a critical care telemetry unit in one urban community hospital. Care Coordination and Transition Management is a new focus and role for the bedside nurse to be competent in care coordination and transition management of patients in the clinical setting. The primary organizations involved in this initiative are the American Academy of Ambulatory Care Nursing (AAACN) and the Medical Surgical Nursing Certification Board which is the organization that offers the certification for this specialty. The preparation and education for both staff nurses and the clinical nurse specialists include extensive education, reading and lecture sessions to become knowledgeable on the concepts and competencies for this role. The key content areas include "advocacy; education and engagement of patients and families; coaching and counseling of patients and families; patient centered care planning; support for self-management; nursing process: proxy for monitoring and evaluation; teamwork and collaboration; cross setting communications and care transitions; population health management; CCTM between acute care and ambulatory care; informatics nursing practice and telehealth nursing practice" (AAACN, 2016). The primary goals of care coordination and transition management are to "improve patient outcomes, enhance quality of care, decrease hospital admissions, decrease health care costs, help patients to navigate the health care system, ensure continuity and seamless transitions between levels of care, and improve the patient's individual experience" (AAACN, 2016). The final step is completion of the certification exam to become certified in care coordination and transition management (CCCTM). Challenges of implementing this program in one critical care telemetry unit in an urban community hospital will be presented as well as strategies for success. Ongoing implementation and management of the program will continue until all nurses are certified including all staff nurses and all advance practice nurses. Evaluation of the implementation process and program will be ongoing.

References

AAACN. Care coordination and transition management. <https://www.aaacn.org/cctm> accessed December 1, 2016

MSNCB. Care coordination and transition management certification. <https://www.msncb.org/care-coordination> accessed December 1, 2016.

Contact

Lbw25@drexel.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Clinical Clusters Education Model Supporting Nursing Student Learning: An Implementation Case Study

Lyn T. Armit, MHSc, BA (BehavSc), RN, MACN, Australia

Julie M. Shaw, MPH, BAppSc (Nsg), RN, Australia

Susanne Pearce, PhD, RN, Australia

Thea F. van de Mortel, PhD, MHLthSc, BSc (Hons), DipNsg, RN, Australia

Laurie A. Grealish, PhD, RN, FCNA, Australia

Abstract

Clinical education in nursing has undergone significant transformation since the turn of the century. In particular, evidence to support high levels of student engagement and learning in the Dedicated Education Unit (DEU) model indicates that this approach has value for students, hospitals and universities (Mulready-Shick et al., 2013). The process of implementation of clinical education programs based on the successful DEU model has not been well addressed to date. Further, implementation of evidence-based programs, such as the DEU, often requires adaptation to meet local sociocultural contexts. The risk with adaptation is loss of program fidelity (Chambers et al., 2013), in this case student engagement and learning.

The aim of this presentation is to describe the implementation of an adaptation of the DEU model, known as the Clinical Clusters Education Model (CCEM), at one hospital in southeast Queensland. The Dynamic Adaptation Process (DAP) of implementation (Aarons et al., 2012) provides the theoretical framework for the case study of implementation. The DAP has been used for large-scale program implementation in family services. Like family services, clinical education is grounded in multiple networks of relationships and interests, therefore the selection of DAP is considered to be appropriate.

Using the DAP framework, the stages of development and evaluation are described. In the Explore phase, the aim was to shift the focus from facilitator-centred learning to student-centred learning, consistent with the DEU model. This was undertaken in a pilot study of one area of the health service, whereby the primary learning relationship was between the students and the ward staff rather than the clinical facilitator and the student group (1:8 model). In the Preparation phase, the structure of the CCEM took shape, with clinical facilitators working in teams to support student learning in a group of wards. The focus of learning shifted from a direct facilitator-student relationship to a student-ward staff focus, where students had greater locus of control over their learning experience, within established boundaries (scope of practice). The preparation phase focused on comprehension and translation of the model to the hospital context, and renegotiation of facilitator-student relationships. The Implementation phase began in early 2015 and continues today. During the implementation phase, evaluation data was collected to ascertain model feasibility and effectiveness, and implementation success. The process of implementation has been challenging as ward staff learn to engage the students into their work, providing experiences that are appropriate to their learning journey. Early data suggests that the model is feasible and effective, in terms of student learning. Initial student dissatisfaction with the model has since been replaced with student feedback indicating increased levels of confidence and satisfaction. We are entering the final phase, Sustainment. In this phase, we will focus on (1) program fidelity, mapping the elements of the DEU model that have been employed in the CCEM; (2) program adaptation, mapping deviation from the original DEU model; (3) program effectiveness, how students are engaged and learning; and (4) implementation fidelity, focused on clinician and facilitator confidence to support student learning in the CCEM and alignment of this strategic change with the multiple education partner expectations for student learning and the health service's Magnet® Recognition journey.

The DAP provides a useful framework for implementation of evidence-based clinical education models. Process evaluation is an important consideration in program implementation, focusing on the effects of adaptation on overall program effectiveness.

References

Aarons, G.A., Green, A.E., Palinkas, L.A., Self-Brown, S., Whitaker, D.J., Lutzker, J.R., Silovsky, J.F., Hecht, D.B., Chaffin, M.J., 2012. Dynamic adaptation process to implement an evidence-based child maltreatment intervention. *Implementation Science* 7:32.

Chambers, D.A., Glasgow, R.E., Stange, K.C., 2013. The dynamic sustainability framework: addressing the paradox of sustainment amid ongoing change. *Implementation Science* 8, 117, 11pp.

Mulready-Shick, J., Flanagan, K.M., Banister, G.E., Mylott, L., Curtin, L.J., 2013. *Journal of Nursing Education* 52(11), 606-614.

Contact

lyn.armit@health.qld.gov.au

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Integration of Mental Health Competencies Into a Primary Care Nurse Practitioner Curriculum

Pamela Aselton, PhD, FNP-BC, USA

Gabrielle P. Abelard, DNP, MS, BS, RN, PMHNP, PMHCNS- BC, USA

Linda A. Lewandowski, PhD, RN, FAAN, USA

Raeann Genevieve LeBlanc, DNP, AGPCNP-BC, CHPN, USA

Clare Lamontagne, PhD, RN, USA

Lori Anne Lyne, MS, ACNP-BC, USA

Abstract

Purpose: Primary care clinicians must be prepared to assess, treat, and refer patients for appropriate services for mental health care. Studies have shown that the majority of prescriptions for antidepressant and anxiety medication are written in primary care offices. More than 50% of adult patients with depression are diagnosed and managed by primary care providers (Scandis and Watt, 2013). Less than 60 percent of adults with significant mental illness receive treatment in the United States (NSDUH, 2013).

Mental health services need to be better integrated into primary care given the shortage of mental health providers in many areas.

There is a great need to address these problems and try and get patients connected to therapeutic services in primary care. One study found that the average wait time for a first time visit with a psychiatrist in the United States is 25 days, although many communities report much longer rates (Mozes, 2014). Providing mental health care in primary care settings improves access to care, improves clinical outcomes and saves money (Insel, 2008). With these facts in mind we undertook a curriculum revision to add content on the treatment and management of common mental health and behavioral issues to our primary care Nurse Practitioner (NP) tracks in our online DNP program.

Methods: Many primary care NP programs have not traditionally included a strong focus on behavioral health issues. However, recognizing the need we undertook a comprehensive revision of our content and clinical courses. After soliciting input from community practitioners on important content we revised the curriculum to address the importance of mental health awareness and treatment throughout the primary care tracks: Family NPs (FNPs) and Adult Gerontology Primary Care NPs (AGPCNPs). A required three-credit course entitled *Assessment and Diagnosis of Psychiatric and Mental Health Disorders* course was created and added to the curriculum to address this need. This course reviews mental health disorders using DSM5, reviews diagnostic and screening tools, familial patterns, community, and socio-cultural contributions to the diagnostic process. In addition mental health topics were integrated into core DNP courses in Family Systems, Pharmacology, Pathophysiology, Health Policy and Ethics as well as case studies in all the clinical courses. We have also incorporated content regarding evidence based complimentary and integrative treatment into the curriculum via webinars and workshops.

Results: Our Primary Care NP students rated this course highly and were surveyed to see how much of this mental content they felt they learned in their program of study. Multiple student reflections in clinical logs and surveys support the integration of behavioral health into the student clinical education and experiences. Faculty and preceptors concur on the need to better educate students on the assessment and treatment of mental health issues in primary care settings.

Conclusion: Given the realities that much of mental health care is being provided in primary care settings, it is clear that primary care NPs must be competent to address these types of issues. We have seamlessly integrated mental health content and competencies throughout our curriculum. The required course has emphasized the importance of this content for primary care clinicians who will be encountering patients with mental health problems such as substance abuse, depression, anxiety, and dementia in primary care. Integrating mental health concepts throughout the curriculum has also

emphasized the skills needed to treat patients and families in crisis, mental health assessment and diagnosis.

References

Mozes A. (2014). Just try getting an appointment with a psychiatrist. Retrieved September 7, 2015 from <http://health.usnews.com/health-news/articles/2014/10/15/just-try-getting-an-appointment-with-a-psychiatrist>.
Scandis, D. and Watt, M. (2013). Antidepressant medication management in primary care: Not just another pill. *The Journal for Nurse Practitioners*. (9). 449-457.
Substance Abuse and Mental Health Services Administration (SAMSHA), National Survey on Drug Use and Health Report (NSDUH, 2013)

Contact

paselton@nursing.umass.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Dauntless Nurse: Communication Confidence Builder

Arna K. Robins, MSN, CEN, CFRN, NREMT, USA

Abstract

PURPOSE: The American Association of Critical Care Nurses (AACN) standards state that nurses must be as competent in their communication skills as they are in their clinical skills because effective communication fosters the psychologically safe work environment where collegial teamwork can thrive. Additionally, the American Nurses Association (ANA) standard of professional behavior states any form of horizontal violence is unethical practice and passive-aggressive communication falls under this umbrella.

Currently, a passive-aggressive style predominates. Nurses are lacking a critical skill: the ability to handle conflict and speak assertively with confidence and professionalism. Without this skill, nurses doubt themselves and are prone to making mistakes, thereby putting themselves, their colleagues, and their patients in danger. In a psychologically unsafe and emotionally unsupportive environment, humans cannot think straight, let alone access the critical thinking skills that are essential to providing quality nursing care.

This presentation reviews the process by which nurses gained the confidence and skill to confidently address experiences and behaviors that had previously left them feeling undermined or uncertain. Understanding why these behaviors occurred diminished their effect. Knowing how to respond built confidence and hardwired muscle memory. And analyzing scenarios of how other nurses effectively handled similar situations inspired nurses to be dauntless in their communication.

DESCRIPTION: Fifty-three trauma nurses self-assessed their communication skills in three categories: novice, moderate and expert. Only 25% were expert communicators and more than 50% were still at the novice level.

By guaranteeing their psychological safety through anonymity, these nurses were able to identify an important conversation that they had been avoiding. They then identified the reasons they had been avoiding the conversation. Through coaching, these reasons were addressed and overcome using specific communication models to create a script for the conversation. The primary communication model used was the Describe, Explain, State, and Consequence (D-E-S-C). They then rehearsed these conversations with their coaches and selected partners.

EVALUATION: After hearing all the reasons that their peers self-silenced, nurses realized that their professional role as a nurse and patient advocate required them to be dauntless and take the risk of speaking up. Further discussion of how self-silencing supports passive-aggressive communication and the development of horizontal violence in their culture followed. Realizing that the reasons for avoiding conversations are largely universal helped the nurses overcome previous biases and fears, as did the desire to become accomplished patient advocates.

DISCUSSION: The crux of communication at the professional level is that nurses value their own social safety in peer relationships over patient safety. The desire to be accepted by their colleagues frequently voided the need to ask questions, address a perceived error, or create a situation that could have been perceived as uncomfortable or painful. The confidence gained through developing communication skills by exploration of the models and rehearsing skills in coaching sessions motivated a shift in conscious values. When the environment is perceived as safe and accepting, nurses are far more likely to speak up in a way that contributes to excellent teamwork and protects their patients.

References

Budin, W. C., Brewer, C. S., Chao, Y., & Kovner, C. (2013, September). Verbal abuse from nurse colleagues and work environment of early career registered nurses. *Journal of Nursing Scholarship*, 45(3), 308-316.
<http://dx.doi.org/10.1111/jnu.12033>

Griffin, M., & Clark, C. M. (2014, November 22). Revisiting cognitive rehearsal as an intervention against incivility and lateral violence in nursing: 10 years later. *The Journal of Continuing Education in Nursing*, 45(12), 535-542.
<http://dx.doi.org/10.3928/00220124-201411122-02>

Wing, T., Regan, S., & Spence-Laschinger, H. K. (2015, July). The influence of empowerment and incivility on the mental health of new graduate nurses. *Journal of Nursing Management*, 23(5), 632-643.
<http://dx.doi.org/10.1111/jonm.12190>

Contact

ARobins1012@gmail.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

Human Resource for Health Development in Rwanda: Challenges and Opportunities in Nursing Education and Training

Sheila Shaibu, PhD, MSN, BEd, RN, Rwanda
Oluyinka Adejumo, DlittePhil, RN, RPN, RNE, Rwanda
Olivia Bahemuka, DNP, MSN, RN-BC, CTN-B, Rwanda
Gilbert Banamwana, MSc, RN, Rwanda

Abstract

Background: - Rwanda has several Schools of Nursing that offer a baccalaureate in Nursing Science and an equivalent of a diploma in Nursing Science. The Enrolled Nursing equivalent of nursing has since been phased out. The University of Rwanda (UR) now has 4 campuses of nursing who all offer a Baccalaureate in Nursing and Midwifery program (Mukamana, Uwiyeze & Sliney, 2015). In 2015, the UR Human Resources for Health program admitted 117 students into the Master's degree in Nursing which offers 8 tracks, among them an Education and Leadership and Management track with an enrollment of 14 students. The purpose of this presentation is to discuss the trends, challenges and opportunities that are observed in Nursing Education in Rwanda.

Trends: Nursing Education in Rwanda is evolving, with more nurses being enrolled into the baccalaureate Nursing program. More male nurses are being admitted into the Nursing program, including the faith based Schools of Nurses which previously did not admit male students. Although most schools of Nursing are short staffed, the schools also have a few faculty who are prepared at Master's degree level in various specialties, including Nursing Education. Most Schools of Nursing have a Simulation Laboratory that are used for clinical teaching for both Midwifery and Nursing. All the campuses of the University of Rwanda are equipped with teleconferencing equipment and are therefore, also offering distance E-learning Nursing program to upgrade diploma nurses to baccalaureate nursing.

Challenges: Due to shortage of faculty, nurses are still teaching non-nursing subjects such as microbiology and anatomy and physiology among others. Nursing education is moving towards learner centered environments (Valiga, 2012), yet classes are large and teaching strategies used are not always student centered. Teaching generation Y students using traditional teaching strategies may pose a challenge to this cohort of learners (Eckleberry-Hunt & Tucciarone, 2011). Clinical supervision of undergraduate students is limited given the student numbers and the distances from the Schools of Nursing where students are attached, as there are not always resources available for faculty travel for follow up of students. The curriculum is congested and not harmonized across the different Schools of nursing. Many nursing programs still struggle with letting go of content and decongesting the curriculum (Benner, 2012; Dalley, Candela & Benzel-Lindley, 2008). Issues of overloading courses with content and using student centered teaching strategies are addressed in the curriculum review workshops and curriculum assignments. Resources such as teaching equipment for simulation laboratories, books, video conferencing, and journals also pose limitations.

Opportunities: Evolving regulation requirements have been used to both adopt new requirements of the Higher Education Council and address curriculum changes as well as harmonizing the curriculum. Nursing education workshops have also been offered to faculty to address gaps in teaching. The Smart Rwanda Master Plan (Ministry of Youth and ICT, 2015) can transform nursing education in Rwanda through e-learning courses. There is a global shortage of nursing faculty (Nardi & Guryko, 2013) however, Rwanda's nursing faculty is young and vibrant, and can transform nursing education and practice given the opportunity. The consortium of the United States Institutes (USI) have donated teaching resources and the twinning of local faculty with USI faculty have transformed nursing education and practice in Rwanda.

Significance to Nursing: Nursing is the backbone of the health workforce in many countries including Rwanda and any health goals and targets set by the international community and the government require a well-educated nursing workforce to transform the targets through practice. Nurses are pivotal to

achieving the Sustainable Development Goals and addressing the social determinants of health. Therefore, an increase in the nursing workforce will go a long way towards improving practice and the health of the Rwandans.

References

- Benner, P. (2012). Educating nurses: A call for transformation-how far have we come. *Nurse Education Today*, 51(4), 183-184.
- Dalley, Candela & Benzel-Lindley, (2008). Learning to let go: The challenge of de-crowding the curriculum. *Nurse Education Today*, 28(1), 62-69.
- Eckleberry-Hunt, J., & Tucciarone, J. (2011) The challenges and opportunities of teaching “generation y”. *Journal of Graduate Medical Education*, 3(4), 458-461.
- Ministry of Youth and ICT, (2015). Smart Rwanda Master Plan. Government of Rwanda, Kigali: Rwanda.
- Mukamana, D., Uwiyeze, G., & Sliney, A. ((2015). Nursing education in Rwanda: Telling our story. *Rwanda Journal Series F: Medicine and Health Sciences*. 2(2), 9-12.
- Nardi, A. D., & Gyurko, C. C. (2013). The global nursing shortage: Status and solutions for change. *International Journal of Nursing Scholarship*, 45(3), 317-326. doi: 10.1111/jnu.12030.

Contact

livyinruanda@gmail.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

Intentional Nurse Leader Rounding on Patients Daily

Jeffery Hudson, DNP, RN, USA

Abstract

The patient's voice is never as important as it is now. The patient care experience is directly correlated with nurse leadership at all levels. The patient care environment where cost cutting can interrupt the patient-centered focus, is at the core of nurse leader (charge nurse, manager, director, executive) competence to meet the financial challenges of providing outcome-based nursing care in our global nursing community.

This evidence-based project focused on implementing intentional nurse leader rounding daily on all patients in a 34-bed medical/surgical unit. The daily rounding was based on a hybrid program based on the scholarly literature and patient care experience models from the global community. There was a heavy influence used by the researcher using the Studer principles and guidelines of purposeful nurse leader rounding. Pre-education and training was conducted with the nurse manager and charge nurses who were charged with intentional rounding daily. This framework provided a consistent launch of the project with consistency using checklists and iTool used for collecting responses to prescribed questions asked by nurse leaders daily with patient and family members. Autonomy for nurse leaders during rounding to act on service recovery is a strong consideration to be made by nurse executives for service recovery guidelines. The data collected with rounding is an essential element of the nurse leader rounds. This collected data on an iTool with rounding software provides support for interventions and real-time scoring, tracking and trending of narrative documentation by the nurse leader. The aggregate data of rounding can be analyzed to change culture and drive behaviors and performance of patient care team. Additionally, data will support recognizing the patient care team through feedback from the patients and family members which support improved staff engagement, which in turn is demonstrable back to the patient care experience.

The unit where the project was completed will provide the source of discussion of anticipated and learned outcomes with the use of nurse leader rounding. There was a notable 10% increase in patient experience scores on this unit within the 60-days of the project. This elevated the patient experience scores beyond the 50th percentile with some scores in the 75th percentile. The unit was performing below the 50th percentile in the United States prior to this intervention. The project is being sustained and replicated in other inpatient and outpatient units in the organization as best practice.

References

- Alsad, J., Tabar, N.A., AbuRuz, M.E. (2015). Patient satisfaction with nursing care: Measuring outcomes in an international setting. *The Journal Of Nursing Administration*, 45(11), 563-568.
- American Organization of Nurse Executives. (2015). Nurse manager competencies. Retrieved from: <http://www.aone.org/resources/nurse-manager-competencie.pdf>
- Deyo, P., Swartwout, E. & Drenkard, K. (2016). Nurse manager competencies supporting patient engagement. *Journal Of Nursing Administration*, 46(3), S19-S26
- Otani, K., Shen, Y., Chumblor, N.R., Judy, R., Herrmann, P.A. & Kurz, R.S. (2015). The impact of self-related health status on patient satisfaction integration process. *Journal of Healthcare Management*, 60(3), 205-218
- StuderGroup (n.d.). The StuderGroup homepage. Retrieved from: <https://www.studergroup.com/>

Contact

JeffHudson.CNE@gmail.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

Grit: The Power of Passion and Perseverance in Nursing

Indra Hershorin, PhD, RN, CNE, USA

Abstract

Attrition of nursing students has been described as the “Achilles heel of the nursing world” (Buchan, 2016). The Affordable Care Act and as the increasing number of aging and diverse individuals in society increases, access to the health care will expand and the need for more competent and diverse nurse graduates will increase. An adequate number of nursing graduates will be imperative to meet societal demands, however this is complicated by high nursing student attrition rates (Harris, Rosenberg, & O’Rourke, 2014). Newton and More (2009) reported attrition rates of 50% for students enrolled in baccalaureate nursing programs and 47% for students enrolled in associate degree nursing programs. High attrition rates not only have negative impacts on students and nursing programs but are also a potential loss to the nursing workforce and community.

A literature review was conducted to determine extant information related to attrition rates, retention and strategies to increase student success. The review of the literature found that measurement and analysis of progression and graduation rates to be a well-established activity in nursing programs. Horkey (2015) reported that there was a lack of consistency in admission requirements between institutions. Most nursing schools used a combination of quantitative academic factors such as grade point averages (GPA), pre-requisite course grades, and standardized admission examination scores. Limited inclusion and evaluation of qualitative factors for admission into nursing schools has been conducted. Qualitative factors included the use of admission essays, admission interviews, academic self-confidence, and personality indicators rates. The literature review indicates that in a culture of standardized testing with an exclusive focus on ability and potential nursing educators can easily become distracted from the importance of other variables that contributes to success. One such variable is grit.

Duckworth (2016) describes grit as a combination of passion and perseverance. Grit entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress. The gritty individual approaches achievement as a marathon; his or her advantage is stamina. Whereas disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course. The importance of intellectual talent to achievement in all professional domains is well established, but less is known about other individual differences that predict success (Duckworth, Peterson, Matthews, and Kelley, 2007).

Horkey (2015) suggested that if nursing programs admit students that embrace, embody, and live the art of nursing, attrition may decrease benefiting the profession of nursing and the patients’ nurses serve. One potential solution is to identify and address factors that impact student success. Nursing programs should determine if students have what it takes to succeed in nursing. Do nursing students have grit and is grit a predictor of success in nursing? To answer these questions a descriptive, cross-sectional, study will be conducted with undergraduate nursing students from one university in South Florida. The 8-item grit scale developed by Duckworth (2016) will be used to measure the concept of grit. The grit scale measures trait-level perseverance and passion for long-term goal.

References

- Buchan, J. (2016). [Let's not forget attrition](#). *Nursing Standard*, 2016, 30(44) 28.
- Duckworth, A. L. (2016) *Grit: The power of passion and perseverance*. Scribner, NY: Simon and Schuster, Inc.
- Harris R. C., Rosenberg L., & O'Rourke M. E. (2014). Addressing the challenges of nursing student attrition. *Journal of Nursing Education*, 53(1), 31-37. €
- Horkey, E. (2015). It is not all academic: Nursing admission and attrition in the United States. *Nursing Reports* 5:4849

Contact

ihershorin@barry.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Creating a Culture of Evidence-Based Practice: A Journey From Vision to Outcomes

Jacalyn S. Buck, PhD, RN, NEA-BC, USA
Ruth M. Labardee, DNP, RNC, CNL, USA

Abstract

In this turbulent era of healthcare reform, organizational success will be defined in terms of collaborative teams delivering evidence-based, patient-centered care which results in safe, high quality patient outcomes (IOM, 2010). The development of evidence-based practice (EBP) knowledge and skills, design of EBP infrastructures, and promotion of a widespread EBP culture is a strategy that can effectively thrust organizations toward achieving these goals (Melnyk & Fineout-Overholt, 2015). In light of the importance placed on promoting EBP in nursing, there is a gap in the literature identifying effective organizational EBP models that provide a foundation for which evidence-based clinical care is developed and supported (Flodgren, Rojas-Reyes, Cole, & Foxcraft, 2012).

This presentation describes the ongoing journey within a large academic health system to create a culture in which EBP flourishes. The design of an infrastructure where nursing quality and EBP have a natural synergy was a key strategy in creating the new EBP paradigm. An important tactic in our journey was the sound integration of EBP into the role of the Clinical Nurse Specialist (CNS). The CNS has a strong link to clinical practice and is linked to the daily challenges faced by the direct care nurse. They have the skill set to evaluate the current body of literature and determine if there is sufficient evidence to support practice change. In addition, the CNS is able to lead EBP change through their work with interdisciplinary teams, formulating policies and procedures, and measuring process and outcomes (Campbell & Profetto-McGrath, 2013; Melnyk, Gallagher-Ford, & Fineout-Overholt, 2016). The CNS's were realigned to report to Health System Nursing Quality, Research, EBP Department. This realignment created a structure that promoted the translation of evidence into bedside practice while aligning with specific quality initiatives at the unit level to improve outcomes. The CNS job descriptions were redesigned to incorporate the EBP competencies assigned to the Advanced Practice Nurse and these competencies are incorporated into their annual performance evaluations.

Specific EBP implementation strategies as well as key steps for successful development and support of EBP experts and leaders will be discussed: (1) creation of an EBP strategic plan; (2) a key leadership role dedicated to EBP; the Associate Director of EBP Standards and Practice; (3) the development of a cadre of EBP mentors who are immersed in EBP across the health system; (4) re-design of our shared governance councils to include a Research, EBP & Innovation Council where EBP mentors are selected to serve as mentors on all shared governance councils to promote EBP and ensure decisions are based on evidence and best practices (5) creation of a collaboration site to house our fluid EBP database; (6) quarterly EBP mentor meetings to sustain engagement and update mentors on initiatives across the medical center; (7) CNS membership on the policy and procedure committees.

Outcomes from this innovative infrastructure redesign include: (1) nurse driven CAUTI protocol; (2) CLABSI protocol; (3) skin to skin in the labor and delivery operating room; (4) nasal CPAP suctioning protocol in the NICU; (5) implementation of the ABCDE Bundle in the ICU setting; (6) implementation of the Yale Swallow Protocol; (7) creation and implementation of care coordinator role.

Creating an infrastructure that supports and nurtures the EBP process and structure is essential in achieving safe, high quality patient outcomes (Melnyk & Fineout-Overholt, 2015). Nurse leaders are key individuals to redesign systems within their health care organizations to promote EBP and attain positive outcomes.

References

Campbell, T. D. (2013). Skills and attributes required by clinical nurse specialists to promote evidence-based practice. *Clinical Nurse Specialist*, 27(5), 245-254.

Flodgren, G., Rojas-Reyes, M. X., Cole, N., Foxcraft, D. R. (2012). Effectiveness of organizational infrastructures to promote evidence-based practice. *Cochrane Database of Systematic Reviews, Issue 2*. Art. No.: CD002212.DOI: 10.1002/14651858.CD002212.pub2

Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. The National Academies Press.

Jepsen, S. (2015). Using a scorecard to demonstrate clinical nurse specialists' contributions. *AACN Advanced Critical Care, 26*(1), 43-49. doi: 10.1097/NCI.0000000000000066[doi]

Malik, G., McKenna, L. & Plummer, V. (2015). Perceived knowledge, skills, attitude and contextual factors affecting evidence-based practice among nurse educators, clinical coaches and nurse specialists. *International Journal of Nursing Practice, 21*, 46-57. doi:10.1111/ijn.12366

Melnyk, B., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia, PA: Wolters Kluwer.

Melnyk, B., Gallagher-Ford, L., & Fineout-Overholt, E. (2016). *Implementing evidence-based practice competencies in healthcare: A practical guide for improving quality, safety & outcomes*. Indianapolis, IN: Sigma Theta Tau International.

Contact

ruth.labardee@osumc.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Opportunity for the Clinical Nurse Leader Role in Transitional Care Leadership

Pamela Kohlbry, PhD, RN, CNL, USA
JoAnn Daugherty, PhD, RN, CNL, USA
Joy Gorzeman, MBA, RN, NEA-BC, USA
Joseph A. Parker, MSN, BSN, RN, CNL, USA

Abstract

The purpose of this presentation is to describe the opportunity for leadership of the Clinical Nurse Leader (CNL) in transitional care. Leadership in transitional care is often missing resulting in any number of healthcare challenges related to errors and quality. For example, fragmentation and specialization result in problems in patient safety, medication administration, patient education, patient follow up, and gaps in communication. Typically, it is the chronically ill with the highest potential for frequent hospital visits due to the complexity of their healthcare illnesses. These hospital visits increase when there is miscommunication, breakdown in follow up, and/or lack of patient understanding. Transitions occur among patients, families, care providers, nurses, clinicians, physicians, hospitals, care settings and all along the care continuum. When problems around transitions occur it is costly for patients, families, healthcare providers, and healthcare payors which often results in unnecessary errors and poor outcomes.

The CNL would potentially bridge gaps 1) by participation of the CNL as navigators or coaches at the point of care and across the transitional care continuum and 2) as a leader in interprofessional transitional teams. This presentation will discuss the CNL skill set and its applicability in transitional care. In the United States (US) a variety of models of transitional care have been implemented in healthcare.

Research has demonstrated a positive impact of transitional care on health outcomes while reducing costs. In a recent transitions of care model, a southern California hospital utilized a CNL in the leadership role on a transitional healthcare team. Team members were identified as Health Care Coaches (HCC). Based on research of the characteristics needed, expectations, barriers and benefits of health care coaches, qualities and characteristics were identified. Interestingly, these characteristics aligned with the skill set of the CNL. Further, in this model the transitional healthcare team leader was a CNL. Savings documented using this model in the southern California hospital were as follows: Medicare Fee For Service 30 Day Readmission Rate from June-November, 2013 at 12.77% however, with the patients enrolled in the transitional care model, the 30 Day Readmission Rate June-November, 2013 was 7.15%. The cost for a 30 day readmission event is \$14,225, with the 12.77% versus the 7.15% yielding an annualized savings of over 2.3 million dollars in one hospital alone.

The CNL brings a skill set and competencies that support organizational processes in both the microsystem and macrosystem. These abilities are essential for coordinated and successful transitional care. The presentation will compare and contrast the CNL skills with the HCC and transitional care team leader.

This presentation will discuss several current models of care and the relationship to CNL competencies and education. Characteristics for HCC in transitions of care and the alignment of CNL competencies will be identified. The topic of models of transitional care is relevant to this conference because the CNL role in nursing is particularly suited to facilitate transitions of care for the chronically ill. The model of having the CNL role in transitional care leadership and the qualification of a skill set that fosters positive patient outcomes and decreases cost is a significant opportunity for nursing to contribute to improving healthcare and evidenced based practice. There is growing research on the role of the CNL as well as the need for smooth and uncomplicated transitions between care events and systems. Further, nursing has an opportunity for leadership with the CNL in transitional care.

References

Bender, M. (2014) The Current Evidence Base for the Clinical Nurse Leader: A Narrative Review of the Literature.

Journal of Professional Nursing, 30(2), 110-123. doi: 10.1016/j.profnurs.2013.08.006

Delisle, D. R. (2013). Care transitions programs: A review of hospital-based programs targeted to reduce readmissions. *Professional Case Management Journal*, 18(6), 273-283.

Kohlry, P., Daugherty, J., Gorzeman, J. & Parker, J. (2016). *A Study of Role Expectations and Satisfaction with the Healthcare Coach Role*. Manuscript submitted and accepted for publication *Journal of Nursing Administration*.

Contact

pkohlry@csusm.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Incorporating Flipped Classroom Strategies Into a Nursing Research Course

Patricia Keresztes, PhD, RN, CCRN, USA

Abstract

The nursing research course, which also focuses on evidenced-based practice, is taught in the junior year in the undergraduate nursing program. The research course has been typically taught in a lecture format measuring student outcomes through quizzes and lectures. The content has been presented in a lecture format using slides while students take notes during the lecture. This format may help students learn terminology and basic principles but does not provide for application and synthesis of the content. It is imperative that students entering into the nursing profession be able to appraise and incorporate evidenced-based practices. After graduation, these new nurses will be expected to read and critique research articles and make decisions about practice changes based upon the evidence in the literature. Over the past two semesters, I have incorporated strategies associated with the flipped classroom pedagogical approach of teaching into the research course. The flipped classroom approach involves delivering instructional content prior to the class time such as watching online videos of content. The class session is then devoted to engaging the students in group or individual activities that help the students apply and synthesize the content. This pedagogical approach shifts students from being a passive learner listening to a professor deliver a lecture to being an active learner applying and developing a deeper understanding of the course content. The time that is spent in lecture is done to answer questions to help students develop a deeper understanding of the content. There are various strategies that can be employed in a flipped classroom. The strategies I have incorporated into the nursing research course include: use of videos students watch prior to class, completion of worksheets that cover the content to be covered that week and assigned articles to critique. During the class period, students work in groups to review the assigned article and respond to the critique questions about the research article. I spend time individually with each group answering questions they may have about the critique of the article. The last twenty minutes of the class is spent with the class as a whole discussing and reviewing each of the questions from the assigned article. This change in classroom format can be challenging for students as it is a shift in what they have typically experienced in college. Therefore, I have not completely incorporated this pedagogy into the entire semester but have revised at least half of the semester into a flipped classroom format. The students have given positive feedback about the assignments prior to class and the in class group discussions and activities. I will continue to present the nursing course using a flipped classroom strategy.

References

1. Honeycutt, B. (2016). *Flipping the College Classroom: Practical advice from faculty*. Magna Publications, Madison, Wisconsin.
2. Harrington, S., Vanden Bosch, M., Schoofs, & Beel-Bates, C. (2015). Quantitative outcomes for nursing students in a flipped classroom. *Nursing Education Perspectives*, 36(5), 179-181.
3. Goodwin, B. (2013). Evidence on flipped classrooms is still coming in. *Educational Leadership*, March, 78-80.

Contact

pkereszt@saintmarys.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Improving the Confidence of Health Professionals Searching for Best Evidence Using PICO

Denise L. Blanchard, PhD, RN, Australia

Kim A. Van Wissen, PhD, RN, New Zealand

Abstract

The purpose of this poster is to foster awareness and build the confidence of health professionals as they work to find a solution for clinical problems using best evidence. We identify that clinical problems are complex and within these, there are often multiple discrete problems that can be managed by searching effectively in the databases using the PICO tool to support the patient outcome.

Locating evidence to support clinical reasoning and decision-making needs a considered approach to finding the best possible information by the health professional. This means health professionals need to develop more efficient habits to search and locate evidence. Additionally, a positive patient experience relies on attention to detail by the health professional exercising a reasoned approach to gathering and utilising information.

At times, clinicians are unclear about finding and accessing the best evidence. Added to this, health professionals do not always know how to interpret and apply the information clinically or use it in their learning. To overcome this, we review how to ask questions about patient care and subsequently how to work within the databases. We suggest that asking questions in a logical manner helps the health professional to gain confidence in their ability to access evidence and assess the worth of evidence when applying it to solve clinical problems.

In practice, clinicians are commonly time-poor, hence searching for and applying the best evidence does not always take precedence in daily work. An existing tool, PICO, allows health professionals to pose clear clinical questions that allow more successful interrogation of databases for evidence. PICO can be used on ward rounds in the clinical setting to direct the clinicians thinking toward clear concepts or wording that has more success in finding meaningful evidence for clinical queries.

PICO is an acronym for Patient or Population problem, Intervention, Comparison and Outcome(s) and remains one of the best tools to help formulate questions to locate research from which to develop critical thinking that contributes directly to clinical interventions, which enhance clinical knowledge. In our experience, clinicians often find themselves asking clinical questions that are complex and need teasing out into several PICO formulated questions. PICO is a tool to help navigate and clarify how to interrogate and ask questions of the databases once questions have been narrowed down so databases can provide specific answers.

PICO remains one of the best tools to help locate research from which to develop knowledge about clinical interventions. PICO encourages the use of words inherent in databases as, for example, Major Headings to identify specific search terms and how they are mapped and linked throughout a database. PICO encourages health professionals to practise consistent search strategies in relevant databases and clarifies that there may be multiple PICO questions that they need to be aware of for any one patient. Ultimately, it is the patient outcome driving the use of the PICO tool so as to achieve patient-centred care as better outcomes for people with ill-health, for example, prevention of stroke.

While databases allow searches using natural language (everyday language), this may limit the success of finding information online, therefore, understanding a patient problem or the desired outcomes for the patient is key. It is essential that health professionals be able to translate the 'natural language' PICO into language orientated to that of the database they are searching within. This means a natural language search may not transfer to the database easily with the health professional experiencing, possibly, no results at all or so many results; they may just pick the first ten results and are unable to ascertain whether results are worthwhile following up. Therefore, it becomes essential for health professionals to be

familiar with the database language, headings and concepts, to optimise their success in finding the best evidence.

Starting with the primary outcome agreed on for and with the patient is the health professional needs to plan the PICO from the desired outcome which ought to reflect a solution to the primary problem. As the health professional works to identify the primary outcome, they are most likely to encounter multiple outcomes that need to be addressed and these need to be decluttered and patient-centric. Additionally, in evidence-based health care, the professional needs to question what is the desired outcome is for this person. It may not relate to the primary problem, however, is as important as this is the patient perspective that needs to be included.

In this poster, we will provide a scenario example, identify the key clinical problem. From this, we will identify multiple problems that need to be addressed that feed into the solution to achieve the desired outcome. Asking questions of a clinical scenario we will demonstrate that for one patient, there are likely to be multiple PICOs that need to be built, answered and prioritised; that the way evidence is located will contribute to the prioritisation of clinical care and interventions.

References

- Hines, S., Ramsbotham, J., & Coyer, F. (2015). The Effectiveness of Interventions for Improving the Research Literacy of Nurses: A Systematic Review. *Worldviews on Evidence-Based Nursing*, 12(5), 265-272.
doi:10.1111/wvn.12106
- Howe, C. (2012). Undergraduate Information Literacy Instruction is Not Enough to Prepare Junior Doctors for Evidence Based Practice. *Evidence Based Library and Information Practice*, 7(2), 76-78.
- Muth, C., van den Akker, M., & Glasziou, P. P. (2016). Blood pressure targets in primary care. *BMJ*, 352.
doi:10.1136/bmj.i813

Contact

dblanchard@csu.edu.au

EBP PST 3 - Evidence-Based Practice Poster Session 3

Using Context-Inquiry Teaching Model to Enhance Advanced Clinical Medical Writing

Yi-Ru Chen, BSN, RN, Taiwan

Abstract

Abstract Introduction: The practice of clinical ladder enhances professional capacity in nursing. With senior nursing staff's guidance and through mutual learning, professional values of nursing and specialized medical writing ability could be enhanced. Such influence on motivating nursing staff to actively participate in advanced clinical ladder has been a vital issue.

AIMS: To probe into barricades affecting advanced specialized medical writing among the nursing staff. With breakthrough in related problems and diverse teaching strategies, inquiry-based learning model was employed to enable nursing staff to actively participate in advanced clinical ladder and to overcome the challenges of specialized medical writing, thus enhancing nursing achievement and confidence.

METHODS: This study focused on one Respiratory ICU in a medical center in southern Taiwan. The participants were 11 nurses, having promoted to N4 from N3. The research ranged from November 2014 to November 2015. Teaching strategies included (1) establishing the instructor database of specialized medical writing, (2) setting up online learning guidance, (3) forming specialized medical writing workshop (teacher-pupil ratio at 1:2, monthly progress check and report), and (4) peer care as well as reward system. Evaluation was based on the qualified project reports announced by the Taiwan Nurses Association.

RESULTS: The results revealed that the bimonthly presence in 2015 was 69.2%, satisfaction of teacher-pupil counseling was 100%, and that 5 specialized medical reports were completed by May 2015 (100%). A total of 3 project reports were deemed qualified in the October 2015 Announcement by the Taiwan Nurses Association. The passing rate improved by 60%, indicating the positive effects of inquiry-based teaching model.

CONCLUSIONS: The nurse clinical ladder is vital to enhancing professional nursing capacity, thus highlighting the top priority of cultivating and establishing a quality instructor database of specialized medical counselling. The inquiry-based diverse learning model effectively strengthened the analytical and handling capacity concerning clinical problems, and enhanced nursing staff's confidence and superiority. Thus, a parallel promotion is highly recommended.

References

- 利怡慧、林伶黛、蔡菁菁、周嫚君、林梅香 (2012) ·N3護理人員參加臨床能力進階制度意願之相關影響因素·*護理雜誌*, 59(1), 40–49. doi: 10.6224/JN.59.1.40
- 財團法人醫院評鑑暨醫療品質策進會 (2014, 12月) ·醫院評鑑基準及評量項目·取
<http://www.tjcha.org.tw/FrontStage/page>
- Cheng, Y.M. (2012). The effects of information systems quality on nurses' acceptance of the electronic learning system. *Journal of Nursing Research*, 20(1), 19-31. doi: 10.1097/JNR.0b013e31824777aa

Contact

chenyiru1002@gmail.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

NICU Nurses and Families Partnering to Provide Family-Centered Developmental Care

Candy Bruton, MSN, RNC-NIC, USA
Jennifer Meckley, BSN, RNC-NIC, USA
Lori A. Nelson, BSN, RNC-NIC, USA

Abstract

The aim of this evidence based practice (EBP) project was to determine how implementing the seven neuroprotective core measures of family-centered developmental care will impact the satisfaction of the NICU nurses through new knowledge, skills and families through partnering with care compared to traditional care. According to the American Academy of Pediatrics (AAP) Committee on Hospital Care and Institute for Family Centered Care policy statement made in 2003 family-centered care is a method in which medical care is grounded in the principle that optimal health outcomes are accomplished when patients' family members participate in an active role in contributing emotional, social and developmental support (American Academy of Pediatrics, 2003). There is urgency for nursing education and guidance in neuroprotective family-centered developmental care using the seven core measures due to the increase rate of premature birth acquired disability due to being born premature globally (Butler & Als, 2008). Growth continues outside the shielding environment of the uterus and neuroprotective family-centered developmental care creates a healing environment that requires the entire family to partner in the care and growth of their infant (Altimier & Phillips, 2013; Altimer, Kenner & Damus, 2015). Benefits of family-centered care are that families feel more valuable when partnering with nurses in the care of their infant (McGrath, Samra & Kenner, 2011) and feel more empowered when they provide care for their infant. In addition being active participants in developing and maintaining the program increases a sense of fulfillment and nurse satisfaction (Phillips, 2015).

In order to accomplish this, nurses needed a firm understanding of the developmental problems with the high risk and the premature infant. It was critical that this group of caregivers understands the fundamentals of neurosensory growth of these infant. It is also vital that they understand how the intrauterine environment protects the infant from being exposed to the fluctuation of an unstable extrauterine environment.

The Neonatal Integrative Developmental Care Model (NIDCM) was the model we utilized for implementing the seven neuroprotective core measure of family-centered developmental care and are identified as: the healing environment, partnering with families, positioning and handling, minimizing stress and pain, safeguarding sleep, protecting skin and optimizing nutrition. This model is represented by the lotus flower. In the center the first core measure is the healing environments. Each of the remaining six core measures are depicted as overlapping petals to display the integrative nature of developmental care (Altimier, & Phillips, 2013).

The goal of the unit was to empower families by partnering with them to develop proper skills in caring for their infant (Westrup, 2007) positively impacting their stress level, comfort level, and confidence as well as increasing family satisfaction (Cooper, Gooding, Gallagher, Sternesky, Ledsky & Berns, 2007). The goals of the NICU nurses was to gain new knowledge, skills and increase nurse satisfaction by providing developmental care using the seven neuroprotective core measures of family centered-care for every infant every time (Cardin, Rens, Stewart, Danner-Bowman, McCarley & Kopsas, 2015).

The NICU staff was educated on the "Seven Core Measures of Neuroprotective Family-Centered Developmental Care" by lecture, printed education and hands on training with a developmental care specialist. After completion of the training the neuroprotective interventions were implemented on every NICU infant. Parents were give verbal and printed information and educated on the meaning of family centered care.

Conclusion from pre and post surveys that were collected from our NICU nurses showed an increase in knowledge of the appropriate care and potential benefits of these interventions. Pre and post Press-Ganey reports were collected from parents and results showed an increase in satisfaction over most categories. Also the results from parents during discharge phone call surveys showed NICU families had a strong satisfaction with the partnering of care and the level of family centered care their infant received.

References

- American Academy of Pediatrics (AAP) (2003). Committee on Hospital Care and Institute for Family Centered Care Policy Statement: Family Centered Care and the Pediatrician's Role (2003). *Pediatrics*, 112(3), 691-696
- Altimier, L., Kenner, C., & Damus, K. (2015). Article: The Wee Care Neuroprotective NICU Program (Wee Care): The Effect of a Comprehensive Developmental Care Training Program on Seven Neuroprotective Core Measures for Family-Centered Developmental Care of Premature Neonates. *Newborn & Infant Nursing Reviews*, 15(1):6-16. doi:10.1053/j.nainr.2015.01.006
- Altimier, L., & Phillips, R. M. (2013). The Neonatal Integrative Model: Seven Neuroprotective Core Measures for Family-Centered Developmental Care. *Newborn & Infant Nursing Reviews*, 13(1), 9-22 14p.
- Cardin A, Rens L, Stewart S, Danner-Bowman K, McCarley R, Kopsas R (2015) Article: Neuroprotective core measures 1–7: A developmental care journey: Transformations in NICU design and caregiving attitudes. *Newborn & Infant Nursing Reviews* 15 (3):132-141.
- Cooper, L., Gooding, J., Gallagher, J., Sternesky, L., Ledsky, R., & Berns, S. (2007). Impact of a family-centered care initiative on NICU care, staff and families. *Journal Of Perinatology*, 27S32-7
- McGrath, J., M., Samra, H., A., Kenner, C. (2011). Family-center developmental care practices and research: What will the Next century bring? *The Journal of Perinatal & Neonatal Nursing*, 25(2): 165-170. doi:10.1097/JPN.0b013e3182a6706
- Phillips, R. M. (2015). Articles: Seven Core Measures of Neuroprotective Family-Centered Developmental Care: Creating an Infrastructure for Implementation *Newborn & Infant Nursing Reviews*, 15 (3): 87-90. doi:10.1053/j.nainr.2015.06.004
- Westrup, B. (2007). Newborn Individualized Developmental Care and Assessment Program (NIDCAP) — Family-centered developmentally supportive care. *Early Human Development*, 83443-449.

Contact

candybruton@texashealth.org

EBP PST 3 - Evidence-Based Practice Poster Session 3

The "Cost of Caring" for Cancer Patients: Mixed Methods Research With Victories and Hazards Exposed

Laurie Freeman-Gibb, PhD, RN, ANP, Canada

Kathryn A. Pfaff, PhD, RN, Canada

Linda J. Patrick, PhD, MSc, MA, BScN, RN, Canada

Abstract

Compassion fatigue (CF) is a form of secondary traumatic stress and burnout (Figley, 1995). CF is experienced as emotional and physical erosion on a personal level, and occurs when helping professionals are unable to refuel or regenerate (Joinson, 1992; Figley, 1995). As CF most commonly occurs during and/or following prolonged interactions with individuals who are in distress, it is also thought to be the result of stress coupled with ongoing self-sacrifice (Potter et al., 2013). The prevalence is particularly high in oncology settings (Potter et al., 2013; Vachon, 2012; Yu, Jiang, & Shen, 2016). The 'cost of caring' intensely impacts on patient and organizational outcomes in that caregivers become unable to nurture or empathize with persons in their care (Figley, 1995). The results can impact on patient satisfaction, patient safety due to increased sick days and reduced productivity of staff, along with higher turnover rates (Hooper, Craig, Janvrin, Wetsel, & Reimels, 2010). Initially thought to only be a nursing related phenomenon (Joinson, 1992) it is now known that all healthcare providers are at risk for CF (Hooper et al., 2010).

A six-week pilot CF resiliency (CFR) program was developed and offered to interprofessional healthcare providers and staff at a regional cancer centre in Ontario, Canada. The intervention was offered as a two-hour program after the workday in the hospital setting and based on the *CF – Accelerated Recovery Program (ARP)* (Gentry, Baranowsky, & Dunning, 2002; Traumatology Institute, 2012). It was evaluated using an experimental embedded mixed methods research study design (Creswell & Plano Clark, 2010) to evaluate the impact of the pilot CFR Program. The purpose of this presentation is to examine the use of an experimental embedded mixed methods research study design and discuss the best ways to achieve victories and avoid research hazards when doing workplace interventional studies.

In keeping with a mixed methods design a combination of qualitative and quantitative methods was used to evaluate the CFR program. The use of a mixed methods design provided a better understanding of the complex phenomena of compassion fatigue than either approach alone (Molina-Azorin, 2016). Standardized instruments to measure CF and related concepts were administered before and after the educational program intervention. Focus groups and individual interviews were conducted at mid-intervention and at completion of the CFR program. The qualitative and quantitative data were analyzed separately and merged to produce the overall findings. Researcher triangulation was used throughout all phases and processes of the study enhancing the inferences made.

After ethical approval was granted from both the university and the healthcare system Faculty of Nursing members drove the research component separately from the educational intervention undertaking that was totally supported by the cancer care facility. Initial support from the cancer care facility extended to assistance with study packet photocopying, communication with participants interested in the educational intervention and other administrative oversight.

The mixed methods design used a phase one quantitative data collection through voluntary recruitment prior to the initiation of the CFR program. Complete study packets from clerks, managers, registered nurses, physician's, radiation therapists and other care workers for analysis were received. The research team was available during this portion to assist with question on how to fill in the questioners. At the end of the quantitative data collection a separate form asked participants if they would consent to being contacted at the mid point of the educational intervention to participate in 3 scheduled focus groups or an individual interview to discuss their experiences as the qualitative section of the method used. Final data collection was done at the end of the last session of the educational intervention and again participants

were asked if they would like to be contacted to participate in focus groups or have an individual interview.

Our Victories: The working relationship between the cancer center staff and the faculty members was excellent. Recruitment into the educational program and initial enrolment into the study portion exceeded our expectations. It was also thrilling to have participation from so many segments of the healthcare team. Initial assistance with study packets and having a room in the hospital dedicated to the study and then to the educational intervention made it convenient for staff and for the research team. Financial support from the management team supported the endeavour and encouraged participation in the educational intervention.

Encountered Hazards: Support from the cancer center management team was withdrawn halfway through the educational program when the main program champion changed jobs. This significantly impacted the educational sessions and planned activities. Hospital printing of the study packets for final data collection had errors that were not correctable therefore valuable data was lost. Expecting multidisciplinary groups to learn together has its own set of concerns that must be addressed prior to doing this type of education. Many participants did not complete the program nor stay for final data collection again significantly impacting the results. Focus groups were poorly attended with many participants' preferring individual interviews, which can be costly and time consuming.

Conclusion: Mixed methods design can acquire rich data on areas that are not well researched. Use of this methodology can be complicated but truly does allow for a more complete analysis of the situation. Describing how to successfully embed qualitative and quantitative methods will assist other nursing researchers in the future use this methodology. Multiple victories and hazards were encountered when doing the research component of this program. Bringing awareness of them and the impact they had on doing this type of research is necessary to assist other nurse researchers in avoiding the same issues in future research endeavours.

References

- Creswell, J. W., & Plano Clark, V.L. (2010). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.
- Figley, C. (1995). *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Brunner/Mazel: New York.
- Gentry, J.E., Baranowsky, A.B., & Dunning, K. (2002). The accelerated recovery program (ARP). In: C.R. Figley (Ed.), *Treating Compassion Fatigue*, pp. 123-138. New York: Brunner-Routledge.
- Hooper C., Craig J., Janvri D. R., Wetsel M. A. & Reimels E. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. *Journal of Emergency Nursing*, 36, 420-427.
- Joinson, C. (1992). Coping with compassion fatigue. *Nursing*, 22, 118-120.
- Molina-Azorin, J. F. (2016). Mixed methods research: An opportunity to improve our studies and our research skills [editorial]. *European Journal of Management and Business Economics*, 25, 37-38. doi:10.1016/j.redeen.2016.05.001
- Potter, P., Deshields, T., Berger, J., Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology Nursing Forum*, 40, 180-187. doi: 10.1188/13.ONF.180-187.
- Traumatology Institute. (2012). *CF courses*. Retrieved from: <http://psychink.com/training-courses/compassion-fatigue-courses/>
- Vachon, M.L.S. (2012). Reflections on compassion, suffering and occupational stress. In: J. Malpas & N. Lickiss (Eds.), *Perspectives on Human Suffering*. Dordrecht: Springer.
- Yu, H., Jiang, A., & Shen, J. (2016). Prevalence and predictors of compassion fatigue, burnout and compassion satisfaction among oncology nurses: A cross-sectional survey. *International Journal of Nursing Studies*, 57, 28-38.

Contact

lqibb@uwindsor.ca

EBP PST 3 - Evidence-Based Practice Poster Session 3

Getting Back to the Basics: Handwashing 101

Abigail Mitchell, DHEd, MSN, RN, CNE, FHERDSA, USA

Heather Nugent, MS(c), RN, USA

Theresa MCNamara-Beatty, MS-ANP, RN, TNCC, NPA/ACCN, USA

Abstract

In nursing school handwashing was first skill we learned and a skill that we demonstrated throughout the program, especially in clinical settings. As nurses' handwashing is an essential task that must be completed many times a day to safe guard ourselves and to protect our patients. Handwashing is one of the most important way of reducing the spread of infection. However, despite the many studies and literature hand washing compliance rates remain low. Lack of hand washing compliance is a global issue. The World Health Organization has declared nosocomial infections a serious global problem. Hand washing with soap is recognized as one of the most important means of reducing spread of infectious organisms' world- wide (Green, Kalaycioglu, Barch, et al, 2014). Each year, Healthcare Associated Infections (HAIs) affect over 722,000 patients and approximately killing 75,000 of them, in the United States alone (Musuuza et al, 2016). HAIs are among the most common preventable medical complications that result from errors and unsafe practices. Hand hygiene is known as a primary and crucial tool for reducing infections caused by health care personnel. The use of alcohol-based hand rub solutions are popular and often are used instead of washing the hands with soap and water, or sometimes HCP will use both methods for hand washing compliance. HAIs increase morbidity and mortality and length of stay, placing a great financial burden on health care services. To assist hospitals with reducing the risk of HAIs evidence-based guidelines have been introduced by multiple national and international agencies, often with a focus on the role of hand hygiene for lowering infection rates (Boyce & Pitte, 2002). Florence Nightingale's environmental theory guided this study. Her theory changed the face of nursing to create sanitary conditions for patients to receive care and improved sanitation in the hospital setting. The goal of nursing is to facilitate a healing process by placing the patient in the best possible environment for nature to influence health (Nightingale, 1860). The purpose of this study is a twofold. First the researchers performed a systematic literature review and secondly an observational study of hand hygiene compliance was conducted using an audit tool on all health care personnel (HCP) working on units in a community hospital. HCP were observed by two auditors during rounds and unaware that hand hygiene was under observation.

References

- Green, E. C., MSc, Kalaycioglu, O., MSc, Barcg, H. W., Hartley, J. C., BSc, Guillas, S., PhD, Malone, D., BSc, . . . Klein, N., PHD. (2014, May 01). The Important role of sink location in handwashing compliance and microbial sink contamination. *American Journal of Infection Control*, 42(5), 554-555.
- Musuuza, J. S., Baker, A., Vellardita, L., & Safdar, N. (n.d.). Assessment of Fidelity in Interventions to Improve Hand Hygiene of Healthcare Workers: A Systematic Review. *Infection Control & Hospital Epidemiology*. Available on CJO 2016 doi:10.1017/ice.2015.341
- Taylor, R. E., PhD. (2015, November 01). The Role of message strategy in improving hand hygiene compliance rates. *American Journal of Infection Control*, 43(11), 1166-1170.

Contact

mitchela@dyc.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Building Integrity into Nursing Curriculum and Culture

Patricia Severt, MSN, RN, USA
Amanda Page, MFA, USA

Abstract

Academic dishonesty is on the rise nationwide due to advances in technology. This creates a dilemma in nursing education. In the nursing profession, integrity is not an option; it can determine the outcome in a life or death situation (Bavier, 2009). Studies reveal that there is a connection between poor integrity in nursing school and poor integrity in the professional nursing role. The purpose of this project is to reveal the issue of cheating among nursing students and determine ways to diminish its existence, maintain the integrity of the nursing profession and, ultimately, improve patient outcomes.

A review of articles published between 2004-2015 was conducted using Ebsco databases and the keywords academic dishonesty, academic misconduct, nursing students, plagiarism, and cheating. The focus was on the definition of academic dishonesty, students' views, faculty views, and methods to decrease cheating. The definition varies among students and faculty and suggests that societal norms have shifted so that cheating in some forms is not seen as unethical. For example, students have plagiarized, looked at other students' papers during an exam, used another student's paper as their own, used technology to photograph an exam and pass it on, falsified patient information in the clinical setting, and falsely stated illness to be absent from clinical (Laduke, 2013). And yet few of these instances were defined as "cheating."

In reviewing the literature, it was noted that the mentality which promotes dishonesty in the academic arena continues into the professional arena (Laduke, 2013). Arhin and Jones (2009) found that evolving technology has aided in academic demise. Students find it easier to cut and paste parts of documents from electronic sources. Additionally, internet services are offered that, for a fee, an essay can be written for the student. Johanson (2010) states academic rigor, competitive environments, larger class sizes, inadequate faculty, and lack of faculty support as reasons given by students for dishonesty.

The rationale for becoming a nursing student has changed over the years. Students joining the nursing profession are doing so for solid career paths, financial security, and prestige (Laduke, 2013). This suggests that not all students are students with high standards of morals and integrity. Nursing is among the top most trusted profession and action must be taken to ensure it remains as such (Laduke, 2013).

Changes are needed in nursing education to ensure the integrity of the students that are successful in the nursing programs. The use of screening tools during the admission process can focus on the ethical and moral standards of the incoming student. Institution policy definitions and revisions with clearly stated consequences for academic dishonesty are needed. Administrator support of faculty at the front lines of the fraudulent behavior is imperative. Developing and utilizing student leaders as mentors can help model and develop integrity in other students. Further recommendations may be provided.

In conclusion, the literature clearly demonstrates the parallel of dishonesty in nursing programs and declining integrity of nurses at the bedside. If we want nurses to remain the most trusted profession because of intact ethical and moral principles, then we as educators must ensure that those qualities are present in the student throughout the program. It is our ethical duty as educators to make moral and ethical decision making opportunities fundamental in every aspect of our nursing programs (Bavier, 2009). Building integrity into all nursing programs will safeguard the highest quality of nurse that society receives and that can be trusted with patient lives.

References

Arhin, A. O., & Jones, K. A. (2009). A multidiscipline exploration of college students' perceptions of academic dishonesty: Are nursing students different from other college students? *Nurse Education Today*, 29, 710-714. doi:10.1016/j.nedt.2009.03.001

Johanson, L. S. (2010). Encouraging academic honesty: A nursing imperative. *Journal of Christian Nursing*, 27 (3), 267-271. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/20632486>
Laduke, R. D. (2013). Academic dishonesty today, unethical practices tomorrow? *Journal of Professional Nursing*, 29 (6) 402-406. <http://dx.doi.org/10.1016/j.profnurs.2012.10.009>

Contact

psevert@mccn.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

A Nurse-Led Heart Failure Education Program to Improve Knowledge and Self-Care and Reduce 30-Day Readmission

Martha Sissay Awoke, MSN, RN, USA
Diana Lyn Baptiste, DNP, MSN, RN, USA

Abstract

Purpose/Objectives: Heart failure is a burdensome condition that affects more than 6 million Americans and an estimated 23 million people worldwide. Individuals living with heart often experience breathless, edema, and fatigue leading to frequent hospital admission. The purpose of this quality improvement program was to standardize a nurse-led heart failure patient education and evaluate its impact on knowledge, self-care behaviors, and all cause 30-day hospital readmission at a large urban academic medical center.

Methods: We implemented an evidence-based standardized heart failure patient education program with telephone follow-up at 7, 30 and 90 days post-discharge. A convenience sample of (N=19) Individuals who were hospitalized with diagnosis of heart failure completed two questionnaires: 1) the Dutch Heart Failure Knowledge Scale (DHFKS) and, 2) the Self-care Heart Failure Index (SCHFI).

Results: Descriptive statistics were analyzed using SPSS® version 23 to provide demographic characteristics for the sample. The mean age for the sample is 68, with ranging from 54-90, almost evenly distributed gender, and most of the sample size reported they were unemployed, retired, or disabled. Nine participants (47%) had an ejection fraction less 40% and 47% had an NYHA IV classification. Among (n=19) participants, baseline knowledge scores ranged from 9-15. The mean score was 12.21 SD=1.548, which is comparable to scores reported in previous studies which were mean 11.4 and 12.6, respectively.

Self-care maintenance shows (n=4) participants scoring between 40-50% and another 4 patients scoring between 70-80%. Six participants scored between 50-70%, 1 participant scored 100% and 2 patients each scored between 20-40% and 80-90%. Self-care management score describes a normal distribution curve in which the majority of the responders were under the bell curve. Answers ranged from "I did not recognize symptoms" to "I recognize the symptom of heart failure quickly." Of the (n=19) participants, 11 stated that they "did not recognize HF symptoms". However, when asked about how likely they were to try some of the remedies (reduce fluid intake, reduce salt intake, call your doctor or nurse) if they experienced trouble breathing or ankle swelling, 13 patients stated they are "very likely" to try one of the remedies.

Conclusion: Implications from this study suggest the importance of developing education programs that are focused on improving knowledge, self-care maintenance, self-care management and self-care confidence for heart failure patients. Those who score lower self-care behavior scores after the intervention may benefit from additional education, resources, and support. Nurses are uniquely qualified to implement such programs that can improve health outcomes and need to accommodate evidence-based recommendations to global practice settings.

References

- Baptiste, D. Davidson, P. M., Groff Paris, L., Becker, K., Magloire, T., & Taylor, L. (2016) Feasibility study of a nurse-led heart failure education program. *Contemporary Nurse*. 20:1-12. [Epub ahead of print]
doi:10.1080/10376178.2016.1229577
- Dennison, R. C., McEntee, L. M., Samuel, L., Johnson J. B., Rotman S., Kielty A., Russell D. S. (2011). Adequate health literacy is associated with higher heart failure knowledge and self-care confidence in hospitalized patients. 26(5), 359-367. doi:doiDharmarajan, K., Hsieh, F. -, Lin, Z., Ross, J. S., Kim, N., Barreto-Filho, J., . . . Krumholz, H. M. (2012). : 10.1097/JCN.0b013e3181f16f88
- Liou, H. L., Chen, H. I., Hsu, S. C., Lee, S. C., Chang, C. J., & Wu, M. J. (2015). The effects of a self-care program on patients with heart failure. *Journal of the Chinese Medical Association : JCMA*, doi:S172-4901(15)00149-5 [pii]

Tsai, P., Wang, R., Lee, C., Tsai, L., & Chen, H. (2015). Determinants of self-care decision-making in hospitalised patients with heart failure. *Journal of Clinical Nursing*, 24(7), 1101-1111 11p. doi:10.1111/jocn.12722

Contact

mawoke1@jhu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Nursing Clinical Practicum: Integrated Application Process

Nancy S. Goldstein, DNP, MS, RNC-OB, ANP-BC, USA

Diana Lyn Baptiste, DNP, MSN, RN, USA

Sibyl Snow, MA, BA, USA

Abstract

Pre-licensure nursing students have a final capstone practicum or clinical course as they transition to the professional nurse role. Generally, the student role requires increased independent practice, which can be a challenge. Nursing students' final clinical course is typically expected to facilitate their transition to professional practice. The senior practicum or transitions practicum is designed for the student to partner with a practicing nurse preceptor to learn both nursing role and skills. Learning during the senior practicum is important as the student will recognize the development of their own intellectual knowledge, psychomotor skills, and affective attitudes as they transition from nursing student to nurse graduate.

Supporting nursing students in learning is an important role for educators. The student's decision of where they should complete their nursing school practicum can be a difficult decision, especially when there are many options in the specialty, local, and distant areas, and internationally. Developing a process to improve selection quality for an integrated application became a challenging goal. By analyzing and reorganizing the process, a strategy was developed, one with the functionality and technical capabilities to support the wide-ranging needs of all clinical practicum options.

We developed a web-based application using Qualtrics® survey software. Students were provided a link to complete the application within a two-week time frame. We divided options into the categories based on specialty areas. Students were provided a text box to provide a 250-word narrative about why they are interested in the practicum specialty areas. Practicum requests were received from all 106 student applicants. Results were uploaded to an Excel spreadsheet and reviewed by educators to assign all student placements.

Using technology to support the application has enabled educators to successfully assign students to the practicum site of their choice. Further investigation is necessary to explore students' satisfaction with the system used for the application.

References

Baptiste, D., & Shaefer, J. (2015). Online module to assure success as pre-licensure nursing students transition to professional practice. *Quarterly Review of Distance Education*. 16 (4). P 1-5: ISSN 1528 3518

Hsu, L.L., Hsieh, S. I., Chiu, H.W., & Chen, Y.L., (2014). Clinical teaching competence inventory for nursing preceptors: Instrument development testing. *Contemporary Nurse*. 46(2); 214-224.

Moore, P., Schmidt, D., Howington, L. (2014). Interdisciplinary preceptor teams to improve the clinical nurse leader student experience. *Journal of Professional Nursing*, 30(3), 190-195. doi: 10.1016/j.profnurs.2013.09.013.

Contact

ngoldst1@jhu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

An Orientation Program to Improve Teaching Competency in Clinical Nurse Faculty

Bonnie M. Shaffer, MS, RN, CNS, USA

Abstract

A critical component of undergraduate nursing education is learning the hands-on skills of a nurse in the clinical setting. The problem with providing that clinical instruction is the lack of experienced and qualified clinical faculty (AACN, 2015). Due to the urgent need for clinical faculty to teach students in the clinical environment, hiring nurses with strong clinical skills addresses the immediate need although these nurses have little or no experience teaching. Sending inexperienced educators into the clinical environment without adequate preparation presents a number of problems for the new faculty as well as the students. The purpose of the pilot project was to determine the impact of a formal orientation program on improving clinical teaching competency for Clinical Nurse Faculty (CNF).

Using a pretest-posttest quasi-experimental design, faculty recently hired to teach clinicals were asked to participate. The project consisted of the subjects completing a self-assessment utilizing the Clinical Teaching Competency Inventory (CTCI), which is a reliable and valid instrument for clinical nursing preceptors to self-evaluate competence in providing clinical instruction (Hsu, Hsieh, Chiu & Chen, 2014). The subjects then attended a structured orientation program, after which the CNF taught one clinical rotation. Upon completion of teaching a clinical rotation, the CNF were asked to complete the CTCI again.

The post-intervention data is currently being collected and will be entered into a Microsoft Excel Spreadsheet and imported into IBM SPSS Statistics version 23 program. Descriptive statistics will be used to analyze and report sample characteristics and to perform preliminary analyses for the assumption of normality. If the assumption is met, a parametric Paired Samples *t*-test will be used to determine if there is a significant difference in scores from pre to posttest. If the assumption is not met, the non-parametric alternative, Wilcoxon Signed Test will be used.

The findings from the project will be shared as analysis will be completed at time of presentation. Regardless of the findings, schools of nursing find themselves in need of CNF. In order to meet the needs of the students in the clinical environment, experienced nurses are hired from the bedside and placed in a teaching role without adequate preparation, lacking the competence needed to be an effective educator. An orientation program is clearly needed, as evidenced in the literature review, to improve the competence of the bedside nurse who is transitioning to the role of CNF. The “nuts and bolts” needed to develop a clinical faculty orientation will be provided.

References

- American Association of Colleges of Nursing. (2015). Nursing faculty shortage. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/nursing-faculty-shortage>.
- Hsu, L., Hsieh, S., Chiu, H. and Chen Y. (2014). Clinical teaching competence inventory for nursing preceptors: instrument development and testing. *Contemporary Nurse*, 46(2), 214-224. doi: <http://dx.doi.org/10.5172/conu.2014.46.2.214>.
- Schoening, A. M. (2013). From bedside to classroom: the nurse educator transition model. *Nursing Education Perspectives*, 34(3), 167-172.

Contact

christmasbaby1966@gmail.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

Enhancing Academic Writing Atmosphere Among Nurses in the Emergency Department

Hui-Ching Hsu, RN, Taiwan
Hui-Ju Chung, RN, Taiwan

Abstract

Purpose: Academic writing is regarded as an important professional skill in the clinical ladder. Despite rich nursing experiences most nursing staff possess, their unskilled written expression often results in difficulty in writing relevant reports. The underlying reasons for their unwillingness to participate in academic writing were difficulty in passing, inability to comprehend the literature, lack of motivation, the state of being unable to search for related data, and lack of professional guidance. Since academic writing combines higher-level abilities (such as synthesis, analysis, and evaluation), logical thinking, and organizational skills, such capacity helps learners to enhance professional abilities and nursing quality involved in the caring process. Therefore, it is hoped that a good learning environment could be created via improvement projects drafted by a special committee, with the aim to increasing motivation of academic writing among nursing staff and further enhancing nursing quality.

Method: A special committee workshop was formed to locate the nursing staff that needed to hand in academic reports. The following procedures included making plans for handing in reports, holding writing workshops (case study workshop: twice a year; special committee workshop: once a year), using teaching resources for guidance (with clinical instructors helping nursing staff find cases and topics appropriate for academic writing), and forming a LINE group. Workshop instructors provided timely solutions based on the learners' questions and monitored their writing progress, to increase the motivation of academic writing and the completion rate of report submission among nursing staff in the emergency department.

Results: With special committee workshops used to increase the motivation of academic writing among nursing staff in the emergency department, the results revealed that during January 2015 and June 2016, 13 out of 15 case report submissions passed, yielding a high passing rate of 87%. Significant enhancement in writing academic reports and searching for literature was also found among those nursing staff.

Conclusion: A serious lack of nursing workforce in recent years and the unique need for taking shifts have affected nursing staff's motivation to participate in academic writing. However, the clinical ladder program requires nursing staff to move upward based on their completion of academic case reports. The intervention from a special committee to enhance the writing ability among colleagues in the emergency department enabled nursing staff to utilize their professional knowledge for discussion over the caring issues related to patients, thus enhancing nursing quality and job satisfaction as they built professional confidence.

References

- Linton, D. L., Pangle, W. M., Wyatt, K. H., Powell, K. N., Sherwood, R. E. (2014). Identifying key features of effective active learning: the effects of writing and peer discussion. *Life Sci Educ*, 13 (3), 469-477.
- Hunker, D. F., Gazza, E. A., Shellenbarger, T. (2014). Evidence-based knowledge, skills, and attitudes for scholarly writing development across all levels of nursing **education**. *Nurs*, 30(4), 341-346. Doi: <http://dx.doi.org/10.1016/j.profnurs.2013.11.003>
- Jack, K. (2015). The use of poetry writing in nurse education: An evaluation. *Nurse Educ Today*, (15), 165. doi: 10.1016/j.nedt.2015.04.011

Contact

Ima0215@yahoo.com.tw

EBP PST 3 - Evidence-Based Practice Poster Session 3

Nursing Programs and Supportive Housing Sites: Mutual Benefits of Multigenerational Engagement Through Innovative Academic-Practice Partnerships

Maureen F. O'Shea, DNP, AGPCNP-BC, USA
Mary McCarthy, MEd, USA
Barbara J. Pinchera, DNP, ANP-BC, USA
Margaret Sullivan, MSN, ANP-BC, USA

Abstract

Through a collaborative partnership, traditional baccalaureate undergraduate nursing students, together with residents of an older adult community with supportive services, engage in purposeful, semi-structured activities while considering factors that influence individual, community and population health throughout the lifespan. Participants utilize evidence-based assessment tools and explore aspects of individualized aging, complexity of care, and personal vulnerability during life transitions. The focus on the five domains of wellness: physical, social, cognitive, spiritual, and emotional. A range of topics include: medication management, health assessment, disease prevention and management, home safety, falls assessment, psycho-social well being, delirium, dementia and sensory impairments, depression and anxiety management, and end of life issues.

Activities are designed to foster an increased appreciation and enhanced awareness of the impact of evolving demographic trends locally, regionally, nationally, and internationally in relation to healthcare policies and systems, as well as to promote consideration of careers in gerontology.

Specific goals of this partnership include:

- Increasing nursing students' awareness of shifting population demographics as a key factor in the evolving need for highly skilled geriatric specialized nurses
- Dispelling stereotypes of aging
- Enhancing understanding of the aging process from a whole-person perspective, including physical, cognitive, social, emotional and spiritual health
- Promoting meaningful engagement through intergenerational experiences
- Identifying evidence-based best practices in geriatric care
- Increasing nursing students' consideration of careers in gerontology
- Providing opportunities for seniors to share their experiences and impact the lives of young adults as well as assist in educating the next generation of nurses.

Nursing students and older adults gain further appreciation for viewing health through a wider lens. Vitality is possible at any age, and so is living a healthy, active life with chronic conditions. When students interact with residents who are in their eighties, nineties and one hundreds, who are living independently in a supportive environment, they are able to dispel the negative connotations often associated with aging stereotypes.

Discussion regarding shared commonalities, as well as comparing and contrasting similarities and differences, enriches the learning experience for nursing students and older adults in this innovative, non-traditional practice partnership.

References

American Association of Colleges of Nursing. (2010). *Competencies to improve care for older adults*. <http://www.aacn.nche.edu/education/resources/competencies-older-adults>

Association for Gerontology in Higher Education. (2014). *Gerontology Competencies For Undergraduate & Graduate Education*.

Hartford Institute for Geriatric Nursing. (2016). ConsultGeri.org. <https://consultgeri.org>

Davies S., Reitmaier A., Smith L., Mangan-Danckwart D.(2013). Capturing intergenerativity: the use of student reflective journals to identify learning within an undergraduate course in gerontological nursing. *Journal of Nursing Education*. 52(3) 139-149. doi: 10.3928/01484834-20120213-01

Ferrell, B. R., Coyle, N., & Paice, J. (Eds). (2015). *Oxford textbook of palliative nursing*. (4th ed). New York, NY: Oxford University Press.

Flesner, M. K. (2009). Person-centered care and organizational culture in long-term care. *Journal of Nursing Care Quality*, 24(4), 273-276.

Hartford Institute for Geriatric Nursing. (2016). <https://hign.org>

Office of Disease Prevention and Health Promotion. (2016). Healthy People 2020. <https://www.healthypeople.gov/2020/topics-objectives/topic/older-adults>

McCarthy, M., Baber, L., O'Shea, M., Pinchera, B., & Sullivan, M. (2016). *Senior housing communities & nursing schools: Creating dynamic partnerships*. Hebrew SeniorLife and Curry College.

National Institute on Aging. (2011). *Why population aging matters: A global perspective*. U.S. Department of Health and Human Services. <https://www.nia.nih.gov/health/publication/why-population-aging-matters-global-perspective/foreword>

National League for Nursing. (2016). *Advancing care excellence for seniors*. <http://www.nln.org/centers-for-nursing-education/nln-center-for-excellence-in-the-care-of-vulnerable-populations>

Redfield, C.S., McGuire, A.P., Lin, T.C., Orton, V. J., Aust, M. & Erickson, T.M. (2016). Shifts in attitudes, knowledge, and social goals in nursing students following structured contact with community-dwelling older adults. *Journal of Nursing Education* 55(10), 569-573.

Reitmaier, A., Davies, S., Reveling Smith, L., Mangan-Danckwart, D., Hongerholt, K., & Klinkner, J. (2015). Discovering intergenerativity: an evaluation of learning partnerships between student nurses and older adults. *International Journal of Older People Nursing* 10(2), 115-126.

Unroe, K. T., & Meier, D. E. (2013). Special Report: NIA white papers research priorities in geriatric palliative care: Policy initiatives. *Journal of Palliative Medicine*. 16(12). Mary Ann Liebert, Inc. DOI:10.1089/jpm.2013.9464

Wittenberg-Lyles, E., Goldsmith, J., Ferrell, B., & Ragan, S. L. 2013. *Communication in Palliative Nursing*. New York, NY: Oxford University Press.

World Health Organization, *Health systems aligned to older adult populations*. <http://www.who.int/ageing/health-systems/en/>

Contact

Moshea@curry.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Connection of Partner Violence and Women's Loss of Fertility Control and Impact on Health

Fuqin Liu, PhD, RN, USA

Judith M. McFarlane, DrPH, RN, FAAN, USA

Sandra Cesario, PhD, MS, BSN, RNC, FAAN, USA

Abstract

Intimate partner violence (IPV) against women is a serious global health issue. Abused women experience a wide range of adverse health consequences, including physical health concerns, mental health dysfunctions, and adverse reproductive health outcomes. Fertility control is documented in the literature as an important concept connected to partner abuse. However, the assessment of women's fertility control has focused mainly on the controlling behaviors of men.

Informed by a review of the literature, the researchers developed a questionnaire to collect information on fertility control dynamics in an abusive relationship. More specifically, the researchers wanted the questionnaire to assess fertility-controlling behaviors of the abusers, women's responses to the controlling behaviors, and pregnancy outcomes when the fertility control of the women was compromised. The questionnaire was administered in a multi-year prospective study designed to investigate mother and child outcomes when abused mothers seek assistance in the forms of safe shelter or justice services for the first time. The goal of the parent study is to expand the body of evidence regarding the long-term consequences of IPV on women and their children. Data collection began in 2011, and participants have been interviewed at 4-month intervals since the onset of the study. During the 32-month interview, participants responded to a one-time, investigator-developed fertility control questionnaire in addition to the ongoing repeated measures. The parent study is ongoing in a large urban metropolis in the United States with a population exceeding 4 million people.

The researchers examined the interactions among IPV, fertility control, pregnancy outcomes, and mental health. The findings confirm a strong relationship between severity of abuse, mental health functioning, and fertility control in the context of partner violence. The researchers also found that compromised fertility control was associated with the likelihood of miscarriage, premature birth, and abused-induced premature birth. The fertility control questionnaire expands on recent work on reproductive coercion by other scholars. The findings also indicate that it is important for clinicians to assess abused women about their fertility control.

References

- Clark, L. E., Allen, R. H., Goyal, V., Raker, C., & Gottlieb, A. S. (2014). Reproductive coercion and co-occurring intimate partner violence in obstetrics and gynecology patients. *American Journal of Obstetrics & Gynecology*, 210(1), 42.e1–42.e8. doi:10.1016/j.ajog.2013.09.019
- McFarlane, J., Nava, A., Gilroy, H., Paulson, R., & Maddoux, J. (2012). Testing two global models to prevent violence against women and children: Methods and baseline data analysis of a seven-year prospective study. *Issues in Mental Health Nursing*, 33(12), 871–881. doi:10.3109/01612840.2012.731135
- Miller, E., McCauley, H. L., Tancredi, D. J., Decker, M. R., Anderson, H., & Silverman, J. G. (2014). Recent reproductive coercion and unintended pregnancy among female family planning clients. *Contraception*, 89, 122–128. doi:10.1016/j.contraception.2013.10.011
- Symes, L., McFarlane, J., Nava, A., Gilroy, H., Maddoux, J. (2013). Association of pain severity and pain interference with abuse experiences and mental health symptoms among 300 mothers: Baseline data analysis for a seven-year prospective study. *Issues Mental Health Nursing* 34:2–16.

Contact

fliu@twu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

A Nursing Educational Intervention for Patient-Initiated Verbal Aggression

Mary C. Poquette, MSN, RN, USA
Carolyn Rutledge, PhD, CFNP, USA
Tarry Wolfe, DNP, FNP-C, PMHNP-BC, USA

Abstract

PROBLEM: The incidence of patient-initiated verbal aggression (PIVA) has increased significantly in acute care hospitals. Many nurses, working in medical-surgical environments, lack both the knowledge and skills to safely care for these patients.

PURPOSE: This study aims to increase nurses' willingness to confront patients exhibiting PIVA. The long term goal is to improve quality of care by creating a culture of safety, protective of both nurses and patients.

EBP QUESTIONS: (1) Is there a relationship between knowledge, perceived barriers, de-escalation behaviors, comfort level to confront PIVA, willingness to confront PIVA, personal characteristics, and professional characteristics for nurses working in medical-surgical environments? (2) Is there a difference in knowledge, perceived barriers, de-escalation behaviors, comfort level to confront PIVA, and willingness to confront PIVA following participation in an advanced practice nurse (APN) led PIVA education program, for nurses working in medical-surgical environments?

METHODS: This study will be conducted using a pre-experimental pre-test/ post-test design with a single group of medical-surgical nurses. Only one group will receive the intervention, an APN-led PIVA education program.

OUTCOMES: The medical-surgical nurses who participate in this APN educational intervention will experience an increased awareness of self-efficacy learning concepts, de-escalation techniques, perceived barriers to confronting PIVA as well as discovering one's comfort level to confront PIVA with the ultimate goal of enhancing the quality of nursing care while creating a safer environment for patients and staff.

SIGNIFICANCE: PIVA education must incorporate the notion that patient behavior may change abruptly. Often verbal aggression, a leading indicator of pending conflict events, is not confronted by nurses. PIVA education may enhance the quality of nursing care delivered while keeping all involved in patient care delivery safer.

Problem: Patient-initiated verbal aggression (PIVA) has become an all too common occurrence (Park, Cho, & Hong, 2015) in hospitals, requiring skills other than therapeutic communication techniques taught in traditional nursing curricula. Many nurses, working in medical-surgical environments, indicate they lack both the knowledge and skills to safely care for patients displaying PIVA. The primary means of communication between patients and staff remains verbal interaction, unlike the surrounding global environment that relies on smartphones and other communication technologies. Patient demographics are changing, co-morbidities are more frequently identified and with evolving healthcare economics and technologies, the acute care environment has become an atmosphere of shorter lengths of stay (LOS), more complex care-delivery issues, and growing patient expectations. In turn, many patients demonstrate the behavioral health challenges associated with PIVA towards the healthcare staff providing care services (Gunenc, O'Shea, & Dickens, 2015); often in the absence of a formal, mental health diagnosis. This current-state description has become far more the standard within the confines of today's acute care hospitals. Nurses form interpersonal relationships with patients through the use of therapeutic communication techniques that are taught in every undergraduate nursing school curriculum. However, these academia-taught communication skills are insufficient when patients exhibit PIVA behaviors that may cause harm to themselves or staff.

Purpose: This study will explore differences knowledge, perceived barriers, and de-escalation behaviors following participation in an advanced practice nurse (APN) led patient-initiated verbal aggression education program, for nurses working in medical-surgical environments. Nurse comfort level and willingness to confront PIVA, along with personal and professional characteristics will also be explored.

Specific Aims: This study aims to increase nurses' willingness to confront patients exhibiting PIVA. The long term goal is to improve quality of care by creating a culture of safety, protective of both nurses and patients. Research questions will include:

Research Question 1. Is there a relationship between knowledge, perceived barriers, de-escalation behaviors, comfort level to confront PIVA, willingness to confront PIVA, personal characteristics and professional characteristics for nurses working in medical-surgical environments?

Research Question 2. Is there a difference in knowledge, perceived barriers, de-escalation behaviors, comfort level to confront PIVA, and willingness to confront PIVA following participation in an advanced practice nurse (APN) led PIVA education program, for nurses working in medical-surgical environments?

Scope and Importance: Aberrant patient behavior can create safety concerns for nurses assigned to patients exhibiting PIVA behaviors within the geographical footprint of an adult, medical-surgical, acute-care unit. Knowledge and communication skills obtained from a PIVA education program may enhance the quality of nursing care delivered while keeping all involved in patient care delivery safer.

Variables: The independent variable for this study is the APN-led patient-initiated verbal aggression (PIVA) education program. Dependent variables include knowledge, barriers, de-escalation behaviors, comfort level to confront PIVA, and willingness to confront PIVA. Nurse personal and professional characteristics will also be explored.

Incidence/Statistics: Workplace violence in healthcare settings is exploding while known to be significantly under-reported (US-OSHA, 2015). Incidents of serious workplace violence defined as incidents requiring time away from employment are occurring at a rate four times more often or 7.8 cases per 10,000 full-time employees which is more than any other industry inclusive of construction and manufacturing as reported by the United States Occupational Safety and Health Administration (US-OSHA, 2015). Further data analysis indicates that "patients are the largest source of violence [or 80%] in healthcare settings" (US-OSHA, 2015, p.2).

Additional review indicates that "verbal aggression [has become] a common form of communication [between patients and the nurses caring for them accounting] for a significant proportion of the violence and aggression that occurs in the nursing workplace" (McLaughlin, Gorley, & Moseley, 2009, p. 735). Within a 12 month period, 413 of 762 nurses or 54% participating in a research survey located in a mid-Atlantic, urban community hospital reported verbal abuse by a patient (Speroni, Fitch, Dawson & Dugan, 2014). A more alarming research study found that 39.6 % of the participating nurses or 981 of 2,478 nurses reported emotional abuse which then rose to 77.6% when reporting verbal threats of violence during the last five shifts worked (Roche, Diers, Duffield & Catling-Paull, 2010). Similar results have been found by Veterans Administration officials when researching this topic in 2011 (VA-OIG, 2013). Upon review of 889 patient records, 56.6% of the time, healthcare staff encountered verbal aggression or verbal attacks (VA-OIG, 2013).

Verbal aggression can occur in the forms of abusive language, shouting, threats, racism, being argumentative or verbally challenging (Stewart & Bowers, 2012). Yet one's ability to confront conflict inclusive of reporting may be enhanced or inhibited by individual self-efficacy beliefs (Bandura, 1977). Knowing that each identified form of verbal aggression is a negative stressor for the nurse experiencing such events, these incidents negatively impede self-esteem, can create negative work performance behaviors and/ or eventual 'burn-out' (McLaughlin, Bonner, Mboche & Fairlie, 2010) which are counter-productive circumstances within any profession especially nursing.

There remains wide variation (17% to 94%) in the reporting of verbal aggression encounters by nurses in the general, acute-care setting both nationally and internationally (Edward, Ousey, Warelow, & Lui, 2014). The phenomenon of “widespread under-reporting” (Stone, McMillan, Hazelton, & Clayton, 2011, p. 194) is perceived to exist related to external barrier factors such as behavioral scenarios will not change if reported and/ or reporting of the incident may create perceived, additional retribution for the reporting nurse (Stone, McMillan, Hazelton, & Clayton, 2011). Whether reported or not, this is an experience that should be treated with zero-tolerance and with appropriate training prevented.

Addressing the Gaps: PIVA is increasing at a disquieting rate (US-OSHA, 2015, Speroni, Fitch, Dawson & Dugan, 2014; VA-OIG, 2013; Roche, Diers, Duffield & Catling-Paull, 2010). For direct-care, medical-surgical nurses to be able to effectively manage PIVA situations, additional knowledge must be acquired regarding verbal cues that may lead to PIVA, self-efficacy learning principles, potential barriers to confronting PIVA, one’s comfort level as well as willingness to confront PIVA along with de-escalation techniques. There is presently a literature gap of how these constructs collectively can assist the acute-care nurse in more effectively being able and willing to confront PIVA when it occurs. This study seeks to add to the body of nursing literature on how an advanced practice nurse (APN) led patient-initiated verbal aggression education program can increase nurses’ willingness to confront patients exhibiting PIVA with the stretch goal of improving the quality of care by creating a culture of safety, protective of both nurses and patients.

References

- Bowers, L., James, K., Quirk, A., Wright, S., Williams, H., & Stewart, D. (2013). Identification of the 'minimal triangle' and other common event-to-event transitions in conflict and containment incidents. *Issues in Mental Health Nursing, 4*(7), 514-523. doi:10.3109/01612840.2013.780117
- Burke, H., & Mancuso, L. (2012). Social Cognitive Theory, Metacognition, and Simulation Learning in Nursing Education. *Journal of Nursing Education, 51*(10), 543-548. doi:10.3928/01484834-20120820-02
- Calow, N., Lewis, A., Showen, S., & Hall, N. (2015). Literature synthesis: Patient aggression risk assessment tools in the emergency department. *Journal of Emergency Nursing, 1*, 1-6. doi:10.1016/j.jen.2015.01.023
- Demshar, J. M. (2015). I'm a nurse...I didn't sign up for this! De-escalating the aggressive and violent patient. *The Florida Nurse, 8*, 8.
- Donnelly, L. F. (2014). Daily management systems in medicine. *Radiographics, 34*(2), 549-555. doi:10.1148/rg.342130035
- Edward, K., Ousey, K., Warelow, P., & Lui, S. (2014). Nursing and aggression in the workplace: A systematic review. *British Journal of Nursing, 23*(12), 653-659. doi:10.12968/bjon.2014.23.12.653
- Erlich, R. J., & Russ-Eft, D. (2011). Applying Social Cognitive Theory to Academic Advising to Assess Student Learning Outcomes. *NACADA Journal, 31*(2), 5-15.
- Gascon, S., Leiter, M. P., Andrés, E., Santed, M. A., Pereira, J. P., Cunha, M. J., Albesa, A., Montero-Marin, J., Garcia-Campayo, J. & Martínez-Jarreta, B. (2013). The role of aggressions suffered by healthcare workers as predictors of burnout. *Journal of Clinical Nursing, 22*(21/22), 3120-3129. doi:10.1111/j.1365-2702.2012.04255.x
- Gunenc, C., O'Shea, L. E., & Dickens, G. L. (2015). Prevalence and predictors of verbal aggression in a secure mental health service: Use of the HCR-20. *International Journal of Mental Health Nursing, 24*(4), 314-323. doi:10.1111/inm.12130
- Kable, A., Guest, M., & McLeod, M. (2013). Resistance to Care: contributing factors and associated behaviours in healthcare facilities. *Journal of Advanced Nursing, 69*(8), 1747-1760. doi:10.1111/jan.12035
- Lipkis-Orlando, R., Carroll, D. L., Duffy, M. E., Weiss, A. P., & Jones, D. A. (2016). Initial psychometric evaluation of the staff perception of the disruptive patient behavior scale. *Journal of Nursing Administration, 46*(5), 250-256. doi:10.1097/NNA.0000000000000339
- Park, M., Cho, S., & Hong, H. (2015). Prevalence and perpetrators of workplace violence by nursing unit and the relationship between violence and the perceived work environment. *Journal of Nursing Scholarship, 47*(1), 87-95. doi:10.1111/jnu.12112
- Robb, M. (2013). Effective Classroom Teaching Methods: A Critical Incident Technique from Millennial Nursing Students' Perspective. *International Journal of Nursing Education Scholarship, 10*(1), 301-306. doi:10.1515/ijnes-2013-0024
- Sansone, R. A., & Sansone, L. A. (2014). Patient aggression: Is the clinical practice setting safe?. *Innovations in Clinical Neuroscience, 11*(11/12), 36-40.
- Speroni, K. G., Fitch, T., Dawson, E., Dugan, L., & Atherton, M. (2014). Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors. *Journal of Emergency Nursing, 40*(3), 218-228. doi:10.1016/j.jen.2013.05.014
- Stewart, D., & Bowers, L. (2013). Inpatient verbal aggression: content, targets and patient characteristics. *Journal of Psychiatric & Mental Health Nursing, 20*(3), 236-243. doi:10.1111/j.1365-2850.2012.01905.x

Stone, T., McMillan, M., Hazelton, M., & Clayton, E. H. (2011). Wounding words: Swearing and verbal aggression in an inpatient setting. *Perspectives in Psychiatric Care*, 47(4), 94-203. doi:10.1111/j.1744-6163.2010.00295.x
U.S. Department of Labor, Occupational Safety and Health Administration (US-OSHA). (December, 2015). *Workplace violence in healthcare: Understanding the challenge*. Retrieved from <https://www.osha.gov/Publications/OSHA3826.pdf>

U.S. Department of Veterans Affairs Office of Inspector General. (March, 2013). *Healthcare inspection: Management of disruptive patient behavior at VA medical facilities*. (VA report No. 11-02585-129). Retrieved from <http://www.va.gov/oig/pubs/VAOIG-11-02585-129.pdf>

Varghese, A., Khakha, D. C., & Chadda, R. K. (2016). Pattern and type of aggressive behavior in patients with severe mental illness as perceived by the caregivers and the coping strategies used by them in a tertiary care hospital. *Archives of Psychiatric Nursing*, 30, 62-69. doi:10.1016/j.apnu.2015.10.002

Contact

mpoqu001@odu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Need for Mental Health and Addiction Curriculum in Undergraduate Nursing Education in Canada and Globally

Arlene E. Kent-Wilkinson, PhD, RN, CPMHN(C), Canada

Leigh Blaney, PhD, RN, CPMHN(C), Canada

Marlee Groening, MSN, RN, Canada

Elaine E. Santa Mina, PhD, RN, Canada

Carmen Rodrigue, MScN, RN, CPMHN(C), Canada

Carmen Hust, PhD, MScN, RN, Canada

Abstract

Purpose: Mental health and addiction conditions persist in 2017 as serious health concerns that affect the lives of one in every five Canadians and their families. Nurses, as the largest group of health care providers are significant stakeholders in meeting the mental health and addiction care needs of citizens globally. The purpose of this paper is to emphasize the importance of inclusion of mental health and addiction content in the curricula of all undergraduate nursing programs, addressing the need for entry-to-practice competencies; and, discussing the responsibility of nursing education and professional associations.

Need/Issue: The complexity of concurrent disorders supports the need for entry-level undergraduate nursing education in Canada to prepare all new RNs to identify, care for, and manage mental health and addiction disorders. Results of an environmental scan in 2015 revealed that 22 percent of Canada's 46 undergraduate nursing programs lacked a designated mental health theory course in their curriculum, and 28 percent of the nursing programs did not offer a clinical placement in mental health. How will new graduate nurses be able to advocate for persons with mental health conditions and addictions if they have not had theoretical and clinical nursing exposure in their undergraduate nursing program? Education (both theoretical knowledge and psychomotor/psychosocial clinical skills) in mental health and addiction for all undergraduate nursing students is essential. Although it is common for undergraduate nursing students to feel apprehensive about transitioning into the graduate nursing role in any area of nursing, entry-to-practice core competencies in mental health and addictions are needed in undergraduate nursing programs. When approximately 50 percent of people with a mental health disorder also have an addiction problem, and at least 20 percent of people with an addiction problem also have a mental health disorder, education is needed. The undergraduate education of all registered nurses (RNs) must provide student nurses with the ability to also recognize co-existing physical and mental health conditions and the interconnections between them. Future graduates entering nursing, the largest component of the health care workforce, need education in mental health and addiction to provide many workplace settings with health promotion education, access to preventive health services, and links to primary, secondary, and tertiary health care.

Responsibility of Nursing Education and Professional Associations: In 2015, the Canadian Association of Schools of Nursing (CASN) partnered with members of the Canadian Federation of Mental Health Nurses (CFMHN) to develop the *Entry-to-Practice Mental Health and Addiction Competencies for Undergraduate Nursing Curriculum*. Members of the CFMHN Education Committee focused their CFMHN (2016) 3rd position statement and paper on this crucial need in nursing education: *Mental health and Addiction Curriculum in Undergraduate Nursing Education in Canada*. The scope and complexity of mental health conditions and addiction issues provides a clear justification for including mental health and addiction competencies within all nursing undergraduate programs in Canada and globally. In this presentation, the author(s) will argue that it is reprehensible for schools of nursing to graduate nursing students who have limited knowledge of caring for at least 20 percent of the population in Canada, and similar rates globally, who live with mental health and addiction conditions.

References

Canadian Association of Schools of Nursing & Canadian Federation of Mental Health Nurses. (2015). *Entry-to-practice mental health and addiction competencies for undergraduate nursing education*. Ottawa, ON: Author.

Retrieved from http://www.casn.ca/wp-content/uploads/2015/11/Mental-health-Competencies_EN_FINAL-3-Oct-26-2015.pdf

Canadian Federation of Mental Health Nurses. (2016). *CFMHN's 3rd position statement 2016: Mental health and addiction curriculum in undergraduate nursing education in Canada*. Prepared by members of the CFMHN Education Committee: A. Kent-Wilkinson, L. Blaney, M. Groening, E. Santa Mina, C. Rodrigue, & C. Hust. Toronto, ON: Author. Retrieved from <http://www.cfmhn.ca/positionpapers>

Kent-Wilkinson, A., Blaney, L., Groening, M., Santa Mina, E., Rodrigue, C., & Hust, C. (2016). *CFMHN's 3rd position paper 2016: Mental health and addiction curriculum in undergraduate nursing education in Canada*. Prepared by members of the Canadian Federation of Mental Health Nurses' Education Committee. Toronto, ON: CFMHN. Retrieved from <http://www.cfmhn.ca/positionpapers>

Contact

arlene.kent@usask.ca

EBP PST 3 - Evidence-Based Practice Poster Session 3

Enhancing Interventions to Impact Healthcare Transition Readiness and Preparation of HIV-Infected Young Adults

Sandra C. Jones, MSN, RN, APN, CPNP, USA

Yeow Chye Ng, PhD, MSN, BSN, BSE, RN, FNP-BC, NP-C, NRCME, AAHIVE, USA

Shelley R. Ost, MD, FAAP, AAHIVS, USA

Abstract

Introduction: Human immunodeficiency virus also known as HIV, is now considered a chronic disease and many people are living longer as a result of the use of antiretroviral therapy (ART) (Centers of Disease Control, 2016a). Due to this improved life expectancy, preparation for transition of HIV positive adolescents and young adults (AYA) from pediatric/adolescent health care to adult health care becomes a significant priority as there are more than 25,000 young people ages 13 to 24 years living with HIV who will most likely need to be transitioned to adult HIV or Infectious Disease health care providers within the next 10 years (Dowshen & D'Angelo, 2011). However, adolescents and young adults are not prepared to transition nor manage their own health care and need assistance in developing critical skills necessary for independence, transition and their success in treatment management (McManus et al., 2015). The American Academy of Pediatrics (AAP) recommends setting transition goals with the patient, using a continual assessment of transition readiness with validated measures of transition related skills and adapting/guiding interventions to assist adolescents in preparing for transition (Wood et al., 2014). Despite these recommendations, many practices do not comprehensively assess health care transition readiness skills on a continual basis nor incorporate measured assessments of transition readiness into routine care (Wood et al., 2014; Sharma, O'Hare, Antonelli, & Sawicki, 2014).

Due to the lack of a formal transition readiness assessment with validated tools, there is not a defined process of tracking and evaluating transition readiness and often not enough time to ensure retention of acquired skills or knowledge which ultimately may impact the health and future of young adults with HIV who transition their healthcare from a HIV clinic into another clinical setting. The practice question is: In HIV positive adolescents and young adults, does the use of a Transition Readiness Assessment Questionnaire (TRAQ), a validated transition readiness assessment tool, enhance health care provider interventions and follow up to improve acquisition of skills and knowledge necessary for transition compared to not using TRAQ?

Review of Evidence: In general, principles for transitioning include creating a formal policy of transition to define the goals and timeline of transition for AYA, developing an individualized approach including creating a portable medical summary or EHR ensuring understanding of the chronic illness, providing AYA with critical skills such as maintaining health insurance, independently refilling prescriptions, and adhering to medications and appointments, monitoring the development of skills, tracking their progress, addressing barriers and modifying interventions as indicated (New York State Department of Health AIDS Institute, 2016; Committee on Pediatric AIDS, 2013). However, there is limited information about how to determine when adolescents are ready and competent enough to successfully transition their healthcare (Moynihan et al., 2015; Schwartz et al., 2014; Ferris et al., 2015). There is considerable variability among institutions regarding transition practices especially in regards to addressing comprehensive care needs related to transition such as medical, psychosocial and financial needs in addition to limited descriptions of tools and processes used for transition (Committee on Pediatric AIDS, 2013). Health care transition is a purposeful, planned strategy of various interventions to assist adolescents and young adults (AYA) with chronic conditions transfer their health care from pediatric to adult care settings (American Academy of Pediatrics, American Academy of Family Physicians, and American College of Physicians, Transitions Clinical Report Authoring Group, 2011; Zhang, Ho & Kennedy, 2014; Maturo et al., 2011). Transition includes assessing and monitoring skill development and modifying interventions as needed (New York State Department of Health AIDS Institute, 2016; Committee on Pediatric AIDS, 2013). The use of validated tools to measure transition readiness can assist the patient and provider to develop and evaluate skills, set goals and guide interventions to better prepare adolescents for transition and can also

be a catalyst for development of evidence based interventions to support a successful health care transition (Wood et al., 2014; McManus et al., 2015).

The middle range transition nursing theory provides a conceptual framework which emphasizes the complexity of transition and each patient's need for assessment, identification of barriers/facilitators to transition and development of specific interventions to promote mastery of skills and knowledge related to transition (Meleis et al., 2000). Nurses have an opportunity to identify types, patterns and properties of transition their patients are experiencing, assess anything that may inhibit or facilitate that transition such as stigma related to their disease, acceptance of their illness, substance use or mental health problems and develop interventions to promote mastery of the skills and knowledge reflective of each unique patient experience to prepare and promote healthy responses to the transition (Meleis et al., 2000).

Objectives: The objectives of this project are to review pre-existing data over a 12 month period of HIV infected patients, ages 22-24, preparing for healthcare transition to HIV providers who completed TRAQ, describe provider interventions for transition prior to use of TRAQ, analyze TRAQ scores, characterize knowledge or skill deficits elicited from TRAQ, and describe > 1 provider intervention related to transition delivered and subsequent follow up after use of TRAQ. The objectives are to assess if using the TRAQ tool further enhances the quality of care regarding transition measured by documentation of each patient's individual transition needs and documentation of provider intervention targeted to address those specific needs on a consistent basis.

Evaluation: Analysis of data will include use of descriptive statistics to show the range, mean and median score of initial TRAQ scores as well as types of knowledge or skill deficits identified by patients. Further analysis will include descriptive statistics to display patient demographics such as gender and years aware of diagnosis, types of education provided (medication, HIV), types of skill training provided (calling for refills, scheduling appointments) and anticipatory guidance provided (fundamentals of health insurance and access to community resources). Run or control charts will be used to determine if improvement in our transition process has been enhanced by describing patterns of use of TRAQ and if interventions are increased after use of the TRAQ tool. In addition, through the use of correlation analysis, relationships will be described among selected indicators included but not limited to relationships between TRAQ scores, specific knowledge or skill deficits and years in care, years aware of HIV diagnosis, adherence to HAART and medical appointments and social support.

Summary/Implications for Practice: Tertiary prevention is unmistakably the solution to reducing the prevalence of new HIV cases. After many years of research, preparation for transition of HIV positive adolescents and young adults from pediatric/adolescent health care to adult health care has become one of the top priorities in HIV /AIDS care. Therefore, it is the responsibility of advanced practice nurses to embrace the challenge and explore any feasible and research based methods to assist the transitioning phase for this vulnerable population. This study will present the impact of implementing use of Transition Readiness Assessment Questionnaire (TRAQ) among young adults with HIV who transition their healthcare from a HIV clinic.

References

- American Academy of Pediatrics, American Academy of Family Physicians, and American College of Physicians, Transitions Clinical Report Authoring Group (2011). Supporting the health care transition from adolescence to adulthood in the medical home. *Pediatrics*, 128, 182-200.
- Centers of Disease Control (CDC) (2016a). HIV basics. Retrieved from <http://www.cdc.gov/hiv/basics/whatishiv.html>
- Committee on Pediatric AIDS. (2013). Policy Statement: Transitioning HIV-Infected youth into adult health care. *Pediatrics*, 132(1), 192-197.
- Dowshen, N. & D'Angelo, L. (2011). Health care transition for youth living with HIV/AIDS. *Pediatrics*, 128 (4), 762-771.
- Ferris, M., Cohen, S., Haberman, C., Javalkar, K., Massengill, S., Mahan, J.D.,... Hooper, S.R. (2015). Self-management and transition readiness assessment: Development, reliability, and factor structure of the STARx questionnaire, *Journal of Pediatric Nursing*, 30(5), 691-699.
- Maturo, D., Powell, A., Major-Wilson, H., Sanchez, K., De Santis, J.P., & Friedman, L.B. (2015). Transitioning adolescents and young adults with HIV infection to adult care: Pilot testing the "Movin' Out" transitioning protocol. *Journal of Pediatric Nursing*, 30, e29-e35.

McManus, M., White, P., Pirtle, R., Hancock, C., Ablan, M., & Corona-Parra, R. (2015). Incorporating the six core elements of health care transition into a Medicaid managed care plan: Lessons learned from a pilot project. *Journal of Pediatric Nursing*, 30, 700-713.

Meleis, A.I., Sawyer, L.M., Im, E., Messias, D.K., & Schumacher, K. (2000). Experiencing Transitions: An emerging middle-range theory. *Advances in Nursing Science*, 23(1), 12-28.

Moynihan, M., Saewyc, E., Whitehouse, S., Paone, M., & McPherson, G. (2015). Assessing readiness for transition from paediatric to adult healthcare: Revision and psychometric evaluation of the Am I ON TRAC for Adult Care questionnaire. *Journal of Advanced Nursing*, 71(6), 1324-1335.

New York State Department of Health AIDS Institute. (2016). Transitioning HIV-infected adolescents into adult care. Retrieved from <http://www.hivguidelines.org/clinicalguidelines/adolescents/transitioning-hiv-infected-adolescents-into-adult-care/>

Schwartz, L., Daniel, L.C., Brumley, L., Barakat, L.P., Wesley, K.M., & Tuchman, L. K. (2014). Measures of readiness to transition to adult health care for youth with chronic physical health conditions: A systematic review and recommendations for measurement testing and development. *Journal of Pediatric Psychology*, 39(6), 588-601.

Sharma, H., O'Hare, K., Antonelli, R.C., & Sawicki, G.S. (2014). Transition Care: Future directions in education, health policy and outcomes research. *Academic Pediatrics*, 14 (2), 120-127.

Wood, D.L., Sawicki, G.S., Miller, M.D., Smotherman, C., Lukens-Bull, K., Livingwood, W.D., ... Kraemer, D.F. (2014). The transition readiness assessment questionnaire (TRAQ): Its factor structure, reliability and validity. *Academic Pediatrics*, 14, 415-422.

Zhang, L.F., Ho, J., & Kennedy, S.E. (2014). A systematic review of the psychometric properties of transition readiness assessment tools in adolescents with chronic disease. *BMC Pediatrics*, 14(4), 1-10.

Contact

sjb0024@uah.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Advancing Population Health in the BSN Program through Interprofessional Simulation: Creating Curriculum to Create Change

Katie Hooven, PhD, MBA, RN, CNE, USA

Abstract

In 2015 The Department of Nursing secured grant funding from the Robert Wood Johnson Foundation to enhance student learning about population-based health care in our BSN curriculum. Population health requires that nurses (a) understand the broader issues involved in determining health, (b) be able to approach solutions or interventions from that broader perspective as well as existing research evidence or best practices and (c) be able to mobilize existing community resources in the service of better health outcomes. To support these initiatives, the grant funded the purchase of the Community Action Poverty Simulation program from the Community Action Network. This interactive program allows students to “experience” a month in the life of someone living in poverty in a 3-hour simulation activity. Through implementation of the Community Action Poverty Simulation (CAPS) program, students in Nursing and other majors across campus are engaged in experiential role playing and guided reflection with local community members, thereby deepening their understanding of realities and myths of poverty in America. The simulation experience challenges students to examine some of our nation’s most pressing social justice problems, including socioeconomic, racial, ethnic, environmental, educational, and health disparities, among others. The first simulation was run as a pilot in the Spring of 2016 with 75 nursing students. Approximately 250-275 students will participate in this project during the academic year 2016-2017. The participants include: 90 sophomore-level nursing students and 60 freshman/sophomore-level public health students, 26 mixed majors, 40 health and exercise science students, 20-30 pre-medical students, 20 graduate nursing students, and 21 RN-BSN off site students.

Information will be collected to evaluate the simulation as an interprofessional activity. Matched pre and post test data will be collected without the use of student names, along with qualitative information about the simulation experience. The 16 question survey include questions regarding knowledge, attitudes, and opinions regarding people living in poverty. Information will also be collected about the experience overall and in regards to working with other professionals.

References

- Alper, J.(2014) Population health implications of the Affordable Care Act: Workshop summary. Washington, D.C.: National Academies Press.
- Frenk, J. (2011). Strengthening 21st Century Global Health Systems: Investing Strategically in the Health Care Workforce. (Powerpoint Slides). Retrieved from: http://www.hrhresourcecenter.org/21_global_HW
- Frenk, J., Chen, L., Butta, J.A., Cohen, J., Crisp, N., Evans, T., Fineberg, H., Garcia, P., Ke, Y., Kelley, P., Kistnasamy, B., Meleis, A., Naylor, D., Pablos-Mendez, A., Reddy, S., Scrimshaw, S., Sepulveda, J., Serwadda, D., & Zurayk, H. (2010). Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world. *The Lancet*, 376(9756), 1923-1958.
- Institute of Medicine (IOM). (2010). *The future of nursing: Leading change, advancing health*. Washington DC: National Academies Press.

Contact

hoovenk@tcnj.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Effect of Simulation Training on Nursing Students in Adult Nursing

Takashi Ohue, PhD, RN, Japan
Chise Wada, MSN, RN, Japan
Mari Hirota, MSN, RN, Japan
Sachiko Shiragami, MSN, RN, Japan
Chiaki Otsuka, MSN, RN, CPCN, Japan
Takako Sagino, MSN, RN, Japan
Mutsue Shio, MSN, RN, Japan
Yoshiko Ishida, MSN, RN, Japan
Taku Kodama, PhD, MD, Japan

Abstract

Purpose: This study aimed at verifying a student nurse's simulation education effect in adult nursing.

Method: The subject was targeted at the third-year nursing student (120 persons) who is taking a lecture on the Adult Nursing Methodology I simulation education in 2016. Evaluation of intervention were asked to complete a questionnaire that measured the image about an operation (the SD method), normative attitude toward helping scale, Scale of Oriented Problem Solving Behavior in Nursing Practice(OPSN). Measurement was performed 2 times of a baseline, after the end of session. Analysis of t-test was performed. The scenario set up the 1st day (atelectasis, postoperative bleeding) after the operation of the patient of stomach cancer. After performing assessment, a related figure, and nursing care plan planning by a paper patient to a case, the simulation was carried out for 60 minutes and it carried out for debriefing 30 minutes into the group.

Results: The subjects included the nurses students (n=91; 14 male 77females) who were able to participate in all sessions. According to the results, about the image of an operation, "flexible - stereotyped," (p< 0.01), "serene- tense," (p< 0.01), "instability - stability," (p< 0.01), "lively - settled," (p< 0.01) , "Cool - Hot," (p< 0.01) , "The image sum total of the operation" (p< 0.01) was significant. Moreover, With regard to subscales of normative consciousness, "normative attitude toward helping" (p< 0.05) improved intentionally. With regard to subscales of Oriented Problem Solving Behavior in Nursing Practice (OPSN), "Giving assistance in patients' activities in daily living and treatment, alleviating symptoms, and maintaining and promoting life function for solving and avoiding problems, and their individualization" (p< 0.05), "Making smooth interaction with patients in order to solve problems" (p< 0.05), "Changes in values brought about by self-evaluation of the extent of problem-solving " (p< 0.05) was significant.

Conclusion: It was suggested that the simulation to the student nurse in adult nursing science was considered that the validity as nursing education was confirmed.

References

American Hospital Association (2001). The Healthcare Workforce Shortage and Its Implication for America's Hospitals. Retrieved March 23, 2005 from http://www.aha.org/aha/key_issues/workforce/resources/Content/FcgWorkforceReport.pdf.
Beuerhaus, P.D., Steiger, D. & Auerbach D. (2000). Implications of An Aging RN Workforce, Journal of the American Medical Association, 22: 2948-2954.

Contact

ohue@hyogo-dai.ac.jp

EBP PST 3 - Evidence-Based Practice Poster Session 3

Impact of Standardized Surgical Checklist on Communication and Teamwork Among Interdisciplinary Surgical Team

Regalado A. Valerio, MS, CRNA, USA

Abstract

A surgical timeout or surgical pause (Tang, Ranmuthugala, & Cunningham, 2014) is a hospital policy in the operating rooms (ORs) which is usually performed immediately prior to a surgical incision or entrance into a body orifice. This is a final verbal confirmation of patient's identification, planned surgery, and other critical elements to safety that involves multi-disciplinary team such as physicians, nurses, anesthesia providers, and technicians. Poor compliance in the effective performance of surgical timeout results in OR time delays, inadequate preparation of needed intraoperative apparatus, improper administration of required antibiotics, late blood product requests, etc. To improve surgical time out compliance at Los Angeles county hospital (LAC), a quality improvement project standardizing the performance of surgical pause by means of a Standardized Surgical Checklist (SSC) was implemented. This clinical concern is important to be addressed because based on current evidence, performing effective surgical time out using SSC can impact patient safety by reducing complication and mortality rates following surgery (Tang et al., 2014), and can promote good communication and teamwork among medical care team (Fudickar, Horle, Wiltfang, & Bein, 2012; Lyons & Popejoy, 2014). The innovation aims to develop, implement and evaluate the impact of SSC on communication and teamwork among interdisciplinary surgical care team at LAC. The design of this quality improvement project was a pre- and post- innovation survey. The participants were the members of the interdisciplinary care team who participated in surgical time outs before surgical incision at LAC. Descriptive statistics of the sampled surgical team members was expressed in proportion (percentage). This determined the share of each group of professionals (surgeons, anesthesia providers, RNs, technicians) who participated in the pre- and post- intervention survey. The difference in 2 means of the pre- and post-groups was obtained via independent t test, p value<0.05 (two tailed) and was used to analyze any significant improvement in communication and team work among interdisciplinary care team. The survey consisted of 105 participants in the pre-innovation phase and 114 participants in the post-innovation phase (N=219). The mean improvement in communication score in the pre-innovation group was 3.57 (SD=1.252) compared 4.15 (SD=0.989) in post-innovation group. In terms of improvement in team work score, the pre-innovation group had a mean score of 3.63 (SD=1.325) as compared to a mean score of 4.12 (SD=0.997) in the post-innovation group. The results from an independent t-test demonstrated that the mean improvement score for both communication ($t=-3.704$, $df =190$, $p<.001$) and team work ($t=-3.028$, $df =184$, $p=.003$) were significantly higher in the post-innovation group than in the pre-innovation group. The results support the current evidence that the SSC, if effectively implemented, can potentially improve communication and teamwork among interdisciplinary care team. Improvement in these two domains is known to positively impact the safety culture inside the OR.

References

- Fudickar, A., Horle, K., Wiltfang, J., & Bein, B. (2012). The effect of the WHO Surgical Safety Checklist on complication rate and communication. *Dtsch Arztebl Int*, 109(42), 695-701. doi:10.3238/arztebl.2012.0695
- Lyons, V. E., & Popejoy, L. L. (2014). Meta-analysis of surgical safety checklist effects on teamwork, communication, morbidity, mortality, and safety. *Western Journal of Nursing Research*, 36(2), 245-261. doi:10.1177/0193945913505782
- Tang, R., Ranmuthugala, G., & Cunningham, F. (2014). Surgical safety checklists: a review. *ANZ Journal of Surgery*, 84(3), 148-154. doi:10.1111/ans.12168

Contact

loloy_valerio@yahoo.com

EBP PST 3 - Evidence-Based Practice Poster Session 3

The Use of Case Studies and Smart Device Apps to Increase Student Engagement

Deanna A. Janz, DNP, MSN/Ed, RN, USA

Nicole M. Giancaterino, DNP, MSN, RNC-OB, CNS/APN, CNE, USA

Abstract

In an accelerated Bachelor's of Science in Nursing (BSN) course, e-books are available to all nursing students. In addition, an on-line progressive case study approach was used. The nursing educator also implemented a free pregnancy application (app) (among many to choose from) to engage the digital world nursing student learner with the implementation of an interactive virtual pregnancy experience. Both the free pregnancy app and the course's online progressive case studies provided a better understanding of pregnancy within a "safe" simulated client experience. The goal was to bring the obstetrical content to life and assist with critical thinking while maintaining an engaging and fun learning environment. The app engaged learning with a daily calendar on timely information on their "virtual" pregnancy, changes in fetal growth and development, and bodily changes. The app provides an interactive checklist and expert advice on everything from nutrition to relaxation, safety, common concerns, and what to expect at each visit both within the office, and once admitted to the hospital. Fetal kick counters, nutritional dos and don'ts, contraction timers, and automated text messaging brought the virtual pregnancy to life. Students visualize their baby's growth with a widget using real-world examples of fruits and veggies. Students learn the importance of monitoring their baby's movements. Nursing related safety topics in which all pregnant clients should be taught are repeatedly emphasized within each trimester of their virtual pregnancy. The learner also had unlimited accessibility to award-winning videos of their virtual baby's development in the womb to the experience of birth, virtual baby kick-counters, contraction timers and interactive case studies. Weekly text messages alerted the learner to the changes in their virtual baby as a feature of the free app. During the students immersion within the specialty area 8 week course, the course objectives and outcomes were supported with the progressive case studies and utilization of the free app to support learning both inside the boundaries of the classroom and outside of the traditional learning environment. Having the availability of the progressive case studies and virtual pregnancy experience on the home screen of their smart phone or laptop enhanced and supported the engagement of course content for the nursing student.

Purpose: The purpose of this project is to demonstrate to educators how to incorporate technology based instruction methodologies with the utilization of smart device apps and case studies throughout a nursing course.

Introduction: In a Bachelor's of Science in Nursing (BSN) course, e-books are available to all students. In addition, an on-line case study approach was used. The goal was to bring the obstetrical content to life and assist with critical thinking and retention of information. "Zeondra" and "Arial" were introduced during the first lesson within the course case studies, who were both just weeks into their pregnancies, progressed throughout the course to complete their journey as new postpartum family unit. The instructor also implemented a free app (among many to choose from) engaged the digital world learner with the implementation of an interactive virtual pregnancy (Yu, Lin, Ho, & Wang, 2015). The free pregnancy app, provided a better understanding of pregnancy. The app engaged learning with a daily calendar on timely information on their virtual baby and body changes. The app provides an interactive checklists and expert advice on everything from nutrition to relaxation, safety, common concerns, and what to expect at each visit both within the office, and once admitted to the hospital. During their 8 week BSN course, students visualize their baby's growth with a widget using real-world examples of fruits and veggies. Students learn the importance of monitoring their baby's movements and safety topics. Weekly text message reminders alerted the learner to the changes in their virtual baby as a feature of the app. The learned had unlimited accessibility to award-winning videos of their virtual baby's development in the womb to the experience of birth, virtual baby kick-counters and contraction timers; all available on their home screen of their phone or laptop. The educator can utilize progressive virtual case-studies and a free app as supplemental methods for the digital learners of today both within and outside the classroom environment (Flood & Commendador, 2015).

Implementation: During each lesson, their online multi-cultural lives were explored. From one who was a single parent to the other who was interested in drinking extra fruit punch to make sure her fruit intake was adequate, students learned how their patients' choices would impact their pregnancies. Normal and abnormal scenarios take the students further into their patient's lives. The online interactives were developed and included in the lessons to assist the students with practicing and applying the information (Flood & Commendador, 2015). Learning how to calculate a due date, learn lab values and decide which risk factors existed for each patient provide critical thinking, active learning opportunities (Popil, 2011). "Zeondra" and "Ariel" progressed and delivered healthy babies, one vaginally and one via caesarean section. Students prepared for the birth and practiced newborn assessments.

To further peak the interest of the millennial student nurse population, the implementation of a free pregnancy app was utilized (Montenery, et. al, 2013). Each student entered a "virtual pregnancy" during the course. By providing simple registration instructions, the students entered their birth month and day as their pregnancy due date. Staggered and various gestational stages were then explored among the class population as an opportunity for student dialogue and engagement to teach the class about what was occurring during their virtual gestation. Weekly class discussions centered on the student's virtual pregnancy and its progression. Students shared what they learned from diagnostics, nutrition, exercise, safety and myths on what to expect and how to best care for their future (real) pregnant clients in the clinical setting.

The fetal-kick count became an interactive learning moment when students were asked to apply a "kick" to the app's tracker each time over the next twenty-four hours in which they personally experienced flatulence. As part of the app, if ten (10) kicks are not elicited over a two hour time period, an educational moment occurred. The app would alert the user to evidence-based obstetrical teaching to the virtual pregnancy student on what to do next. For example, walking, drinking a large glass of water and eating a small snack. If after another hour, less than ten (10) movement (aka flatulence) had not been experienced, the virtual pregnant participant was to now notify their healthcare provider. With active involvement by using the smart device (laptop/smart phone), an increase in responsiveness and engagement was observed. Open dialogue on their virtual pregnancy challenged the nursing students to come to class prepared and ready to share their virtual pregnancy experiences and new knowledge obtained within the classroom.

Evaluation: Despite limitations that included technology glitches for some of the interactive activities, the case study approach offered a positive, creative interactive and exciting opportunity for students to practice what they learned from their textbooks and apply it to their virtual patients and their virtual pregnancy. Students were engaged in a progression within the course via the case studies. The use of the tools on the pregnancy app fostered real-life experiences for a virtual pregnancy through safe experimentation and participation. Text messages provided for continued learning outside the classroom environment.

Conclusion/Recommendation: The inclusion of a pregnancy app and progressive course case studies provided students with an interactive and fun way to learn their maternal child concepts. To continuously improve teaching strategies, student learning outcomes, and professional growth; faculty should consider using contemporary tools that utilize technological applications to actively engage the "digital" learner of today.

References

- Flood J.L. & Commendador, K. (2015). Avatar case studies: A learning activity to bridge the gap between classroom and clinical practice in nursing education. *Nurse Educator*, PubMed ID: 26132174.
- Montenery, S. M., Walker, M., Sorensen, E., Thompson, R., Kirklin, D., White, R., & Ross, C. (2013). Millennial generation student nurses' perceptions of the impact of multiple technologies on learning. *Nursing Education Perspectives*, 34(6), 405-409. doi:10.5480/10-451.
- Popil I. (2011). Promotion of critical thinking by using case studies as teaching method. *Nurse Education Today*, 31(2). p.204-7. www.qsen.org/tag/case-studies/.

Yu, W. W., Lin, C. C., Ho, M., & Wang, J. (2015). Technology facilitated PBL pedagogy and its impact on nursing students' academic achievement and critical thinking dispositions. *Turkish Online Journal of Educational Technology - TOJET*, 14(1), 97-107.

Contact

djanz@chamberlain.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Envisioning Magnet Designation: Raising the Bar for a Nursing Culture of EBP Awareness and Practice

Cindy Ford, PhD, MSN, BSN, RN, CNE, USA
Lisa Marguerite Fallon, DNP, MSN, BSN, RN, USA

Abstract

Introduction: Magnet designation requires an organization integrate evidence based practices (EBP) and research into clinical and operational activities (*Magnet*®). Removing barriers for nursing staff at the frontline to become engaged in EBP and creating a culture of inquiry can be a daunting task for nurse executives. A large health care system recently set a goal of increased bedside nurse EBP utilization and nurse confidence with creating a cultural of inquiry. A formal collaboration with university scientists has led to a tremendous increase in the number, quality, and rigor of nurse-led projects in the facility.

Background and Significance: The landmark work of the Institute of Medicine (2001) and requirements from regulatory entities urged healthcare organizations to focus on improving the quality of patient care. The literature currently, and over the last years has increased with evidence supporting nurse led research, implementation of evidence based practice and quality improvement processes. Beginning in 2012, nurse executives embarked on a plan of nursing support to shift the culture of the organization to one of improved understanding and utilization of research, encourage an attitude of inquiry for best practices at the bedside resulting in a shift in culture, and to ultimately become one of the 7% of Magnet organizations in the country.

Literature Review: The evidence from current literature reveals the variety of challenges nurse executives face as they work to promote nursing cultures of inquiry, and shift to cultural norms of care evaluation with implementation of nurse led best practices system wide. The facilitators of research include significant leadership commitment at the organizational level (Scala, Price, & Day, 2016) although competing priorities pull nurse executives in many directions. Stimulating EBP and research required a multi-faceted approach from leadership and our research mentors. One of the highest facilitators to nurse-led research is the presence of research mentors (Kelly, Turner, Speroni, McLaughlin, & Guzzetta, 2013). Often the time, understanding, and expertise needed to implement successful research in hospitals is underestimated by nurse executives (Wilson, Kelly, Reifsnider, Pipe, & Brumfield, 2013) and the presence of a PhD-prepared nurse researcher can minimize these barriers. Understanding the differences between research and quality improvement projects requires processes and clarity (Ryan & Rosario, 2012) our fledgling program couldn't distinguish between without expertise provided by university scientists. Partnerships such as ours increase nurses' ability to identify literature, critically appraise it, and synthesize findings to subsequently increase the research environment (Latimer & Kimbell, 2013).

Conclusion: The nurse executive team has observed multiple measureable outcomes in the few short years of promoting and supporting a nurse led shift in the culture of care provision. Prior to collaborative efforts with university mentors, the standing committee for research, the Research Council, experienced an attendance average of only eight participants per month composed of predominantly nurse educators. Only 30% of nurse educators and 0% of staff nurses attended the monthly meetings. Currently, an average of 20 nurse educators and 18-20 engaged bedside nurses and attend monthly.

Other measurable outcomes include increased participation, from a 10% to 65% participation rate for nurses' system wide with creation of scholarly activities such as poster, abstract and article creation. A poster rubric was created to guide creation and measure improved scholarship of posters submitted for Nurse Week Poster Symposiums annually. Positive attributes of posters include improved content organization, appropriate literature review with clearer methodologies reported, and clearly stated outcomes. The total number of posters submitted for Nurse Week has increased 150% (34) while abstracts submitted for presentation nationally and internationally has increased 300% and manuscript creation/publication has increased 150%.

Today, the Research Council monthly meetings are filled with bedside nurse presentations of nurse identified patient issues resulting in research, evidence based and quality improvement projects, and policy changes. Mentoring of new members of the research council continues while experienced members move on to their second or third projects in recent years. Need assessment surveys are conducted annually to identify learning needs of the novice and experienced research council members. The nurse executives recognized a nursing need that would ultimately impact quality of care and worked to support the nurses of the facility. They provided the support and leadership to help instill and sustain a culture of inquiry and continue to do so.

References

- Kelly, K., Turner, A., Speroni, K., McLaughlin, M., & Guzzetta, C. (2013). National survey of hospital nursing research, part 2. *The Journal of Nursing Administration*, 43, 18-23.
- Latimer, R., & Kimbell, J. (2013). Nursing research fellowship. *The Journal of Nursing Administration*, 40, 92-98.
- Ryan, M., & Rosario, R. (2012). Creating staff confidence in distinguishing between performance improvement and research studies. *The Journal of Nursing Administration*, 42, 369-374.
- Sanares, D. (2016). From caterpillars to butterflies: engaging nurse leaders in evidence-based practice reform. *Nursing Administration Quarterly*, 40, 173-181.
- Scala, E., Price, C., & Day, J. (2016). An integrative review of engaging clinical nurses in nursing research. *Journal Of Nursing Scholarship*, 48, 423-430.
- Wilson B., Kelly, L., Reifsnider, E., Pipe, T., & Brumfield, V. (2013). Creative approaches to increasing hospital-based nursing research. *The Journal of Nursing Administration*, 43, 80-88.

Contact

cindy.ford@lcu.edu

EBP PST 3 - Evidence-Based Practice Poster Session 3

Utilizing Simulation to Improve Communication and Collaboration in Intraprofessional Nursing Teams

Angelarosa G. DiDonato, MSN, RN, CRNA, USA
Aleaha Peoples, MSN, RN, USA

Abstract

Experts agree that effective inter-disciplinary collaboration is a complex issue that, when achieved, positively impacts patient outcomes. During an acute patient emergency, inter-disciplinary teams commonly struggle to reach a consensus regarding the patient's plan of care. While a successful patient outcome is, without a doubt, the overarching goal of the team, each individual member has a different vision of what success looks like and varied strategies for achieving that success. A focus on collaboration and teamwork translates to an approach in which each team member is cognizant of and integrates the needs and often-competing goals of the other disciplines into his or her roadmap of success (Weller et al., 2014).

Research has shown that groups are more open to information sharing when: the team is made up of similar roles, necessary information is not unique among the group, and members can make decisions independently. Conversely, teams are least likely to share information when the group is heterogeneous and the information that needs to be shared is specific to certain members (Mesmer-Magnus & DeChurch, 2009). This effect "reflects a divergence in what teams actually do and what they should do in order to be maximally effective, and it has particularly meaningful implications for expert decision-making teams, like those employed for emergency response and medical decision-making" (Mesmer-Magnus & DeChurch, 2009, p. 543). Nurses are not immune to this flaw. In US hospitals, it is not uncommon for a team to be comprised entirely of nurses with varying levels of training and perspective.

Although most nurses would agree that effective communication is necessary for successful outcomes, it is often considered a soft skill, of lesser importance than technical skill or education. Communication and interpersonal skills are rarely, if ever, formally taught and practiced, yet, it has been well documented that failures in communication are a common factor in sentinel events (The Joint Commission, 2016).

Simulation exercises have been noted to be an effective means of teaching and practicing communication skills (Saaranen et al., 2015). Many published observations of simulation have focused on inter-disciplinary teams, comprised of nurses, physicians, and allied health staff. As previously mentioned, teams acutely assembled for an emergency can be comprised entirely of nurses: bedside nurses, managers or coordinators, and various advanced practice nurses. These inter-disciplinary nursing teams often struggle with the ability to effectively communicate with each other. A simulation exercise was designed in an effort to strengthen the relationship between nursing students of varying levels with the goal of bridging the gap that may facilitate miscommunication. The simulation centers around four distinct groups of nursing students.

Junior level undergraduate nursing students, senior level undergraduate nursing students, nurse practitioner students, and student registered nurse anesthetists must collaborate to work through an acute patient emergency. The pilot has been shown to be highly effective with an overwhelmingly positive response from the students.

References

- The Joint Commission. (2016). Most commonly reviewed sentinel event types. Ppt. https://www.jointcommission.org/assets/1/18/Event_type_2Q_2016.pdf
- Mesmer-Magnus, J. R., & Dechurch, L. A. (2009). Information sharing and team performance: A meta-analysis. *The Journal of Applied Psychology, 94*, 535-546. doi:10.1037/a0013773
- Saaranen, T., Vaajoki, A., Kellomäki, M., Hyvärinen, M. (2015). The simulation method in learning interpersonal communication competence—experiences of masters' degree students of health sciences. *Nurse Education Today, 35*. <http://dx.doi.org/10.1016/j.nedt.2014.12.012>

Weller, J., Boyd, M., & Cumin, D. (2014). Teams, tribes and patient safety: Overcoming barriers to effective teamwork in healthcare. *Postgraduate Medical Journal*, 90, 149-154. doi:10.1136/postgradmedj-2012-131168

Contact

angelaro@nursing.upenn.edu

Research Poster Presentations

RSC PST 1 - Research Poster Session 1

Using Staffing Analytics to Support Optimal Clinical Resource Scheduling Across a Safety Net Hospital System

Noreen Bridget Brennan, PhD, RN-BC, USA
Eileen Raftery O'Donnell, MBA/MIS, RN, USA
Kerry Small Abbott, MSN, RN, USA
Shawn Jennie-Elin Semedallas, BSN, RN, USA

Abstract

During the past couple of years, many hospitals have closed or decreased their inpatient footprint. Additionally, many hospitals have become part of or formed networks or systems to ensure viability through consolidation of resources (Faller & Gogek, 2016). Scheduling and staffing of nurses is a dynamic process that can have significant financial implications for healthcare organizations. A numeric value of nursing care has always been difficult to quantify. However, researchers have demonstrated findings that show increases in nursing and skill mix are associated with improved quality through a decrease in adverse effects (Martsolf, Auerbach, Benevent, Stocks, Jiang, Pearson, et al., 2014); patient experience and satisfaction are better with increased nurse staffing and positive work environments (Kutney-Lee et al., 2009); and greater numbers of core rather than contingent (i.e. agency) nurses per bed increased patient satisfaction (Hockenberry et al., 2016). Nursing leaders are challenged, as never before, with maintaining and improving quality outcomes with an ever changing and at times shrinking labor force. They are rarely schooled in how to receive and interpret data to support the increasingly regulated and fluctuating staffing needs on the unit and at divisional level. Safe nurse staffing is not just a numbers game, it is a commitment and part of the organizations mission to serve our patients. Data is critical but just one tool in the arsenal needed by nursing leadership. The purpose of this presentation is to describe the development and utilization of analytical tools in supporting nursing leaders in forecasting and planning distribution of nursing resources in a large safety net healthcare system. A safety network describes healthcare providers in hospitals and outpatient clinics who provide care to patients with minimal financial and insurance resources (Moore, Fischer, & Havranek, 2016). New York City Health and Hospitals is made up of 11 Acute Care Facilities; 5 Long Term Care Facilities; and 6 Diagnostic and Treatment Centers that provide health care services to the residents of New York City. The mission of New York City Health and Hospitals is to provide competent, culturally sensitive quality care to our patients with dignity and compassion, regardless of ethnicity, nationality, religion or ability to pay, in a safe environment. The overall program objectives were: determining workloads and building staff plans; allocating activity and determining labor resources; creating schedules that meet operations and clinical needs; correcting staff counts to reduce premium pay and lessen staff deficits; stabilizing and projecting labor costs; forecasting needs; and maintaining a patient and clinician safe environment. Overall, creation of the staffing analytics tool have aided in standardizing language across the system; has provided numerical justification for replacing resources; establishing benchmarks; projecting overtime, agency, and sitter costs; and model scheduling based on historical data. In conclusion, the purpose is to describe the development and utilization of analytical tools in supporting nursing leaders in forecasting, and planning distribution of nursing resources and lessons learned along the way in a safety net health care organization.

Purpose: The purpose is to describe the development and utilization of analytical tools in supporting Nursing leaders in forecasting and planning distribution of nursing resources and lessons learned along the way in a safety net health care organization.

Methods: Development of staffing analytical tools that are utilized across a safety net healthcare system in New York City. New York Health and Hospitals is made up of 11 Acute Care Facilities; 5 Long Term Care Facilities; and 6 Diagnostic and Treatment Centers that provide health care services to the residents of New York City.

Results: Standardization of data collection resulted in determining workloads and building staffing plans; allocating activity and determining labor resources; creating schedules that meet operations and clinical

needs; correcting staff counts to reduce premium pay and lessen staff deficits; stabilizing and projecting labor costs; forecasting needs; and maintaining a patient and clinician safe environment.

Conclusion: Overall, the creation of the staffing analytics tool have aided in standardizing language across the system; has provided numerical justification for replacing resources; establishing benchmarks; projecting overtime, agency, and sitter costs; and predictive model scheduling based on historical data.

References

- Faller, M., & Gogek, J. (2016). Health Care Evolution Is Driving Staffing Industry Transformation. *Nursing Administration Quarterly*, 40(4), 321-324.
- Hockenberry, J. M., & Becker, E. R. (2016). How Do Hospital Nurse Staffing Strategies Affect Patient Satisfaction?. *ILR Review*, 0019793916642760.
- Kutney-Lee, A., McHugh, M. D., Sloane, D. M., Cimiotti, J. P., Flynn, L., Neff, D. F., & Aiken, L. H. (2009). Nursing: a key to patient satisfaction. *Health Affairs*, 28(4), w669-w677.
- Martolf, G. R., Auerbach, D., Benevent, R., Stocks, C., Jiang, H. J., Pearson, M. L., ... & Gibson, T. B. (2014). Examining the value of inpatient nurse staffing: an assessment of quality and patient care costs. *Medical care*, 52(11), 982-988.
- Moore, S. L., Fischer, I., & Havranek, E. P. (2016). Translating Health Services Research into Practice in the Safety Net. *Health services research*, 51(1), 16-31.
- Pruinelli, L., Delaney, C. W., Garcia, A., Caspers, B., & Westra, B. L. (2016). Nursing Management Minimum Data Set: Cost-Effective Tool to Demonstrate the Value of Nurse Staffing in the Big Data Science Era. *Nursing Economics*, 34(2), 66.

Contact

brennann1@nychhc.org

RSC PST 1 - Research Poster Session 1

Impact of Handfeeding Assistance on Nutritional Intake for Nursing Home Residents

Melissa K. Batchelor-Murphy, PhD, RN-BC, FNP-BC, USA

Susan M. Kennerly, PhD, RN, WCC, CNE, USA

Susan D. Horn, PhD, MS, USA

Ryan Barrett, MS, BS, USA

Nancy Bergstrom, PhD, RN, FAAN, USA

Lisa Boss, PhD, MSN, BSN, RN, CEN, USA

Tracey L. Yap, PhD, RN, WCC, CNE, FAAN, USA

Abstract

Purpose: Poor nutrition with weight loss remains the largest reversible health problem in nursing home (NH) settings. Cognition and functional ability play a large role in whether or not a resident can engage independently in self-feeding, will require set-up assistance, or be completely dependent on NH staff to provide support.¹ The purpose of this secondary analysis was to examine the impact of cognition (residents with or without dementia) on nutritional outcomes of meal intake based on (1) level of feeding assistance provided, and (2) overall caloric intake for residents who were offered snacks and supplements between meals.

Methods: As part of a large, multisite clinical trial conducted in the United States and Canada (N = 786)², residents with and without dementia (n = 592; n = 194) were examined according to the level of feeding assistance required during mealtimes (independent, setup only, needs help eating) over a 21-day period. Outcomes analyzed were percent of meal intake by meal (Breakfast (B), Lunch (L), Dinner (D)), and overall daily intake (meals + snacks/ supplements).

Results: Residents with dementia who required meal setup assistance had significantly lower meal intake for all three meals (B, p = 0.0046); L, p = <.0001; D, p = <.0001). Residents without dementia experienced significantly lower intake for Breakfast (p = 0.036) and Dinner (p = 0.006), but not for Lunch (p = 0.14). When snacks and supplements were offered between meals, residents with dementia consumed approximately 163 additional calories/ day, and residents without dementia consumed approximately 156 additional calories/ day.

Conclusion: All NH residents are vulnerable to low intake during mealtimes. This study adds new evidence showing that completely dependent residents may not be the most vulnerable group for lower overall daily intake. Instead, two other groups of residents are at highest risk, those that only require setup assistance for meals, and those with cognitive impairment.

Implications for Practice: Nursing home staff should closely monitor meal intake for residents who require setup assistance for meals, and those with cognitive impairment. These two groups should be considered particularly at risk for lower daily intake, and allow for early detection of low meal intake. Early detection can lead to earlier intervention, allowing staff to provide more handfeeding support for these vulnerable groups of residents.

References

1. Batchelor-Murphy M, McConnell E, Amella E, et al. Experimental Comparison of Efficacy for Three Handfeeding Techniques in Dementia. *J. Am. Geriatr. Soc.* 2016, in press.
2. Kennerly S, Boss L, Yap T, et al. Utility of Braden Scale Nutrition Subscale Ratings as an Indicator of Dietary Intake and Weight Outcomes among Nursing Home Residents at Risk for Pressure Ulcers. *healthcare.* 2015;3:879-897.

Contact

melissa.batchelor-murphy@duke.edu

RSC PST 1 - Research Poster Session 1

Effects of Provider Communication Behaviors and Shared Decision Making on QOL Among Advanced Cancer Patients

Aisha M. Alhofaian, MSN, BSN, RN, USA

Abstract

Purpose: Saudi patients are often not well informed about diagnoses, prognoses, and treatment options. Poor communication can lead to health care decisions that insufficiently meet patients' preferences, concerns, and needs and that subsequently affect patient's quality of life. Effective provider communication behaviors are needed to ensure that patients make informed and shared decisions about treatment, enable them to adhere to advice about managing their diseases, and help them adjust and adapt to the fact that they have a life-threatening disease. Moreover, shared decision-making remains an important element in improving patient's wellbeing and satisfaction. The extensive body of literature supported that the relationship among provider communication behaviors, shared decision-making, and patient's quality of life has yet to be fully established. However, most studies were conducted in Western contexts; no such study has been done in Saudi Arabia. The primary purpose of this study to examine the relationships among provider communication behaviors, shared decision-making, and quality of life for patients with advanced cancer in Saudi Arabia

Methods: Street's ecological theory of patient-centered communication (2009) will guide this study. A convenience sample of 134 patients with advanced gastrointestinal, genitourinary, breast, lung or gynecological cancer will be recruited from KAAU hospitals in Jeddah. The design is cross sectional descriptive correlational study. The researcher will orally administer all three questionnaires, one on each of the following concepts: provider communication behaviors, shared decision-making and patient's quality of life, along with the demographic data using Survey Monkey at the hospital where the patients are being treated. The demographic data and the data from all three questionnaires will be analyzed using simple linear regression and descriptive statistics.

Results: in progress

Conclusion: By focusing on cancer patients in Saudi Arabia, this study seeks to add to the empirical knowledge base about provider communication behaviors and shared decision-making, and it will help to advance the body of nursing knowledge related to health care communication in Saudi Arabia. The knowledge will also assist in further research to develop decision aids programs to enhance informed shared decision making in cancer care.

References

- Hoerger, M., Epstein, R. M., Winters, P. C., Fiscella, K., Duberstein, P. R., Gramling, R., ... Kravitz, R. L. (2013). Values and options in cancer care (VOICE): study design and rationale for a patient-centered communication and decision-making intervention for physicians, patients with advanced cancer, and their caregivers. *BMC Cancer*, 13, 188. <http://doi.org/10.1186/1471-2407-13-188>
- Kashaf, M. S., & McGill, E. (2015). Does Shared Decision Making in Cancer Treatment Improve Quality of Life? A Systematic Literature Review. *Medical Decision Making*: An International Journal of the Society for Medical Decision Making, 35(8), 1037–48. <http://doi.org/10.1177/0272989X15598529>
- Obeidat F., R., Homish G., G., & Lally M., R. (2013). Shared Decision Making Among Individuals With Cancer in Non-Western Cultures: A Literature Review. *Oncology Nursing Forum*, 40(5), 45–46. <http://doi.org/10.1188/13.ONF.454-46>

Contact

ama142@case.edu

RSC PST 1 - Research Poster Session 1

Nursing Students Attitudes' Toward the Homeless

Patricia MacWilliams Bowe, DNP, MS, RN, USA
Andrew B. Phillips, PhD, RN, USA

Abstract

Purpose: A person who is homeless is someone without fixed housing. The individual may move from couch to couch, motel to temporary shelter, a car to a tent, with no place to call home, minimal belongings, and no sense of permanency. This writer's career has long been one of working with homeless populations. During a twenty year period at Boston Health Care for the Homeless Program (BHCHP) many nursing students from a number of schools in the Boston area had a clinical rotation at this site. Clinical placements began with a tour of the shelter and a discussion around preconceived notions and perceptions about homelessness. Many students acknowledged that they expected to see the stereotypical alcoholic older man, and were surprised to see a younger population. For the majority of students who were initially unsure of the shelter environment and unfamiliar with the context and difficulties faced by homeless people, it was always a positive experience to watch them grow, expand their view of the population, and truly see them for who they are: humans who have a right to health care. A few students actually asked to be placed back at the clinic for a second semester as they truly appreciated the population, including the unique quirks and the inherent humanness involved despite the hardships the patients experienced. Those students who embraced the experience wholeheartedly expressed appreciation for the opportunity of the experience, how it changed their view of the population as a whole, and how they had a better understand the challenges faced by the patients. As a result, they strongly predicted that their practice as a registered nurse or nurse practitioner would be improved accordingly.

Challenges in caring for the homeless include that, as a group, they lack financial resources, difficulty adhering to a healthy diet, hygiene issues, and lack of storage for personal items. When diagnosed with serious health conditions such as cardiac disease, cancer, and psychoactive substance abuse disorders, members of the homeless population are at a higher risk of mortality compared with the general population as abstracted from the Massachusetts Department of Public Health death occurrence files for 2003-2008 and analyzed by Baggett, Hwang, O'Connell, Porneala, Stringfellow et. al (2013). The three major causes of death for the homeless in this analysis were drug overdose, cancer, and heart disease. Younger homeless adults (25-44 year old) had a 9 times greater risk of dying than the general population of Massachusetts, and midlife homeless adults (45-64 year old) died at a rate 4.5 times higher than the general population of Massachusetts.

As a population the homeless are highly vulnerable. More than one million homeless patients in the United States are treated yearly. Chances are high that nurses will interact with a homeless patient at some point in their career. Homeless patients are admitted at a higher rate and have longer lengths of hospital stays than the rest of the population. They often suffer from serious health conditions and many have psychoactive substance abuse disorders leaving them at higher risk of mortality compared with the general population. Homelessness does not discriminate as people of every age, race, color, gender, religion and education are affected. However, clinical rotations with the homeless are not part of the standard nursing curriculum. Providing a clinical experience in a homeless setting may provide a more accepting attitude of working with this growing population.

Methods: The specific aims of this project were:

- To examine nursing students' attitudes towards the homeless
- To determine whether previous exposure to the homeless influences the attitudes of nursing students towards the homeless.

Two methods were adopted to address these specific aims – a literature review and a survey of nursing students using a validated tool measuring attitudes towards the homeless.

Results: The literature review identified thirty-seven potential resources of which eight were identified as relevant to the specific aims of this study. Six studies presented survey data results. Five of the six reported both pre and post survey results after the respondents had direct contact with the homeless in a clinical setting. A common theme noted throughout the literature was the more exposure to the homeless population and its adverse effects on health, the more positive the attitude of the student regarding the patients' health care needs with the recognition that homelessness was perceived to be a result of societal causes and not personal failings. While experiences reported in the literature varied from one day to two weeks, a brief one day interaction, resulted in positive feedback (Boylston and O'Rourke, 2013) which supports the emphasis on exposure and curriculum in achieving more positive attitudes towards the homeless.

Using a validated instrument - Attitudes Towards Homelessness Inventory (ATHI, Kingree and Daves, 1997), an email was sent to 125 second degree direct entry pre licensure Masters- level nursing students soliciting voluntary anonymous participation in completing the survey. Over a period of 30 days 13 respondents participated in the 11 item survey.

The ATHI is divided into 4 sub categories, 1) personal causation, 2) societal causation, 3) affiliation and, 4) solutions (Table 2). Total overall scores ranged from 39-46 with a mean of 42.8, out of a possible 11-66 indicating an overall positive attitude as the higher the number the more positive the attitude. Responders indicated that perception of homelessness was based more on societal causes (mean 2.51) than personal causes (mean 4.12) with a positive relation towards solutions of homelessness with a mean of 5.38. Eleven of the twelve respondents had previous experience with the homeless which correlated to a positive attitude about this population (mean 3.38) and a positive perspective towards solutions for homelessness (mean 5.38). These responses indicated disagreement with such statements as "little can be done.", "rehab is too expensive", "cannot adopt a normal lifestyle."

Table 2 – Survey results by Attitudes Towards Homelessness Inventory Sub-Category. Individual scores for each survey statement can range from 1-6. PC = personal causation, SC = societal causation, AFF = affiliation and, SOL = solutions.

Survey Statement	Sub-category	Mean Score
Homeless people had parents who took little interest in them as children.	PC	4.53
Most circumstances of homelessness in adults can be traced to their emotional experiences in childhood.	PC	3.38
Most homeless persons are substance abusers.	PC	4.46
Recent government cutbacks in housing assistance for the poor may have made the homeless problem in this country worse.	SC	2.07
The low minimum wage in this country virtually guarantees a large homeless population.	SC	2.76
Recent government cutbacks in welfare have contributed substantially to the homeless problem in this country.	SC	2.69
I feel uneasy when I meet homeless people.	AFF	4.76
I would feel comfortable eating a meal with a homeless person.	AFF	2
Rehabilitation programs for homeless people are too expensive to operate.	SOL	5.30
There is little that can be done for people in homeless shelters except to see they are comfortable and well fed.	SOL	5.61
A homeless person cannot really be expected to adopt a normal lifestyle.	SOL	5.23
Attitude toward homeless index (11-66)		42.8

Conclusion: It is evident that little research exist that support the theory that exposure to the homeless population improves attitudes of students toward homeless patients beyond the qualitative results noted in some of the studies. Further research would be beneficial to help guide curriculum development.

Undergraduate nursing students are exposed to many facets of health care. Understanding a vulnerable population such as the homeless and acknowledging the effects of negative attitudes towards the delivery of care would provide insight to both educators and students. As a result, the vulnerable population, specifically the homeless, would be better served.

Continued research to build the evidence to support the hypothesis that experience with the homeless population correlates with a positive attitude on a broader scale would help drive nursing program curricula to incorporate a homeless experience. Compassionate care and a positive attitude should be fostered as part of the nursing education.

While this survey was conducted with a specific focus on the homeless population, the overarching philosophy could be translated to other vulnerable populations worldwide.

References

- Baggett, T., Hwang, S., O'Connell, J., Porneala, B., Stringfellow, E., Orav, J., . . . Rigotti, N. (2013). Mortality among homeless adults in Boston. *Journal of American Medical Association, 173*(3), 189-195.
doi:10.1001/jamainternmed.2013.1604
- Boylston, M., & O'Rourke, R. (2013). Second-degree bachelor of science nursing students' preconceived attitudes towards the homeless and poor: A pilot study. *Journal of Professional Nursing, 29*(5), 309-317.
doi:10.1016/j.profnurs.2012.05.009
- Code of ethics for nurses with interpretive statements* (2015). In American Nurses Association (Ed.), (January ed.) Nursebooks.org.
- Davis, C. (2012). Health care for homeless people: The role of the emergency nurse. *Emergency Nurse, 20*(2), 24-27. doi:10.7748%2Fen2012.05.20.2.24.c9104
- Hwang, S., Weaver, J., Aubry, T., & Hoch, J. (2011). Hospital costs and length of stay among homeless patients admitted to medical, surgical and psychiatric services. *Medical Care, 49*(4), 350-354.
doi:10.1097/MLR.0b013e318206c50d
- Karaca, Z., Wong, H., & Mutter, R. (2013). Characteristics of homeless and non-homeless individuals using inpatient emergency department services, 2008. *Healthcare Cost and Utilization Project, March*(Statistical Brief #152), 1-14
- Loewenson, K., & Hunt, R. (2011). Transforming attitudes of nursing students: Evaluating a service-learning experience. *Journal of Nursing Education, 50*(6), 345-349. doi:10.3928/01484834-20110415-03
- Noone, J., Sideras, S., Gubrud-Howe, P., Voss, H., & Mathews, L. (2012). Influence of a poverty simulation on nursing students attitudes toward poverty. *Journal of Nursing Education, 51*(11), 617-622.
doi:10.3928/01484834-20120914-01
- Patterson, N., & Hulton, L. (2011). Enhancing nursing students' understanding of poverty through simulation. *Public Health Nursing, 29*(2), 143-151. doi:10.1111/j.1525-1446.2011.00999.x
- Wheatley, C. (2012). Learning on the streets: Experiencing homelessness. *Nursing 2012, Dec*, 16-17.
doi:10.1097/01.NURSE.0000422656.55157.66

Contact

trishambowe@gmail.com

RSC PST 1 - Research Poster Session 1

Teaching to Develop a View of Life and Death in Nursing Students

Chiaki Otsuka, MSN, RN, CPCN, Japan

Mari Hirota, MSN, BSN, Japan

Sachiko Teraoka, PhD, MN, RN, Japan

Misae Ito, PhD, MSN, RN, RMW, Japan

Abstract

Purpose: As Japanese society increasingly ages, in 2025 it is estimated that deaths will reach a yearly figure of 1,600,000. Against this background, the Japanese Ministry of Science and Education, Culture, Sports, Science and Technology has established as goals for students graduating from college nursing programs that they should have the ability to relieve and reduce suffering at the end of life, respect, support and be able to offer advice to the dying on an individual basis. This paper clarifies an educational project seeking to develop a view of life and death and foster the ability to support and care for people at the end of their lives amongst nursing students, many of whom have been brought up in nuclear families with little chance to see death or end-of-life nursing at close hand.

Methods: Subjects: 3rd year nursing majors who had completed basic nursing practicum and who were taking their first classes in palliative care. Research period: 2015.6.17 – 2015.8.31. Methodology: Questionnaire about changes in view of life and death after a course of lessons in palliative care (one 90-minute class a week for six weeks). The content of lessons was Introductory Cancer Nursing, Holistic Pain Relief, Radiation Treatment, Chemotherapy, Team-Approach Medicine, Family Care, Nursing Care. Teaching materials took the form of a DVD about image of cancer patients, spiritual care, and life review of patients as seen by family members. There was a 10-minute discussion with fourth-year students concerning involvement with end-of-life patients. The questionnaire had 27 items and 7 factors. These were [view of what happens after death], [fear and anxiety concerning death], [death as release], [escaping death], [awareness of purpose in life], [concern with death], [feeling about life span]. The 27 questionnaire items were answered using a seven-point Likert scale (1. Applies - 7. Does not apply). Analysis: A parametric statistical test for mean deviance was conducted and the significance level was set at 0.05.

Results: The number of subjects was 89 students before the classes and 95 after, and 89.7% of the participants were female. The average age was 20.9 (19-45). Changes in view of life and death are stated starting with the maximum degree of change. The following showed a positive change. [Death as release], [I think of death as release from the heavy burden of this life] plus three other items showed a value of 0.51; [feeling about life span], [I think life span is already decided from the beginning] plus two other items showed a value of 0.42; [awareness of purpose in life], [I see a clear mission and purpose in life] plus three other items showed a value of 0.33; [escape from death], [I avoid thinking about death] plus three other items showed a value of 0.09. The following showed a negative change. [Concern with death], [I often think "What is death?"] plus three other items showed a value of -0.01. [View of what happens after death], [I think there are such things as "spirits" and "being cursed"] plus three other items showed a value of -0.03. [Fear and anxiety about death], [dying is frightening] plus three other items showed a value of -0.26. Statistical testing of difference before and after the classes had a t-value of 0.505. The mean score before the classes in the measure of view of life and death was 3.6 and after it was 3.8. Amongst the items, the lowest mean score was for [escaping death].

Conclusion: The variety of teaching methods had an effect in developing students' views of life and death, but the results for [escaping death] show the need for continued efforts.

References

- Mariko Sonoda, Mitsuyo Uehara(2012).Changes in Nursing Students' Notions of Death and Dealing with Death.*Bulletin of Faculty of Nursing and Nutrition Kagoshima Immaculate Heart University*,16,13-20.
- Taeko Kokawa(2013).Practice and Assessment of Lectures on "Life and Death" for Student Nurses.*Archives of Tohoku Bunka Gakuen University Nursing*,2,37-44.

Contact

w5312010@yahoo.co.jp

RSC PST 1 - Research Poster Session 1

Comparative Analysis of the Similarities and Differences in Approach to Integrative Scholarly Reviews

JoAnn D. Long, PhD, MSN, MA, BSN, RN, NEA-BC, USA

Paula Gannaway, MEd, MLS, USA

Cindy Ford, PhD, MSN, BSN, RN, CNE, USA

Abstract

Purpose: Primary research provides the scientific foundation for evidence-based practice (EBP)--vital in the attainment of health for all people (World Health Organization, 2012). A comprehensive literature review is essential for determining what is known and not yet known regarding the clinical question (Coughlan, Cronin, & Ryan, 2013; Kearney, 2016). Conceptually, the Stevens Star Model of Knowledge Transformation offers a framework for moving the discovery of knowledge gleaned from research to implementation of evidence-based practice (Stevens, 2012). Yet, meaningful engagement in the synthesis of high-level health care research requires the use of a sophisticated set of technical skills including knowledge of research methods and metrics from which an unbiased assessment, evaluation, and categorization of the level of existing evidence can be made. Explicit methods for evaluating Systematic Reviews (SR's) and meta-analyses [generated from multiple randomized control trials] are well established facilitating the translation of research findings into practice (Cochrane Handbook, 2011; Joanna Briggs Institute Reviewers' Manual, 2014). The research foundation for many clinical questions, however, does not yet have the evidential basis from which SR's are generated. Methodological strategies for capturing lower levels of evidence, emerging questions, and early concepts of clinical importance have historically been approached through more generalized research review processes. The terms integrative research review, evidence review, and scoping review are among the most commonly used to describe knowledge synthesis of a mixture of quantitative and qualitative topics in which lower levels of evidence are available. However, no single methodology has emerged as the gold standard for synthesis of research in this category. The purpose of this study therefore is to present a comparison of the similarities and differences in approaches to integrative scholarly reviews.

Methods: The research team comprised of the university library director and academic nursing faculty systematically searched the Cochrane Library, Joanna Briggs Institute, PubMed, CINAHL, and Medline Complete using "research reviews" AND "method*" as search terms for all articles published to date.

Results: The search yielded 275 articles in the initial results. Studies with a primary purpose of reporting the methodology used for conducting the scholarly review were included. The reference lists were evaluated to generate additional applicable studies. Articles focused on a specific clinical question were excluded. Sixteen articles comprised the final sample. The purpose, key features, use of protocols for data collection and synthesis of data were compared for similarities and differences between integrative and scoping review methods.

Conclusion: Significant conceptual overlap and core commonalities exist between integrative and scoping approaches to knowledge synthesis. Primary differences also exist between the two methods. Scoping reviews generally do not assess evidence quality as compared to integrative reviews which tend to report the appraised strength of the evidence related to the clinical question. As nursing continues to advance knowledge synthesis, movement toward a standardized method for integrative scholarly reviews is needed.

References

Cochrane Collaborative (2012). Cochrane Handbook for Systematic Reviews of Interventions.

Coughlan, M., Cronin, P., & Ryan, F. (2013). *Doing a Literature Review in Nursing, Health, and Social Care*. London: Sage.

Joanna Briggs Institute (2015). Methodology for JBI Scoping Reviews. Reviewer's Manual.

Kearney, M. H. (2016). Moving from Facts to Wisdom: Facilitating Synthesis in Literature Reviews. *Research in Nursing & Health*, 39, 3-6.

Stevens, K. R. (2012). Star Model of EBP: Knowledge Transformation. Academic Center for Evidence-based Practice. The University of Texas Health Science Center at San Antonio. <http://nursing.uthscsa.edu/onrs/starmodel/star-model.asp>. Accessed 12/6/16.
World Health Organization (2012). The WHO Strategy on Research for Health.

Contact

joann.long@lcu.edu

RSC PST 1 - Research Poster Session 1

Innovative Nursing Education Pathways and Racial/Ethnic Diversity

Kupiri Ackerman-Barger, PhD, MSN, RN, TNAC, USA

Patricia Farmer, DNP, RN, FNP, USA

Bryan M. Hoffman, MA, USA

Abstract

Purpose: The purpose of this study is to determine whether innovative nursing education pathways reflect the racial/ethnic diversity of traditional pathways. In 2008 the Robert Wood Johnson Foundation partnered with the Institute of Medicine to produce an action-oriented report that would serve as a blueprint for the future of nursing. The report (*The Future of Nursing; Leading Change, Advancing Health*) sought to address issues like the nursing shortage, developing technologies in healthcare, and meeting current and future healthcare demands (IOM, 2011). The results of the report were four key messages. This study focuses on Key Message #2 which states, "Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression" (IOM, 2011). They concluded that an improved educational system was necessary to deliver safe, quality care across care settings.

According to the *Future of Nursing* report a complicating issue in nursing education is there are 2 key ways that students enter into the nursing profession; a bachelor's degree in nursing (BSN) (typically a 4 year university based program), or an associate degree in nursing (ADN) (typically a 2 - 3 year community college based program). In the last few decades the most common education pathway was through an associate degree in nursing. Two salient, but competing issues with these pathways are 1) having multiple options for entry into nursing provides more options for access, which is needed during frequent nursing shortages; and 2) although the evidence is not conclusive, several studies have indicated a significant correlation between levels of nursing education and patient outcomes including mortality rates. Rather, than recommending that nursing discontinue the ADN pathway, the *Future of Nursing* report suggested a goal of increasing the percentage of nurses with a bachelor's degree to 80% by 2020. This entails two components. One is that more students are recruited into BSN programs. The second is that registered nurses with associate degrees have options for obtaining a BSN.

To this end, the Robert Wood Johnson Foundation (RWJF) funded grant initiatives to explore and support enhanced academic progression pathways in nursing. The Academic Progression in Nursing (APIN) program was coordinated through the Tri-Council for Nursing, with oversight provided by the American Organization of Nurse Executives. This project funded nine states in developing and evaluating innovative models of streamlining nursing education pathways. The State Implementation Program (SIP) was based at the Center to Champion Nursing in America, a joint initiative of RWJF and AARP. SIP grants allowed states to select any area of the IOM Future of Nursing report for development, and more than 20 states focused on nursing education. In addition to APIN and relevant SIP projects, a number of programs nationally have also designed creative options and piloted innovative pathways that would lead to seamless opportunities for nurses to obtain higher levels of education. The most promising of these models is to link community colleges with university partners to allow students to concurrently enroll in a community college for pre-licensure nursing courses and a four year university to complete the requirements of a BSN.

As APIN and SIP states have rolled out pilot projects supporting academic progression an area identified by RWJF for grant funding was attention to the recruitment and retention of underrepresented and underserved students in schools of nursing. Anecdotal reports from leaders of programs have indicated a variety of perspectives on this including a possible loss of racial / ethnic diversity in cohorts of students entering new educational pathways. The need to diversify the nursing workforce has been acknowledged across organizations (AACN, 2014; HRSA, 2015; HRSA, 2006; IOM, 2003; IOM, 2011; NLN, 2009).

Methods: An initial written survey tool (questionnaire) was developed and will be distributed to all consenting programs. Only one questionnaire will be completed for each

program/consortium. Questionnaire completion would require detailed understanding of program structure and access to student demographics including race / ethnicity of students. The questionnaire will be designed for completion in less than 15-30 minutes if data is at hand.

We hope to recruit at least 7-10 programs or consortia. Programs that have received APIN or SIP grant funds for education, and who have been identified through other mechanisms as having innovative educational pathways and who meet criteria will be invited to participate in this study. In addition, informational flyers, personalized emails, will be sent to program or consortia leaders. There is also a conference occurring Nov.14-16th in Miami Beach, Florida where many representatives of the APIN and SIP efforts as well as other national nursing education leaders will be in attendance. Potential participants would be approached, given flyers, and questions answered.

Data from questionnaires will be analyzed using basic data analysis features on Survey Monkey to allow compare or find correlations between enrollments and graduations within traditional and non-traditional educational pathways, including evaluation of race / ethnicity of participants. Following analysis of the survey data, individual interviews with respondents may be conducted to clarify data. The latter will be an important step because the design of each consortium is somewhat different such that terms like "traditional" programs may be interpreted differently. Data from this study enrollments and graduations f may be compared to state and national averages.

Results: Pending

Conclusions: The degree to which innovative and/or accelerated programs impact diversity rates, whether positively, negatively or not at all, is important to understand as nursing education simultaneously seeks to offer a variety of options for attaining higher levels of nursing education and diversify the nursing workforce. By understanding what impact, if any, innovative nursing programs are having on the compositional diversity of the student body we can identify consortia who have addressed this issue well and disseminate best practices; and/or identify a potential problems and determine strategies for mitigating them.

References

American Association of Colleges of Nursing. (2014). *Enhancing diversity in the workforce*. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/enhancing-diversity>.
Health Resources and Services Administration Bureau of Health Professions (HRSA) (2015). Race, and Ethnic Diversity of U.S. Health Occupations (2010-2012). Retrieved from <http://bhpr.hrsa.gov/healthworkforce/supplydemand/usworkforce/diversityushealthoccupations.pdf>.
Institute of Medicine (2011) *The future of nursing: Leading change, advancing health*. Washington, DC: National Academy of Sciences.

Contact

packerman@ucdavis.edu

RSC PST 1 - Research Poster Session 1

The Perceived Leadership Characteristics, Behaviors, and Self-Esteem: Conducting Your Leadership Orchestra as a Hispanic Nurse

Giselle Melendez, EdD, MS, RN, USA

Abstract

Purpose: The purposes of this study were to investigate the perceptions of the leadership characteristics, and behaviors of Hispanic nurses, as well as to evaluate Hispanic nurses' self-esteem. Using the Leadership Practices Inventory (LPI), the Multifactor Leadership Questionnaire (MLQ), the Rosenberg Self-Esteem Scale, and a demographic questionnaire, the investigator intended to describe Hispanic nurses baseline characteristics, behaviors, and self-esteem so that further research studies may enhance how Hispanic nurses can be further developed, educated, trained, and mentored to become nursing leaders.

There is a great shortage of Hispanic nurses and nurse leaders in the United States. Hispanic nurses currently make up only 4.8% of RNs in the United States. As the population in the United States shifts from where Hispanics are the minorities and become the majorities, more Hispanic nurses will be needed to care for the patients. Not only is there a shortage of Hispanic nurses in relation to the size of the Hispanic population, there is an even greater shortage of Hispanic nurse leaders in relation to the size of the Hispanic population and the Hispanic nursing pool. Little research has been done on Hispanic nurses with a focus on leadership development. As more Hispanics are entering the nursing profession, more will be needed as leaders in the profession.

Methods: For the purpose of this study a descriptive quantitative methodology was chosen in order to better understand the perceived leadership characteristics, behaviors, and self-esteem of Hispanic nurses. An online survey was used to collect data from Hispanic nurses throughout the United States. The online survey consisted of the following instruments, the Leadership Practices Inventory, the Multifactor Leadership Questionnaire, the Rosenberg Self-Esteem Scale, and a demographic questionnaire. An advertisement on Facebook, which was created by the online marketing firm Total Market Exposure, was used to recruit participants for the study. In addition, a flyer was created that targeted individuals based on the specifications of this study's focus. Participants in the study needed to be of a Hispanic origin, a licensed registered nurse in the continental United States, able to read and comprehend English, and had passed the nursing licensing exam.

The Leadership Practices Inventory consists of 30 questions which is broken down into five scales. Each of the five scales contains six questions. The Multifactor Leadership Questionnaire consists of 45 questions. The Multifactor Questionnaire measures four different leadership styles: specifically, transformational leadership, transactional leadership, passive-avoidant behavior, and outcomes of leadership. The Rosenberg Self-Esteem Scale consists of ten questions. The demographic questionnaire was created by the investigator and consisted of fifteen questions. In total, participants were required to answer all 100 questions.

Results: Data analysis was completed using various statistical analyses. The investigator reviewed each survey for completeness and eligibility. In all, 208 surveys were completed online through the Checkbox® survey link. After data cleansing a total of 193 surveys were considered for data analysis. Measures of central tendency, mean, mode, median, standard deviation, minimum score, and maximum score were used to describe the perceived leadership characteristics, behaviors, and self-esteem. Upon completion of the data analysis, reliability data from the sample research study was compared to the existing reliability of the Leadership Practices Inventory, the Multifactor Leadership Questionnaire, and the Rosenberg Self-Esteem Scale.

The participants of this study comprised of 167 female and 26 male subjects. The largest age group was 30 to 40 ($n = 71$, 36.8%). The predominant Hispanic origins among participants were Puerto Rican ($n = 59$, 30.6%) and Mexican ($n = 52$, 26.9%). Participants held degrees ranging from an Associate Degree to

a Doctoral Degree. The majority of Hispanic nurses worked as a staff nurse ($n = 82$, 42.5%). Many of the participants in this study have not held a leadership position with a professional nursing association ($n= 131$, 67.9%). The survey was conducted throughout the United States of America.

Conclusion: The demographic findings of this study are similar to those found in the 2013 National Nursing Workforce Survey of Registered Nurses. Based on the demographic findings of this study, it is imperative that more Hispanic nurses are recruited into the profession. There are only 4.8% of Hispanic nurses in the total RN population. As more Hispanic are recruited to become nurses, more needs to be done to increase the number of Hispanic nurse leaders.

Three instruments were used to answer the research question. The investigator did not find any research study that used these instruments with a specific target population of Hispanic nurses. For the Leadership Practices Inventory the highest perceived leadership characteristic among Hispanic nurses is Enabling Others to Act. This characteristic allows the leader to foster collaboration while building trust and strength. For the Multifactor Leadership Questionnaire, Hispanic nurses perceive that leaders need to be transformational leaders. The Rosenberg Self-Esteem Scale showed that Hispanic nurses have a normal to high level of self-esteem. Hispanic nurses who participated in this study have the self-esteem and confidence necessary to be leaders.

The findings of this study offer a promising future for Hispanic nurses in the United States. Based on these findings, greater consideration should be placed on developing Hispanic nurses to become leaders in the healthcare profession. By developing Hispanic nurses into leaders, they will continue to build upon their skills but they will be a mentor to others and one day provide the opportunity to conduct their nursing leadership orchestra.

References

- Kouzes, J. & Posner, B. (2013). Leadership practices inventory. San Francisco, CA: John Wiley & Sons, Inc.
- Minority Nurse. (2014). Nursing statistics. Retrieved from <http://www.minoritynurse.com/minority-nursing-statistics>
- Total Market Exposure. (2014). Services: Facebook. Retrieved from <http://www.totalmarketexposure.com/facebook-business-pages/>
- U.S. Census Bureau. (2014). *Hispanic Americans by the numbers*. Retrieved from <http://www.infoplease.com/spot/hhmcensus1.html>

Contact

gmelendezrn@gmail.com

RSC PST 1 - Research Poster Session 1

Resuscitating our Nursing Team by Increasing Resilience in Labor and Delivery Nurses

Susan Faron, MN, CNS, RNC-OB, USA
Julie Albers, BSN, RN, RNC-OB, USA

Abstract

Nurses confront many types of stressors on the job, including the demands from various healthcare environments, providers, patients, families, as well as the physiological demands to which they are frequently exposed. Research indicates that good personal resilience facilitates nurses' ability to endure the numerous difficulties they face in their daily work and contribute to providing effective, safe patient care (Wei et al., 2014, Hart, Brannan, & DeChesnay, 2014). Rushton, Batcheller, Schroeder and Donohue (2015) indicated that a greater resilience protected nurses from emotional exhaustion and contributed to optimal patient care outcomes. When nurses cultivated strategies and practices for resilience, patients were less likely to experience harm. Gaining a better understanding of nurses' resilience and its causes and effects can be very beneficial for nurses in helping them develop greater personal resilience that can contribute to overall quality patient care (Aiken et al., 2012).

There have been some theories that examine the concept of resilience as having several domains that can be empirically studied (Wei, 2014). It has been suggested that resilience should be studied as a multi-dimensional construct focusing on improving stress relief, mindfulness, and work/life balance. Based on the construct from the literature, interventions addressing the three domains of resilience were implemented for bedside nurses working on a busy, high acuity labor and delivery inpatient hospital unit.

Purpose: Resilience has been defined as the ability of individuals to cope successfully despite adverse circumstances and stressful environments (Wei & Taormina, 2014). Nurses' ability to manage day-to-day operations may be influenced by stress which ultimately can affect patient outcomes (Aiken, Clark & Sloane, 2012). There are many strategies that have been shown to be successful at decreasing stress, increasing mindfulness, and increasing work/life balance. Providing nurses with the tools and coping strategies they need to improve their coping skills and increase resilience can impact nurses' professional performance and improve quality and safe patient outcomes.

Methods: The evidence based conceptual framework guiding this project includes an assessment of nurse by conducting a pre-intervention assessment of nurse resilience using the Refined Connor-Davidson Resilience Scale (CD-RISC). Interventions addressing the construct of resilience will be presented to the staff nurses working on a busy, high acuity labor and delivery inpatient hospital unit. Post-intervention assessment of nurse resilience one month following completion of all interventions will be conducted using the same scale. The data from the CD-RISC was analyzed and practice changes that improve stress, mindfulness, and work/life balance will be advanced and adopted in a way that can simply be done on the unit in the future.

Interventions were focused into three dimensions: stress relief, mindfulness and work/life balance. Stress relief was addressed by providing healthy snacks for the staff for both day and night shifts for an entire week. Short hand massages were provided during work hours and nursing staff were encouraged to attend complimentary yoga classes away from the hospital. Mindfulness was addressed with weekly email "Mindful Monday" inspirational messages, providing relaxation tea and starting each shift with a short guided meditation. Essential oil relaxation sprays were available for voluntary use. Work/life balance interventions such as nature hikes and a beachside bonfire were not well attended, but the staff anecdotally reported appreciating the availability of these interventions.

Voluntary pre- and post- intervention assessments were performed using the 10-item CD-RISC. Validity and reliability measures have been established for the Refined CD-RISC in the literature (Campbell-Sills et al. 2007). A prior power analysis was completed and it was determined that a sample size of 100 registered nurses was estimated for a two-tailed test $\alpha=0.05$ to achieve a power of at least 80% at a

medium effect size (Polit & Beck, 2012). A paired t-test was used to evaluate the mean difference for each question included in the pre- and post- data from 106 respondents. Post-intervention data was collected at 1 month post intervention completion to ascertain impact. Long-term impact will be assessed at the 12 month interval.

Results: Among the 10 questions included in the Revised Connor-Davidson Resilience Scale, the post-intervention analysis indicated statistical significance was achieved on question 10: "I can handle unpleasant feelings."

	p Value
Able to adapt to change	.971
Can deal with whatever comes	.728
Tries to see humorous side of problems	.315
Coping with stress can strengthen me	.446
Tend to bounce back after illness or hardship	.135
Can achieve goals despite obstacles	.900
Can stay focused under pressure	.952
Not easily discouraged by a failure	.305
Thinks of self as a strong person	.692
Can handle unpleasant feelings	.039

Conclusion: Stress relief, mindfulness and work/life balance strategies can be used to assist inpatient nursing staff to increase their personal resilience and contribute to providing effective, safe patient care.

References

- Aiken, L.H., Clarke, S.P., & Sloane, D.M. (2012). Hospital staffing, organization, and quality of care: Cross-national findings. *Nursing Outlook*, 50: 187-194.
- Campbell-Sills, L. & Stein, M.B. (2007). Psychometric analysis and refinement of the Connor-Davidson Resilience Scale (CD-RISC): Validation of a 10-item measure of resilience. *Journal of Traumatic Stress*, 20(6): 1019-1028.
- Cope, V., Jones, B., & Hendricks, J. (2016). Why nurses chose to remain in the workforce: Portraits of resilience. *Collegian*, 23(1): 87-95.
- Hart, P., Brannan, J. & DeChesnay, M. (2014). Resilience in nurses: an integrative review. *Journal of Nursing Management*, 22: 720-734.
- Rushton, C.H., Batcheller, J., Schroeder, K. & Donohue, P. (2015). Burnout and resilience among nurses practicing in high-intensity settings. *American Journal of Critical Care*, 24: 412-421.
- Taylor, K. & Blease, M. (2016). Resilience and self-preservation; taking care of one another. *The Practising Midwife*, 19(5): 30-2.
- Wei, W. & Taormina, R.J. (2014). A new multidimensional measure of personal resilience and its use: Chinese nurse resilience, organizational socialization, and career success. *Nursing Inquiry*, 21(4), 346-357.

Contact

Sue.faron@sharp.com

RSC PST 1 - Research Poster Session 1

Predictors of Readiness for Disaster Management Skills Among Hospital Nurses

Chia-Huei Lin, PhD, RN, Taiwan

Abstract

Purpose: Continuous disasters have been threatening people's lives in recent years. However, studies regarding the readiness for disaster management competency among nurses remain limited. Therefore, this study investigated the predictors of readiness for disaster management competency among nurses.

Methods: A cross-sectional study was conducted. Stratified random sampling was used to recruit eligible cases from 1,197 nurses, who had been registered nurses for at least 3 months in a military medical centre from northern Taiwan. In addition, all male nurses and military nurses were recruited. Data were collected on readiness for disaster management competency using a 40-item, reliable, well-validated, and self-administered questionnaire with four domains (preparedness competence, self-protection, emergency response, and clinical nursing skill). Linear regression models were applied to explore the predictors of readiness for disaster management skills among nurses.

Results: Among the recruited 365 registered nurses who were 32.6 years of age (SD = 8.04), there was an average 12.6 years of work in nursing. The majority (75.9%) had a Bachelor's degree or higher in nursing. Eighty percent ($n = 292$) were civilian nurses without military ranks. Thirty-four percent worked in critical care units or an emergency room. Some participants ($n = 14$, 19.5%) had previously received disaster-related training; 3.8% had previous disaster nursing experience and 13.4% had been deployed for disaster assistance. When adjusting for potential confounding factors the length of nursing work and previously received disaster training are significantly associated with preparedness competency and self-protection competency, respectively. Length of nursing work ($p < .001$), educational level ($p = .02$), working unit ($p < .001$), and previously received disaster-related training ($p = .01$) were associated with emergency response competency and clinical nursing skill competency, respectively. Regarding overall disaster management competency, participants with longer length of nursing work ($p < .001$), with a higher educational level (Bachelor's degree and above) ($p = .03$), working at critical care units or an emergency room ($p = .02$), and having previously received disaster training ($p < .001$), were associated with better disaster nursing competency.

Conclusion: Our study indicates that disaster-related training is recommended to be included in continuous nursing education, and preparing nurses to become critical care nurses helps to improve their own readiness for disaster management competency.

References

Tzeng, W. C., Feng, H. P., Cheng, W. T., Lin, C. H., Chiang, L. C., Pai, L., & Lee, C. L. (2016). Readiness of hospital nurses for disaster responses in Taiwan: A cross-sectional study. *Nurse Educ Today*. doi: 10.1016/j.nedt.2016.02.025

Usher, K., Mills, J., West, C., Casella, E., Dorji, P., Guo, A., . . . Woods, C. (2015). Cross-sectional survey of the disaster preparedness of nurses across the Asia-Pacific region. *Nurs Health Sci*, 17(4), 434-443. doi: 10.1111/nhs.12211

Contact

andy520@mail.ndmctsgh.edu.tw

RSC PST 1 - Research Poster Session 1

Hoping to Pass: A Multi-Site Study Examines How a One-Time Intervention Affects High-Stakes Test Scores

Alice L. March, PhD, RN, FNP, CNE, USA

Joshua C. Eyer, PhD, USA

Monika G. Wedgeworth, EdD, RN, CNE, USA

Nancy Haugen, PhD, RN, USA

Corrie Harris, PhD, USA

David Feldman, PhD, USA

Abstract

Purpose: The purpose of this subsection of a multisite trial is to test the effect of a one-time hope intervention on high-stakes program-exit test scores among final semester baccalaureate nursing students, compared to a relaxation intervention. There are two research questions posed for this preliminary report. The first question utilized all participants' responses to examine changes in hope scores, and how they differed by group. The second question related only to the final semester students; what are the between group differences in scores on the standardized exam (SE)?

Student success on testing is a clear concern. Nursing education programs throughout the world are tasked with providing didactic content and clinical experiences which produce nurses who practice in a safe and effective manner while advancing global health. To accomplish those goals competencies are established by regulatory bodies, and an expected level of knowledge is required to meet licensure requirements (Hudspeth, 2012). In the United States (US), the National Council Licensure Exam for Registered Nurses (NCLEX-RN®) "... measures the competencies needed to perform safely and effectively as a newly licensed, entry-level registered nurse" (National Council of State Boards of Nursing®, 2012, p. 1). Nursing programs in the US have adopted the use of specialty and exit examinations to predict success within a nursing program, as well as the likelihood of a student passing the NCLEX-RN®.

High-stakes testing is defined as a test or series of tests with outcomes that have important consequences for examinees (National Council on Measurement in Education, 2012). These exams are thought to represent having attained adequate knowledge of the subject at hand. Up to 30% of schools in the US require students to pass high-stakes exams as a condition of graduation (National League for Nursing, 2012; Santo, Frander, & Hawkins, 2013).

Nursing students understand the importance of, and the potential for, grave consequences if required scores are not obtained. Fear of failure may create unfavorable learning conditions as students are driven by this pressure to succeed. For some, this may lead them to study only to achieve the required passing score on the exam. This approach is unlikely to produce the firmly embedded knowledge needed to connect the dots (Dunn, 2014), and even if they succeed in passing, without a deep understanding of core didactic material, the new graduate may function poorly when clinical judgment and decision-making are required in nuanced healthcare situations.

The significance of the situation is demonstrated when nursing programs base progress and completion on SE scores; thus, exams are perceived as stressful to the point of being high-stakes in nature which may create these unfavorable learning conditions. There may be ways to decrease test anxiety and enhance learning by supporting selected psychological aspects related to learning. Hope (the belief in one's ability to achieve desired goals), and achievement goal orientation (why one desires to succeed) are associated with decreased stress, as well as increased academic achievement and higher graduation rates (Feldman & Dreher, 2012). However, this has not been examined as a way to increase high-stakes SE scores or predict nursing student success.

A review of the literature provides an interesting base for consideration. Academic progress and completion of a BSN program requires students to demonstrate competency in clinical skills and didactic

knowledge. Didactic competencies are often tested via end-of-course and end-of-program SEs (Lauer & Yoho, 2013; NLN, 2012). These tests are normed on national samples. Exams are perceived as high-stakes in nature and students may develop positive and negative ways of studying and coping to achieve success. Regrettably, poor coping mechanisms and ineffective learning pathways result in inadequate mastery of material, increased anxiety, maladaptive learning behaviors, and decreased overall performance (Dunn, 2014).

Recent research links hope to success of nursing students (Bressler, Bressler, & Bressler, 2010; Chang, 1998; Dunn, 2014). In a recent study of BSN students a positive association between academic and non-academic factors (mastery and performance, exam scores, and specific types of goal orientation) was found (March & Robinson, 2015). Fortunately, recent research in psychosocial education interventions suggests that a one-time hope intervention may influence how students approach learning (Feldman & Dreher, 2012).

With over two decades of research, hope theory is a well-established model to explain outcomes among students in education, sociology, and psychology (Ames, 1992; Cavazos Vela et al., 2014; Snyder et al., 1991). Hope is composed of two inter-related types of goal-directed cognition: agency thinking and pathways thinking (Snyder, et al., 1991). Agency thinking consists of “the thoughts that people have regarding their ability to begin and continue movement on selected pathways” toward their goals (Snyder, Michael, & Cheavens, 1999). Pathway thinking consists of planning-related cognitions. In short, a pathway is a plan, route, or strategy for accomplishing a goal. Because some pathways may not succeed, high-hope people are theorized to have high agency and to act, in part, to produce multiple pathways in order to circumvent possible obstacles (Snyder, 2002). Higher levels of hope are linked to academic success, such as retention, progression, and graduation (Cavazos Vela et al., 2014; Feldman & Dreher, 2012). Thus, hope theory may predict a variety of academic, social, and emotional outcomes.

Methods: This randomized control trial recruited participants from a traditional baccalaureate nursing program in the southern US. A power analysis for the entire study is available upon request, but does not relate to this subsection of the study. Human subject’s approval was obtained. Once randomized to group the students experienced a one-time 90-minute intervention; either hopeful thinking or guided relaxation. Pre- and immediate post-intervention measures were obtained at that time. Additional post-intervention measures prior to the final HESI exam were obtained and will be reported separately. Instruments for this subset of inquiry included the Goal-Specific Hope Scale (GSHS) and the SE score; end of program Health Education System, Inc. (HESI) exam. Hope was measured utilizing four items from the GSHS that assessed agency and four items that assessed pathways. Each item was scored using an 8-point Likert-type scale ranging from 1 (definitely false) to 8 (definitely true). The HESI exam assessed student competency related to the achievement of course and curricular outcomes.

Results: To answer the first question; what are the changes in hope, and how do they differ by group we used a 2 time x 2 group ANOVA to examine scores on the GSHS (n=134). Scores improved significantly from baseline to post-intervention for those in the Hope group [$F(1, 70) = 36.7, p < .001$], as well as for the Relaxation Group [$F(1, 62) = 25.3, p < .001$]. The 2 time x 2 group interaction was not significant [$F(1, 132) = 2.7, p = .10$].

To answer the second question; what are the between group differences in scores on the SE, a one-way ANOVA compared group scores (n=45). For students in the final semester the scores on the exit SE did not differ. However, there was a slight score benefit for Hope Intervention students (Difference = 25.8), yet this did not achieved statistical significance over the scores for the Relaxation Intervention [$F(1, 43) = 0.61, p = .44$]. Next, we examined the difference in mean scores as “benefit to pass rates” (achieved cut score of 850). This produced a meaningful trend for the Hope group (see Table 1); however, given the small sample the pattern was not significant [$c^2(45) = .73, p = .39$].

Table 1: Benefit to Pass: Cut Score above 850

Score	Hope	Relaxation
Above 850	66.7% (14)	54.2% (13)

Below 850 33.3% (7) 45.8% (11)

Conclusion: The preliminary results that goal specific hope increased are promising. Although the greater increase was seen in the Hope group, it was not statistically different from the Relaxation group. We believe that once data collection is complete this may reach statistical significance. In addition, we did not find a statistical difference between groups on the SE scores. The fact that a distinct trend towards a difference is promising, and additional data will be needed to determine if this occurs. The study is ongoing and this poster only presents preliminary findings from one of the two sites involved in the overall study.

We are encourage by the results to date and if the findings indicate that a one-time intervention could change hope and therefore impact progression through a nursing program it may be possible to deploy this strategy to many nursing students. A future area of inquiry is to examine whether or not re-dosing may be needed, and if it would be effective.

This research is supported by the 2016 NLN Research in Nursing Education Grant and by the University of Alabama Research Grants Committee.

References

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*, 261–271.
- Bressler, L. A., Bressler, M. E., & Bressler, M. S. (2010). The role and relationship of hope, optimism, and goal setting in achieving academic success: A study of students enrolled in online accounting courses. *Academy of Educational Leadership Journal, 14*(4), 37-51.
- Cavazos Vela, J., Lerma, E., Lenz, A. S., Hinojosa, K., Hernandez-Duque, O., & Gonzalez, S. L. (2014). Positive psychological and familial factors as predictors of Latina/o students' hope and college performance. *Hispanic Journal of Behavioral Sciences, 36*, 452-469. doi:0.1177/0739986314550790
- Chang, E. C. (1998). Hope, problem solving, and coping in a college student population: Some implications for theory and practice. *Journal of Clinical Psychology, 54*, 953-962.
- Dunn, K. E. (2014). Insight into error hiding: Exploration of nursing students' achievement goal orientations. *Journal of Nursing Education, 53*, 93-96. doi:10.3928/01484834-20140122-02
- Feldman, D. B., & Dreher, D. E. (2012). Can hope be changed in 90 minutes? Testing the efficacy of a single-session goal-pursuit intervention for college students. *Journal of Happiness Studies, 13*, 745-759. doi:10.1007/s10902-011-9292-4
- Hudspeth, R. (2012) Emerging nursing regulation in developing countries. *Nursing Administration Quarterly, 36*(1), 83–84.
- Lauer, M. E., & Yoho, M. J. (2013). HESI exams: Consequences and remediation. *Journal of Professional Nursing, 29*(2s), s22-s27. <http://dx.doi.org/10.1016/j.profnurs.2013.01.001>
- March, A. L., & Robinson, C. (2015). Assessment of high-stakes testing, hopeful thinking, and goal orientation among baccalaureate nursing students. *International Journal of Nursing Education Scholarship, 12*(1), 1-7. doi:10.1515/ijnes-2014-0075
- National Council on Measurement in Education. (2012). *High-stakes testing*. Retrieved from <http://ncme.org/resource-center/glossary/h/high-stakes-testing/>
- National Council of State Boards of Nursing. (2012). 2013 *NCLEX-RN® Examination: Test plan for the National Council Licensure Examination for Registered Nurses*. Chicago, IL: National Council of State Boards of Nursing.
- National League for Nursing. (2012.) *The fair testing imperative in nursing education*. Retrieved from http://www.nln.org/aboutnln/livingdocuments/pdf/nlvision_4.pdf
- Santo, L., Frander, E., & Hawkins, A. (2013). The use of standardized exit examinations in baccalaureate nursing education. *Nurse Educator, 38*(2), 81-84. doi:10.1097/NNE.0b013e3182829c66
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S.T, ... Harney, P. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology, 60*, 570-585.
- Snyder, C. R., Michael, S. T., & Cheavens, J. S. (1999). Hope as a psychotherapeutic foundation of nonspecific factors, placebos, and expectancies. In M. A. Hubble, B. Duncan, & S. Miller (Eds.), *Heart and soul of change* (pp. 205-230). Washington, D.C.: APA.
- Snyder, C. R., Shorey, H. S., Cheavens, J., Pulvers, K. M., Adams, V. H., & Wiklund, C. (2002). Hope and academic success in college. *Journal of Educational Psychology, 94*, 820-826.

Contact

almarch@ua.edu

RSC PST 1 - Research Poster Session 1

Adherence a Review: T2DM in Haitian-Americans

Balkys L. Bivins, MSN, ARNP, FNP-BC, USA

Abstract

Purpose: The incidence and prevalence of diabetes mellitus (DM) has soared globally due to socioeconomic, demographic, and lifestyle changes, and lack of social justice. In the United States, DM has become a costly epidemic that resulted in an annual healthcare cost of \$245 billion in 2012. The total prevalence of diabetes in the U.S. is significant at 29.1 million, of which 97.3 % is attributed to Type II diabetes (T2DM). Among the populations affected by the disease and the challenges to effective diabetes treatment and management are Haitian Americans in the U.S. The aim of this review from 1979 to the present on the concept of adherence in diabetes research is to summarize and synthesize recent studies, relevant theories, and models that examine the components of adherence in diabetes management within various populations of individuals diagnosed with T2DM. In addition, this presentation will examine the cultural components of adherence with T2DM in various immigrants in the U.S. This review will address the limited research findings specific to Haitian Americans.

Methods: On the issue of adherence research addressing T2DM in Haitian Americans, the review used the framework of Rodgers' evolutionary process (2000). Its distinct components include: *determining the concept to be studied, drafting a clear research question, defining the research process and gathering the pertinent information, synthesizing the research data and detailing specific conclusions, and research implications*. Multiple searches were conducted using the terms "Haiti", and "Haitians with diabetes", yielding 18 articles on theories of cultural awareness in nursing. An in-depth review of the literature on adherence was generated from the year 1979 to the present with the following search engines: SocINDEX, PsycINFO, Medline, EBSCOhost, Eric, Cochrane, and CINAHL. Searching the term "adherence" resulted in 371,859 articles. Further restriction of the search scope to adherence and medication articles written in English resulted in 105,218 articles. Additionally, subcategorizing adherence and diabetes produced 4,578 articles. Search terms relating to adherence and diabetes management were added, revealing 846 articles. The investigation was further restricted by limiting the publication years to the period between 2010 and 2015 revealing 367 articles. Eventually, using keywords relevant to adherence to the treatment of diabetes uncovered 44 articles on adherence with diabetes. The studies reviewed by the researcher were chosen because they addressed adherence and its definitions, the components of Rodgers' evolutionary process, culture, theoretical perspectives, and implications for nursing practice.

Results: The analysis of research findings using Rodgers' process (2000) identified the various factors for effective behavioral changes that impact adherence, diabetes management, and education in distinct and varied demographic groups. In addition, adherence to treatment of T2DM involves administration of medication, glucose monitoring, nutrition, and exercise. The researcher's findings identified predominantly that adherence to treatment is a difficult process in managing T2DM. Although the review identified some factors as to why individuals do not adhere to treatment protocols, this difficult process remains elusive. Due to scarce literature on Haitian Americans, these studies, however, did not incorporate relevant theories that may explicate the dynamic, holistic, and culturally sensitive component necessary in the care of immigrant individuals, namely the Haitian Americans. Purnell's model addresses this key cultural component directly but does not speak to the component of self-efficacy, a key factor in behavior modification. Therefore, nurses need to explore the complexity of T2DM management specific to the components of adherence, and how and why Haitian Americans face more challenges in managing T2DM.

Conclusion: Globalization, demographic influences, lifestyle changes, the complexities of life, and increased prevalence of chronic illnesses, specifically T2DM, pose a challenge in nursing. Even though adherence is a significant component with effective management of a variety of health conditions, the utilization of theories, behavioral modification, and cultural influences on behavior are often not considered an integral part of the treatment plans of individuals with T2DM. It is imperative that future

nursing studies be directed to effectively develop holistic nursing interventions, nursing education, the use of eclectic theories, and the utilization of multidisciplinary resources. The previously stated interventions may aid in the improvement of health outcomes, social justice, and quality of life in these marginalized and vulnerable Haitian Americans.

References

- Alikari, V., & Zyga, S. (2014). Conceptual analysis of patient compliance in treatment. *Health Science Journal*, 8(2), 179-186. Retrieved from <http://www.hsj.gr/medicine/conceptual-analysis-of-patient-compliance-in-treatment.pdf>
- American Diabetes Association. (2014). *Statistics about Diabetes*. Retrieved from <http://www.diabetes.org/diabetes-basics/statistics/?loc=db-slabnav>
- Bivins, B. L. (2016). Integrative review on adherence in Haitians with diabetes. *Nursing Forum*. Retrieved from DOI: 10.1111/nuf.12176
- Benitez, T. J., Cherrington, A. L., Joseph, R. P., Keller, C., Marcus, B., Meneses, K., & ... Pekmezi, D. (2015). Using web-based technology to promote physical activity in Latinas: Results of the muémete Alabama pilot study. *Computers, Informatics, Nursing: CIN*, 33(7), 315-324. doi:10.1097/CIN.0000000000000162
- Chasan-Taber, L., Marcus, B. H., Rosal, M. C., Tucker, K. L., Hartman, S. J., Pekow, P., & ... Markenson, G. (2015). Proyecto nmamá: a lifestyle intervention in overweight and obese Hispanic women: a randomised controlled trial - study protocol. *BMC Pregnancy & Childbirth*, 15157. doi:10.1186/s12884-015-0575-3
- Chinn, P., & Kramer, M.K. (2015). *Knowledge development in nursing: Theory and process*. (9th ed). St. Louis: MI, Elsevier.
- Colby, S. L., & Ortman, J. L. (2015). Projections of the size and composition of the U.S. population: 2014 to 2060 Retrieved from <https://www.census.gov/content/dam/Census/library/publications/2015/demo/p251143.pdf>
- Craig, M. E., Jefferies, C., Dabelea, D., Balde, N., Seth, A., & Donaghue, K. C. (2014). Definition, epidemiology, and classification of diabetes in children and adolescents. *Pediatric Diabetes*, 15, 4-17. <http://dx.doi.org/doi:10.1111/pedi.12186>
- Dias do Prado, M., & Arruda Soares, D. (2015). Limits and strategies of health professionals on adherence to treatment of diabetes: integrative review. *Revista de Pesquisa: Cuidado e Fundamental*, 7(4), 3110-3124. doi:10.9789/2175-5361.2015.v7i4.3110-3124
- Duke, N., & Wigley, W. (2016). Literature review: The self-management of diet, exercise and medicine adherence of people with type 2 diabetes is influenced by their spiritual beliefs. *Journal of Diabetes Nursing*, 20(5), 184-190.
- Ens, T. A., Seneviratne, C. C., Jones, C., & King-Shier, K. M. (2014). Factors influencing medication adherence in South Asian people with cardiac disorders: An ethnographic study. *International Journal of Nursing Studies*, 51(11), 1472-1481. doi:10.1016/j.ijnurstu.2014.02.015
- Huffman, Fatma G., Exebio, Joel C., Vaccaro, Joan A., Zarini, Gustavo G., & Dixon, Zisca (2013). Effect of medical advice for diet on diabetes self-management and glycemic control for Haitian and African Americans with type 2 diabetes. *Food and Nutrition Sciences*. 4(11), 1094-1101. Retrieved from <http://www.scirp.org/journal/PaperInformation.aspx?PaperID=37541>
- Irwin, M. (2015). Theoretical foundations of adherence behaviors: Synthesis and application in adherence to oral oncology agents. *Clinical Journal of Oncology Nursing*, 19(3), 31-35. doi:10.1188/15.S1.CJON.31-35. DOI:10.4236/fns.2013.411142
- Jeihooni, A. K., Hidarnia, A., Kaveh, M. H., & Hajizadeh, E. (2015). The effect of a prevention program based on health belief model on osteoporosis. *Journal of Research in Health Sciences*, 15(1), 47-53. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/25821026>
- Mason, D.M. (2014). Holism and embodiment in nursing. *Holistic Nursing Practice*. 28(1), 55-64. <http://dx.doi:10.1097/HNP.0000000000000010>.
- Mitchell, G. (2014). Adherence to medications: Towards a shared understanding. *Nurse Prescribing*, 12(11), 564-568. Retrieved from <http://www.magonlinelibrary.com/doi/abs/10.12968/npre.2014.12.11.564>
- Nguyen, A., & Edwards, K. (2014). Barriers and facilitators of diabetes self-management: A qualitative study of Vietnamese Americans. *Online Journal of Cultural Competence in Healthcare*. 4(2), 5-16. DOI:10.9730/ojccnh.org/v4n2a1
- Pirdehghan, A., & Poortalebi, N. (2016). Predictors of Adherence to Type 2 Diabetes Medication. *Journal of Research in Health Sciences*, 16(2), 72-75.
- Platt, I., Green, H. J., Jayasinghe, R., & Morrissey, S. A. (2014). Understanding adherence in patients with coronary heart disease: Illness representations and readiness to engage in healthy behaviours. *Australian Psychologist*, 49(2), 127-137. doi:10.1111/ap.12038-
- Purnell, L. D. (2014). *Guide to culturally competent health care* (3rd ed.). Philadelphia: PA, F.A. Davis Company.
- Ryan, J. G., Jennings, T., Vittoria, I., & Fedders, M. (2013). Short and long-term outcomes from a multisession diabetes education program targeting low-income minority patients: a six -month follow up. *Clinical Therapeutics*, 35(1), A43-A53. doi:10.1016/j.clinthera.2012.12.007
- Sagar, P. L. (2012). *Transcultural nursing theory and models: application in nursing education, practice, and administration*. New York: Springer Pub. Company.

- Shen, Z. (2015). Cultural competence models and cultural competence assessment instruments in nursing: A literature review. *Journal of Transcultural Nursing*, 26(3), 308-321. 14p. doi:10.1177/1043659614524790
- Stephens, T. T., Resnicow, K., Latimer-Sport, M., & Walker, L. (2015). Social cognitive predictors of dietary behavior among African Americans. *American Journal of Health Education*, 46(3), 174-181. doi:10.1080/19325037.2015.1024901
- Van der Wees, P. J., Friedberg, M. W., Guzman, E. A., Ayanian, J. Z., & Rodriguez, H. P. (2014). Comparing the implementation of team approaches for improving diabetes care in community health centers. *BMC Health Services Research*, 14(1), 608-608. doi:10.1186/s12913-014-0608-z
- Vervloet, M., Dijk, L., Bakker, D. H., Souverein, P. C., Santen-Reestman, J., Vlijmen, B., & ...Bouvy, M. L. (2014). Short- and long-term effects of real-time medication monitoring with short message service (SMS) reminders for missed doses on the refill adherence of people with Type 2 diabetes: evidence from a randomized controlled trial. *Diabetic Medicine*, 31(7), 821-828. doi:10.1111/dme.12439
- Vimalananda, V. G., Rosenzweig, J. L., Cabral, H. J., David, M. M., & Lasser, K. E. (2011). Comparison of diabetes control among Haitians, African Americans, and non-Hispanic whites in an urban safety-net hospital. *Diabetes Care*, 34(1), 58-60. doi:10.2337/dc10 13872337/dc06-1136
- Walker, K., & Jackson, R. (2015). The health belief model and determinants of oral hygiene practices and beliefs in preteen children: a pilot study. *Pediatric Dentistry*, 37(1), 40-45.
- World Health Organization. (2014). World Diabetes Day. Retrieved from <http://www.who.int/diabetes/en/>
- World Health Organization. (2016). *Global report on diabetes*. Retrieved from <http://www.who.int/diabetes/global-report/en/>
- World Life Expectancy. (2014). *World diabetes report*. Retrieved from <http://www.worldlifeexpectancy.com/world-diabetes-report>
- Yisahak, S.F., Beagley, J., Hambleton, I.R., Venkat Narayan, K.M. (2014). Diabetes in North America and the Caribbean: An update. *Diabetes Research and Clinical Practice*. 103(2), 223-230. <http://dx.doi.org/10.1016/j.diabres.2013.11.009>
- Zamzam, S., Anosheh, M., & Ahmadi, F. (2013). Barriers to diabetes control from Syrian women's perspectives. *Japan Journal of Nursing Science*, 10(1), 121-129. doi: 10.1111/j.1742-7924.2012.00218.x

Contact

bbivins@nova.edu

RSC PST 1 - Research Poster Session 1

International Perspective, International Collaborations: Logistic Considerations for Survey Research in Nursing Study Abroad and Exchange

Helen Aveyard, PhD, MA, BSc (Hons), PDCE, RGN, United Kingdom

Kathleen Greenway, MS, MA, (Ed), BSc, (Hons), RN, United Kingdom

Sarah Hope Kagan, PhD, RN, USA

Elissa A. Acevedo, BSN, BA, USA

Abstract

Purpose: To describe and suggest plausible solutions to address logistical challenges involved in designing and conducting multinational survey research examining study abroad options within degree programs, and participation in these programs at the university level from the perspectives of registered nurse alumni.

Methods: Nursing exists in a global context where essential principles of the discipline are shared, but education and practice vary widely. With the globalization of knowledge and increasingly diverse cultural makeup of communities, nurses contend with challenges in health promotion and maintenance on a trans-national level. Opportunities to experience nursing education and practice in societies other than one's own foster personal and professional growth, valuable comparisons, critical analyses, and possibilities to derive internationally-informed local innovations. Furthermore, trans-cultural study abroad experiences and potential innovations allow for advances in the nursing discipline and attainment of new goals in public health. Despite the potential of study abroad in nursing to address and pose solutions to global health challenges, research broadly constrained by convenience sampling and local foci limits the quality of evidence available and the confidence with which development of study abroad initiatives may be undertaken. Hence, scant evidence exists for use in guiding exchange program development, defining objectives, and evaluating outcomes for the visiting students and host communities. Overcoming logistical challenges of study abroad research in a multinational context is imperative to advancing educational research in this phenomenon. Our methods are to use expert consensus and colleague crowd sourcing to project viable solutions to these challenges.

Results: The logistical challenges encountered in planning survey research in nursing study abroad include four main concerns. These are: 1. identification of nursing programs around the world offering study abroad options within degree programs; 2. identification of registered nurses across multinational context who have participated in study abroad as part of their degree programs; 3. verification of study abroad participation on the part of registered nurses by nursing programs to allow for paired analysis of programs and participants within each program; and 4. optimal survey design to achieve robust assessment of study abroad experiences, perceptions, and consequences. We pose several potential solutions to overcome these challenges including networking strategies to accrue a complete list of study abroad program; development of a survey platform restricting access to confirmed program staff and their alumni study-abroad participants with data collection to facilitate analysis by program and other characteristics including global regions transited; pre-survey invitations to key international and national nursing organizations to promote partnership; and development of a resource website for institutions offering study abroad programs.

Conclusion: Philosophically, study abroad is understood as a broadening enhancement to degree programs in nursing. Current sociopolitical contexts for nursing, health, and well-being suggest such programs may in fact be far more essential to nursing education in the 21st century. These programs are valuable to innovations in nursing education and practice as a means to address and advance trans-national and trans-cultural public health maintenance, promotion, and outcomes. We anticipate important dialogue with potential partners in presenting our work through this poster.

References

Browne, C. A., Fetherston, C. M., & Medigovich, K. (2015). International clinical placements for Australian undergraduate nursing students: A systematic thematic synthesis of the literature. *Nurse Education Today*, 35(10), 1028-1036. doi:10.1016/j.nedt.2015.05.012

Caldwell, P., & Purtzer, M. A. (2015). Long-Term learning in a Short-Term study abroad program: "Are we really truly helping the community?". *Public Health Nursing*, 32(5), 577-583. doi:10.1111/phn.12168

Carpenter, L. J., & Garcia, A. A. (2012). Assessing outcomes of a study abroad course for nursing students. *Nursing Education Perspectives*, 33(2), 85. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/22616405>

Jose Siles Gonzalez, Carmen Solano Ruiz, & Angela Gaban Gutierrez. (2016). International appraisal of nursing culture and curricula: A qualitative study of Erasmus students. *Scientifica*, 2016, 1-6. doi:10.1155/2016/6354045

Kent-Wilkinson, A., Dietrich Leurer, M., Luimes, J., Ferguson, L., & Murray, L. (2015). Studying abroad: Exploring factors influencing nursing students' decisions to apply for clinical placements in international settings. *Nurse Education Today*, 35(8), 941. doi:10.1016/j.nedt.2015.03.012

McKinnon, T. H., & McNelis, A. M. (2013). International programs in United States schools of nursing: Driving forces, obstacles, and opportunities. *Nursing Education Perspectives*, 34(5), 323. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/24245383>

Smith, K., & Curry, K. (2011). Is it worth it? measuring the long-term effects of an international experience for nursing students in ecuador. *Journal of Community Health Nursing*, 28(1), 14-22. doi:10.1080/07370016.2011.539080

Long, T. (2014). Influence of international service-learning on nursing student self-efficacy toward cultural competence. *Journal of Nursing Education*, 53(8), 474-478. doi:10.3928/01484834-20140725-02

Contact

haveyard@brookes.ac.uk

RSC PST 1 - Research Poster Session 1

Perceptions/Recollections of Acquisition of the Nurse Advocate Role by Practicing Direct Care Nurses

Marianne Curia, PhD, MSN, RN, USA

Abstract

Purpose: The claim that nurses should be patient advocates has been a hotly debated topic in the nursing profession since the 1970's. The literature reflects this debate in its wide variance of not only the concept but the very definition of advocacy in nursing. Provision 3 of the American Nurses Association *Code of Ethics for Nurses* specifically states advocacy as an expectation of the nurse. It is significant to note that previous editions of the *Code of Ethics* implied advocacy but did not specifically name advocacy until this latest edition. This is a relevant occurrence since it strongly legitimizes the role. Further, a review of the literature makes a case for the contention that if nurses are to assume the advocacy role as their professional association has mandated them to do, then they must be educated for the role and strongly encouraged to incorporate it into their everyday practice. Nurses have adopted the role in varying degrees, in varying manners and with varying results. Whether this variance is based on the characteristics of the nurse, the environment in which nursing is practiced or a myriad of other factors has not been investigated thoroughly. Further, the educational preparation of the nurse for this role has not been analyzed to assess the common elements that promote advocacy in nursing.

Methods: This qualitative study utilized the case study methodology to investigate the concept of advocacy as it relates to the role of the practicing direct care nurse. Participants in a Midwestern state in the United States were sought for journal submissions, focus group meetings and subsequent one on one interviews to investigate their definition of nursing advocacy as well as their perception of their educational/ experiential preparation for the role.

Results: Data analysis assessed the verbatim notes from the focus groups, interviews as well as participant journal submissions for themes. These themes are presented in summary format.

Conclusion: Results of this study will assist nursing educators in both academic and clinical settings to assess and reexamine the components of advocacy education in their curriculum/educational offerings in order to assure that current and future nurses have the knowledge base to fully enact the role.

References

- American Nurses Association (2015). *Code of ethics for nurses*. Washington, D.C.: American Nurses Association
- Breeding, J. T. (2002). Registered nurses' lived experience of advocacy within a critical care unit: a phenomenological study. *Australian Critical Care*, 15(3), 110-117.
- Foley, B. J., Minick, M. P., & Kee, C. C. (2002). How nurses learn advocacy. *Journal of Nursing Scholarship*, 34(2), 181-186.

Contact

macrn10141@comcast.net

RSC PST 1 - Research Poster Session 1

Ambulatory Playbook: Externs and Delay to Practice New Registered Nurses

Ruth Obregon, EdD, MSN, MBA, RN, USA
Marlene Sarah Ruiz, MA, BSN, RN, USA

Abstract

Purpose: The purpose for this project is to discuss the rationale behind recruiting and utilizing more registered nurses in the ambulatory care setting through a student externship and transitioning delay to practice registered nurses (RN).

Because of the influx of chronically ill patients with complex co-morbidities into the ambulatory care setting, the need for RNs increased. Many treatments and procedures that were formally in the hospital are now performed in ambulatory care. The background to these changes began with the 1986 passage of a law that created Designated Related Groups (DRG). Payment for procedures and conditions began to be paid prospectively. Each diagnosis and procedure was paid prospectively so that, based on evidence there was a limited amount of time an individual in the inpatient setting could receive a treatment. To keep pace the reimbursement changes, new strategies were required and patient care treatments were moved from the hospital to the outpatient setting requiring RNs. Moreover, the 2010 passage of the Affordable Care Act (ACA) brought many patients into the outpatient setting who without previous health care had complex conditions and therefore needed more multifaceted care.

Methods: The method used to meet the need for additional RNs was two-pronged. Begin with schools of nursing and encourage an interest in beginning a career in ambulatory care through student externships and recommending to the organization that hiring new graduates directly into ambulatory care by providing them a new graduate residency transition program (NGRTP). In addition, by recruiting student nurses to experience their externship in ambulatory care a growing interest in beginning a career in ambulatory care evolved.

To encourage the neophyte student RN, a model designed by the director of education engaged the schools to include ambulatory care in their curriculum and provide an optional externship in ambulatory care to interested students. The director of education created a partnership between the school and ambulatory care managers and the birth of the extern model occurred. Each year, the school and healthcare organization, use the model to inform the RN student and assist their consideration of the ambulatory care setting as a viable site for RN practice.

The second option was to recruit the new graduate RN population who were either working underemployed or were not employed at all. The local health care organization standardized the application criteria and to meet the criteria, the applicant must have graduated 1 month to 36 months ago. The first option (encourage the RN student) was easier to implement than the second (hiring the delay to practice RN). First, the delay to practice RN transition was considered more complex than their colleague who immediately transitioned into RN practice. Secondly transitioning any new RN into the ambulatory care setting did not resonate with all managers or educators in the local or other health care settings. Beginning practice in the medical surgical arena was far more acceptable to many RNs than hiring a new RN into an ambulatory care NGRTP.

Results: Against common opinion the local ambulatory care education department conducted 4 DTP-RN transition programs. Of the 4 transition programs, all have remained in ambulatory care, two have been hired into a more acute setting, and one has been promoted to a clinical supervisor position in Primary Care.

The extern program has proven extremely successful, by increasing the number of interested new graduates to enter the specialized field of ambulatory care. Of the 30 externs interviewed, selected to volunteer, and completed the program, as many as 10% chose ambulatory care to practice. Of those who

sought inpatient positions, another 10% stated they wanted to transfer into ambulatory care at some point of their career.

The outcome of the externships was an increased interest in ambulatory care as a site for future practice and it as a choice after graduation. Of the 30 externs that were hired from 4 schools 20% found jobs in an outpatient setting. Others stated that they would work in the ambulatory care setting after they worked one year in the inpatient setting.

Conclusion: Over the last 50 years patients and procedures in the ambulatory patient care setting have changed. Patients with complex needs and higher acuity have replaced patients considered the worried well. In addition massive RN retirements are imminent in the ambulatory care setting and the need for registered nurses has increased. Recruiting new graduates through including ambulatory care in nursing curriculum and by providing nursing students with experiences in the outpatient setting has been one organization's remedy for recruiting nurses into a newly recognized specialty of ambulatory care.

References

- Berman, A., Beazley, B., Karshmer, J., Prion, S., Van, P., Wallace, J & West, N. (2014). Competence gaps among unemployed nursing graduates entering a community-based transition-to-practice program. *Nurse Educator*, 39(2), 56 – 61. doi: 10.1097/NNE.0000000000000018
- Berman, A., Johnson, T., & West, N. (2014). New license, no job: Nurse leaders experience with transition to practice programs for unemployed new RN graduates. *Nurse Leader*, 12(5), 29-32. doi: <http://dx.doi.org/10.1016/j.mnl.2014.07.002>
- Rondinelli, J. L., Omery, A. K., Crawford, C. L., & Johnson, J. A. (2014). Self-reported activities and outcomes of ambulatory care staff registered nurses: An exploration. *The Permanente Journal*, 18(1), e108-e115. Retrieved from: <http://dx.doi.org/10.7812/TPP/13-135>

Contact

ruthannobregon@hotmail.com

RSC PST 1 - Research Poster Session 1

Review of Methodological Quality of Systematic and Integrative Reviews in Nursing

Coleen E. Toronto, PhD, RN, CNE, USA
Ruth Remington, PhD, RN, AGPCNP-BC, USA
Brenna Quinn, PhD, RN, NCSN, USA

Abstract

Purpose: This review describes the methodological quality of systematic and integrative reviews in current nursing literature.

Methods: The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines (Moher et al., 2009) directed the methodological review for this study. A critical review of nursing reviews published between 2013 and 2015 was conducted. The Cumulative Index of Nursing and Allied Health Literature (CINAHL) database was searched with the terms integrative review “OR” systematic review. Inclusion criteria were: 1) systematic or integrative reviews; 2) search strategy described and 3) published between 2013 and 2015. Limiters applied include: 1) abstract available; 2) written in English; 3) research article; and 4) first author is nurse. Articles were excluded from review if the following exclusion criteria were met: consensus reports, quality improvement projects, concept analyses, research briefs, conference proceedings, policies/guidelines, original research, and clinical articles.

Results: Initially 190 abstracts were reviewed electronically for relevance and then full-text articles were obtained and inspected for required study criteria. Three investigators rated inclusion criteria independently (CT, RR, and BQ) and reached consensus. After each article was independently reviewed then a second investigator assessed each article with a reported 97.87% agreement. For the lack of consensus for 2.13% articles, a third party adjudicator was consulted. Following identification of articles for inclusion, data regarding the systematic review process of each article was extracted. Twenty-three categories of data were extracted in order to identify characteristics of published literature reviews in nursing. A review matrix was used to systematically organize, analyze, and synthesize methods utilized by authors in the included studies. Data were extracted by investigators independently, and then compared by a second investigator and third party adjudicator in the event of disagreement. A total of 11.2% of selected reviews required third party review. Additionally, all three researchers independently reviewed a random sample of 10% of the articles. One hundred fifty one reviews met inclusion criteria. The sample revealed inconsistency in methods used in these reviews. Many of the searches performed were not replicable or exhaustive. Reviews often did not include inclusion and exclusion criteria or perform quality appraisals of included studies. Nearly half of the studies used only electronic databases to identify studies to include.

Conclusion: Findings suggest that methodological quality remains a concern. In an international sample of nursing reviews lack of conceptual clarity regarding similarities and differences between systematic reviews and integrative reviews is an issue that needs to be addressed in nursing. This review supports the need for stronger educational preparation of nurses and nursing students in graduate programs on how to conduct an integrative or systematic review (American Association of Colleges of Nursing, 2010). Clear definitions and procedures will help to ensure efficient and rigorous searches that produce strong conclusions that will strengthen the evidence for practice.

References

- Holly, C., Salmond, S. W., & Saimbert, M. K. (2012). *Comprehensive systematic review for advanced nursing practice*. New York: Springer Publishing Company, LLC.
- Im, E.O., Chang, S. J. (2012). A systematic integrated literature review of systematic integrated literature reviews in nursing. *Journal of Nursing Education*, 51(11), 632-640.
- Polkki, T., Kanste, O., Kaariainen, M., Elo, S., & Kyngis, H. (2013). The methodological quality of systematic reviews published in high-impact nursing journals: A review of the literature. *Journal of Clinical Nursing*, 23, 315-332.

Contact
ctoronto1@icloud.com

RSC PST 1 - Research Poster Session 1

Professional Socialization of Nurses and Nursing Students: An Integrative Literature Review

Seongmi Moon, PhD, RN, Korea, Republic of (South)
Sun-Hee Kim, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Professional socialization is the process by which people who enter a profession internalize or take in new knowledge, skills, attitudes, behaviors, values, and ethical standards and make these a part of their professional identity (Mariet, 2016). An important aspect of nursing education is to prepare nursing students to become well socialized in their workplace. The purpose of this study is to explore current knowledge of professional socialization in nursing and to recommend directions for future education and research on professional socialization.

Methods: Literature search strategy; Studies published from 2000 to July 2016 were searched in three electronic databases (Medline, CINAHL, and Web of Science). The search terms, 'professional socialization' OR 'professional socialisation' and 'organizational socialization' OR 'organizational socialisation' were used to search the title and text. MeSH terminology 'socializaion' was searched as well. The language of the searches was limited to English.

Inclusion and exclusion criteria; Articles addressing the aims of this study, nurse or nursing student socialization, were included in this study. Also, those dealing with inter-professionals, health professionals, midwives, or newcomers were included because they might include nurses or nursing students. The articles were limited to peer-reviewed primary studies. Therefore, review articles were excluded. Articles were excluded when subjects were animals, people with other occupations, patients, nursing faculty, pre-nurses, or licensed practical nurses. Unpublished manuscripts such as dissertations or presentation materials were excluded.

Study selection; The initial search found 5,586 articles; 4,655 articles were reviewed after duplicates were removed. Based on the inclusion and exclusion criteria, another 3,342 were excluded after screening these on title. Next, 1,313 abstracts were reviewed and 65 studies were selected. The full text of these articles will be analyzed.

Data evaluation; The mixed methods appraisal tool (MMAT-2011 Version) (Pace et al., 2011) will be used for quality assessment of the chosen studies.

Data analysis; Studies will be divided into subgroups according to the study design and samples. Data will be extracted and coded from each study. Coded data will be clustered, contrasted, compared, and synthesized considering the relationships among codes.

Results: The results will provide insight into the current status of professional socialization in nursing.

Conclusion: We will discuss future perspectives on the professional socialization of nursing students.

References

- Mariet, J. (2016). Professional socialization models in nursing. *International Journal of Nursing Education*, 8(3), 143-148.
- Pace, R., Pluye, P., Bartlett, G., Macaulay, A. C., Salsberg, J., Jagosh, J., & Seller, R. (2012). Testing the reliability and efficiency of the pilot Mixed Methods Appraisal Tool (MMAT) for systematic mixed studies review. *International journal of nursing studies*, 49(1), 47-53.

Contact

smoon@ulsan.ac.kr

RSC PST 1 - Research Poster Session 1

Mental Injury: Exploring the Factors Related to Abusive Behavior Among Health Professionals

Leah Phillips, PhD, MA, BA (Hons), Canada

Abstract

Purpose: In Canada, Licensed Practical Nurses (LPNs) are a self-regulated profession; they are accountable to the public, the profession, to other members of the healthcare team, and to their employers. LPNs work as part of health care teams that include Registered Nurses, Physicians, Allied Health Professionals, and unregulated care providers.

“Mental injury (or mental suffering) is harm to a person(s) for which some other person(s) is held responsible in whole or in part. It can take the form of either mental distress or mental illness. Mental injury results from negligent, reckless or intentional acts, or omissions” (Samra, 2009). First recognized by Roberts in 1983, and subsequently studied by many nursing researchers, mental injury caused by bullying and lateral violence are harmful pervasive practices in healthcare work places (Croft and Cash, 2012). Research demonstrates that the effects of psychological hazards on the mental health of nurses can significantly affect their ability to perform their work in a safe manner. Performing professional practice while mentally injured on the job threatens public safety therefore making this an important and serious issue. This study aims to understand the complex nature of workplace mental injury for Licensed Practical Nurses (LPNs) in Alberta Canada.

Methods: Cross sectional descriptive.

The College of Licensed Practical Nurses of Alberta, the regulatory college responsible for licensing LPNs in Alberta, conducted a cross sectional study to investigate the incidence of mental injury due to bullying, (hierarchical and lateral) perceived by LPNs in Alberta. The study also aimed to understand what factors (organization, personal, or environmental) contributed to these perceptions and how these factors were associated with increased risks of mental injury.

Results: The survey was sent out to approximately, nine-thousand six hundred practicing LPNs. One thousand eighty-six (n=1086) LPN completed the survey (8.4%). The results indicated the following:

- 70% experienced intimidation and other forms of abuse behavior as students (by practicing nurses, instructors, other team members and preceptors).
- 89.7% witnessed abusive behavior among nursing colleagues (24.7% witnessed the behavior within the last shift cycle worked).
- 85.1% experienced abusive behavior from another nurse (LPN, RN and RPN).
- 14.6% experienced abusive behavior within the last shift cycle worked.
- 80% experienced abusive behavior from health professionals outside of their nursing peers including immediate supervisor, physicians, healthcare aides and other professionals.
- 60% did not report the abuse due to feeling nothing would happen/change anyway, fear of retaliation, the abuser was the supervisor
- When asked if they believed their work setting tolerated abusive behavior among colleagues, 62% said “yes”.

Conclusion: Although these results are partially affected by selection bias, (the likelihood of responding is higher if one has experienced the phenomena) the survey clearly demonstrates that perceived abusive behavior is prevalent. When abusive behavior is perceived among co-workers it can create a toxic work environment with significant consequences to the organization. The overall ‘health’ of the organization is affected. An ‘unhealthy’ workplace can have many effects. According to the Canadian Centre for Occupational Health and Safety, these effects include:

- Decreased morale
- Decreased job satisfaction

- Decreased productivity and motivation, which may, in turn, lead to
- Increased absenteeism and presenteeism
- Increased turnover
- Increased retention and recruitment issues
- Increased costs for recruitment, employee assistance programs, disability, etc.
- Increased risk for accidents / incidents and patient adverse events

The nursing workforce in Canada is under threat due to increased demand for care and too little human resources to meet that demand. Changing population dynamics mean that more people will require nursing care in multiple care settings and at multiple levels of care. This issue is integral to health human resource planning as nurses represent the largest profession in healthcare. Previous research demonstrated that one in three nurses plans to leave his or her position because of co-worker abuse (McMillan, 1995). Approximately 60 per cent of newly graduated nurses leave their first position within six months because of horizontal violence (Griffin, 2004) and some decide to leave the profession altogether (McKenna, 2003).

This study and its results reflect a need for concerted efforts to begin a dialogue about abusive behavior in the workplace. Nursing leaders concerned about this issue can strive to work collaboratively in a shared commitment to address the issue of co-worker abuse. Nursing regulators can work towards supporting the ability of regulated members to meet the professional standards of practice within the work setting. Engaging with employers is key. Collaborative efforts are needed to make the necessary changes to prevent the negative consequences of workplace mental injury.

References

1. Mental Health Commission of Canada. (2013). Issue: Workplace. Retrieved from: <http://www.mentalhealthcommission.ca/English/Pages/Mentalhealthintheworkplace.aspx>
2. Government of Alberta. (2011). Best practices for the assessment and control of psychological hazards, Volume 5. Edmonton, AB: Author. Retrieved from: <http://www.humanservices.alberta.ca/documents/bp013-bestpractices-volume5.pdf>
3. Canadian Centre for Occupational Health and Safety. Mental Health at Work. retrieved from: http://www.ccohs.ca/oshanswers/psychosocial/mentalhealth_work.html
4. Samra, M., Gilbert, M., Shain, M., Bilsker, D. (2012). Psychosocial Factors. Centre for Applied Research in Mental Health and Addiction. GuardingMinds@Work website. Retrieved from: http://www.guardingmindsatwork.ca/docs/abouts/Psychosocial_Factors.pdf
5. Mental Health Works. (2013). Legal and Regulatory Case. Canadian Mental Health Association, Ontario. Retrieved from: <http://www.mentalhealthworks.ca/why-it-matters/law>
6. Shain, M. (2010). Tracking the Perfect Legal Storm: Converging Systems Create Mounting Pressure to Create the Psychologically Safe Workplace. Retrieved from: http://www.workplacestrategiesformentalhealth.com/pdf/Perfect_Legal_EN.pdf
7. Shain, M. (2009). Stress at Work, Mental Injury and the Law in Canada : A Discussion Paper for the Mental Health Commission of Canada.
8. Bureau de Normalization du Québec & Canadian Standards Association. (2013). National Standard of Canada: Psychological health and safety in the workplace: Prevention, promotion, and guidance to staged implementation. Commissioned by the Mental Health Commission of Canada.
9. Mental Health Commission of Canada. (2010). The Shain Reports on Psychological Safety in the Workplace – A Summary. Retrieved from: <http://www.mentalhealthcommission.ca/English/node/493>
10. Work Safe Alberta Occupational Health and Safety. (n.d.) Teacher Resources: Psychological Hazards. Retrieved from: <http://humanservices.alberta.ca/documents/OHS-Teacher-Resource-Binder-Chapter07.pdf>
11. Bellmore, W. (2012). More than hurt feelings: The health and safety costs of workplace bullying. *Occupational Health & Safety*, 35(3), 8-11.
12. Blaikie, H. (2012). OHS & Workers' Compensation: Management Update. Retrieved from: [http://www.heenanblaikie.com/en/Publications/2012/National-Standard-for-Psychological-Health-and-Safety-in-the-Canadian-Workplace- Released.pdf](http://www.heenanblaikie.com/en/Publications/2012/National-Standard-for-Psychological-Health-and-Safety-in-the-Canadian-Workplace-Released.pdf)
13. Mental Health Commission of Canada. (2012). Changing directions, Changing Lives: The Mental Health Strategy for Canada. Retrieved from: <http://strategy.mentalhealthcommission.ca/pdf/strategy-text-en.pdf>
14. Tangri, R. (2003). *StressCosts Stress-Cures*. Victoria: Trafford Publishing. Retrieved from: <http://www.teamchrysalis.com/>

15. Williams, C. and Normand, J. (2003). "Stress at Work," Canadian Social Trends, no. 70 (August 2003). Statistics Canada, (2003). Retrieved from: <http://www.statcan.ca:8096/bsolc/english/bsolc?catno=11008-X20030026621>
16. Sairanen, S., Matzanke, D., & Smeall, D. (2011). The business case: Collaborating to help employees maintain their mental well-being. *Healthcare Papers*, 11, 78–84.
17. Towers, Watson. (2012). Pathway to health and productivity. 2011/2012 Staying@Work survey report. North America. Retrieved from <http://www.towerswatson.com/assets/pdf/6031/Towers-Watson-Staying-at-Work-Report.pdf>.
18. Smetanin, P., Stiff, D., Briante, C., Adair, C., Ahmad, S., & Khan, M. (2011). The life and economic impact of major mental illnesses in Canada: 2011 to 2041. *RiskAnalytica*, on behalf of the Mental Health Commission of Canada.
19. Health Quality Council of Alberta. (2013). Managing disruptive behaviour in the healthcare workplace. Draft document – in press.
20. Canadian Centre for Occupational Health and Safety. (2005). Bullying in the Workplace. Retrieved from: <http://www.ccohs.ca/oshanswers/psychosocial/bullying.html>
21. Canadian Centre for Occupational Health & Safety. (2004). Workplace Bullying Harms Both Employees and Employers. *Health and Safety Report*, 2(8), August. Retrieved from: <http://www.ccohs.ca/newsletters/hsreport/issues/2004/08/ezone.html>
22. McMillan, I. (1995). Losing control. *Nursing Times*, 91(15), 40.
23. Griffin, M. (2004). Teaching cognitive rehearsal as a shield for lateral violence: An intervention for newly licensed nurses. *The Journal of Continuing Education in Nursing*, 35(6), 257–263.
24. McKenna, B.G., Smith, N.A., Poole, S.J., Coverdale, J.H. (2003). Horizontal violence: Experiences of registered nurses in their first year of practice. *Journal of Advanced Nursing*, 42(1), 90-96.
25. Joint Commission on Accreditation of Healthcare Organizations. (2005). The Joint Commission guide to improving staff communication. Oakbrook Terrace, IL: Joint Commission Resources.
26. Rosenstein, A.H. & O'Daniel, M. (2005). Disruptive behavior and clinical outcomes: perceptions of nurses and physicians. *American Journal of Nursing*, 105(1), 54-65.
27. Nurses Association of New Brunswick. (2005). Position Statement: Framework for a quality professional practice environment for registered nurses. Retrieved from: <http://www.nanb.nb.ca/PDF/position-statements/FrameworkQualityProfessionalPracticeEnvE.pdf>
28. Kohn, L., Corrigan, J.M., Donaldson, M.S. (2000). *To Err is Human*. Washington, DC: National Academies Press.
29. Miedema, B., MacIntyre, L., Tatemichi, S., Lambert-Lanning, A., Lemire, F., Manca, D., Ramsden, V. (2012). How the medical culture contributes to coworker-perpetuated harassment and abuse of family physicians. *Annals of Family Medicine*, 10(2), 111-117.
30. Lucian Leape Institute. (2013). *Through the eyes of the workforce: Creating joy, meaning and safer health care*. National Boston: Patient
31. Safety Foundation. Retrieved from: http://www.npsf.org/wp-content/uploads/2013/03/Through-Eyes-of-the-Workforce_online.pdf
32. Townsend, T. (2012). Break the bullying cycle. *American Nurse Today*, 7(1), 1). Retrieved from: <http://www.americannursetoday.com/article.aspx?id=8648>

Contact

lphillips@clpna.com

RSC PST 1 - Research Poster Session 1

Identifying the Impact of a DEU Experience on Critical Thinking in Associate Degree Nursing Students

Elizabeth C. Campbell, MSN, RN, USA

Thomas W. Gunning, MSN, RN, USA

Nancy Phoenix Bittner, PhD, RN, CNS, USA

Abstract

Purpose: The purpose of this project is to identify the impact of the DEU experience on AD nursing student's Clinical Reasoning ability. Using Benner's model of Novice to Expert progression, this model supports development through role modeling, acquisition of skills and deliberate practice, as well as more total immersion into the role of the nurse on a chosen unit.

Methods: Design and Methods - The Health Sciences Reasoning Tool will be administered pre-and post DEU experience to measure the development of critical thinking in the experimental group of DEU students (n= 18 per semester) against a control group of students in each course (NU102 Days and Evenings, and NU 201 Evenings at baseline as the course begins, and again following the clinical experience of all groups. The Health Sciences Reasoning Test (HSRT) measures high-stakes reasoning and decision-making processes. The HSRT is specifically calibrated for trainees in health sciences educational programs (undergraduate and graduate) and for professional health science practitioners. Scores on this instrument have been found to predict successful professional licensure and high clinical performance ratings.

Setting and Sample - All adult nursing students 18 years or over in the second semester nursing course of both the day and evening nursing program will be included in the study. We plan to begin the project on two medical-surgical units in acute care hospital settings.

Data analysis - The tool is analyzed per the company formula for univariate and bivariate, correlations.

Results: This study is a new study in progress over the academic year and will be continued sequentially in subsequent semesters.

Conclusion: The study question here is: " Does participation in the clinical experience of a Dedicated Education Unit (DEU) as an AD nursing student have a significantly positive effect on Clinical Reasoning development?" It is the belief of the researchers that the study will support positive results given the one on one teaching and mentoring of a student versus the traditional approach of 1:7 currently seen in our clinical group. This is an ongoing study but results will be available by the end of our academic year, We have significant positive anecdotal feedback from students and clinical faculty about the experience, but as previously stated no studies can be found to support the growth of clinical reasoning in students. We know that the needs for orientation, and subsequent costs for orientation can be reduced by use of this model, but we have no hard evidence to support the professional growth we presume occurs.. In addition, professional growth of Clinical Teachers is an added bonus, and while not part of the study discussion here will be addressed in the poster as the role allows nurses with an interest in teaching to work with students, an added benefit in the known faculty shortage here in the US.

References

Benner, P, Sutphen, M., Leonard, V, & Day, L.(2010). *Educating nurses: A call for radical transformation*. San Francisco, CA: Jossey-Bass.

Glazer, G., Erickson, J.I., Mylott, L., Mulready-Shick, J., & Banister, G. (2011). Partnering and Leadership: Core requirements for developing a dedicated education unit. *Journal of Nursing Administration, 41(0), 401-06*. Doi:10.1097/BBA.)b013c31822edd79

Mulready-Shick, J., Flanagan, K., Banister, G., Mylott, L., & Curtin, L. (2013). Evaluating dedicated education units for clinical quality. *Journal of Nursing Education, 52 (11), 606-14*.

Contact

ecamp0113@verizon.net

RSC PST 1 - Research Poster Session 1

Nursing Leadership Influence on Male Graduate Nurses Retention Experiences Explored in the Professional Practice Environment

Dianne T. Juliff, MSc (Nsg), RN, RM, MCH, CertRAN, GradCertMgmt (Ldsp), BSc (Nsg), Australia

Abstract

Purpose: To investigate the lived experience of the graduate registered nurses who are male with view of understanding how these newly registered nurses transition into the professional-practice environment and ultimately the nursing profession. Thus opening the discussion on schemes that may assist with future recruitment and sustainability of males entering the nursing workforce.

Methods: A qualitative longitudinal phenomenological study, explored the lived experience of nine newly graduated nurses who are male during their first year in their professional-practice environment. Interpretative phenomenological analysis (IPA) was utilized both as the study design and the methodology. The aim of using IPA was to enhance exploration of the lived experiences of newly graduate nurses who are male, by investigating the meaning of such experiences and how these are made sense of. Moreover, the analysis was "committed to understanding how particular experiential phenomena have been understood from the perspective of particular people, in a particular context" (Smith, Larkin, & Flowers, 2009, p. 29). Purposeful sampling, using a snowball technique, ensured expertise was obtained through the voiced experiences of the nine participants who are male and newly graduated registered nurses about to commence the first year in their professional-practice environment.

Results: The findings from the second stage of this study supports Duchscher's 2007 Transition Stages Model in exposing the likelihood of crisis around the four to six month stage of newly graduate nurses commencement in their new profession (Duchscher, 2008). Leadership and collegial support, moreover the lack of, seeded doubts on whether nursing was the right career for them. Unprofessional nurse to nurse communication and workplace marginalisation of nurses who are male added to their doubts. For the newly graduated men in nursing the added issue focused on the co-cultural aspect of working in a female-dominant profession. The study participants need to fit in, to be part of the team, is consistent with Orbe's (1998) co-cultural communication model's 'outsider within perspective' in relation to their professional socialisation.

The study participants, as expected and consistent with previous literature, revealed constant pressure, both from within and from others, to 'hit the ground running' (Chernomas, Care, McKenzie, Guse, & Currie, 2010). This feeling of 'hitting the ground running' led to the participants repeatedly expressing that they were overwhelmed and afraid of their actions more so than the lack of their actions. Moreover, all of the participants experienced the associated fear of making a mistake and feeling unsafe. This fear, described by Judy Duchscher (2007) as 'Transition Shock' impacts on a new graduate's confidence and self-image, which became apparent in various degrees by all the study participants. Again the study participants concurred with Duchscher (2007) 'Transition Stages Model' where their fear heightened around the four to six month stage known as the 'Transition Crisis' (Duchscher, 2008). It was during this crisis stage that the participants reported that nursing leadership is paramount. Without the explicit nursing leadership in the form of collegial support and caring behavior within their professional-practice environment, the majority of them revealed that they would have left the nursing profession. It was this willingness to help from their colleagues, both male and female, and the role modeling of other nurses who are male, of the various communication techniques these nurses utilized to influence the professional-practice environment that persuaded the participants to continue on their nursing journey. They concluded with the essence of helping being at the forefront of nursing, not just in relation to patient care but also towards their nursing fellows and other health care workers, and believed that this can only be achieved through proactive nursing leadership at all levels. Overall, the study participants reinforced that a viable work environment is embedded in role modeling the nursing leadership characteristics of a welcoming, supportive and inclusive culture. Furthermore, this modeling starts with the welcoming of newcomers such as novice nurses including student nurses and graduates into the workplace, through constructive support in their learning and assimilation into a no blame gender-neutral culture. Moreover,

the acknowledgment of the new comers' status and the willingness to support them in their transition into the professional practice setting is important in the retention of a sustainable nursing workforce.

Conclusion: Nursing leadership at all levels is at the forefront of recruitment and retention of nurses. Support for newly graduated nurses in promotion of a proactive and engaging nursing profession and investment in leadership programs, especially of the minority groups such as men, cannot be underestimated

References

- Rajacich, D., Kane, D., Williston, C., & Cameron, S. (2013). If They Do Call You a Nurse, It Is Always a "Male Nurse": Experiences of Men in the Nursing Profession. *Nursing forum*, *48*(1), 71-80. doi: 10.1111/nuf.12008
- Roche, M., Duffield, C., Aisbett, C., Diers, D., & Stasa, H. (2012). Nursing work directions in Australia: Does evidence drive the policy? *Collegian*, *19*(4), 231.
- Sayman, D. M. (2015). Fighting the Trauma Demons: What Men in Nursing Want You to Know: Trauma Demons. *Nursing forum*, *50*(1), 9-19. doi: 10.1111/nuf.12073

Contact

juliff_di@hotmail.com

RSC PST 1 - Research Poster Session 1

Cognitive Apprenticeship in Hospital Orientation for Newly Graduated Nurses

Betty Key, MSN, RN, CCRN, USA

Abstract

Purpose: Most hospitals utilize the preceptor model for the clinical portion of orientation with newly graduated nurses. The transition from student nurse to practicing, newly graduated nurse can be stressful. Many newly graduated nurses cite the transition period as a time of challenge, uncertainty, and lack of self-assurance, which may also affect patient safety (McDonald & Ward-Smith, 2012). Some researchers believe that this time of stress and uncertainty has contributed to the high rate of turnover for newly graduated nurses (Robitaille, 2013). Nurse retention has become a global issue. Other countries such as Australia, UK, and Canada are also studying transition to practice strategies for newly graduated nurses (Gordon, Aggar, Williams, Walker, Willcock & Bloomfield, 2014). Cognitive apprenticeship (CA) is an instructional strategy that may facilitate ease of transition for NGNs during the clinical portion of hospital orientation. The term cognitive apprenticeship, coined by Collins et al. (1989), describes the cognitive and metacognitive processes shared by a teacher or expert with a student or apprentice. Cognitive apprenticeship seeks to make learning visible by teaching the problem-solving processes used by experts in a way that promotes metacognition in the apprentice or novice as they progress to expert (Collins et al., 1989). Moreover, the methods in CA are often seen in the promotion of the development of expertise (Collins, Brown, & Holum, 1991). The purpose of this mixed methods pretest-posttest design is to explore whether there is a difference in the NGN's sense of confidence, clinical skills, and ease of transition to practice, after completing a CA based orientation.

Methods: A power analysis was performed using G*Power to determine appropriate sample size, $n = 51$. Newly graduated, non-experienced, newly hired RNs who may have already taken or are preparing to take the National Council Licensure Examination (NCLEX) will be solicited for participation. This population was chosen selected because these are the individuals who experience role transition from student nurse to practicing nurse. Nurses, who currently serve as preceptors, will be solicited to attend training on CA. The training will include a preceptor manual, which will illustrate the principles of, and activities of CA, along with weekly clinical guidelines. The primary investigator using the ADDIE model for instructional design, review of literature information, and over twenty years of preceptor experience developed the manual.

The Casey-Fink Graduate Nurse Experience Survey (CFGNES) will be administered at the beginning of the clinical orientation and again at the end of the clinical orientation. This instrument was chosen because it generates data regarding the NGNs transition into practice, confidence, skill set, and aspects of job satisfaction. Additionally, data will be collected from a focus group of both NGNs and preceptors at the end of the orientation process. It is believed that the data collected both quantitatively and qualitatively will answer the research questions.

Data Analysis: Quantitative data analysis will be conducted with the latest version of SPSS, using independent sample t-tests. Qualitative data will be recorded and transcribed during the coding process using NVivo.

Results: It is expected that there will be an increase in confidence, skills and ease of transition to practice at the end of the clinical, preceptorship orientation process. Which could help with new nurse retention, improved patient safety, and improved patient outcomes.

Conclusion: Newly graduated nurses have a high rate of job turnover as they begin the transition from student nurse to practicing nurse. Nursing literature cites lack of confidence, skills, and stress as significant factors for NGNs during the transition to practice progression. Preceptor-based training is frequently utilized during the orientation phase as a means of support for NGNs. However, a gap exists in the literature regarding an exact pedagogical strategy for preceptorships, both during hospital clinical orientation and academic clinical preceptorships. This study will employ CA as an instructional strategy

during the preceptorship phase of orientation to investigate its effectiveness as a transition to practice strategy.

References

- Gardiner, A., & Anderson, J. (2013). Cognitive apprenticeship: A key component of contemporary endoscopy education. *Gastrointestinal Nursing*, 11(7), 16-20.
- McDonals, A. W. & Ward-Smith, P. (2012). A review of evidenced-based strategies to retain graduate nurses in the profession. *Journal of Nurses in Staff Development*, 28(7), 16-20.
- Robitaille, P. (2013). Preceptor-based orientation programs for new graduates. *Association of Perioperative Registered Nurses Journal*, 98(5), 7-8.

Contact

bakey129@yahoo.com

RSC PST 1 - Research Poster Session 1

Using Story-Guided Online Deliberate Practice to Develop BSN Students' Critical Incident Reporting Skill

Jen-Huei (Vicky) Yeh, BSN, RN, USA

Gwen Sherwood, PhD, RN, FAAN, ANEF, USA

Abstract

The use of stories in healthcare education is a teaching-learning strategy used to provide the context of a clinical situation in a way that learners can relate the facts with the concept (Billings & Kowalski, 2016). Listening to stories, as opposed to reading a clinical case presented in a third-person view with objective clinical values, encourages learners to think critically while allowing them to react with emotions (Billings & Kowalski, 2016). The nature of stories brings the context to a person level and links actions with consequences as the stories unfold (Sherwood, Durham, & Zomorodi, 2016). Without visual cues, audio stories decrease the introduction of preconceived assumptions and free the learners to use their imagination. For these reasons, stories present a unique way to introduce and simulate clinical scenarios. Deliberate practice (DP) is an intentional, repetitive practice that is performed with the goal to improve a skill from the current level and has been identified as a critical activity to excel in a given skill (Ericsson, Krampe, & Tesch-Romer, 1993). Its use in simulation-based medical education suggests that DP is more effective when compared to the traditional "see one, do one, teach one" approach (McGaghie, 2011). The key components of DP include 1) practice, 2) feedback, 3) self-reflection, and 4) repeat practice (Ericsson, 2008). This study uses story to guide pre-licensure nursing students as they engage in online DP sessions in reporting a patient critical incident using SBAR (Situation, Background, Assessment, Recommendation), a standardized communication tool, to another healthcare provider (Kaiser Permanente).

Purpose: The purpose of this study is to evaluate pre-licensure nursing students' experience in completing story-guided online DP sessions to practice reporting a patient critical incident using SBAR to another healthcare provider. Main topics evaluated include students' 1) feedback on using story to introduce clinical scenario, 2) perception of the helpfulness of different components of the DP session, and 3) overall satisfaction in completing the story-guided DP sessions. The reported preliminary results are a part of a pilot experimental study measuring the impact of the online DP sessions on students' critical incident SBAR reporting performance.

Methods: Eighty-one pre-licensure nursing students completed a minimum of two (mean=2.6) story-guided online DP sessions as a summer course requirement. To simulate clinical scenarios, audio case stories provided by StoryCare®, Eefform, LLC were used to introduce scenarios with a patient critical incident that required calling another provider for his/her immediate attention. The online DP sessions were accessible to students on an educational platform used by the University. In each session, students listened to an audio story and then constructed and recorded a verbal SBAR report to a provider. Subsequently, students completed a self-assessment checklist (Foronda et al., 2015) and four self-reflective questions before recording a refined SBAR report. At the end of each session students listened to an example of a good SBAR report recorded by an experienced clinician. Each session had a 45-minute time limit. Upon IRB approval and after the summer session ended, an online evaluation survey was sent to all students to evaluate their experience in completing the story-guided online DP sessions.

Results: Forty-six students (56.8%) completed the online evaluation survey. In using story to introduce a clinical scenario, survey results revealed that students rated the audio stories to be realistic (100%). They also indicated that stories help them establish the context of how clinical situations develop (93.3%) and see different perspectives of other healthcare team members (93.3%). Among different components of a DP session, the most highly rated elements were: actually recording a verbal report, completing the self-assessment checklist, and listening to the example SBAR report provided. Overall, students reported the DP sessions were helpful in developing critical incident reporting skills using SBAR. All but one student perceived some level of improvement in their ability to use SBAR in communications and 30.4% stated they have made significant improvements throughout the summer session. Despite the overall

satisfaction of the experience, 40.0% of the students experienced technical difficulties in recording their verbal reports directly on the educational platform and 15.6% wished they had more time to complete each session.

Conclusion: Results of the evaluation study suggest that using story is an effective teaching-learning strategy in providing the context of a clinical situation and further guiding a DP learning experience to report a patient critical incident. These preliminary results supported the use of audio stories to simulate clinical scenarios. Analysis of students' verbal reports and a study of a larger scale are needed to further assess students' actual performance change in relation to completing the DP sessions. Modifications to overcome technical difficulties associated with the educational platform are necessary to provide students an improved learning experience. Online DP for skill development can be an efficient teaching approach to meet both students and faculty time management needs.

References

- Billings, D. & Kowalski, K. (2016). Storytelling: A strategy for providing context for learning. *The Journal of Continuing Education in Nursing, 47*(3), 109-110.
- Ericsson, K. A. (2008). Deliberate practice and acquisition of expert performance: A general overview. *Academic Emergency Medicine, 15*(11), 988-994. doi: 10.1111/j.1553-2712.2008.00227.x
- Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review, 100*(3), 363-406. doi: 10.1037/0033-295X.100.3.363
- Foronda, C. L., Alhusen, J., Budhathoki, C., Lamb, M., Tinsley, K., MacWilliams, B., Daniels, J., Baptiste, D. L., Reese, K. K., & Bauman, E. (2015). A mixed-methods, international, multisite study to develop and validate a measure of nurse-to-physician communication in simulation. *Nursing Education Perspectives, 36*(6), 383-388. doi: 10.5480/15-1644
- McGaghie, W. C., Issenberg, S. B., Cohen, E. R., Barsuk, J. H., & Wayne, D. B. (2011). Does simulation-based medical education with deliberate practice yield better results than traditional clinical education? A meta-analytic comparative review of the evidence. *Academic Medicine, 86*(6), 706-711. doi: 10.1097/ACM.0b013e318217e119
- Sherwood, G., Durham, C., and Zomorodi, M. (2016, June 25). Using Story to Develop Interprofessional Teamwork Competencies [Powerpoint slides]. Presented at the Optimizing Teamwork Conference, Chiang Mai, Thailand.

Contact

vickyeh@email.unc.edu

RSC PST 1 - Research Poster Session 1

The Teaching Implementation of Hospital Experts Effects on the Self-Efficacy of Nursing Students

Fu-Fei Tsai, MHA, RN, Taiwan

Abstract

Purpose: The purpose of research was to investigate the evaluation of the third years nursing students after the critical care program which hospital nursing experts teach. More specifically, the aim of the paper was to examine the changing self-efficacy of nursing students.

Methods: This study was a quantitative, pretest-posttest ,and comparative design.

This quantitative research used the questionnaire, including baseline demographics, and self-efficacy between the experimental groups (N=40) and control groups (N=40). The experimental group performed the critical care program of the intervention, and the control group received the traditional classes. The SPSS software packages 21.0 for Windows was used for analyze data according to results of quantitative research. Descriptive statistics provided frequency, percentage, mean, and standard deviation. Chi-square test and Mann-Whitney U test were used to analyze the baseline demographics of participants between two groups. The independent two-sample t-test was used to analyze self- efficacy. The paired t-test was compared pre with post of self- efficacy. One-way ANOVA was used to compare the increased scores of self-efficacy within and between different groups. Linear regression was applied to examine the associated between post-test score of self-efficacy and baseline data, and pre-test score.

Results: The results on the baseline demographics of 80 participants between two groups showed that four variables of them were significant in sex($X^2=6.05$ or Mann-Whitney U test, $p<.05$), religious affiliation($X^2=18.81$ or Mann-Whitney U test, $p<.05$), number of sisters (Mann-Whitney U test, $p<.05$) and interest in nursing(Mann-Whitney U test, $p<.05$). No significant differences were found the other 11 variables such as age, horoscope, gender, aborigines, blood type, family in nursing, household income, number of brothers, ranking at home, volunteering in nursing, and ideal spouse occupation.

The analysis of the independent two-sample t-test indicated no significant differences in pre-test scores of self-efficacy. After the intervention in the experimental group, the post-test score of self-efficacy ($M=2.63$, $SD=0.47$) is higher than the pre-test score ($M=2.49$, $SD=0.51$), but analysis of paired t test show that no difference is statistically significant between pre-test and post-test ($t=-1.906$, $p=0.064$). In contrast to the control group, the post-test score of self-efficacy ($M=2.54$, $SD=0.53$) is lower than the pre-test score ($M=2.61$, $SD=0.64$), and analysis of paired t test show that no difference is statistically significant between pre-test and post-test ($t=-0.496$, $p=0.622$).

Analysis of a one-way ANOVA revealed that there were group differences in the increased scores of self-efficacy ($F=4.433$, $p= 0.038^*$).

The results of stepwise regression demonstrated that pre-test score of self-efficacy predicted the post-test scores of self-efficacy in the experimental group ($\beta =0.560$, $t =4.165$, $p <.001$) and explained variation 31.3% (coefficient of determination). Also, pre-test score of self-efficacy predicted the post-test scores of self-efficacy in the control group ($\beta =0.753$, $t =7.051$, $p <.001$) and explained variation 56.7% (R^2).

Conclusion: The clinical nursing teachers of the program play the important role models. The sources of self-efficacy are followed as previous performance or mastery of experiences, observe and learn from models, social persuasion or the feedback. They might help students set goals, encourage the use of challenging and proximal goals, provide honest and explicit feedback to increase students' efficacy beliefs, facilitate accurate calibration of self-efficacy, and use peer modeling to build self-efficacy. When students experience success or get positive feedback, their self-efficacy become better. If nursing experts share their successful life, students can motivate to learn and increase their self-efficacy. Little by little, their higher self-efficacy might promote the persistence in performing tasks or learning challenges.

Likewise, the lower self-efficacy might be resulted from suffering difficulty and uncertain socialization during college learning period.

The results have a contribution to explain the evaluation of the critical care program in increase the self-efficacy of nursing students. The department of nursing will improve the instructional program design inadequately. When new nurses are assigned to critical unit, they have the ability to adapt the task. The new nurse turnover rate remains lower than past, especially during the entry several months. Some of new nurses do not leave hospital due to reality shock.

References

- Nasrin, H., Soroor, P., & Soodabeh, J. (2012). Nursing challenge in motivating nursing students through clinical education: A grounded theory study. *Nursing Research and Practice*, 2012, 1-7. doi:10.1155/2012/161359
- Artino Jr, A.R. (2012). Academic self-efficacy: from educational theory to instructional practice. *Perspectives on Medical Education*, 1(2), 76-85.
- Yang, C.I., Yuan, K.H., Wang, S.Y., Lei, R.L., & Chen, S.L. (2015). Growing up from the experiences of frustration and success the learning experiences of nursing students participating into the ER and ICU school-to-work program. *Hungkuang Journal*, (76), 39 -49.

Contact

fufei@tajen.edu.tw

RSC PST 1 - Research Poster Session 1

Matched Preceptor-Preceptee Learning Styles on Student Self-Efficacy in Midwifery Students

Zofia Rapaport, MA, RN, Israel

Cheryl Zlotnick, DrPH, MPH, MS, RN, Israel

Abstract

Purpose: Students with high self-efficacy become more confident and competent midwives. Contributing to the development of self-efficacy in midwifery education is the clinical learning environment, particularly the preceptor-student relationship. Matching student and preceptor learning styles might contribute to the preceptor-student relationship and self-efficacy; however, this hypothesis has not yet been tested. This study aims to examine the impact of matched preceptor-student learning styles on the link between the quality of the preceptor-student relationship and student self-efficacy in midwifery students.

Methods: This study will use a quantitative approach and a cross-sectional design to enroll a convenience sample of all midwifery program preceptees in Israel (n=75). The procedure will be to ask all three schools' program directors to encourage their preceptees and preceptors to participate in the study. There will be two questionnaires. The first questionnaire will be for the midwifery students and includes: Prenatal Nursing Self-Efficacy scale, the Clinical Teacher Characteristics Instrument (CTCI), and the VARK (learning styles) questionnaire. The second questionnaire will be for the preceptor and will only include the VARK.

Results: Expected Contributions: If nursing schools learn that matching preceptor-preceptee learning styles increases preceptees' self-efficacy and better prepares them to be autonomous practitioners, programs may want to institute this practice (preceptor-preceptee learning styles) into their educational system.

Conclusion: This study will contribute to midwifery nursing education, training and research. Specifically, this study builds on the knowledge that midwifery nursing preceptors have a great influence on their preceptees, and the advancement and future of midwifery practice in Israel. Preceptees' perspective of their preceptor is internalized and influences their learning, practice and self-efficacy. Self-efficacy is linked with better performance; consequently, understanding methods to improve self-efficacy is paramount as it is translated into their patient care.

Besides selecting the best preceptors, nursing schools want to pair their students with preceptors who will be the most successful at helping them learn. If nursing schools learn that by matching preceptor-preceptee learning styles, preceptees' self-efficacy will increase, they may want to institute this practice into their educational system. There is far less literature about the impact of nursing preceptors on midwifery nursing student's perceptions on self-efficacy.

References

- Bharj, K. K., Luyben, A., Avery, M. D., Johnson, P., O'Connell, R., Barger, M. K., et al. (2016). An agenda for midwifery education: Advancing the state of the world's midwifery. *Midwifery*, 33, 3-6. doi:<http://dx.doi.org/10.1016/j.midw.2016.01.004>.
- James, S., D'Amore, A., & Thomas, T. (2011). Learning preferences of first year nursing and midwifery students: utilizing VARK. *Nurse Education Today*, 31(4), 417-423. doi:10.1016/j.nedt.2010.08.008
- Madhavanprabhakaran, G. K., Shukri, R. K., Hayudini, J., & Narayanan, S. K. (2013). Undergraduate nursing students' perception of effective clinical instructor: Oman. *International Journal of Nursing Science*, 3(2), 38-44. doi:10.5923/j.nursing.20130302.02
- Karim, H. (2014). Using VARK approach for assessing preferred learning styles of first year medical sciences students: a survey from Iran *Journal of Clinical and Diagnostic Research*, 8(8), GC01-GC04. doi:10.7860/JCDR/2014/8089.4667
- Wealthall, S., & Henning, M. (2012). What makes a competent clinical teacher? *Canadian Medical Education Journal*, 3(2), 141-145.

Contact

z_rapaport@rambam.health.gov.il

RSC PST 1 - Research Poster Session 1

Innovative Leadership in Nursing Education for Maryland Healthcare Systems: Supporting Professional Advancement in Nursing

Tener Goodwin Veenema, PhD, MSN, MPH, RN, CPNP, FAAN, USA

Abstract

Purpose: The US Health Resources and Services Administration (HRSA), recently reported that Maryland is one of 16 U.S. states projected to experience a serious shortfall of registered nurses (RNs) by 2025 (HRSA, 2014). This problem is not unique to the US as globally, the nursing shortage is limiting access to health care services and impacting health outcomes across many countries. Innovative education and workplace partnership programs are needed to retain new nursing graduates in times of shortage and funnel them into open 'high-need' positions at area health care systems while simultaneously providing support and encouragement for the nurse to return to graduate advanced nursing studies. An opportunity exists to establish strong coordinated and collaborative academic-workplace partnerships to improve the way 1) advise and assist our pre-licensure nursing students with identifying and obtaining appropriate job placements, 2) onboard and support the transition of the new nurse into the clinical setting, 3) use technology and social media to establish an innovative communication and information sharing system to support their first three years in practice, 4) meet the nurses' need for professional growth and career development, and 5) facilitate the new nurses' enrollment into graduate nursing programs of study. The purpose of this research was to design and evaluate an innovative workforce development program that would be generalizable and reproducible in other countries and world regions.

Methods: In 2015, the Johns Hopkins University School of Nursing (JHSON), in partnership with five area hospitals and health care systems received grant funding from the Maryland Higher Education Commission to develop, implement and evaluate an innovative phased program of research called.

Results: The first two years of this innovative academic workplace partnership program is now complete. Thirty students applied and completed their senior practicum experience at a partner health care system. Twenty out of the 24 students were offered full-time nursing positions and all students accepted. Students remain gainfully employed, have transitioned successfully into the workplace and are applying to graduate advanced nursing programs of study.

Conclusions: The data suggest that 1) students are very receptive to this new opportunity early in their career, 2) academic-workplace partnerships improve communications between organizations and nurses who work in them, 3) an Innovative Smart phone based text-messaging system to disseminate a series of timed messages of support and information can enhance and sustain the nurses' engagement in the academic-practice partnership.

References

- Institute of Medicine. (2010). *The Future of Nursing: leading change advancing health*. Washington DC: The National Academies Press.
- Jeffries, P. R., Rose, L., Belcher, A. E., Dang, D., Hochuli, J. F., Fleischmann, D., ... & Walrath, J. M. (2013). A clinical academic practice partnership: a clinical education redesign. *Journal of Professional Nursing*, 29(3), 128-136.
- Maryland Department of Labor, Licensing and Regulation, Healthcare practitioners and Technical Occupations-Maryland Occupational Projections-2012-2022. Accessed at <http://www.dlir.state.md.us/lmi/iandoproj/occgrou29.shtml>
- Stout, C., Short, N., Aldrich, K., Cintron, R. J., & Provencio-Vasquez, E. (2015). Meeting The Future of Nursing Report (TM) Recommendations: A Successful Practice-Academic Partnership. *Nursing Economics*, 33(3), 161.
- Tubbs-Cooley, H. L., Martsof, D. S., Pickler, R. H., Morrison, C. F., & Wardlaw, C. E. (2013). Development of a regional nursing research partnership for academic and practice collaborations. *Nursing research and practice*, 2013.
- U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. *The Future of the Nursing Workforce: National- and State-Level Projections, 2012-2025*. Rockville, Maryland, 2014. [http://bhw.hrsa.gov/healthworkforce/supplydemand/nursing/workforceprojections/nursing projections.pdf](http://bhw.hrsa.gov/healthworkforce/supplydemand/nursing/workforceprojections/nursing%20projections.pdf)

Walsh, K., Kitson, A., Cross, W., Thoms, D., Thornton, A., Moss, C., ... & Graham, I. (2012). A conversation about practice development and knowledge translation as mechanisms to align the academic and clinical contexts for the advancement of nursing practice. *Collegian*, 19(2), 67-75.

Contact

tveenem1@jhu.edu

RSC PST 1 - Research Poster Session 1

The Effects of Task Characteristics and Cognitive Loading on Clinical Examination Performance in Nursing Students

Hsiang-Chu Pai, PhD, RN, Taiwan

Abstract

Purpose: The integration and education and practice has received wide attention in the nursing profession. In this regard, the objective structured clinical examination (OSCE) is being increasingly used with students in nursing programs in Taiwan before they enter clinical practice in hospitals. Most studies, however, examine OSCE's advantage, while few focus on the impact of task characteristics and the relationship between task characteristics, task cognitive loading, and skill performance for the OSCE. The purpose of this study was to examine the task characteristics of and cognitive loading that occurs during OSCE administration among third-year nursing students who are seeking a baccalaureate in nursing and to explore the association between the task characteristics, cognitive loading, and clinical examination performance.

Methods: A correlation study design was employed. A total of 118 nursing students who sat for the clinical examination were recruited. The data were collected in January 2015. Students' ages ranged from 21 to 31, and the mean age was 21.68 (SD =1.23). The majority of students were female (78.05 %). The measures included task characteristic, task cognitive loading, and skill performance scores. The structural equation modeling (SEM) approach with partial least squares (PLS) was used in the data analysis.

Results: The results of this study indicated that students perceived the top dimensions of the task characteristics of the OSCE was "task significance". Further, "task identity and feedback from job" and "task autonomy" had a significant negative effect on task cognitive loading ($\beta = -0.14$; $\beta = -0.18$, $p < .05$), respectively. In contrast, "task variety and significance" had a significant positive effect on cognitive loading ($\beta = 0.20$, $p < .01$), and cognitive loading had a significant negative effect on student's OSCE performance score ($\beta = -0.25$, $p < .001$).

Conclusion: We found that increased task variety and significance and reduced task autonomy, task identity, and feedback during OSCE were associated with increased task cognitive load, which, in turn, reduces OSCE performance. This study demonstrated that task cognitive loading plays an important role between students' perceived task characteristics and performance during the OSCE. We suggest that skill examination begin with the presentation of a simple strategy (low element interactivity) and gradually work up to more complex tasks

References

- Cuevas, H. E., & Timmerman, G. M. (2016). Use of an objective structured clinical examination in clinical nurse specialist education. *Clinical Nurse Specialist*, 30(3), 172–176.
- Muldoon, K., Biesty, L., & Smith, V. (2014). "I found the OSCE very stressful": Student midwives' attitudes towards an objective structured clinical examination (OSCE). *Nurse Education Today*, 34(3), 468–473.
- Schlairet, M. C., Schlairet, T. J., Sauls, D. H., & Bellflowers, L. (2015). Cognitive load, emotion, and performance in high-fidelity simulation among beginning nursing students: A pilot study. *Journal of Nursing Education*, 54(Suppl. 3), S5–S11.

Contact

pai55215@ms41.hinet.net

RSC PST 1 - Research Poster Session 1

Measuring Changes in Cultural Awareness, Sensitivity, and Behaviors Among Online Graduate Nursing Students

Janet A. Levey, PhD, MSN, BSN, RN-BC, CNE, USA

Abstract

Purpose: Cultural competency is embedded at the graduate level to prepare nurses for advanced roles in nursing education and practice (Clark et al., 2011). Nurse educators employ several learning opportunities for graduate students to develop a higher level of cultural awareness, sensitivity, and behaviors. Some graduate online cultural diversity courses use blogging, recorded lectures, synchronous classrooms, social media, video conferencing, and short-term immersion experiences (Arbour, Kaspar, & Teall, 2015). However, short-term immersion experiences may be a burden on students related to cost, family commitments, and use of vacation work benefits (Sagar, 2014). The purpose of this presentation is to describe the effect of an online graduate cultural diversity course on transforming nursing students' perceptions towards cultural awareness, sensitivity, behaviors, and course learning objectives over a 16-week time period. The primary investigator (PI) created a graduate online course using innovative teaching strategies as an alternative to the university's hybrid course requiring short-term travel. Leininger's Transcultural Nursing Theory served as the theoretical framework for the study.

Methods: A longitudinal design was used to measure the impact of an online graduate course on students' perceptions towards the attributes of cultural competency and course learning objectives at baseline and upon course completion. An additional aim was to identify effective teaching strategies used to teach cultural competency and skills during a 16-week educational experience. The research questions included: (1) What is the effect of a 16-week online cultural diversity course on nursing students' perceptions of cultural awareness, sensitivity, and behaviors?; (2) What is the effect of a 16-week online cultural diversity course on nursing student behaviors and course learning objectives?; (3) Which online teaching strategy was the most effective for teaching cultural diversity content and skills?; and (4) What is the relationship between teaching strategies and students' perceptions of achieving course learning objectives?

Participants in the study were students in the graduate nurse educator or nurse practitioner programs at a Midwestern University who registered for the online cultural diversity course. The study was approved by the university's instructional review board and launched in August 2015 and data collection for this phase of the study will end in December 2016. Participants received a survey invitation and reminder emails two weeks prior to the official course start date. The emails explained data would be collected over two points in time and was not related to a grade. No incentive was provided for participating and consent was implied when participants linked to the survey. Qualtrics Survey Software provided the portal in which to collect and store password secured data for the PI. Participants provided their unique student identification number to link survey responses. After grades were submitted, the class received the same survey invitations and reminder emails, minus demographic survey. G*Power determined a sample size of 34 achieved adequate power (effect size = 0.5; alpha = .05).

The Cultural Competence Assessment (CCA) instrument was used to measure perceptions of cultural awareness, sensitivity, and behaviors. Permission was received to use the CCA and demographic survey for research purposes. The CCA instrument has a test-retest reliability index of .89. The CCA has two subscales: Cultural Awareness and Sensitivity [CAS] (11-items; reliability index .75) and Cultural Competence Behaviors [CCB] (14-items, reliability index .91). Participants rated their level of agreement on the CAS and CCB using a 7-point Likert scale (strongly agree to strongly disagree). The CAS and CCB is scored using a range of 1 to 7 per item. A higher score indicates a greater level of cultural awareness, cultural sensitivity, and cultural competence behaviors. The second part of the survey contained items specific to course learning objectives (CLO) in which the stem was formatted in first-person (7-items), similar to the CCA. Face and content validity were established before the start of the study. A higher score indicates a greater level of culturally competent behaviors as related to the course objectives.

Results: The study is currently in progress and findings will be presented during the poster presentation. Descriptive statistics will describe the sample characteristics and identify the pedagogical approach most effective when teaching cultural diversity online. Cultural awareness, sensitivity, and behaviors mean scores will be compared using a paired t test statistic at baseline and course completion. Pearson correlation will examine the relationships between teaching strategies and students' perceptions of achieving course learning objectives. Anecdotal student feedback and comments will be shared with the audience.

Conclusions: Findings from this study might provide nurse educators with insight on engaging teaching strategies to connect online graduate students to cultural awareness, sensitivity, and behaviors. Examining the relationships between course learning objectives and student behaviors can offer an opportunity for educators to evaluate if course outcomes are congruent with student behaviors and make appropriate course revisions. Measuring the desired online course outcomes for the cultural attributes of awareness, sensitivity, and behaviors of future nurse educators and nurse practitioners is important to ensure we are preparing our graduates for complex settings. Phase II of the study will compare perceptions over three points in time for participants and will be disseminated at a later date.

References

- Arbour, M., Kaspar, R. W., & Teall, A. M. (2015). Strategies to promote cultural competence in distance education. *Journal of Transcultural Nursing: Official Journal of the Transcultural Nursing Society/Transcultural Nursing Society*, 26(4), 436. doi:10.1177/1043659614547201
- Clark, L., Calvillo, E., Cruz, F. D., Fongwa, M., Kools, S., Lowe, J., & Mastel-Smith, B. (2011). Cultural competencies for graduate nursing education. *Journal of Professional Nursing*, 27(3), 133-139. doi:10.1016/j.profnurs.2011.02.001
- Sagar, P.L. (2014). *Transcultural nursing education strategies*. New York, NY: Springer Publishing Company.

Contact

jalevey@wi.rr.com

RSC PST 1 - Research Poster Session 1

Attempting Shared Governance Within a School of Nursing

Laura L. Opton, DHSc, RN, CNE, USA
Carol Boswell, EdD, RN, CNE, ANEF, FAAN, USA
Donna C. Owen, PhD, RN, USA

Abstract

Purpose: The governance structure of schools of nursing has the capability to augment the work environment for both faculty and staff. The pressure and intricacy of the multifaceted academic milieu have been postulated as contributing issues in the significant number of open academic nurse educator positions (Baker, Fitzpatrick, & Griffin, 2010). While staff members are usually involved as a supportive role in the hierarchical academic structure, they are frequently separate from faculty. Although faculty and staff both work to meet the strategic aims identified by the school of nursing, this structured separation by role has the potential to create a faculty-staff divide that impacts the work environment. Few studies have scrutinized shared governance as it relates to educational organizations. Shared governance holds the ability to influence the direct work of both faculty and staff by affecting job satisfaction and the level of work engagement. Job satisfaction has been connected to engagement and empowerment within other workplace settings.

Methods: The aim of this research study was to compare the School of Nursing's faculty and staff perceptions of job satisfaction and engagement in the workplace prior to and following the implementation of an integrated shared governance system. A longitudinal quasi-experimental, pre-post design is being used. Data was collected at the beginning of shared governance implementation and after the first full year of implementation. The project will continue to survey annually for an additional two years. Approximately 115 full time educators along with 150 full time staff are employed at a Texas public health sciences center school of nursing. Each of these individuals was asked to participate in the study. A power analysis was done that indicated a minimum sample of 120 (60 faculty/60 staff) was needed to obtain an eighty percent power with medium effect using regression analysis (Faul, Erdfelder, Buchner, & Lang, 2009). Six instruments were selected: An investigator developed qualitative online Engagement in the Work Environment Survey; Meyers' (1993) Affective Commitment Scale; Spreitzer's (1995), Psychological Empowerment Scale; Laschinger et al's, (2001) Conditions of Work Effectiveness II (CWEQ-II); Hackman and Oldham's (1975) Job Diagnostic Survey (JDS) and an investigator-developed demographic questionnaire.

Results: This presentation will report the findings from the initial survey along with the data collected after the first year of shared governance. Sixty-nine total individuals completed the initial survey out of the 269 employees within the school of nursing. Three questions results from the analysis: What values guide your work as a faculty or staff at the School of Nursing?; What are the positive "things" you get out of SON's committee work/meetings?, and What are the barriers to participation and/or being productive in SON's committees/meetings?

Conclusion: The idea of shared governance is a process which is needed within each and every governmental setting whether locally or globally. The comments provided by the School of Nursing team members using the survey in this study opened the avenue for dialogue between faculty and staff. The process of implementing an effective shared governance structure which embraces staff roles, faculty roles, and administrative issues continues to be a challenge. The lessons learned through this process can be employed in a wide variety of settings and situations.

References

- Baker, S., Fitzpatrick, J.J., & Griffin, M.Q. (2010). Empowerment and job satisfaction in associate degree educators. *Nursing Education Perspectives*, 32, 234-240.
- Fauld, F., Erdfelder, F., Buchner, A., & Lang, A.G. (2009). Statistical analyses using G*Power 3.1: Tests for correlation and regression analysis. *Behavior Research Methods*, 41, 1149-1160.
- Hackman, J., & Oldham, G. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60(2), 159-170. doi:10.1037/h0076546

Laschinger, H., Finegan, J., Shamian, J., & Wilk, P. (2001). Impact of structural and psychological empowerment on job strain in nursing work settings. *Journal of Nursing Administration, 31*(5), 260-272.

Meyer, J., Allen, N., & Smith, C. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology, 78*, 538-551.

Spreitzer, G. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of Management Journal, 38*(5), 1442-1462.

Contact

laura.opton@ttuhsc.edu

RSC PST 1 - Research Poster Session 1

E-Learning in Tertiary-Level Nursing Education in Germany and the Role of the Nurse Educator

Lee F. Koch, MSc, RN, Germany

Uwe Fasshauer, PhD, DGfE, Germany

Karin Reiber, PhD, DGHD, DGP, Germany

Abstract

Purpose: Experts in Germany's healthcare sector predict a rising need for at least 10% of the nursing workforce to be academically trained. In light of increasing occupational demands, some even anticipate a much higher quota of 50%. New legislation set to reform nurse education in Germany includes provisions for a partial transition of basic nurse education from vocational training to the tertiary level (equivalent to a BSN). In order to provide opportunities for nurses to gain academic degrees, the number of academic nursing programs must increase. This presupposes an increased need of qualified faculty with the professional and scientific training necessary for tertiary level nursing education. At the same time, e-learning is becoming more commonplace in tertiary level nursing education. Research has shown that e-learning can be just as effective at helping students achieve learning objectives as traditional face-to-face courses, provided that certain quality criteria are met. The decentralized, asynchronous nature of e-learning enables individualized and varied learning as well as the possibility of reaching many more learners than with conventional methods. However, it also precludes spontaneous, personal interaction between the instructor and the learner, which affects teaching and learning processes. In addition to this, learning objectives in nursing are not only within the cognitive, affective and psycho-motor domains, but also include clinical skills, a domain in which e-learning has its limitations. These circumstances lead to the assumption that e-learning has changed the nurse educator's role.

Research Questions & Objectives: How will e-learning affect and change tertiary-level nursing education in Germany? How will these changes affect the developing role of tertiary-level nursing educators? The results of this study will show experts' expectations of future developments in tertiary-level nurse education and the nurse educator's role in light of the increasing prevalence and importance of e-learning in the form of virtual teaching and learning arrangements.

Methods: One of the premises of symbolic interactionism is that patterns of interpersonal interaction contribute to the sense of identity of the subjects. The interaction between instructor and student is a central element of the teaching and learning process. The subjective views of the participants in these interactions must therefore be considered, in order for us to gain insights into how e-learning affects nurse education and the nurse educator's role, thus placing both student and instructor in the role of an expert. According to role theory, however, social roles (such as that of the nurse educator) are collectively defined, making it necessary to consider both normative input as well as the views of other stakeholders. Thus the decision was made to include members of scientific and professional nursing organizations as well as media designers involved in the production of e-learning modules on the expert panel. A total of 20 panel members was agreed upon, drawing five members from each subgroup of experts. Assuming an average panel mortality of 40%, this leaves us with input from at least three experts from each subgroup.

A three wave Delphi survey combining both qualitative and quantitative methods is being conducted, as this allows us to determine not only the experts' subjective views on the effects of e-learning on nurse education and the nurse educator's role, but also to compare their expectations of future developments in nursing education and the nursing educator's role in light of the increasing prevalence and importance of virtual teaching and learning arrangements. The first wave questionnaire was comprised of open-ended questions and was administered to a select group of experts ($n = 8$) from each of the four subgroups. Seven questionnaires were returned and the data was evaluated utilizing Mayring's method of qualitative content analysis. The second and third wave questionnaires were comprised of statements extrapolated from the results of the first wave and an earlier literature review. These were administered to the expert panel ($n \geq 12$) who were asked to indicate the degree to which they agreed with each statement. The second wave data is currently being analyzed using quantitative methods to determine percentages of

agreement. In the third wave, those items having reached a consensus in the first wave will be excluded. The experts, having been provided feedback on the 2nd-wave results, will then be asked to indicate the degree to which they agree to each statement. The variance between answer tendencies in the 2nd and 3rd waves will then be analyzed.

Results: The first wave resulted in statements which could be grouped under four main codes pertaining to e-learning in tertiary level education in general, to e-learning in tertiary level nurse education, to the influence of e-learning on role of tertiary level educators in general, and to the influence of e-learning on role of tertiary level nurse educators. The statements pertaining to the effects and influence of e-learning on tertiary level education in general and the tertiary level educator's role in general were informative and could be useful for further research on this general topic. Of primary interest, however, were the results pertaining to nurse education and the nurse educator's role. The experts state that, while e-learning is conducive to many learning outcomes in nurse education, there are certain outcomes, such as clinical skills, clinical decision making, or caring, for which e-learning is not suited. Furthermore, electronically mediated communication and interpersonal interaction, which are considered vital elements of nurse education, lead to a depersonalization of the relationship between instructor and student. The experts also conclude that a vital aspect of the nurse educator's role is their function as a professional and academic role model, which e-learning hampers. The data from the second wave is being collected and analyzed at the time of abstract submission. Results from the second wave will be available by the time of presentation in July 2017, while results from the third wave may be available by that time. This knowledge could prove useful in re-designing curricula for the training of tertiary level nursing educators.

Conclusion: This study contributes to field of tertiary level nurse education by providing insight into how e-learning is changing nurse education and, at the same time, affecting the role of the nurse educator. The results are important for re-designing curricula for the training of tertiary level nursing educators in order to adequately prepare them for the challenges posed by e-learning. The results can also inform the practice of current nurse educators involved in e-learning by helping them to critically reflect their own teaching practice and to gain a deeper understanding of their role in the virtual setting. Limitations: Due to limited resources, this study is being conducted on a small scale, with panel members drawn from stakeholders involved in e-learning in nurse education in Germany. The results may not necessarily apply to other disciplines or to tertiary level nurse education in other countries.

References

- Al-Shorbaji, N., Atun, R., Car, J., Majeed, A. & Wheeler, E. (2015): eLearning for undergraduate health professional education. A systematic review informing a radical transformation of health workforce development. London: WHO.
- Koch, L.F. (2014): The nursing educator's role in e-learning: A literature review. In: *Nurse Education Today* 34(11):1382-1387.
- Simon, A. & Flaiz, B. (2015): Der Bedarf hochschulisch qualifizierter Pflegekräfte aus Sicht der Praxis - Ergebnisse einer Expertenbefragung [The need for highly qualified nurses from a practice point of view – Results of an expert survey]. In: *Pflege & Gesellschaft* 20(2):154-172.

Contact

Lee.Koch@st-loreto-duale-fachschulen.de

RSC PST 1 - Research Poster Session 1

Relationships Between Personality Traits and Teaching Self-Efficacy in Clinical Nursing Preceptors

Su-Ya Huang, MS, RN, Taiwan

Abstract

Purpose: Clinical nursing preceptor is an important key of professional development in new nurses. Clinical nursing preceptor can provide effective teaching for new nurses to reduce Reality shock, decrease early burnout, and enhance retention rate. Few studies have examined the factors relationships between personality traits and teaching self-efficacy in Clinical nursing preceptors.

The objective of this study were to examine the statuses and relationships of personality traits and the teaching self-efficacy in clinical nursing preceptors.

Methods: The study methods applied a cross-sectional design using structured questionnaires, including (a) demographic characteristics, (b) personality traits questionnaire, and (c) the teaching self-efficacy evaluation. A total of 200 participants were recruited from two hospitals in south Taiwan through a convenient sampling procedure. Data were analyzed using descriptive statistics, independent t-tests, one-way ANOVA, and Pearson's correlations.

Results: The results of the study showed that clinical nursing preceptors had an average score of 3.86 in the teaching self-efficacy. In terms of the five dimensions of the teaching self-efficacy, the score from the highest to lowest was harmonious interpersonal relationship, objectivity of teaching evaluation, maturity of personal characteristics, proficiency of professional knowledge and effective teaching strategies. Personal characteristics including age, marital status, years of teaching experience, job titles, and the job ranking had significant relationships with the teaching self-efficacy. In consider with personality traits, except to the "Openness", the teaching self-efficacy had significant positive relationships with the "Conscientiousness", "Extraversion", and "Agreeableness" ($r = .632$, $r = .316$, $r = .374$); and the significant negative relationships with the "Neuroticism" ($r = -.339$).

Conclusion: The subjects of the study targeted at the clinical nursing preceptors to understand the personality traits and the current situation of the teaching self-efficacy of the clinical nursing preceptors. The aspects of the clinical preceptors' teaching self-efficacy in a descending order based on the mean scores include harmonious interpersonal relationship, objective teaching assessment, mature personal quality, professional competence and effective teaching. The overall teaching self-efficacy was significantly correlated with age, marital status, teaching seniority, rank of position and job title in the individual attributes. In terms of the correlation with the personality traits, the overall teaching self-efficacy had significant positive correlation with conscientiousness, extraversion and agreeableness except for the openness, and had significant negative correlation with the neuroticism in the personality traits.

References

- Karimvand, P. N. (2011). The nexus between Iranian EFL teachers' self-efccacy, teaching experience and gender. *English Language Teaching*, 4(3), 171-183.
- Li, A. T., & Su, Y. W. (2014). Exploring the relationship between personality features and teaching self-efficacy in clinical nursing preceptors. *The Journal of Nursing Research*, 22(3), 176-182.

Contact

300014@mail.chimei.org.tw

RSC PST 1 - Research Poster Session 1

Exploratory Study on Evaluating the Effectiveness of Implementing the Culture of Huddling in Ambulatory Care

Carol Bloch, PhD, MAEd, BA, RN, CTN-A, CNS, USA

Carolyn Bloch, PhD, MAEd, BA, RN, CTN-A, CNS, USA

Abstract

Purpose: This follow-up study measured if *huddles* were occurring in ambulatory clinics post-didactic education to nursing staff. Interrelating Dr. Madeleine Leininger's cultural care theory with the definition of culture of safety from the Centers for Disease Control and Prevention National Institute for Occupational Safety and Health Education and Information Division in the healthcare setting, the two concepts were explored for commonality and clarification. Although the concept of sharing and reviewing patients prior to clinic staff beginning care is not new, *huddle* was new terminology for clinic staff. Instruction for entire ambulatory nursing staff in both primary and specialty clinics was provided to clarify and demystify what a huddle is and what team members' responsibilities would be regarding this new concept.

Methods: A follow-up survey of 173 staff was conducted over 3 days to evaluate the effectiveness of huddles in ambulatory care clinics. The survey included direct questions about implementation of huddles in clinics and open-ended questions regarding feelings, problems solved, likes, and dislikes of huddles.

Results: Findings revealed the following: (a) Most clinics have daily huddles; (b) most are convened at the nurses' station; (c) huddles contribute to interprofessional communication between attendings, residents, interns, and clerical staff; (d) there are designated leaders for the huddles; and (e) the majority of huddles are led by registered nurses. The top three topics for huddles were (a) team staff present or absent, (b) number of patients for the day, and (c) who is working with whom in the clinic. Huddles occurred verbally, written, or electronically, and there was no one way huddles are documented to have occurred for review or verification. A specific method for documenting a huddle occurred was called a Huddlegram. It is interesting that survey results indicated access to Huddlegrams on the intranet is limited to specialty clinics only, not primary clinics. Analysis of open-ended survey questions revealed that if one misses a huddle, there are (a) feelings of missing connectedness to clinic activities, (b) emotional milieu of being lost or empty, (c) other ways to get the information, and (d) indifference. Regarding problems solved by huddles, three themes were (a) daily planning of staff and workflow, (b) improved communication, and (c) daily topics involving teamwork, support, and awareness. Two themes emerged on how participants liked huddles: enhances clinic communication and group cohesiveness and team spirit. Likewise, two themes emerged about not liking huddles: interrupts clinic schedule and timeliness of topics and updates. The final survey question was, "How can huddles be useful for you and your patients?" (AMA, 2015). The two themes were (a) improves team communication and (b) better patient care.

Conclusion: There is evidence of team culture-building through communication in the huddle, and huddles have become routine in clinics. Huddles had a clear checklist for staff daily planning and workflow. Further evaluation is needed of huddles' effectiveness in improving interprofessional connectedness. In combining Dr. Leininger's definition and the CDC definition of culture, nurses learned, shared, transmitted, and influenced the communication culture by focusing on patient safety to ensure and improve effective communication among team members. Congruence was achieved by combining the two frameworks, in that communication among the team was improved based on elements of the concept of culture. Study limitations included (a) only nursing staff completed the survey even though it queried about interprofessional communication, and (b) not all interprofessional staff were surveyed. As noted in survey results, very few medical staff attend huddles, possibly because huddles focus on attendance issues vs. patient problems or issues. Implications include that further research is needed to identify how to encourage interprofessional staff to participate in huddles that have clinical relevance for all.

References

Chiarello, L. (2011). CDC workbook for designing, implementing, and evaluating a sharps injury prevention program. Atlanta, CA: Centers for Disease Control and Prevention. National Center for Infectious Diseases.

Dingley, C., Daugherty, K., Derieg, M. K., & Persing, R. (2008, August). Improving patient safety through provider communication strategy enhancements. In K. Henriksen, J. B. Battles, M. A. Keyes, & M. L. Grady (Eds.), *Advances in patient safety: New directions and alternative approaches* (Vol. 3: Performance and Tools). Rockville, MD: Agency for Healthcare Research and Quality.

Edlin, M. (2013). IOM core competencies focus on collaborative care. Retrieved from Managed Healthcare Executive website: <http://managedhealthcareexecutive.modernmedicine.com>

Frank, J. (2015). Staff huddles boost communication teamwork. Retrieved from Medical Economics website: <http://medical.economics.modernmedicine.com>

Gerke, M. L., Uffelman, C., & Chandler, K. W. (2010). Safety huddles for a culture of safety. Retrieved from <http://www.psqh.com>

Greiner, A. C. & Knebel, E. (Eds.). (2003). *Health professions education: A bridge to quality*. Washington, DC: National Academies Press.

Institute for Healthcare Improvement. (2015). Use regular huddles and staff meetings to plan production and to optimize team communication. Cambridge, MA: Author.

Jamison, L. (2013). 10 ways to ensure that morning huddles will positively impact the dental staff. Retrieved from www.dentistryiq.com/articles/2013

Joint Commission. (2007). Tool tutorial. A check-up for safety culture in "my patient care area". *The Joint Commission Journal on Quality and Patient Safety*, 33, 699-703.

Leininger, M. M. (1988). Leininger's theory of nursing: Cultural care diversity and universality. *Nursing Science Quarterly*, 1(4), 152-160.

Lubinensky, M., Kratzer, R., & Bergstol, J. (2015). Huddle up for patient safety. *American Nurse*, 10(2), 1-6.

McGrorty, A. (2016, September 17-20). Nursing huddle in academia improving teamwork and communication. Poster presentation at Sigma Theta Tau International Conference – Leadership Connection 2016, Indianapolis, IN.

O'Brien, J. (2013). Interprofessional collaboration. San Diego, CA: Healthcare, Inc. Retrieved from http://www.re.com/getpdf.php/1892.pdf?Main_Session=0c7d338fb741e35dc663010a8e86bc8b

Richardson, K. L. (2014). Deaf culture – Competencies and best practices. *The Nurse Practitioner*, 39(5), 20-28.

Shunk, R., Dulay, M., Chou, C. L., Jason, S., & O'Brien, B. C. (2014). Huddle-coaching: A dynamic intervention for trainees and staff to support team-based care. *Academic Medicine*, 89, 244-250.

Stewart, E. E., & Johnson, B. C. (2007). Huddles: Improve office efficiency in mere minutes. *Family Practice Management*, 14(6), 27-29.

UC Davis Department of Family and Community Medicine. (2010-2011). Health system team huddles patient experience model [Video file]. Retrieved from https://www.youtube.com/watch?v=VxdG2_nZ2fc

UC San Francisco. (n.d.). The 10 building blocks of primary care. Healthy huddles happen. San Francisco, CA: Center for Excellence in Primary Care. Available at <https://cepc.ucsf.edu/healthy-huddles>

Vrabie, A. (2014, May 14). How to run an effective team huddle. Available at <http://blog.sandglaz.com>

Wiseman, B., & Kaprielian, V. S. (2016). QI patient safety – Quality improvement. Culture of safety. Durham, NC: Duke University School of Medicine, Department of Community and Family Medicine. Retrieved from <http://patientsafetyed.duhs.duke.edu/module>

Yu, E. (2015). Implementing a daily team huddle. Chicago, IL: American Medical Association.

Contact

CarolBloch@dhs.lacounty.gov

RSC PST 1 - Research Poster Session 1

Effectiveness of an Evidence-Based Practice Training Program on School Nurses' Knowledge, Attitudes, and Skills

Pei-Lin Hsieh, PhD, RN, Taiwan

Sue-Hsien Chen, PhD, RN, Taiwan

Abstract

Purpose: When school nurses embrace evidence-based practice (EBP), higher-quality care is provided to students, their families, and the larger community. However, there is little or no research on the adoption and implementation of EBP among school nurses in Taiwan, many of whom have limited experience using and lack the necessary skills to confidently implement EBP. The purpose of this study, therefore, was to evaluate the effectiveness of a multifaceted EBP training program on the knowledge, attitudes, and skills.

Methods: Four hundred and fifty-six school nurses recruited. The program comprised 9 hours of face-to-face lectures, 10 hours of online teaching, and outreach support for 3 months. Support involved email, online interaction and telephone contact. Knowledge, attitudes, and skills were assessed using a questionnaire, administered at baseline, post-training program, and 3 months follow-up, with the effectiveness of the training program being analyzed using a repeated-measures ANOVA.

Results: The age of the participants ranged from 31 to 66-years-old, with a mean age of 41.95 years, and the mean length of time employed as a school nurse was 8.4 years; the majority had a bachelor's degree (73.3%), with 41.3% coming from medium-sized schools. The results revealed significant gains in knowledge at the post-training program stage ($p < .001$), which was maintained at follow-up. Although there was no statistically significant difference between pre-test and post-test attitudes, the scores at follow-up were significantly higher than at post-test ($p < .001$). The improvement in skills between post-test and follow-up was small and non-significant.

Conclusion: In summary, targeted education and outreach support led to a marked improvement in evidence-based practice knowledge and attitudes, but only minor changes in skills. Therefore, health educators should focus on skill development and helping school nurses to establish new routines around evidence-based practice. Finally, this study can be used as a basis to developing a comprehensive strategy for building evidence-based practice competencies through proper training for school nurses.

References

- Mollon, D., Fields, W., Gallo, A.-M., Wagener, R., Soucy, J., Gustafson, B., & Kim, S. C. (2012). Staff Practice, Attitudes, and Knowledge/Skills Regarding Evidence-Based Practice Before and After an Educational Intervention. *The Journal of Continuing Education in Nursing, 43*(9), 411-419
- Omer, T. (2012). Research utilization in a multicultural nursing setting in Saudi Arabia: barriers and facilitators. *The Journal of Nursing Research, 20*(1), 66-73.

Contact

plhsieh@mail.cgu.edu.tw

RSC PST 1 - Research Poster Session 1

Examining Nurse Attitudes and Knowledge Gaps Related to Substance Use Disorder

Pamela Quinn, MSN, RN, USA

Joanne Parhiala, BSN, RN, CARN, USA

Abstract

Purpose: The Substance Abuse and Mental Health Services Administration (SAMHSA) (2015) reports that in 2014, more than 21 million people over the age of 11 had a substance use disorder (SUD). Substance use and abuse contributes to more deaths (which have more than doubled since the early 1980s), illnesses, and disabilities than any other preventable health condition (NIDA, 2012). Dilonardo (2011) concluded that SUD treatment in the medical setting is imperative, reduces costs, and is an essential component of quality care delivery; however, the majority of healthcare workers including nurses are unlikely to have adequate training in addiction.

Patients with SUDs are admitted hospital-wide with complex conditions that require intense nursing care. A review of the literature related to the nursing care for the patient with SUD consistently revealed two major themes. First, negative attitudes are held by nurses toward this patient population. Foster and Onyeukwu (2003) report that nurses tend to have negative attitudes toward patients with SUD and that these attitudes directly impact not only the nurse-patient relationship, but the quality of care delivered. The World Health Organization (WHO) study that found positive attitudes are essential when caring for patients with SUD. Second, there is a lack of knowledge related to providing competent care. Nurses feel ill prepared for the multifaceted sequelae of SUD due to a paucity of nursing education on SUD related care (Raistrick, Russell, Tober, & Tindale, 2008). Although this patient population is growing, nursing education on SUD and related care has not been emphasized in the curricula of undergraduate nursing programs (Pillon, Villar Luis and Laranjeira, 2003).

Pens and Couture (2002) state that the more information a person has, the less stigmatizing they tend to be. Nurses need education about the how and whys of addiction in order to appropriately, competently, and compassionately provide quality and safe care to patients who suffer with SUDs. The evidence tells us that patient outcomes should improve, costs should be reduced, and the patient experience should improve.

Cramer, et. al., (2014) tell us that certification in a clinical specialty is one way of measuring nursing excellence and expertise. Among nurses caring for patients with addictions, certification has been shown to reduce failure to rescue and associated mortality of patients with SUD as well as achieve or promote statically significant improvements in delivery of clinically competent care.

The purpose of this pilot study was two-fold: 1) to examine whether nurse attitudes and knowledge of SUD and related care were influenced by a 5-month educational intervention, and 2) whether nurses in the cohort passed the Certified Addictions Registered Nurse (CARN) exam. The cohort members understood this to be an expectation at the completion of the 5 months educational intervention.

Methods: This pilot study employed a pre/post design to examine whether educating a heterogeneous sample of 31 volunteer nurses, recruited from non-procedural in-patient hospital units, improved attitudes and increased the nurses' knowledge about care of the patient with SUD. This pilot study used the Drug Problems Perception Questionnaire (DPPQ), which includes 20 questions and a 7- point Likert scale, with established reliability and validity that measures attitudes of professionals working with patients with SUD. The questionnaire was administered before and after the educational intervention to determine improvement and sustainability of nurses' attitudes. The educational intervention was conducted from May, 2016 through September, 2016, preparing the participants to sit for the Certified Addictions Registered Nurse (CARN) exam in October, 2016. The CARN exam pass rate will provide the measure of improved knowledge.

Results: Based on the primary outcome of passing the CARN exam, 17 nurses took the CARN exam in October 2016 and 14 reported passing the exam. Our pass rate was 82% compared to the average pass rate in the United States of 74%. Two nurses state they are planning on retaking the exam and 8 other nurses that indicated they will be taking the exam for the first time after January 2017. Our first bimonthly post course assessment of nurse attitudes toward patients with SUD demonstrated consistent improvement in nurse attitudes as measured by the DPPQ.

Conclusion: Early results reveal that this intervention achieved the primary expected outcome of improving nurses' attitudes and knowledge of SUD.

References

Cramer, M. E., High, R., Culross, B. Marks Conley, D., Nayar, P., Nguyen, A., and Ojha, D. (2014). Retooling the RN workforce in long-term care: Nursing certification as a pathway to quality improvement. *Geriatric Nursing*, 35(182-187).

Dilonardo, J. (2011, August 10). *Workforce Issues Related to: Physical and Behavioral healthcare Integration Specifically Substance Use Disorders and Primary Care*. Workforce Issues: Integrating Substance Use Services into Primary Care Conference, Washington, DC.

Substance Abuse and Mental Health Services Administration (SAMHSA). (September, 2015). SAMSA behavioral health trends in the United States: Results from the 2014 national survey on drug use and health.

Contact

pfquinn@partners.org

RSC PST 1 - Research Poster Session 1

Pediatric Behavioral Health in the ED: A New Normal?

Jamie Beth Rivera, MSN, RN, CPN, USA

Abstract

Purpose: The purpose of this study was to gain knowledge about the experiences, perceptions, and feelings of pediatric emergency department nurses caring for behavioral health patients. It presents an overview of nurses who care for pediatric psychiatric patients in the emergency department.

Methods: Colaizzi's (1978) descriptive phenomenological method was used to discover the essence of the phenomenon of the nurses' experience in caring for behavioral health patients in pediatric emergency department setting. The philosophical underpinnings of this phenomenological research will have the potential to promote the understanding of rich, detailed description surrounding the experiences of nurses who care for behavioral health patients. By learning the meaning of the experience, this researcher was able to expand the very limited body of knowledge of this topic. Data were collected through semi-structured interviews of three pediatric emergency room nurses. Interviews were audiotaped and transcribed by the researcher for analysis and description of themes using Colaizzi's seven steps.

Results: One hundred and four significant statements regarding the nurses' experiences caring for behavioral health patients in a pediatric emergency room were extracted from the transcripts. From the significant statements, formulated meanings were created. After these formulated meanings were identified, they were organized into seven clusters of themes. The themes that emerged were: being on roller coaster of emotions, tis the season, working in a ticking time bomb, abuse of the system, a place for error, a sit and wait game, and threats and assaults.

Conclusion: This study of the nurses' experiences of caring for behavioral health patients in a pediatric emergency department setting adds valuable insight to the literature. The study begins to address the deficit in the literature regarding the nurses' perceptions and experiences of caring for these patients. These findings also provide nurses with a better understanding of how to care for pediatric behavioral health patients and their families. This can ultimately lead to increase in staff satisfaction, which would then increase patient and family outcomes in the ED.

References

- Dolan, M.A., & Fein, J.A. (2011). Pediatric and adolescent mental health emergencies in The emergency services system. *Pediatrics*, 157 (5), e1356-e1366.
- Edward, K., Ousey, K., Warelou, P., & Lui, S. (2014). Nursing and aggression in the workplace: a systematic review. *British Journal of Nursing*, 23(12), 653-659.
- Emergency Nurses Association (2013). Care of the psychiatric patient in the emergency room [WhitePaper]. Retrieved from www.ena.org/practice-research/research/Documents/WhitePaperCareofPsych.pdf
- Plant, LD., & White, J.H. (2013). Emergency room psychiatric services: a qualitative study of nurses' experiences. *Issues in Mental Health Nursing*, 34: 240-240.

Contact

jamie.rivera@uconn.edu

RSC PST 1 - Research Poster Session 1

Reinvigorating a Shared Governance (SG) Model in a Community Hospital

Kathleen M. Kane, PhD, RN, USA
Catherine M. Hennessy, MSN, RN, USA

Abstract

Purpose: In acute care hospitals, shared governance (SG) is widely recognized as best practice for a professional nursing environment. In addition to being associated with nurse empowerment, SG has been linked to increased job satisfaction, decreased turnover, and improved patient safety. However, while there are important benefits associated with SG, its implementation requires a huge paradigm shift and its sustainability demands a large investment of time and resources.

A 350-bed community hospital located in the Greater New York Metropolitan area had implemented a professional practice model using SG several years ago. Staff turnover, changes in leadership, and financial considerations contributed to a “drift” in adherence to the model. Prior to completely suspending the model, there were only three functioning councils. Using nurses’ perceptions of SG as measured by the Index of Professional Governance [IPNG] tool developed by Hess (1998), a new administrative team made a commitment to utilize a data-driven approach to reinvigorate a sustainable SG model to improve patient care and nurse empowerment, satisfaction, and retention.

Accordingly, the purpose of this study was to examine nurses’ overall perceptions of a community hospital’s governance structure after a SG model lapsed and prior to reinvigorating it with a new model.

Methods: Institutional review board (IRB) approval was obtained for this study. Participation was voluntary and identification was anonymous. A total of 146 IPNG (Hess, 1998) surveys were distributed to nurses in all areas of practice at a community hospital. Overall, the IPNG assesses three categories of governance: traditional (total score of 86 – 172); shared (total score of 173 – 344); self (total score of 345 – 430). This instrument is also designed to measure nurses’ perceptions of hospital governance on six dimensions: professional control, organizational influence, organizational authority, participation, access to information, and organizational goal setting.

Results: A total of 90 IPNG surveys were returned for 61% response rate. The majority of the participants in the study were females, whose ages’ ranged from 23 to 75 years. Years in practice as a registered nurse ranged from one to 57 years. A bachelor’s degree in nursing was the most common entry level into practice.

Baseline IPNG data indicated that overall, nurses’ perceptions of their governance fall into the “traditional” category with scores ranging between 86 and 172 ($M = 156$. $SD = 30.2$).

Conclusion: Professional governance is a multi-dimensional construct that includes the structure and processes through which individuals control their professional practice and influence the organizational context in which that practice occurs (Hess, 1998). The IPNG (Hess, 1998) measures nurses’ perceptions of this governance along a continuum from traditional to shared to self. Higher scores on the measure are indicative of the belief that nurses have more influence over their practice and governance decisions.

Not surprisingly, the results of this study demonstrated that nurses’ perceptions of their governance were indeed, categorized as “traditional”. In a “traditional” organization managers and administrators dominate control and influence over governance related decisions. High turnover among nursing staff and leaders and the eventual suspension of the model may have contributed to this perception.

This is an ongoing study. The SG model was re-instated in November, 2016. Further data analysis related to baseline subscales needs to be done in order to explore specific areas of strength and weakness in nurses’ perceptions of SG. . The IPNG will be re-administered in April, 2017.

References

- Allen-Gilliam, J., Kring, D., Graham, R., Freeman, K., Swain, S., Faircloth, G., Jenkinson, B., (2016) The impact of shared governance over time in a small community hospital. *Journal of Nursing Administration*. 46 (5) 257 – 264.
- Brull, S. (2015) Successful shared governance through education. *Nursing Economics*. 33 (6) 314 – 319.
- Kutney-Lee, A. Germack, H., Hatfield, L., Kelly, S., Maguire, P., Dierkes, A., DelGuidice, M., Aiken, L. (2016). Nurse engagement in shared governance and patient and nurse outcomes. *Journal of Nursing Administration*. 46 (11) 605 - 612.
- Porter-O'Grady, T. (2009). *Interdisciplinary shared governance: integrating practice, transforming*. 2bd ed. Sudbury, MA: Jones and Bartlett Publishers.

Contact

westie133@verizon.net

RSC PST 1 - Research Poster Session 1

Explore the Clinical Nurses' Viewpoint and Expectations Toward Nursing Assistantship in Taiwan: A Triangulation Method

Su-Hua Tsai, MSN, RN, Taiwan

Abstract

The target audience of this presentation is clinical nurses, nursing assistants, nursing supervisor, hospital managers, human resources director, care association group, patients, important media people and people pay attention to the medical environment. Nursing manpower shortage is deteriorating, due to the rapid growth of aging population and increasing workload of clinical care. Nursing staff have anticipated other personnel such as nursing assistants to join the current nursing care model.

Purpose: The purpose of this study was to, through the frontline nurses' perspectives, in-depth understand their viewpoints of and expectations from nursing assistants. Contacted was a convenience sample of 14 staff nurses, who worked at a medical center or at a regional teaching hospital in southern Taiwan.

Methods: Using data triangulation method, this study applied focus group conferences, questionnaires survey, and individual interviews to collect both qualitative and quantitative data. This study was conducted three times focus groups interviews at two hospitals in Taiwan. 14 nurses from a medical center and a regional teaching hospital in southern Taiwan.

Results: The result deduced three themes as (a) nurses' demands and needs for assistants, (b) the expected work content of nursing assistants, (c) promote skill-mixed collaborative interaction. The results revealed that staff nurses positively support the role of nursing assistants. Many of their working experiences and expectations should be valuable references on developing the scope of practice and establishing the qualification and training of nursing assistants.

Conclusion: The results suggest that the type of hospitals (such as acute or subacute care), the unit characteristics (such as workload and length of stay), and the nursing care model (such as primary or team nursing) should be considered while establishing nursing assistantship. Clear scope of practice of both staff nurses and nursing assistants is conducive to release more nursing hours for staff nurses in playing their professional roles and, in turn, leads to construct a quality nursing work environment.

References

http://www.mohw.gov.tw/CHT/Ministry/DM2_P.aspx?f_list_no=9&fod_list_no=4559&doc_no=44899

http://www.mohw.gov.tw/cht/DONAHC/DM1.aspx?f_list_no=716&fod_list_no=3565

<http://www.nurse.org.tw/defaultNewsView.aspx?newsID=3524&timeStamp=1401047326186.pdf>

Contact

830266@ms.kmuh.org.tw

RSC PST 1 - Research Poster Session 1

Improvement Project for Dental Medical Instrument Management in Oral Surgical Ward

Sheng-Lan Hsieh, MSN, RN, Taiwan

Yueh-Li Yu, MSN, RN, Taiwan

Abstract

Purpose: Reduce the damage rate and re-sterilization rate for the medical instruments in oral surgical ward from Taiwan.

Methods: According to the assessment data of ward units for dental medical instruments and sterile sets, dated from June to September in 2015, it's found that damage rate was up to 15%, and the re-sterilization rate of expired set was 6.3%. While the major inductions include, no specialized unit, no exclusive management personnel, device cleaning via in-correct process, no internal check system, and lack of in-service education, etc. Therefore, a project team was set up, implementation period have three stages from September 1, 2015 to March 31, 2016. In the planning period (September 1, 2015 to October 31, 2015), including the platter cleaning equipment planning and sterilization operations, the development of the daily use of equipment benchmarks, arrangements for the management and check, the planning unit responsible for processing equipment Of the job, arranged education and training. During the implementation period (November 01, 2015 to February 14, 2016), the improvement strategies were made, including specialized unit establishment, exclusive management personnel allocation, amendment for standard operation procedure on instrument management, routine in-service education, etc. Evaluation period (February 15, 2016 to March 31, 2016) for the statistical rate of equipment failure and expired sterilization rate.

Results: The damage rate of instrument was down to 3.3% from 15%, and the re-sterilization rate was down to 1.8% from 6.3%.

Conclusion: The correction management of medical instruments could not only prevent the loss of instrument sets from damage or expiration of disinfection validity, reduce the risk of nosocomial infection. Ever since the implement successfully, the project could not only promote the effectiveness of medical instrument management, but also cut down the time in instrument treatment, in addition to improve the environment hygienic, so as to achieve working satisfaction and safe-keeping of patients.

References

Association of periOperative Registered Nurses (2013). AORN Standards, recommended practices, and guidelines. Denver: AORN.

Cuschieri, A. (2006). Nature of human error: Implications for surgical practice. *Annals of Surgery*, 244(5), 642-648.

Duro, M. (2011). New IAHCMM loaner instrumentation position paper and policy template. *Association of periOperative Registered Nurses Journal*, 94(3), 287-289. doi: 10.1016/j.aorn.2011.07.002

Seavery, R. (2013). High-level disinfection, sterilization, and antisepsis: Current issues in reprocessing medical and surgical instruments, *American journal of infection control*, 41(5), 111-117.

Contact

lancoshieh@gmail.com.tw

RSC PST 1 - Research Poster Session 1

Male-Factor Infertility: The Process to Seeking Treatment

Michele Mayes Lawson, PhD, RN, USA

Abstract

Purpose: The purpose of this study was to gain an understanding of the process that adult males go through from deciding to conceive to seeking treatment for male-factor infertility.

Methods: Approval to conduct the research was obtained from the Institutional Review Board of Texas Woman's University and the Greenville Health System University Medical Center Office of Research Compliance and Administration Institutional Review Board. Appropriate measures were taken to protect human participants. Participants signed a written consent form. A qualitative design utilizing grounded theory was used. Participants were identified and recruited from the fertility center. Participants were in the process of seeking treatment with assisted reproductive technology (ART). A physician contacted some men and invited them to participate in the study and others volunteered after their wives saw a recruitment flyer. Semi-structured, audio-taped interviews were conducted with 10 participants in a private setting.

Results: The participants ranged in age from 27 to 39 years old, with a mean age of 32.7 years old. Their partners' reported ages ranged from 26 to 38 years old, with a mean age of 32.4 years old at the time of the interview. The participants reported their race as: Caucasian, 70% ($n=7$); African American, 20% ($n=2$); and Asian, 10% ($n=1$). Interview transcripts were analyzed using Constant Comparative Analysis techniques.

Findings include categories such as *Just Having Fun*, *Realization that Something Could be Wrong*, *Influenced to Go*, *Testing for the Female*, *Testing for the Male*, *Finding Out, Who was there for you?*, *Seeking Information*, *What's the Next Step*, *Taking a Break*, *Financial Impacts*, *Cultural Impacts*, and *Hindsight*. The process of male-factor infertility: seeking treatment follows a varying timeline. For some participants the timeline was short and for others the timeline was stretched out. A greater understanding of the process and the factors which speed up or slow down the time to the next step is important for helping men with male-factor infertility and their partners navigate through the jungle of infertility and seeking treatment. Time, financial/cost, and culture all have an input into the process from beginning to end. Decision-making for each step is impacted by these categories.

Conclusion: By understanding the process to Seeking Treatment for Male-Factor Infertility, nurses will be able to make a positive impact to decrease the time it takes for men to seek treatment or even assist with navigation of the process by providing valuable information about finances, the big picture and next steps in the plan, resources for information gathering that is specific to each man's circumstances.

References

- American Society for Reproductive Medicine (ASRM). (2015c). Diagnostic evaluation of the infertile male: a committee opinion. *Fertility and Sterility*, 103(3), p. e18-e25.
- Centers for Disease Control and Prevention (CDC). (2016b, April 21). *Infertility FAQs*. Retrieved from <http://www.cdc.gov/reproductivehealth/Infertility/>.
- Culley, L., Hudson, N., & Lohan, M. (2013). Where are all the men? The marginalization of men in social scientific research on infertility. *Reproductive BioMedicine Online*, 27(3), 225-235.
- World Health Organization (WHO). (2016). *Infertility*. Retrieved from <http://www.who.int/topics/infertility/en/>.

Contact

michlawson@earthlink.net

RSC PST 1 - Research Poster Session 1

"Analogy" as Methodology in Solving Modern Day Problems By Learning from F. Nightingale's Work

Yoshiko Wazumi, PhD, RN, Japan

Toshie Yamamoto, PhD, RN, PHN, Japan

Shu Chun Chien, PhD, RN, Japan

Abstract

Purpose: In these modern times when considerable environmental changes are taking place on a global scale and a variety of social security systems are showing signs of deadlock, how to live a healthy life is once again a common issue for all mankind. In the midst of radical social changes in Britain in her time, F. Nightingale (1820 – 1910), known as a founder of modern nursing, penned a huge volume of writings containing a number of noteworthy proposals which saw through mankind's future and established the basis for a broad scope of institutional reforms. The challenge for modern day nurses in finding solutions to modern day complex problems could be minimized by learning from F. Nightingale. The purpose of this study was to identify analogies in order to solve modern day complex problems by analyzing from the works of F. Nightingale.

Methods: In an attempt to establish the way of analogies, 12 of her most important accomplishments, related to social reform, such as 'Reform of the Lady's Hospital on Harley Street (1853-1855)' 'Establishment of a training school for nurses (1860)' and 'Refining the social support system for the poor (1862-1867)' were chosen and 12 modern day complex problems in the health fields in Japan which are analogous to problems solved by F. Nightingale were selected as the subjects of this study. Background research of each accomplishment and modern day complex problem was conducted and structural commonness of those 2 phenomena was identified. We finally integrated those structural commonness and found the way of analogy to solve the problems by learning from F. Nightingale's work.

Results: The ways of analogy to solve the problems by learning from F. Nightingale's work were as follows.

1. Based on Natural Law and believing in human potential.
2. To compare the background of each problem to grasp the historical process and structural cause of the problem and to deduce an action plan.
3. Use scientific epistemology as a standard when implementing the plan.
4. In case of unexpected accidents, put top priority on securing the safety of human beings, inquire into the cause and prevent recurrence.

Conclusion: Although the community and health care services are facing systemic financial troubles, it has been suggested that by extracting a way of solving problems as hypothesis by using this analogy, we can realize a human centered healthier society based on the unique philosophy of nursing.

References

Nightingale, F. (1954). Selected writings [Compiled by Lucy R. Seymer]. New York: Macmillan.

Woodam-Smith, C. B. (1951). Florence Nightingale, 1820-1910. New York: McGraw-Hill.

Contact

wazumi@faculty.chiba-u.jp

RSC PST 1 - Research Poster Session 1

Does Transformational Leadership of Nurse Managers Change Over Time?: A Longitudinal Study

Tarja Kvist, PhD, MSN, BSN, RN, Finland

Katri Vehviläinen-Julkunen, PhD, Lic HC, MSc, RN, RM, Finland

Abstract

Purpose: The purpose of this study was find out the differences in nurse managers' transformational leadership perceived by the nurses between years 2008, 2010 and 2013 and examine the relationship between nurse managers' transformational leadership and study years and nurses' background variables.

Transformational leadership has been a paradigm of nursing leadership for over 20 years. According to the previous studies transformational nurse managers have characteristics like visible, visionary, innovative, accessible, supportive, and knowledgeable. In recent years especially Magnet Hospital studies has recognized the special importance of transformational leadership as a one component of Magnet Model (Borman & Abrahamson 2014, Kvist *et al.* 2013, Sanders *et al.* 2013). The study hospital had leadership development work according to Magnet principles and in addition it went through organizational changes between years 2008 and 2013.

Methods: Perceptions of nurses in a Finnish university hospital were surveyed longitudinally in years 2008, 2010 and 2013 using a web-based version of the Transformational Leadership Scale (TLS) questionnaire (Eneh *et al.* 2012, Kvist *et al.* 2013). TLS questionnaire has 43 items of nurse manager's transformational leadership and ten background questions. In total 1053 nurses responded. Differences in transformational leadership subscale scores between years were tested with one-way analysis of variance, and relations between background variables and subscales were analyzed by analysis of covariance.

Results: Transformational leadership scores were highest in 2010 and lowest in 2013. The subscale scored most highly was support for professional development, while giving feedback and rewarding received the lowest score. In 2008 and 2010 day workers rated all subscales of transformational leadership more highly than shift workers, but the opposite patterns were detected in 2013, except for support for professional development. The importance of development work and changes will be highlighted with the results.

Conclusion: Nurse managers need systematic leadership and support programs to develop their transformational leadership skills. It is important to strengthen nurse leaders' visibility through systematic, longitudinal interventions to enhance Magnet Hospital endeavor.

References

Bormann L. & Abrahamson K. (2014) Do staff nurse perceptions of nurse leadership behaviors influence staff nurse job satisfaction? The case of a hospital applying for Magnet designation. *Journal of Nursing Administration* **44** (4), 219-225.

Eneh V., Vehviläinen-Julkunen K. & Kvist T. (2012) Nursing leadership practices as perceived by Finnish nursing staff: high ethics, less feedback and rewards. *Journal of Nursing Management* **20** (2), 159-169.

Kvist T., Mäntynen R., Turunen H., Partanen P., Miettinen M., Wolf G.A. & Vehviläinen-Julkunen. K. (2013) How Magnetic are Finnish hospitals measured by transformational leadership and empirical quality outcomes? *Journal of Nursing Management* **21** (1), 152-164.

Contact

tarja.kvist@uef.fi

RSC PST 1 - Research Poster Session 1

Importance of Palliative Care in End-Stage Liver Disease: A Rising Global Issue

Renee Pozza, PhD, MSN, RN, CNS, CFNP, FAASLD, USA
Bonita Huiskes, PhD, RN, FNP, USA
Anna Marie Hefner, PhD, MSN, BSN, RN, MaEd, CPNP, USA

Abstract

Background and Significance: Despite the dramatic improvements in disease management and treatment options for individuals with hepatitis C there remains an increasing incidence globally of individuals suffering from end stage liver disease (ESLD). While liver transplantation is a potential option for some individuals, many die waiting for organ availability while others are deemed not a viable candidate for various reasons. End stage liver disease patients have multiple symptoms such as ascites, pain, fatigue, confusion and gastrointestinal bleeds which impact their health related quality of life and require intensive medical management. Mortality rates are 50% at 5 years and often require frequent clinic visits and hospitalizations. There is little to no guidance in the liver disease management guidelines for palliative care and end of life care for these individuals.

Heart failure guidelines were first published in 1994. In the following decades significant therapy options such as the emergence of left ventricular assist devices (LVADs) offered advanced therapy for end stage patients. Many of the guidelines have seen a steady increase in end of life and palliative care content concurrent with medical advances. Liver disease management has been focused on early identification and therapy intervention to reduce the impact on the functioning of the organ; however, late stage end organ damage remains common, especially in the setting of non-alcoholic fatty liver disease (NAFLD/NASH) with prevalence rates skyrocketing across the world. The nursing professional is a key provider of care to these patients and families and is in a vital position to make a difference in the quality of life.

Purpose: The purpose of the study was to trace the development of palliative care content in heart failure guidelines during a period of remarkable progress in treatment with a focus on development of palliative care content in end stage liver disease guidelines.

Methods: Sixteen major North American and European heart failure guidelines published between 1994 and 2016 were examined for palliative content and compared to end stage liver disease guidelines as published by the American Association for the Study of Liver Diseases (AASLD) and the European Association of Liver Diseases (EASL). Keywords and content domains were determined from the guidelines. Characteristics of end stage heart failure and end stage liver disease were also compared in order to determine which content domains in the heart failure guidelines concerning end of life and palliative care apply to end stage liver disease.

Results: Content domains addressed in the health failure guidelines include prognosis, provider/patient/family communication, advance directives, identification of end stage therapies, symptom palliation, device deactivation, family/caregiver support, hospice/palliative care and advance therapies. The majority of these content domains are applicable to the end stage liver disease individual. However, most of the liver related guidelines do not address these content domains for the end stage individual.

Conclusions: The study allows for the assessment of models for possible integration of palliative care used in heart failure to inform the management of the end stage liver disease individual. Further palliative guideline development in the ESLD patient will require research to build an evidence base, to foster translation into practice, and to help ensure this need in the setting of ESLD is met.

References

Practice Guidelines, American Association for the Study of Liver Diseases, AASLD Accessed via www.aasld.org on 12/5/2016.

Kimbell, B; Boyd, K; Kendall, M; Iredale, J; Murray, S. (2015) Managing uncertainty in advanced liver disease: a qualitative, multiperspective, serial interview study. British Medical Journal Open. doi: 10.1136/bmjopen-2015-009241.

Contact

rpozza@apu.edu

RSC PST 1 - Research Poster Session 1

Efficiency of Authentic Leadership on Turnover Rate of Nursing Staff

Li-Chu Lee, MBA, RN, Taiwan

Abstract

Purpose: In Taiwan, medical institutions are faced with the dilemma of manpower management. Dimission has always been the most troublesome problem for organizations, especially in the medical fields where the turnover rate of nurses increases year by year. According to 2013 statistics, the average turnover rate of 303 hospitals in Taiwan was 12.00%. The turnover rate of this unit in 2014 was 13.8%, outclassing that of the entire Taiwan.

To evaluate efficiency exerted by authentic leadership for the turnover rate of nursing staff, job satisfaction, and patient satisfaction to serve as references for leadership styles of management of hospitals.

Methods: 83 nurses from clinics of the Precision Medicine Center were participated and opinions of 2288 outpatients were collected for the satisfaction survey. The subjects got involved in the project of authentic leadership in 2015. The project arranged job contents according to interests of nurses in clinics, facilitated flexible working hours and shortened labor-hour, added personnel for assisting nurses, scheduled presentation of new knowledge of specialties for two hours per week, face-to-face communication for rendering affirmation and appraises twice a week and advancement practices of professional competences. In the current study, Cronbach's alpha for satisfaction reliability ranged from 0.898 to 0.963, which was mostly acceptable.

Results: After involving in the project of authentic leadership in 2015, the turnover rate of nursing staff decreased by 9.9% (13.8% vs 3.9%) and the number of personnel increased from 82 to 103 with 0% vacancy rate, comparing results of 2014 to that of 2016. As to the job satisfaction, the degree of satisfaction to leadership of management and communication channels increased by 6.32% (80.05% vs 86.37%). The satisfaction of outpatients increased by 3% (88% vs 91%; $p = 0.000$) and the complaint cases of patients decreased by 23 (39 vs 16).

Conclusion: The authentic leadership possesses significant and positive correlations to psychological capitals, organizational commitments, job satisfactions and organizational citizenship behaviors. The more satisfactions that nurses have for the work environment and leadership styles of medical institutions, the lower their turnover intention would be. Therefore, nurses shall share events and frustrations in daily life to maintain a positive attitude. Nurses shall give play to speciality. They shall be affirmed via appreciative inquiries and criticism shall be avoided. Management shall use constructive words to stimulate staff and encourage them to explore new knowledge and construct visions so as to find out the core of a positive revolution. Consequently, changes stem from "spontaneity" rather than oppression of external forces. Influence building includes the application of power, the understanding of own goals and clear transmission of messages so that all colleagues of the unit could be influenced. It is suggested that governors of medical institutions shall treat each employee with sincerity and jointly create a better future based on the critical point for undertaking development.

References

- Chen, S. Y., Wu, W. C., Chang, C. S., & Lin, C. T. (2015). Job rotation and internal marketing for increased job satisfaction and organisational commitment in hospital nursing staff. *Journal of Nursing Management* 23(3), 297–306.
- Kaunonen, M., Salin, S., & Aalto, P. (2015). Database nurse staffing indicators: explaining risks of staff job dissatisfaction in outpatient care. *Journal of Nursing Management*, 23(5), 546-556.
- Read, E. A., & Laschunger, H. K. S. (2015). The influence of authentic leadership and empowerment on nurses' relational social capital, mental health, and job satisfaction over the first year of practice. *Journal of Advanced Nursing*, 71(7), 1611–1623.
- Wenjuan, Z., Guoping, H., Honghong, Wang., Ying, H., Qun, Y., & Dan, L. (2015). Job dissatisfaction and burnout of nurses in Hunan, China: A cross-sectional survey. *Nursing and Health Sciences*, 17(4), 444–450.

Wong, C. A., & Laschunger, H. K. S . (2013). Authentic leadership, performance, and job satisfaction: the mediating role of empowerment. *Journal of Advanced Nursing*, 69(4), 947–959.

Contact

leechu36@yahoo.com.tw

RSC PST 1 - Research Poster Session 1

Different Perception of Necessity of Management Skills Between Presidents and Nurse Administrators

Kyoko Shida, MS, RN, Japan

Hiroe Takahashi, RN, CNA, Japan

Makiko Muya, PhD, RN, Japan

Abstract

Purpose: To explicit the difference by comparing the perception to necessity of management skills for nurse managers between top managers and the nurse manager.

Methods: Quantitative approach was demonstrated. Anonymous questionnaires were distributed towards the top manager and the manager of nursing division working at all healthcare facilities in Osaka prefecture. The contents of questionnaire were 1) the facility's attributes: the number of beds and the type of organization, 2) the top manager's attributes: the age and the gender, the degree of cooperation between the top manager and the nurse manager(5 degree), 3) the nurse manager's attributes: the age and the gender, the academic status, the certification status, the degree of cooperation between the top manager and the nurse manager (5degree), 4) in terms of 53 items of AONE nurse manager competency instrument(NMCI)(Chase,2010), the top managers and the nurse managers were asked how is necessity for nurse managers with 5-Likert scale, such as very important=5, important=4, fair= 3, not so important=2, not important at all=1. The lists of NMCI were categorized to 7, such as 1) Financial Management (FM), 2) Human Resource Management (HRM), 3) Performance Improvement (PI), 4) Foundational Thinking Skills (FT), 5) Technology (T), 6) Strategic Management (SM), 7) Clinical Practice Knowledge and Skills (CP). As the compliance to ethical considerations, study approval was obtained from review board of Osaka Nursing Association.

Results: Statistical analysis was conducted. As the descriptive statistics, the number of completed couple of response was 72, while the total number of distribution was 955. Almost of respondents of top managers percept the cooperative degree was more than 4(good), on the contrary, perception of nurse managers was divided into two groups. As the perception gap between the top manager and the nurse manager, there was a correlational relationship with CP only ($p<.05$). Nurse managers recognized more necessary to HRM, PI, FT, RT, SM than top managers. As for the characteristics of facility, the size of hospital was significantly different with FM, HRM, FT, T, and SM of nurse managers' perceptions by analysis of variance($p<.001 \sim .05$). The organization type was also significantly different with FM, PI, FT, T and SM of nurse managers by Mann-Whitney U test ($p<.01 \sim .001$). As for the characteristics of nurse managers, to be a certified nurse administrator or not was significantly different with FT of nurse managers' perceptions by Mann-Whitney U test ($p<.05$).

Conclusion: As the typical similarity between top managers and nurse managers, the importance of clinical knowledge and skills was depicted. There was no significant difference with the importance of NMCI categories in terms of the age, the size, the type of organization among top managers. Meanwhile, nurse managers recognized the importance of some NMCI categories compared to top managers. These categories were related to essential management skills. Perception of the degree of cooperation between top managers and nurse managers divided into two groups. It is implied the difference of degree of cooperation is the key of promoting nursing management skills.

References

Linda K. Chase(2012) Are you confidently competent? Nursing Management, 2012 May. p50-53.

AONE (2015) Nurse Manager Competencies. <http://www.aone.org/resources/nurse-manager-competencies.pdf> (viewed 06/12/16)

Contact

kshida@nursing.osakafu-u.ac.jp

RSC PST 1 - Research Poster Session 1

Professional Identity in the Lived Experience of Hospital Nurses

Tullamora T. Diede, MN, RN-BC, CNL, USA

Abstract

Purpose: The purpose of this study is to explore the phenomenon of the lived experience of nurses working with patients in hospitals and, with that information, to identify meaningful themes and patterns of how their workplace environment impacts their sense of professional identity. The specific aim of this study is to describe, interpret and, therefore better understand the lived experience of nurses working with patients in a hospital environment and the meaning of this phenomenon as it relates to their professional identity.

Rationale/Background: Over three million nurses currently holding active licenses to practice in the U.S. (U.S. Bureau of Labor Statistics, 2015); An estimated 30% of nurses leave their job within the first year and 27% report bullying in the last six months (Breau & Rheame, 2013; Johnson & Rea, 2009). Attrition is a common issue in the nursing workforce. Nurses experience oppression in their relationships with physicians and other health professionals (Risjord, 2010) as well as through lateral violence or bullying from other nurses (Johnson & Rea, 2009; Purpora, Blegen, & Stotts, 2012). Nurses play an essential role in a hospitalized patient's healthcare team providing skilled care and assessment. However, nurses have commonly been viewed as a less important, submissive healthcare team member when compared to other members of the healthcare team (Olofsson, Bengtsson, & Brink, 2003). Moreover, compared to physicians, nurses are considered less intelligent and less competent (Institutes of Medicine, 2011). Paradoxically, an annual poll by Gallup (2015) consistently identifies nursing as a highly trustworthy profession by the general public. This dichotomy of simultaneously being considered incompetent yet holding a high level of trust may leave nurses to question their own professionalism. Historical, political, and sociological factors contribute substantially to this view of nursing within the present health care culture (Roberts, 2000). Because of nursing's struggle for respect in conjunction with their rates of attrition and bullying, there is a critical need to understand the work of a professional registered nurse.

Methods: Philosophical hermeneutics will be used as the methodology to study this phenomenon. Researchers from this philosophical perspective seek to gain knowledge by interpreting the everyday experiences of those being studied in an effort to better understanding their world and to identify what shows itself as meaningful. Ultimately, philosophical hermeneutics believes that there is revealed truth in every human experience, not simply one universal truth to be revealed (Willis, 2007). Therefore, this methodology seeks to reveal a deeper understanding of how nurses create a professional identity for themselves in the work that they do with their patients through the narratives or voices of interviewing the nurses themselves.

Results: This dissertation is currently in the pilot stage with preliminary results to be presented.

Conclusion: The results of this study, when shared with nurses and other health care professionals, will yield a better understanding of the profession of nursing as explicated in the real work of nurses.

References

- Andrews, D. R., Burr, J. & Bushy, A. (2011). Nurses' self-concept and perceived quality of care: A narrative analysis. *Journal of Nursing Care Quality*, 26(1), 69-77. doi:10.1097/ncq.0b013e3181e6f3b9
- Bell, E., Campbell, S., & Goldberg, L.R. (2015). Nursing identity and patient-centeredness in scholarly health services research: a computational text analysis of PubMed abstracts 1986-2013. *BMC Health Services Research*, 15(3), 1-16. doi:10.1186/s12913-014-0660-8
- Breau, M., & Rheame, A. (2013). The relationship between empowerment and work environment on job satisfaction, intent to leave, and quality of care among ICU nurses. *Dynamics*, 25(3), 16-24. doi:10.5465/ambpp.2013.142
- Hoeve, Y., Jansen, G., & Roodbol, P. (2013). The nursing profession: Public image, self-concept and professional identity. A discussion paper. *Journal of Advanced Nursing*, 70(2), 295-309. doi:10.1111/jan.12177

Contact

tullamora.diede@wsu.edu

RSC PST 1 - Research Poster Session 1

Supporting Nurses to Speak Up for Patient Safety Using an Employee Engagement Survey

Nicole Hall, MSN, MBA, RN, USA
Cheryl Graf, MSN, USA

Abstract

Purpose: The purpose of this research study is to further develop the understanding of factors that influence patient safety as they relate to nurses speaking up when faced with concerns through examination of archival employee engagement survey results.

Methods: The planned site for procurement of data for this research study is ABC hospital, a privately owned healthcare organization located in the United States that provides both inpatient and outpatient services. The employee engagement survey data that will be examined is from 2015 and had an overall 96% response rate at the research site. The target population for this study was registered nurses but the data set only allowed isolation of respondents who were either nurses, nursing assistants or unit secretaries. The data set did not permit the researcher to isolate only registered nurses.

An explanatory sequential research design was chosen for this study because of its incorporation of both quantitative and qualitative inquiry. This mixed methods study not only allows for identification of variables that influence nurse willingness to speak up through quantitative analysis of archival Employee Engagement survey results, but it then enables exploration of these findings through interviewing. To further understand those variables on the employee engagement survey that were associated with willingness to speak up, the qualitative interviews will allow the researcher to explore the phenomenon being studied by posing open-ended questions with the goal of learning from the interviewees' more about the variables of focus. After carefully considering the quantitative findings, a small number of key interviewees will be hand selected.

Results: The results of this research study will be finalized the spring of 2017 with quantitative analysis concluding in January 2017 and qualitative analysis concluding in March 2017. The results will include identification of variables on the employee engagement survey that impact nurse willingness to speak up through quantitative analysis. Interviewing allows for elaboration on these findings and aids interpretation of the data. Lastly, recommendations will be made, based on the quantitative and qualitative findings, for ways that healthcare organizations can support nurses to speak up when they observe something that may negatively affect patient care.

Conclusion: Conclusions for this study are not yet available though they are part of a doctoral research study that is currently being pursued. By identifying predictor variables, from an employee engagement survey, that support or conversely inhibit nurse willingness to speak up in these situations, the healthcare industry can better comprehend the phenomenon, plan ways to increase its frequency, and support its practice.

References

- Bienefeld, N., & Grote, G. (2012). Silence that may kill: When aircrew members don't speak up and why. *Aviation Psychology and Applied Human Factors*, 2(1), 1-10.
- Okuyama, A., Wagner, C., & Bijnen, B. (2014). Speaking up for patient safety by hospital-based health care professionals: A literature review. *BMC Health Services Research*, 14(61).
- Salazar, M., Minkoff, H., Bayya, J., Gillet, B., Onoride, H., Weedon, J., Altshuler, L., Fisher, N. (2014). Influence of surgeon behavior on trainee willingness to speak up: A randomized controlled trial. *Journal American College of Surgeons*, 219(5), 1001-1007.
- Schwappach, D., & Gehring, K. (2014). Silence that can be dangerous: A vignette study to assess healthcare professionals' likelihood of speaking up about safety concerns. *PLoSOne*, 9(8).
- Schwappach, D., & Gehring, K. (2014). Trade-offs between voice and silence: A qualitative exploration of oncology staff's decisions to speak up about safety concerns. *BMC Health Services Research*, 14(303). Retrieved from www.biomedcentral.com/1472-6963/14/303

Contact

nicolejasonhall@live.com

RSC PST 1 - Research Poster Session 1

Prevalence, Virological Status, and Improvement of Depression Symptoms During a One-Year HIV Cohort Study

Yeow Chye Ng, PhD, MSN, BSN, BSE, RN, FNP-BC, NP-C, AAHIVE, USA
Sandra C. Jones, MSN, RN, APN, CPNP, USA

Abstract

Purpose: Depression is reported as one of the most common co-morbidities of HIV infection (Simoni et al., 2011). Currently, the estimated prevalence of major depressive disorder among the HIV population ranges from 20 percent to as high as 37 percent (Bing et al., 2001; Valente, 2003). Persons who experienced an increase in depression symptoms also reported increases in viral loads (Kalichman, Difonzo, Austin, Luke, & Rompa, 2002). Available evidence supports that depression has a high association with non-adherence to HIV medication, missed medical appointments, and health status deterioration during HIV disease progression. The team investigated the prevalence of depression symptoms, the relationship of PHQ-9 scores with HIV virological status, and further explored possible measures to estimate times needed to improve PHQ-9 scores over the course of a one-year study.

Methods: Patient Health Questionnaire-9 (PHQ-9), a standard instrument for diagnosing depression in primary care was implemented with all patients seeking care at one non-profit organization in northeast Alabama, United States. Patients participated in PHQ-9 screenings during each medical appointment prior to meeting with the medical provider. The survey mechanism was integrated as part of the patient's initial intake questionnaire. All responses were reviewed and recorded in the patient's electronic medical records. Four hundred and eighty patients met specific criteria and participated in the study during the period from 1 January 2015 through 31 December 2015.

Results: Fifty-five percent of the total participants recorded a PHQ-9 score of 10 or above. Interestingly, the group also achieved 90% of HIV viral suppression rate. An increase in PHQ-9 scores were found not to be statistically correlated with viral load and CD4. The Kaplan-Meier plot revealed that PHQ-9 improvements were noted approximately 160 days after the first PHQ-9 measurements were conducted.

Conclusion: This study emphasizes that depression is still an under diagnosed condition. Implementation of PHQ-9 screening at the clinical level could be the first step to alleviating this concern, regardless of the patient's current virological status. Results from the screening will provide valuable insight into the patient's emotional well-being. If warranted, proper depression medication treatment and multiple follow-up visits should be integrated as part of medical management services.

References

- Bing, E. G., Burnam, M. A., Longshore, D., Fleishman, J. A., Sherbourne, C. D., London, A. S., . . . Shapiro, M. (2001). Psychiatric disorders and drug use among Human Immunodeficiency Virus-infected adults in the United States. *Archives of General Psychiatry*, *58*(8), 721-728. doi:10.1001/archpsyc.58.8.721
- Kalichman, S., Difonzo, K., Austin, J., Luke, W., & Rompa, D. (2002). Prospective study of emotional reactions to changes in HIV viral load. *AIDS Patient Care and STDs*, *16*(3), 113-120.
- Simoni, J., Safren, S., Manhart, L., Lyda, K., Grossman, C., Rao, D., . . . Wilson, I. (2011). Challenges in addressing depression in HIV research: Assessment, cultural context, and methods. *AIDS and Behavior*, *15*(2), 376.
- Valente, S. M. (2003). Depression and HIV disease. *Journal of the Association of Nurses in AIDS care*, *14*(2), 41-51. doi:10.1177/1055329002250993

Contact

YeowChye.Ng@uah.edu

RSC PST 1 - Research Poster Session 1

Functioning and Personal Experience Predict Job Satisfaction of Dedicated Nurses Working in Infection Isolation Rooms

Semyon Melnikov, PhD, RN, Israel
Shoshana Phridman, MA, RN, Israel
Esther Shalom, MA, RN, Israel
Ilya Kagan, PhD, RN, Israel

Abstract

Purpose: Job satisfaction, as a factor affecting the retention of nurses, is under extensive research and a focus of healthcare systems leadership. The aim of this study was to elucidate the effect of personal practice experience, sense of loneliness, perceived knowledge of KPC, and professional functioning, on job satisfaction among nurses working as dedicated carers of KPC infected patients hospitalized in isolation rooms.

Methods: In a study with a cross-sectional design, a convenience sample of 87 registered nurses working on medical-surgical wards answered a self-administered questionnaire about (a) job satisfaction, (b) perceived knowledge of KPC infection, (c) personal experience of working in dedicated isolation rooms, (d) sense of loneliness, (e) the respondents' perception of their professional functioning on the ward. Data were analyzed by descriptive statistics, Pearson correlation coefficients, *t* tests, a one-way ANOVA, and multiple regression analysis.

Results: Nurses reported a slightly positive experience of working in isolation rooms, average levels of feeling lonely at work, good functioning on the ward, and high levels of perceived knowledge about source infection and job satisfaction. Nurses were more satisfied with their job when their perceived knowledge of infection control was better, their personal experience of working in KPC isolation rooms was more positive, and they perceived their professional functioning as more effective and productive. The higher the nurses' sense of loneliness the poorer their experience of working with a KPC cohort and the poorer their self-reported professional functioning on the ward. Personal experience of working in KPC-source isolation rooms and perceived level of professional functioning on the ward predicted the dependent variable, explaining 33% ($R^2=.327$) of the variance in nurses' job satisfaction.

Conclusion: The job satisfaction of nurses working as dedicated carers of KPC-infected patients is affected by perceived knowledge of infection control, their personal experience of working in KPC isolation rooms, and perceived professional functioning. The current study emphasizes the importance of nursing management's addressing psychosocial aspects of working as dedicated nurses in the in-ward 'bubble' in hospital settings.

References

- Caricati, L., Sala, R. L., Marletta, G., Pelosi, G., Ampollini, M., Fabbri, A., . . . Mancini, T. (2014). Work climate, work values and professional commitment as predictors of job satisfaction in nurses. *Journal of Nursing Management*, 22(8), 984-994.
- Hayes, B., Douglas, C., & Bonner, A. (2015). Work environment, job satisfaction, stress and burnout among haemodialysis nurses. *Journal of Nursing Management*, 23(5), 588-598.
- Guilley-Lerondeau, B., Bourigault, C., des Buttes, A. G., Birgand, G., & Lepelletier, D. (2016). Adverse effects of isolation: A prospective matched cohort study including 90 direct interviews of hospitalized patients in a French university hospital. *European Journal of Clinical Microbiology & Infectious Diseases*, , 1-6.
- Melnikov, S., Shor, R., Kigli-Shemesh, R., Gun Usishkin, M., & Kagan, I. (2013). Closing an open psychiatric ward: Organizational change and its effect on staff uncertainty, self-efficacy, and professional functioning. *Perspectives in Psychiatric Care*, 49(2), 103-109.
- Ozcelik, H., & Barsade, S. (2011). Work loneliness and employee performance. *Academy of Management Proceedings*, 2011(1) 1-6.

Contact

melniko@post.tau.ac.il

RSC PST 1 - Research Poster Session 1

Health Failure Self-Management Support

Anna Dermenchyan, MSN, RN, CCRN-K, USA

Lynn V. Doering, PhD, RN, USA

Abstract

Purpose: Heart disease is the leading cause of death for both men and women in most ethnicities in the United States. It accounts for one in four deaths and costs \$32 billion annually (CDC, 2016). Heart failure (HF) is the final common pathway for heart disease and all cardiovascular diseases and 50% of individuals diagnosed with HF die within five years (CDC, 2016). Despite the advances in medical knowledge and technology, HF continues to be a major burden to the healthcare system due to the high rates of morbidity, mortality, and cost. This literature review synthesizes current approaches and outcomes of HF disease management support programs, with a focus on multidisciplinary teams, telemonitoring, and patient adherence. The goal of this review is to identify components of HF self-management support programs that can be incorporated into the health systems to improve key patient outcomes, including hospital readmissions and mortality. A second focus is to identify gaps in the literature that will be explored in future research.

Methods: The literature review was conducted using relevant electronic databases and search engines, including, PubMed, CINAHL Plus, and Web of Science, to locate appropriate articles for “health failure self-management support” or “self-management support for heart failure.” Search filters were set for Humans, English language, and date range of five years. However, some older articles were later discovered in the readings of original research as landmark studies and were also included. The search criteria yielded 429 articles, in which the following keywords were used to narrow down the search: heart failure, chronic disease model, self-management support, self-management, self-care, disease management, disease management program, quality of life (QOL), outcome measures, telehealth, and telemonitoring. From the 429 articles, 43 were selected for analysis based on the above criteria.

Results: The intensity (number of clinic visits and provider contacts) of the multidisciplinary team approach is not necessarily better. The landmark study by Rich et al. (1995) highlighted the significant impact of nurse-led, multidisciplinary disease management intervention for HF patients by demonstrating improvements in readmission rates, quality of life, and cost (Rich et al., 1995). Since then, many programs have adopted evidence-based practices by instituting a comprehensive education plan for patients prior to discharge, and adopting ambulatory, multidisciplinary, self-management support programs (Otsu & Moriyama, 2011, 2012). Despite the general agreement that HF disease management programs work in improving outcomes, some questions remain about operationalizing the interventions for all patients (Desai, 2012). Specifically, the lack of standardized definitions and the variability of program design limit the generalizability and actionable evidence for self-management program development (Sochalski et al., 2009). Furthermore, many of the trials are not statistically powered to evaluate clinical outcomes, and consequently, large numbers of studies are aggregates of individual or single site trials (Desai, 2012).

While telemonitoring is an emerging trend in health care delivery and has potential to be cost-effective, telemonitoring alone is not effective as a self-management support tool in the context of HF. Most HF self-management support programs require face-to-face follow-ups with an outpatient provider and/or care coordinator (Fonarow et al., 2010). However, this becomes a limitation for some patients due to time, access, and cost. In the last decade, Internet Technology (IT) solutions have become popular health care tools for patient self-management. Nonetheless, all the latest HF trials of IT-based interventions have revealed mixed results in patient outcomes. Numerous systematic reviews continue to show improved outcomes in mortality and hospitalization (Inglis, Clark, McAlister, Stewart, & Cleland, 2011; Inglis, Clark, Dierckx, Prieto-Merino, & Cleland, 2015), but these studies tend to be in single centers with smaller sample sizes (Ong et al., 2016). The larger RCTs on telemonitoring in the United States (1653 and 1437 patients) and Europe (710 patients) have shown little or no significant benefits (Chaudhry et al., 2010;

Koehler et al., 2011; Ong et al., 2016), but patient adherence rates seem to be low (ranges 40-60%) with device usage.

Patient adherence to self-management recommendations is important for improved clinical outcomes. Patient adherence is a problem for many self-management support program studies. Unfortunately, evaluating the influence of patient adherence on other variables, such as family support, psychosocial factors, and disease severity scores, has been minimal (Fountain, 2016). Most chronic disease management programs are designed to increase adherence to evidence-based treatment therapies because there is evidence that patients' knowledge and acceptance of their condition improved their adherence to recommended. Providing too much information at the time of diagnosis is not helpful to patients because they experience disruption and need time to process their diagnosis (Desai, 2012). Some patients require seven months to process the information given to them, which can be an issue for patients' in following through with discharge instructions and follow-up appointments (Otsu & Moriyama, 2011). Therefore, it is important to provide patients with ongoing self-management support and individualized evidence-based treatments for improved adherence.

Conclusion: The focus of this review was to synthesize the state of the science regarding effectiveness of HF self-management support programs with potential to be incorporated into health systems and to improve patient outcomes, such as, hospital readmissions and mortality. However, the literature review yielded mixed results. Numerous studies failed to improve key patient outcomes, including readmissions and mortality. These results may be due to multiple causes, including low adherence rates to the recommended therapy, the type of technology used, and lack of patient engagement in self-care. Future research should identify sub-populations of HF patients, who are most likely to benefit from specific self-management support interventions.

This review led to the identification of several gaps in the existing literature. Specifically, none of the studies in this review looked at risk tools to identify individual HF patient's likelihood to respond positively to specific self-management support interventions, such as telemonitoring and to test stratification (high to low responsiveness). Most studies did infer that stratification is needed for decision support and targeted self-management support interventions, but none really suggested specific study designs or tools. Future studies should investigate risk stratification of patients based on the combination of medical and social scores as an approach to 1) identify specific subgroups who are likely to benefit from specific self-management support interventions, and 2) test the effect of stratification strategies on improvements in patient outcomes.

References

1. Centers for Disease Control and Prevention (CDC). (2016, June). Chronic Disease Prevention. Retrieved from <http://www.cdc.gov/chronicdisease/overview/index.htm>
2. Chaudhry, S. I., Mattera, J. A., Curtis, J. P., Spertus, J. A., Herrin, J., Lin, Z., ... Krumholz, H. M. (2010). Telemonitoring in patients with heart failure. *The New England Journal of Medicine*, 363(24), 2301-2309.
3. Desai, A. S. (2012). Home monitoring heart failure care does not improve patient outcomes: looking beyond telephone-based disease management. *Circulation*, 125(6), 828-836.
4. Fonarow, G. C., Albert, N. M., Curtis, A. B., Stough, W. G., Gheorghade, M., Heywood, J. T., ... Yancy, C. W. (2010). Improving evidence-based care for heart failure in outpatient cardiology practices: primary results of the Registry to Improve the Use of Evidence-Based Heart Failure Therapies in the Outpatient Setting (IMPROVE HF). *Circulation*, 122(6), 585-96.
5. Fountain, L. B. (2016). Heart Failure Update: Chronic Disease Management Programs. *FP essentials*, 442, 31-40.
6. Inglis, S. C., Clark, R. A., McAlister, F. A., Stewart, S., & Cleland, J. G. (2011). Which components of heart failure programmes are effective? A systematic review and meta-analysis of the outcomes of structured telephone support or telemonitoring as the primary component of chronic heart failure management in 8323 patients: Abridged Cochrane Review. *European journal of heart failure*, 13(9), 1028-1040.
7. Inglis, S. C., Clark, R. A., Dierckx, R., Prieto Merino, D., & Cleland, J. G. (2015). Structured telephone support or non-invasive telemonitoring for patients with heart failure. *Cochrane Database of Systematic Reviews*, (10), CD007228-CD007228.
8. Koehler, F., Winkler, S., Schieber, M., Sechtem, U., Stangl, K., Böhm, M., ... Anker, S. D. (2010). Telemedical Interventional Monitoring in Heart Failure (TIM-HF), a randomized, controlled intervention trial

investigating the impact of telemedicine on mortality in ambulatory patients with heart failure: study design. *European journal of heart failure*, 12(12), 1354-1362.

9. Ong, M. K., Romano, P. S., Edgington, S., Aronow, H. U., Auerbach, A. D., Black, J. T., ... Fonarow, G. C. (2016). Effectiveness of Remote Patient Monitoring After Discharge of Hospitalized Patients With Heart Failure: The Better Effectiveness After Transition-Heart Failure (BEAT-HF) Randomized Clinical Trial. *JAMA internal medicine*, 176(3), 310-318.
10. Otsu, H., Moriyama, M. (2011). Effectiveness of an educational self-management program for outpatients with chronic heart failure. *Japan journal of nursing science*, 8(2), 140-152.
11. Otsu, H., Moriyama, M. (2012). Follow-up study for a disease management program for chronic heart failure 24 months after program commencement. *Japan journal of nursing science*, 9(2), 136-148.
12. Rich, M. W., Beckham, V., Wittenberg, C., Leven, C. L., Freedland, K. E., & Carney, R. M. (1995). A multidisciplinary intervention to prevent the readmission of elderly patients with congestive heart failure. *The New England Journal of Medicine*, 333(18), 1190-1195.

Contact

adermenchyan@mednet.ucla.edu

RSC PST 1 - Research Poster Session 1

Effectiveness of Visual Inspection With Acetic Acid in the Detection of Cervical Neoplasia Intraepithelial

Nancy Griselda Pérez Briones, MSN, RN, Mexico

Kerena Hernandez, MSN, RN, Mexico

Raul Adrian Castillo-Vargas, MSN, RN, Mexico

Mireya del Carmen González Álvarez, PhD, RN, Mexico

Alejandra Muñoz Morales, PhD, RN, Mexico

Abigahil Valdés Rivera, BSN, RN, Mexico

Abstract

Introduction: In Mexico every two hours a woman dies of Cervical Cancer, it's the second leading cause of death from malignancies, and it is estimated that about 4, 000 deaths occur every year. Currently to reduce the impact of the disease there are several tests for the early detection and timely treatment, the most used is the Cervical Cytology (CC), however it is not a definitive diagnostic method alone, a more efficient and effective strategy is the screening by Visual Inspection with Acetic Acid (VIA) at 5%, as it is a simple test, accessible and reliable, with immediate results regarding the probable existence of a precancerous lesion test.

Purpose: Determine the effectiveness of VIA as a screening test compared to the CC in Cervical Intraepithelial Neoplasia Detection(CIN).

Methods: The study population consisted of 74 women between 15 and 49 years attending outpatient clinic at a rural hospital in the city of Ramos Arizpe, Coahuila. CC underwent colposcopy and simultaneously. The sampling was performed using CC Ayre spatula and endocervical brush. Colposcopy was performed using acetic acid solution at 5% then with Lugol solution. In patients who were positive for either test, underwent biopsy of the lesion.

Results: VIA has greater sensitivity in detecting CIN as 74 women, 36 were found positive, compared with only 5 positive results by CC. It is noteworthy that high specificity was found because of the 36 biopsies were ratified 34 dysplastic lesions, including one patient with Cancer in Situ result.

Conclusion: Los resultados obtenidos en este estudio confirman, el alto número de falsos negativos de la CC en comparación con los del IVAA. Con ello, se concluye que la IVAA es adecuada para ser utilizada como alternativa a la CC, ya que así la paciente obtendrá un diagnostico temprano y tratamiento oportuno.

The results obtained in this study confirm the high number of false negative CC had compared with VIA. With this, we conclude that VIA is suitable for use as an alternative to CC, as this patient get an early diagnosis and timely treatment.

References

- Arbyn M. et al. (2012). Evidence regarding human papillomavirus testing in secondary prevention of cervical cancer. *Vaccine*, 30 (5): 88-99.
- De Vuyst H. et al. (2012). Prevalence and determinants of human papillomavirus infection and cervical lesions in HIV-positive women in Kenya. *British Journal of Cancer*, 107 (9): 1624-1630.
- Joshi S. et al. (2013). Screening of cervical neoplasia in HIV-infected women in India. *AIDS*, 27 (4): 607-615.
- Organización Mundial de la Salud (OMS) & Organización Panamericana de la Salud (OPS) (2014). Directrices de la OPS/OMS sobre tamizaje y tratamiento de las lesiones precancerosas para la prevención del cáncer Cervicouterino. ISBN: 978-92-75-31833-1.
- Cortiñas P., Ríos K., & Sánchez J. (2008). Citología cervical como pesquisa: factores para mejorar la sensibilidad. *Gac. Méd. Caracas*, 116 (1): 37-40.

- Joshi S. et al. (2013). Screening of cervical neoplasia in HIV-infected women in India. *AIDS*, 27 (4): 607-615.
- León J. (2008). Cerviscopia una alternativa para mejorar el diagnóstico de lesiones cervicales premalignas. *Rev. Científica Colposcopia*, 1 (1): 11-13.
- López A. & Lizcano M. (2006). Cáncer Cervicouterino y el virus del papiloma humano: la historia que no termina. *Cancerología*, 1: 31-55.
- Sherris J. et al. (2010). Enfoques para el tamizaje alternativo del cáncer cervical. *Perspectivas Internacionales en Salud Sexual y Reproducción*. No. Esp.: 31-38.

Contact

nancygriselda@gmail.com

RSC PST 1 - Research Poster Session 1

What Pregnant Adolescents Think About Antenatal Care: A Contemporary Review for Midwives

Deborah M. Ireson, PhD, MMid, RN, RM, CHN, IBCLC, Australia

Abstract

Purpose: Infrequent or delayed attendance for antenatal care is likely to exacerbate the health risks associated with pregnancy in adolescence. (Muhwava, Morojele, & London, 2016). Poor health literacy and inadequate understanding into the role midwives have in maintaining healthy pregnancy, can result in an erosion of midwifery support. (Docherty, Bugge, & Watterson, 2012). The result of this is a failure for this group to make optimal use of midwifery services provided. In this context potential alienation from midwives may further increase risks already associated with entrenched health behaviours resulting in poor ongoing outcomes for individuals, pregnancies and child development (Kim, Connolly, & Tamim, 2014). Taken from the authors PhD studies, this presentation will discuss the experiences and cultural behaviours of a group of pregnant adolescents that displayed the ways in which they made sense of their pregnancy health needs. Examining the resulting knowledge may assist midwives to plan equitable approaches to antenatal care and create occasions that strengthen engagement strategies with adolescents (Guliani, Sepehri, & Serieux, 2014). Furthermore the integration of this knowledge into midwifery practice may potentially exert positive influences to reduce the continuing cyclic health risks to this group of often marginalised women and their children (Hadley, 2016).

Methods: The qualitative approach of interpretive ethnography was utilised incorporating participate observation as a means of data collection. The author was for nine months positioned alongside pregnant adolescents in the waiting area of a dedicated “young women’s” antenatal clinic. Observations and cultural behaviours recorded during this time were supported by personal stories and validated using in-depth interviews at spaced intervals. Data collection and analysis was a concurrent approach following Spradley’s (1980) systematic approach to research development. This methodological analysis exposed four major themes influencing adolescents’ health related actions during pregnancy:

1. State of mind. This theme was generated from actions prior to pregnancy disclosure, pregnancy discovery, incidents that occurred during antenatal clinic attendance and the social influences prevalent at the time.
2. Searching for information. Adolescents are not different from other primiparae in wanting information relevant to their pregnancy, however, this theme identified where information was sourced by adolescents, where it was ‘given’ and the means by which the information was provided.
3. Sources of support. Support took different connotations for individuals. Adolescence is a time of life with varying levels of parenting support i.e. very young to independent living. Adolescents often were estranged from supportive relationships, neither were they always exposed to consistent relationships. What adolescents considered to be essential support was distilled in this theme.
4. Engaging with pregnancy. This theme took the context of ‘developing a mothering role’. Considering stage of life, cognition, social determinants and ability to plan for their future mothering, were included in this theme.

Results: The information gained from these themes includes reasons why adolescents delayed their pregnancy disclosure, the sources of information they considered to be of most use to them and who they relied upon for guidance during pregnancy. The traditional medicalised structured approach to antenatal care had little influence on adolescents’ reasons to attend for antenatal care. Midwifery contact was a polarising experience for some adolescents and the manner in which they were provided services strongly influenced their continued antenatal attendance. Personal and emotional milestones within their pregnancy were pivotal to their engagement with their pregnancy and as such identified moments of increased connectedness.

Conclusion: This presentation will build on what are known barriers and enhancements to providing antenatal care to adolescents, further the presenter will provide new insights into how influential antenatal care may be delivered to adolescents. While this research was conducted in Australia its message is very applicable globally to midwives wishing to enhance their approach to providing effective antenatal care to this group.

References

- Docherty, A., Bugge, C., & Watterson, A. (2012). Engagement: an indicator of difference in the perceptions of antenatal care for pregnant women from diverse socioeconomic backgrounds. *Health Expectations*, 15(2), 126-138.
- Guliani, H., Sepehri, A., & Serieux, J. (2014). Determinants of prenatal care use: evidence from 32 low-income countries across Asia, Sub-Saharan Africa and Latin America. *Health Policy Plan*, 29(5), 589-602.
doi:10.1093/heapol/czt045
- Hadley, A. (2016). Teenage pregnancy: Great progress, but no room for complacency. *British Journal of Midwifery*, 24(4), 238-239.
- Kim, T., Connolly, J., & Tamim, H. (2014). The effect of social support around pregnancy on postpartum depression among Canadian teen mothers and adult mothers in the maternity experiences survey. *Pregnancy and Childbirth*, 14(1), 162. doi:10.1186/1471-2393-14-162
- Muhwava, L. S., Morojele, N., & London, L. (2016). Psychosocial factors associated with early initiation and frequency of antenatal care (ANC) visits in a rural and urban setting in South Africa: a cross-sectional survey. *BMC pregnancy and childbirth*, 16, 18.
- Spradley, J. P. (1980). *Participant observation*. FortWorth [Tex.]: Holt, Rinehart and Winston.

Contact

d.ireson@ecu.edu.au

RSC PST 1 - Research Poster Session 1

Neonatal Autonomic Function and Outcomes at 12-Months in Infants With Congenital Heart Disease

Tondi M. Harrison, PhD, RN, CPNP, FAAN, USA
Roger Brown, PhD, USA

Abstract

Purpose: Infants with complex congenital heart disease (CCHD) have impaired autonomic nervous system (ANS) function.¹⁻³ Impaired ANS function is a known predictor of morbidity and mortality in adults with acquired heart disease.^{4,5} Relationships between early ANS function and outcomes in infants with CCHD is unknown. The purpose of this study is to examine relationships between ANS function during the initial hospitalization of newborn infants with CCHD and growth, development, and survival over the first year of life.

Methods: Continuous 24-hour electrocardiographic (ECG) recordings from 55 newborn infants, hospitalized at birth for treatment of CCHD, will be used to calculate heart rate variability (HRV) as an index of ANS function.⁶ ECG waveforms before and after surgical intervention were obtained from Philips bedside monitors, equipped with the Excel Medical Electronics Bedmaster research export tool, stored in the hospital's central server, and exported to an encrypted research server. Raw ECG waveform data were then imported into the GE Healthcare MARS ECG analysis and Editing System (General Electric, Inc.) for HRV analysis. Each ECG complex was identified and characterized as to morphology by the computer software. This preliminary analysis is currently being verified by the PI to assure proper labeling of heart beats and artifact. Interbeat intervals associated with ectopic beats, non-sinoatrial node-initiated complexes, and artifact will be excluded from analysis. Power in three frequency domains will then be calculated: very low frequency (reflecting effects of thermoregulation and neurohormones on heart rate), low frequency (reflecting the combined effect of sympathetic and parasympathetic influences on heart rate), and high-frequency (reflecting parasympathetic influences on heart rate). Data related to growth (weight-for-age Z-scores), development (Bayley Scales of Infant Development III; occupational, physical, or speech intervention), and survival over 12 months will be obtained from the electronic medical record. Relationships among neonatal HRV and growth and development over 12 months will be analyzed using latent growth models with adjusting covariates. Relationships between neonatal HRV and survival at 12 months will be analyzed using logistic regression.

Results: We expect infants with more regulated ANS function during the neonatal time period will demonstrate improved growth and development. In addition, we expect markedly impaired neonatal ANS function to be associated with mortality within the first 12 months.

Conclusion: Identification of a non-invasive marker for morbidity and mortality in infants with CCHD will stimulate feasibility testing and implementation of low-cost, low-risk nursing interventions known to enhance autonomic function, such as skin-to-skin contact, comforting touch, and breast-feeding. Although these interventions are considered to be standard of care in neonatal intensive care units, they are rarely used in pediatric cardiac intensive care units where the majority of infants with CCHD currently receive care. Increasing our knowledge of relationships between early patterns of development of the ANS and later outcomes has the potential to improve nursing care and, ultimately, improve the quality of these infants' lives.

References

1. Aletti F, Ferrario M, de Jesus TB, Stirbulov R, Silva AB, Cerutti S, Sampaio LM. Heart rate variability in children with cyanotic and acyanotic congenital heart disease: analysis by spectral and non linear indices. *Conf Proc IEEE Eng Med Bio. Soc.* 2012; 2012:4189-4192. doi: 10.1109/EMBC.2012.6346890.
2. Harrison TM, Brown R. Autonomic nervous system function in infants with transposition of the great arteries. *Biol Res Nurs.* 2012; 14:257-268. doi: 10.1177/1099800411407687.
3. Siddiqui S, Wilpers A, Myers M, Nugent JD, Fifer WP, Williams IA. (2015). Autonomic regulation in fetuses with congenital heart disease. *Early Hum Dev.* 2015;91:195-198. doi: 10.1016/j.earlhumdev.2014.12.016.

4. Harris PRE, Stein PK, Fung GL, Drew BJ. Heart rate variability measured early in patients with evolving acute coronary syndrome and 1-year outcomes of rehospitalization and mortality. *Vasc Health Risk Manag.* 2014;10:451-464. doi: 10.2147/VHRM.S57524. eCollection 2014.
5. Huikuri HV, Stein PK. Heart rate variability in risk stratification of cardiac patients. *Prog Cardiovasc Dis.* 2013;56:153-159. doi: 10.1016/j.pcad.2013.07.003.
6. Mazzeo AT, LaMonaca E, Di Leo R, Vita G, Santamaria LB. Heart rate variability: a diagnostic and prognostic tool in anesthesia and intensive care. *Acta Anaesthesiol Scand.* 2011;55:797-811. doi: 10.1111/j.1399-6576.2011.02466.x.

Contact

harrison.473@osu.edu

RSC PST 1 - Research Poster Session 1

Private Mobile Phones as a Source of Nursing Team Interruption During Medication Division and Administration

Polina Rozenberg, MBA, MA, RN, Israel
Elleonora Shnaiderman, MHA, BA, RN, CCRN, Israel
Svitlana Rudenko, MA, BA, RN, CCRN, Israel

Abstract

Purpose: To estimate the relative rate of distractions that caused by audio notifications by mobile phones while focusing on long term distractions. We wanted to check whether there is a connection between the frequency and the relative rate of distractions that came from audio notifications, and especially the long term distractions, to the staff personnel's age and their youngest child's age. Moreover, we wanted to check if there is a connection between the perception of mobile phone as a cause of disturbance, to the frequency and relative rate of distractions that caused by its audio notifications.

Methods: The study was conducted in two major hospitals in Israel. We made direct observation on 100 nurses during preparation and distribution of medications. After observation period every observed participant filled out a questionnaire designed to measure his perception of mobile phones as a cause of disturbance.

Results: Distractions caused by audio notifications constitute at least 25% of all distractions during preparation and distributions of medications and of that, 20% are long term distractions. A negative connection was found between the perception of mobile phones as a cause of disturbance and long distractions, but not with the overall distractions stemming from audio notifications. The age of the participants and the age of their children have a negative connection on the frequency of distractions stemming from audio notifications, and especially long term distractions. The research findings raised a concern that using mobile phones has to be connected to the department safety policy.

Conclusion: The market penetration of mobile phones is rising in every industrial sector and professional field. The perception of mobile phones as a cause of disturbance during activities that require concentration may limit the use of mobile phones, or at least limit extended use of them. A program of assimilation of new workers needs to emphasize the negative influence of using them during activities that require concentration. Additionally, in future research, it is important to consider creating coherent policies for the use of mobile phones in the workplace and beyond.

References

1. Raban, M.Z., Lehnborn, E. C., & Westbrook, J. I. (2013). *Interventions to reduce interruptions during medication preparation and administration*. Australian Commission on Safety and Quality in Health Care, 1 (4). Retrieved from: <http://www.safetyandquality.gov.au/publications-resources/publications/>.
2. Ozdalga, E., Ozdalga, A., & Ahuja, N. (2012). The Smartphone in Medicine: A Review of Current and Potential Use Among Physicians and Students. *Journal of Medical Internet Research*, 14(5):e128. doi:10.2196/jmir.1994.
3. Gill, P. S., Kamath, A., & Gill, T. S., (2012). Distraction: an assessment of Smartphone usage in health care work settings. *Risk Management and Healthcare Policy*, 5: 105–114.
4. Koehler, N., Vujovic, O., & McMenamin, C. (2013). Healthcare professionals' use of mobile phones and the internet in clinical practice. *Journal of Mobile Technology in Medicine (JMTM)*, 2 (1): 3-13. doi: 10.7309/jmtm.2.1.2.

Contact

Polina.Rozenberg@sheba.health.gov.il

RSC PST 1 - Research Poster Session 1

Clinical Outcome of Comprehensive Care for Teenage Pregnancy in Ramathibodi Hospital

Nitaya Rotjananirunkit, MNS (NsgAd), RN, Thailand

Abstract

Purpose: This study aims to compare the number of complications of teenage mothers between the control group and the experiment group.

Methods: This is a quasi-experimental research. The purposive sampling was recruited from the postpartum teenage mothers who had delivery in the obstetric ward at Ramathibodi Hospital during January 2007 - December 2014. All participants were classified into 2 groups. The first 878 teenage mothers were assigned to the control group and cared by the conventional intervention, while the rest 529 postpartum teenage mothers were assigned to the experimental group and cared by the clinical and nursing practice guideline for comprehensive care for teenage pregnancy. Intervention tool for this study was the clinical and nursing practice guideline for comprehensive care for teenage pregnancy developed by clinical health care team. It included a clinical and nursing practice guideline for teenage pregnancy during antepartum, intra partum and post-partum period. The content validity was examined by three experts. Measuring tool was the check list sheet for complications occurred during antepartum, intra partum and post-partum collection. Data were analyzed by descriptive statistic and independent T-test for comparison complication between two groups.

Results: Results demonstrated that there were significantly different in number of complications between experiment and control group. After using the clinical and nursing practice guidelines, the experimental group had significantly lower number of complications than the control group. The number of complications during antepartum are anemia ($p = .000$), preterm labour ($p = .001$) and preterm premature rupture of membrane ($p = .006$). The number of complications during intrapartum is pregnancy induced hypertension ($p = .000$). The number of complications during postpartum is postpartum haemorrhage ($p = .008$).

Conclusion: The results of this study support that the clinical and nursing practice guidelines for comprehensive care for teenage pregnancy is certainly helpful for teenage mothers. It should be further developed this guidelines for reducing complication of teenage mothers.

References

- World Health Organization. (2012). "Adolescent health." Retrieved 1May, 2015, from http://www.who.int/topics/adolescent_health/en.WHO\Guidelines on
- World Health Organization. (2011). "Preventing Early Pregnancy and Poor Reproductive Outcomes." Retrieved 2 May, 2015, from http://www.who.int/topics/adolescent_health/en/.
- Ngum Chi Watts, M. C., Liamputtong, P. & Carolan, M. (2013). Contraception knowledge and attitudes: Truths and myths among African Australian teenage mothers in Greater Melbourne, Australia. *Journal of Clinical Nursing*, 23: 2131–2141.
- Konadu Gyesaw, N. Y., Ankomah, A. (2013). Experiences of pregnancy and motherhood among teenage mothers in a suburb of Accra, Ghana: A qualitative study. *International Journal of Women's Health*, 5: 773–780.
- McMichael C. (2013). Unplanned but not unwanted? Teen pregnancy and parenthood among young people with refugee backgrounds. *Journal of Youth Studies*, 16(5): 663–78.

Contact

nitaya.rot@mahidol.ac.th

RSC PST 1 - Research Poster Session 1

Comparing Outcomes Between Vascularized Lymph Node Transfer and Lymphovenous Anastomosis in the Primary Lymphedema

Chia Yu Lin, MS, RN, Taiwan
Hsueh-Erh Liu, PhD, RN, Taiwan

Abstract

Purpose: Primary lymphedema is a devastating, debilitating disease. Much of the current treatment options demonstrate evidence in the treatment of secondary lymphedema. This study is to investigate the outcomes between vascularized lymph node (VLNT) transfers and lymphovenous anastomosis (LVA) in the treatment of primary lymphedema.

Methods: A total of 17 patients were recruited to the study with a total of 19 lower limbs with primary lymphedema at Chang Gung Memorial Hospital. All patients reported a non-hereditary occurrence of lymphedema history that originated at birth. All patients were treated with either VLNT or LVA. Postoperative quality of life and serial circumferential limb measurements were compared. Group comparisons were performed using Mann-Whitney U test for circumference comparisons, and the Wilcoxon test for pre and postoperative group comparisons. This study was approved by the Institutional Review Board (IRB) at Chang Gung Memorial Hospital and performed in accordance with the Helsinki Declaration ethical standards.

Results: 15 limbs received VLNTs and had an average of 3.8cm reduction above knee, 3.6cm below knee and 4cm above ankle. An average total reduction was 3.7cm. 4 limbs received LVA treatment and had an average of 1.3cm reduction AK, 3.0cm BK and 1.5cm AA, giving an average total reduction of 1.9cm. Patients in the VLNT group had an average drop from 5.2 episodes preoperatively to 0.1 episodes postoperatively. Patients in the LVA group reported an average reduction in cellulitic episodes from 5 preoperatively to 0.8 postoperatively. In the VLNT group, an average significant improvement in quality of life was noted by 2.5 points. In the LVA group, an average improvement in the quality of life score was seen by 2 points.

Conclusion: In conclusion, primary lymphedema can be treated adequately with improvements in both functional and quality of life outcomes if treatment options are chosen correctly. VLNT when used in severe cases of lymphedema, can provide greater relief with more impactful outcomes in both functional restoration and quality of life outcomes.

References

- Patel, K. M., Lin, C. Y., & Cheng, M. H. (2015). A Prospective Evaluation of Lymphedema-Specific Quality-of-Life Outcomes Following Vascularized Lymph Node Transfer. *Ann Surg Oncol*, 22(7), 2424-2430. doi:10.1245/s10434-014-4276-3
- Cheng, M. H., Huang, J. J., Wu, C. W., Yang, C. Y., Lin, C. Y., Henry, S. L., & Kolios, L. (2014). The mechanism of vascularized lymph node transfer for lymphedema: natural lymphaticovenous drainage. *Plast Reconstr Surg*, 133(2), 192e-198e. doi:10.1097/01.prs.0000437257.78327.5b
- Ito, R., Wu, C. T., Lin, M. C., & Cheng, M. H. (2016). Successful treatment of early-stage lower extremity lymphedema with side-to-end lymphovenous anastomosis with indocyanine green lymphography assisted. *Microsurgery*, 36(4), 310-315. doi:10.1002/micr.30010

Contact

chiayumiffy@gmail.com

RSC PST 1 - Research Poster Session 1

Substance-Abusing Patients' Perceptions of Nursing Care

Christina M. Mertz, BSN, RN, USA

Abstract

Purpose: Existing research consistently documents that most nurses have negative attitudes toward patients who are substance abusers. These attitudes tend to be even stronger in non-psychiatric facilities, where substance-abusing patients are often admitted with a main diagnosis other than their substance abuse and are typically cared for by non-psychiatric nurses who may lack the knowledge and experience necessary to provide high-quality patient care to this population. These patients, then, may receive care that is less comprehensive and of a lower quality, which can significantly influence their outcomes and their opinions regarding their hospitalization experiences. However, there is little to no research on how substance-abusing patients themselves perceive the nursing care that they receive during hospitalization. Patient satisfaction is a crucial aspect of healthcare management and of direct nursing care, and there is a great need for further research regarding patient satisfaction in this particular population.

Methods: This research study will use a mixed-methods design and will mainly collect information via a survey whose questions will provide both quantitative and qualitative data. These questions will gather data on the circumstances of subjects' hospitalizations, their perceptions regarding their hospitalization experiences, and the interactions that they had with their nurses. These questions will specifically focus on themes of pain management, call bell response, direct patient care, therapeutic communication, and patient advocacy. To qualify, research subjects must be substance-abusers and must have either visited an emergency department or been hospitalized in a non-psychiatric unit within the last year. Medical hospitals, inpatient psychiatric hospitals and units, and substance-use therapy groups may all be investigated as potential sites for research subject recruitment and for potential further snowball sampling.

Results: Because this study has not yet been conducted and the existing research base is extremely limited, the results are still unknown. However, the results of this study can provide an invaluable addition to the nursing literature and can help non-psychiatric inpatient nurses to provide better care for this patient population. Using the results of this study, then, nurses will be able to use an evidence-based framework to better treat their substance-abusing patients.

Conclusion: Nursing literature on substance-abusing patients focuses on nurses' perceptions of these patients and not on how the patients themselves perceive the care that they receive. The data, results, and conclusions from this study will add to the nursing knowledge base and can be used to allow nurses to provide a higher quality of evidence-based care to this patient population.

References

- Alabarce, J. A. L., Sánchez, D. H., Mula, J. M., Medina, J. M. F., Fernández, A. I. C., Álvarez, E. S.,... Binimelis, A. G. (2014). En portada: percepción, conocimientos y actitudes de las enfermeras de urgencias y salud mental frente al alcoholismo y otras drogodependencias. *Metas Enferm*, 17(2), 22-31. Retrieved from <http://www.enfermeria21.com/revistas/metas/articulo/80555/>
- Neville, K., & Roan, N. (2014). Challenges in nursing practice: nurses' perceptions in caring for hospitalized medical-surgical patients with substance abuse/dependence. *The Journal of Nursing Administration*, 44(6), 339-346. doi: 10.1097/NNA.000000000000079
- Nilsen, S. L., Stone, W. L., & Burlison, S. L. (2013). Identifying medical-surgical nursing staff perceptions of the drug-abusing patient. *Journal of Addictions Nursing*, 24(3), 168-172. doi: 10.1097/JAN.0b013e3182a4cb9c

Contact

christina.mertz@live.longwood.edu

RSC PST 1 - Research Poster Session 1

Global Utilization of Fertility Services in Developed Nations

Jamie R. Kanehl, BSN, RN, USA

Abstract

Purpose: To identify factors that lead to discrepancies of utilization of artificial reproductive technology (ART) worldwide and understand the impacts liberal and strict country regulations have on cross border care and overall reproductive health and infertility rates.

Methods: A literature search for global infertility, assistive reproductive technology and cross border care was completed. Data from the search was gathered and analyzed. Visual graphs for 18 different countries were created to help visualize the differences in number of ART cycles, pregnancy rates and ART utilization based on population. Laws and regulations of each country were researched. Regulations in each country were compared with rates of ART utilization, and ingoing and outgoing cross border care.

Results: Regulations and laws for ART varied worldwide such as regulations dependent on marital status, age of woman, age of man, and sexual orientation. Countries with liberal regulations in which they do not impose as many strict regulations such as age limits typically have higher incoming cross border care and higher utilization of ART. Countries with strict regulations that impose requirements such as heterosexual marriage typically have higher outgoing cross border care and lower ART utilization. However, some countries such as the United Kingdom have liberal regulations but still have high outgoing cross border care rates likely due to their long wait lists and lack of appropriate access to care. Other countries such as Ireland do not have public access to ART and therefore have no regulations or public financing in place and very low utilization of ART.

Conclusion: The growing phenomenon of cross border reproductive care highlights the problem with infertility throughout the world. Restrictive laws, lack of public financing and wait lists all contribute to patients seeking legal, more affordable and better medical care in other countries. The utilization of ART has not met the growth in technology for infertility treatment and poses a threat to the population of infertile persons. The data should continue to be examined to fully determine the factors contributing to the increase in this form of medical tourism to further help the utilization of ART.

References

- Boivin, J., Domar, A.D., Shapiro, D.B., Wischmann, T.H., Fauser, B. & Verhaak, C. (2012). Tackling burden in ART: an integrated approach for medical staff. *Human Reproduction*, 27(4), 941–950. doi: 10.1093/humrep/der467
- Brigham, K. B., Cadier, B., Chevreul, K. (2012). The diversity of regulation and public financing of IVF in Europe and its impact on utilization. *Human Reproduction*, 28 (3), 666-675. doi: 10.1093/humrep/des418
- European Society of Human Reproduction and Embryology (2015a). ART Fact Sheet (July 2014). Retrieved from <http://www.eshre.eu/guidelines-and-legal/art-fact-sheet.aspx>
- European Society of Human Reproduction and Embryology (2015b). Comparative analysis of medically assisted reproduction in the EU: Regulation and technologies. Retrieved from http://ec.europa.eu/health/blood_tissues_organ/docs/study_eshre_en.pdf
- Hudson, N., Culley, L., Blyth, E., Norton, W. & Pacey, A. (2011). Cross-border reproductive care: a review of the literature. *Reproductive Biomedicine Online* 22(7), 673–685. doi: 10.1016/j.rbmo.2011.03.010

Contact

jamiokanehl33@gmail.com

RSC PST 1 - Research Poster Session 1

A Qualitative Study on Nurse Mental Health Consumer Empathy Experiences During Conflict or Discord

Eimear Caitlin Muir-Cochrane, PhD, MNS, BSc (Hons), RN, GradDipAdEd, CMHN, Australia
Debra O'Kane, MSN, RN, Australia
Adam Gerace, PhD, Australia

Abstract

Purpose: Empathy, the process of taking another person's psychological perspective and experiencing emotional reactions to their experiences, is considered a core component of nurse-consumer relationships. It has been identified as particularly important in acute mental health care settings, where conflict is likely to occur due to involuntary hospitalisation and aggression or violence. However, there is confusion regarding what *exactly* is empathy in nursing; and there is little direct research into the ways in which nurses empathise with consumers and the unique challenges in thinking about and feeling for a consumer during a conflict situation. The purpose of this study was to investigate the empathic processes that operate during a nurse-patient conflict situation. In particular, the aims were to examine how nurses take the perspective of a patient in a conflict situation and experience empathic emotion; to investigate the perceptions of patients regarding empathic responses toward them by nurses; and to examine how empathic processes contribute to nurse and patient satisfaction and positive outcomes.

Methods: In semi-structured interviews, nurses (n=13) and consumers (n=7) discussed how they experienced empathy during conflict situations such as aggression, absconding, and medication refusal. Thematic analysis was used to analyse the data, and a theoretical model (Davis, 1994) was applied to the data to understand the antecedents, processes, and outcomes involved in a nurse-consumer interaction.

Results: Responsibilities in managing risk and safety on the unit determined nurses' empathic response to consumers during conflict situations, including how they took the consumer's perspective and experienced sympathy and compassion. The processes used and emotions felt often differed from those reported in literature outside of nursing. Empathy was demonstrated to consumers by nurses being there, engaging in specific interpersonal behaviours, and seeing them as more than their illness, which decreased consumer experience of stigma, depersonalisation, and anxiety about their admission

Conclusion: Mental health nurse-consumer relationships have unique aspects that influence the nature of the nurse's empathic response, and how consumers feel (or do not feel) understood during their admission. I will discuss ways that mental health nurses and other health professionals may improve their understanding of consumers, including self-reflecting on their own experiences, and enacting specific behaviours during nurse-consumer interaction. Evidence-based teaching and learning approaches to facilitate this skill improvement will be examined.

References

Davis, M.H. (1994). *Empathy: A social psychological approach*. Dubuque, IA: Brown & Benchmark Publishers.
Gerace, A., Day, A., Casey, S., & Mohr, P. (2013). An exploratory investigation of the process of perspective taking in interpersonal situations. *Journal of Relationships Research* 4, e6. doi:10.1017/jrr.2013.6.
Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A., & Jones, J. (2013). The inpatient psychiatric unit as both a safe and unsafe place: Implications for absconding. *International Journal of Mental Health Nursing*, 22, 304-312.

Contact

eimear.muircochrane@flinders.edu.au

RSC PST 1 - Research Poster Session 1

Systematic Analysis of the Global Nursing Trust Research Literature

Lynn M. Varagona, PhD, MSN, MBA, RN, PMHCNS-BC, USA

Abstract

Purpose: Many articles in the nursing literature speak to the importance of trust in promoting favorable clinical outcomes. Abel and Efid (2013) found that patient trust in the healthcare provider predicted medication compliance. Wong and Giallonardo (2013) found that greater nurse trust in nurse leadership was associated with lower frequencies of adverse patient outcomes. Nilsson et al. (2011) found that when children trust their nurse to perform trauma wound dressing changes, the children can focus on distraction that enhances their pain management.

Additional outcomes related to trust were found in the nurse trust literature. Clarke et al. (2012) found that appreciative inquiry builds trust among staff involved in unit to unit transfers and improves communication and quality of care. Bobbio and Manganello (2015) found that servant leadership was positively associated with nurse trust in nursing leadership, which was negatively correlated with emotional exhaustion, burnout, and cynicism among nurses. Lehmann-Willenbrock et al. (2012) found that nurses' trust in co-workers significantly predicted nurse well-being and team commitment. Tang et al. (2013) found that respect and trust affected physician-nurse collaboration. Kalisch et al. (2012) found that staff on units with low levels of missed nursing care trusted each other more than staff on units with high levels of missed nursing care.

If nursing is going to continue to espouse the importance of trust in promoting positive clinical outcomes, research framed around theory and theory development needs to be conducted and what is known about EBP pertaining to trust needs to be identified, disseminated, and applied to practice. However, upon reviewing the research literature pertaining to nursing and trust, only one systematic review was found (Leslie & Lonneman, 2016). With a narrow focus on the home healthcare registered nurse-patient relationship, the generalizability of this review to broader nursing care is questionable. In addition, a search of PROSPERO in June 2016 revealed no published protocols pertaining to a systematic review or meta-analysis of nursing trust research.

Not being able to summarize the state of knowledge of the nursing trust research literature impairs nursing scholars in understanding what has been found to date, and therefore in conducting studies to build on what is currently known to systematically advance the body of knowledge.

The purpose of this global systematic review is to understand what is currently known in the nursing trust research literature. Clarity regarding the state of the nursing trust research literature will enable nurse scholars to plan studies that will systematically advance the knowledge of how trust can promote favorable clinical outcomes. A well thought out plan to advance the nursing trust research literature will enable nursing science to make greater strides. By understanding nursing and trust, evidence-based practices can be identified, disseminated, and applied in order to favorably influence clinical outcomes. For these reasons, a systematic review of the global research literature pertaining to nursing and trust was undertaken.

To achieve the purpose of this systematic review, literature evaluating the association between nurses, trust, and clinical outcomes—from both peer-reviewed published scientific literature, and relevant unpublished documents such as scientific publications from popular press, blogs, conference proceedings and presentations categorized as “gray literature”—was identified. To this end, the following research questions were explored.

1. What is currently known in the global nursing trust research literature regarding antecedents, attributes, and consequences of trust?
2. What constructs did trust emerge as an (a) antecedent, (b) attribute, (c) consequence, (d) theme, or (e) subtheme of?
3. If trust was found to relate to other constructs, how might these constructs be related?

4. Which nursing trust antecedents, attributes, and consequences are *similar* across type of nursing relationship (nursing student to faculty/preceptor, nurse to nurse peer, nurse to non-nurse peer, nurse to subordinate, nurse to superior, patient to nurse, family member to nurse)?
5. Which nursing trust antecedents, attributes, and consequences are *different* across type of nursing relationship (nursing student to faculty/preceptor, nurse to nurse peer, nurse to non-nurse peer, nurse to subordinate, nurse to superior, patient to nurse, family member to nurse)?
6. What theoretical frameworks were used in the nursing trust research literature?
7. What can we conclude from the qualitative studies?
8. What would a preliminary model of nursing trust antecedents, attributes, and consequences look like for various types of nursing relationships (nursing student to faculty/preceptor, nurse to nurse peer, nurse to non-nurse peer, nurse to subordinate, nurse to superior, patient to nurse, family member to nurse)?

Methods: To generate search terms for retrieving published peer reviewed articles from PubMed, Scopus, PsycINFO®, and Cumulative Index of Nursing and Allied Health Literature (CINAHL), the Medical Subject Headings (MeSH) database was searched for vocabulary related to “nurse” and “trust” on October 31, 2016. Articles were retrieved from inception of these databases to 2016. Searches were limited to literature published in English and on human subjects. Literature retrieved from all sources were combined and catalogued in one library for further review based on defined inclusion or exclusion criteria.

To develop a comprehensive list of search terms and to identify the body of literature potentially available for systematic review, a preliminary search was conducted in PubMed Health with the search string “nurs* and trust” on November 27, 2016; 7,424 articles were identified. To ensure consistency in inclusion and exclusion of literature in the review and data abstraction process, a random 1% sample of the categorized literature will be re-reviewed and classified by a reviewer other than the initial reviewer. Discrepancies in the review process will be resolved through discussion. A meta-analysis will be conducted on the quantitative data abstracted from the identified relevant literature. Qualitative data abstracted from the relevant literature will be summarized.

Results: This poster will present the findings of a global systematic review of the nurse trust research literature. Preliminary data has been collected, the research is ongoing, and data are being retrieved for analysis.

Conclusion: Pending final analysis of data.

References

- Abel, W. M. & Eford, J. T. (2013). The association between trust in health care providers and medication adherence among Black women with hypertension. *Frontiers in Public Health, (1)*66, 1-6.
- Bobbio, A. & Manganelli, A. M. (2015). Antecedents of hospital nurses' intention to leave the organization: A cross sectional survey. *International Journal of Nursing Studies, 52*, 1180-1192.
- Clarke, D., Werestiuk, K., Schoffner, A., Gerard, J., Swan, K., Jackson, B., Steeves, B., & Probizanski, S. (2012). *Journal of Nursing Management, 20*, 592-598.
- Kalisch, B. J., Gosselin, K. & Choi, S. H. (2012). A comparison of patient care units with high versus low levels of missed nursing care. *Health Care Management Review, October-December*, 320-328.
- Lehmann-Willenbrock, N. Zhike, L. & Kauffeld, S. (2012). Appreciating age diversity and German nurse well-being and commitment: Co-worker trust as the mediator. *Nursing and Health Science, 14*, 213-220.
- Leslie, J. L. & Lonneman, W. (2016). Promoting trust in the registered nurse-patient relationship, *Home Healthcare Now, 34*(1): 38-42.
- McAllister, M., Happell, B., & Bradshaw, J. (2013). Authenticity, creativity and love of the job: Experiences of grassroots leaders of mental health nursing in Queensland. *Issues in Mental Health Nursing, 34*, 658-664.
- Nilsson, S., Hallqvist, C., Sidenvall, B. & Enskar, K. (2011). Children's experiences of procedural pain management in conjunction with trauma wound dressings. *Journal of Advanced Nursing, 67*(7), 1449-1457.
- Tang, C. J., Chan, S. W., Zhou, W. T., & Liaw, S. Y. (2013). Collaboration between hospital physicians and nurses: An integrated literature review. *International Nursing Review, 60*, 291-302.
- Wong, C. A. & Giallonardo, L. M. (2013). Authentic leadership and nurse-assessed adverse patient outcomes. *Journal of Nursing Management, 21*, 740-752.

Contact

lvaragon@kennesaw.edu

RSC PST 1 - Research Poster Session 1

Somatic Countertransference Experiences of Nurse Therapeutic Touch Practitioners: A Content Analysis, Part 1: Body

Doris Ezomo, MSN, MPA, CSN, RN, USA
Catherine Jirak Monetti, PhD, RN, CNE, QTTP, USA
Dorothy Nwosonyiri, MSN, RN, USA

Abstract

This qualitative study describes somatic countertransference (SCT) experiences of nurse Therapeutic Touch practitioners. Defined by Orbach and Carroll (2006), SCT is “the therapist’s awareness of their own body, of sensations, images, impulses, and feelings that offer a link to the client’s healing process” (p. 64).

Purpose: Use of purposeful sampling recruited eight experts. Audiotaped sixty-minute face-to-face in-depth interviews were conducted using a semi-structured interview guide with six open-ended questions. Sandelowski’s (2010)

Methods: Preferred method of latent content analysis produced codes and subcategories grounded exclusively in the saturated data (Krippendorff, 2004). Ten subcategories and three categories were inductively generated. Consensus on coding and data analysis led to the emergent theme, “A Language for Healing Trauma.” Consistent with social science communication research (Krippendorff, 1989),

Results: SCT was found to be a factor in the healing of trauma, experienced during the verbal and nonverbal communication of one group of nurse TT practitioners in interaction with traumatized clients.

Conclusion: The results of this study demonstrate the phenomenon of SCT is indeed real and that it occurs in nurse TT practitioners. Importantly, it can be articulated and conceptualized as a language to describe a process of nonverbal communication whereby useful clinical information is garnered from clients’ somatic memory. In other words, TT can access the knowledge of the body beyond the use of words. The findings validate Leddy’s (2004) conclusion that actual physical touch and exchange of energy are not needed for energetic healing. This further articulation of SCT increases the limited expression of the non-linear experience of TT (Samarel, 1992). Given the multitude of trauma experiences in the clinical population, these findings contribute to knowledge about the phenomenon of SCT and the significant role TT plays in trauma treatment. Of course, further description of SCT is needed, as well as related outcomes.

References

- Budin, W. C., Brewer, C. S., Chao, Y-Y, & Kovner, C. (2013). Verbal abuse from nurse colleagues and work environment of early career Registered Nurses. *Journal of Nursing Scholarship*, 00:00, 1-9.
- Jakubowski, J. A. (2012). *Implicit communication: The body’s role in clinical work with trauma survivors*. Unpublished master’s thesis, Smith College School for Social Work, Northampton, MA, 1-66.
- Lorentz, M., & Finnegan, B. (2013). An investigation of the effects of a nonprofit agency’s investigations on quality of care in nursing homes. *Nursing Forum*, 48(2), 83-88.
- Roe, S. (2013). Research term: Triangulation. *American Holistic Nurses Association. Connections in Holistic Nursing Research*, 5(3). (http://www.ahna.org/portals/4/docs/Research/eNews/Connections_R-eNews_8-13.htm)

Contact

cmj@monetti.com

RSC PST 1 - Research Poster Session 1

Using e-Health Technology to Establish a Tailored Survivorship Care Plan for Breast Cancer Survivors

Yu-Lin Wang, BSN, RN, Taiwan
Su-Ying Fang, PhD, RN, Taiwan

Abstract

Background: As breast cancer survivorship increases, patients still have many unmet needs even when they already finished active treatment, including physical symptoms and psychological distress such as lymphedema, fear of recurrence, anxiety, depression and so on. It's a big challenge to provide survivorship care that meet the expectation of patient under limited human resource for health and time. E-Health technology could be applied to develop individualized information and provide convenient, tailored supportive care to them.

Purpose: This study will examine the effect of using e-health technology to establish survivorship care plan in breast cancer survivors.

Methods: Guided by the Cognitive-Social Health Information Processing Model and breast cancer survivorship care guideline, the study establish "Healthy Living with Breast Cancer", an application on smartphone and also a website for breast cancer survivors. In this study, 270 female breast cancer survivors with TNM stage I to III will be recruited. Participants were randomized to intervention group (received a tailored survivorship care plan by using "Healthy Living with Breast Cancer" plus usual care) or control group (received usual care). Unmet needs, fear of recurrence, symptom distress, anxiety, depression and quality of life will be measured at the beginning of the study then we will follow them at 5 weeks and 3 months later between the two groups. The secondary outcome will explore the patients' satisfaction of using e-health technology and factors related to effects of the intervention.

Results: Until now we enrolled participants included intervention (n=15) and control (n=18) group in the trial and got the baseline data. We will continue to enroll more patients in this study and follow-up to compare the care needs, fear of recurrence, symptom distress, anxiety, depression and quality of life between the two groups.

Conclusions: We expect using e-health technology as breast cancer survivorship care could decline care needs, fear of recurrence, symptom distress, anxiety and depression in breast cancer survivors then improve their quality of life and will keep track of the effect.

References

Bodai, B. I., & Tuso, P. (2015). Breast cancer survivorship: a comprehensive review of long-term medical issues and lifestyle recommendations. *The Permanente Journal*, 19(2), 48-79. doi:10.7812/TPP/14-241

Miller, S. M., Hudson, S. V., Hui, S. K. A., Diefenbach, M. A., Fleisher, L., Raivitch, S., ... & Viterbo, R. (2015). Development and preliminary testing of PROGRESS: a Web-based education program for prostate cancer survivors transitioning from active treatment. *Journal of Cancer Survivorship*, 9(3), 541-553. doi:10.1007/s11764-015-0431-5

Contact

yulinw717@gmail.com

RSC PST 1 - Research Poster Session 1

Validation of the Chinese Short-Form Cancer Survivor's Unmet Needs (CaSUN-SF) for Women With Breast Cancer

Su-Ying Fang, PhD, RN, Taiwan

Abstract

Purpose: It was necessary to assess women's needs in advance to develop their survivorship care plan more effectively. However, too many items and not specific for breast cancer women were the limitation on the current scales for evaluating these survivors' unmet need. The aims of the study were to modify the Cancer Survivor's Unmet Need (CaSUN) Scale to be a short form (CaSUN-SF) and then test its psychometric properties of the scale specific for breast cancer survivor in Taiwan.

Methods: By conveniences sampling, recruited breast cancer survivors were separated into 2 samples (sample 1, n=150, and sample 2, n=162). Three phases were used to validate the CaSUN-SF. First, we translated and modified the CaSUN to take care of the cultural adaptation and the CaSUN-SF was developed. Second, we used statistical methods to eliminate some items, and conducted an exploratory factor analysis (EFA) using sample 1 (n=150) to explore the factor structure of the CaSUN-SF. Finally, we conducted a confirmatory factor analysis (CFA) using sample 2 (n=162) to confirm the structure suggested by EFA, and tested the concurrent validity and known-group validity of CaSUN-SF.

Results: Four factors including information, physical /psychological, medical care and communication needs were identified in the CaSUN-SF and each factor had acceptable internal consistency reliability in which Cronbach's Alpha was between .61 to .82. The concurrent validity was supported by the significant correlations between the scores on unmet needs and fear of recurrence and depression. The result of known-group comparison which revealed that women who survived more than 5 years had fewer physical/psychological needs than those less 5 years also demonstrated the validity of CaSUN-SF.

Conclusion: The CaSUN-SF demonstrated acceptable reliability and validity for assessing unmet needs among breast cancer survivors in Taiwan. Using this simple assessment tool to target the individual needs of these survivors can help health care professionals to provide more personalized care efficiently.

References

Fiszer C, Dolbeault S, Sultan S, Bredart A. Prevalence, intensity, and predictors of the supportive care needs of women diagnosed with breast cancer: a systematic review. *Psychooncology*. 2014; 23:361-374.
Fang SY, Lee KT. "From Patient to Survivor": Women's Experience With Breast Cancer After 5 Years. *Cancer Nurs*. 2015.

Contact

sandra3022@gmail.com

RSC PST 1 - Research Poster Session 1

The Diurnal Patterns of Fatigue in Patients on Hemodialysis: A Pilot Study

Ann Horigan, PhD, RN, USA

Abstract

Purpose: Fatigue is one of the most common symptoms patients on hemodialysis experience. With a prevalence rate of 60-97%, it affects both mental and physical functioning. While fatigue is a frequent and often debilitating problem for patients on hemodialysis, there is little research regarding the patterns of fatigue that patients experience. The purpose of this study is to (a) determine the feasibility of measuring fatigue in patients on hemodialysis 4 times daily for one week using a self-report method, and (b) investigate the diurnal patterns of fatigue in relation to the dialysis session over one week, from Sunday to Saturday.

Methods: Twenty-five hemodialysis patients over the age of 21 years will be recruited for this study. A longitudinal, correlational design will be used to investigate the diurnal patterns of fatigue and how they are related to the dialysis session and demographic and physiologic variables. The Lee Fatigue Scale will be used to measure levels of fatigue throughout the day and demographic and physiologic variables will be collected from the patient chart. The feasibility of measuring fatigue four times daily for seven days in patients on hemodialysis will be assessed by success of participant recruitment and completion of data collection.

Results: Research is ongoing at this time

Conclusion: Research is ongoing, however it is expected that participants will have a higher level of fatigue after the dialysis session that will last for varying amounts of time, possibly until the morning of the day after dialysis. It is also expected that fatigue levels will be lower or possibly non-existent on non-hemodialysis days. While it is difficult to predict the outcome of feasibility, if there are gaps in data, it is anticipated that those gaps will occur on dialysis session days when fatigue and travel are most likely to interfere. This work will be the basis for larger studies that will deepen our knowledge regarding the patterns of fatigue and its associated factors.

References

- Horigan, AE., and Barroso, JV. (2016). A Comparison of Temporal Patterns of Fatigue in Patients on Hemodialysis. *Nephrology Nursing Journal*, 43(2), 129-138.
- Letchmi, S., Das, S., Halim, H., Zakariah, F.A., Hassan, H., Mat, S. et al. (2011). Fatigue experienced by patients receiving maintenance dialysis in hemodialysis units. *Nursing and Health Sciences*, 13(1), 60-64.

Contact

ahoriga@emory.edu

RSC PST 1 - Research Poster Session 1

Hot Flash-Related Daily Interference Scale Short Form

Janet S. Carpenter, PhD, RN, FAAN, USA

Abstract

Purpose: The Hot Flash Related Daily Interference scale (HFRDIS) is a widely used, psychometrically sound, 10-item, self-report questionnaire assessing the impact of hot flashes, a cardinal symptom of menopause, on a woman's life. The scale has been translated to 12 languages, cited over 150 times in journal articles and textbooks, and was included as an outcome measure within the National Cancer Institute Physician Data Query Cancer Information Summaries for Supportive and Palliative Care (Coping with Cancer). The HFRDIS is sensitive to change over time and documented reductions in interference have been observed with pharmacologic treatments, dietary supplements, and behavioral therapies. Because a shorter version may be desirable in certain situations and because cutpoints and minimally important differences have not previously been established, this study aimed to address those gaps. Our purposes were to shorten the HFRDIS into a shorter form termed the Hot Flash Interference (HFI) scale, establish cutpoints for both scales, and establish minimally important differences for both scales using psychometric analyses.

Methods: We analyzed baseline and post-randomization patient-reported data pooled across three randomized trials aimed at reducing hot flashes in 899 midlife women. Trials were conducted across five clinical sites between July 2009 and October 2012 as part of a United States National Institutes of Health funded research network. We eliminated HFRDIS items based on experts' content validity ratings and confirmatory factor analysis. We established cutpoints and minimally important differences by mapping HFRDIS and HFI to symptom and quality of life measures including daily diary-reported hot flashes, the Menopause Quality of Life Scale, Pittsburgh Sleep Quality Index, Insomnia Severity Index, and Generalized Anxiety Disorders-7 questionnaire.

Results: The short HFI consisted of 3 items related to interference with sleep, mood, and concentration. The HFI demonstrated strong internal consistency (alphas of 0.830 and 0.856), showed good fit to the unidimensional "hot flash interference factor", and strong convergent validity with HFRDIS scores, diary-recorded hot flashes, and menopausal quality of life. For both scales, cutpoints of mild (0–3.9), moderate (4–6.9), and severe (7–10) were associated with increasing sleep and anxiety problems as expected. The average minimally important difference for HFRDIS was 1.66 and for HFI it was 2.34.

Conclusion: The HFI is a brief assessment tool that will be useful in busy clinical practices to standardize hot flash assessment or in research studies where response burden may be an issue. The scale cutpoints and MIDs should prove useful in targeting those most in need of treatment, monitoring treatment response, and interpreting existing and future research findings.

References

- Carpenter, J. S., Guthrie, K. A., Larson, J. C., Freeman, E. W., Joffe, H., Reed, S. D., Ensrud, K. E., & LaCroix, A. Z. (2012). Effect of escitalopram on hot flash interference: A randomized, controlled trial. *Fertility and Sterility*, 97(6), 1399-1404.
- PDQ® Supportive and Palliative Care Editorial Board. PDQ Hot Flashes and Night Sweats. <https://www.cancer.gov/about-cancer/treatment/side-effects/sexuality-fertility-women/hot-flashes-hp-pdq#section/209>

Contact

carpentj@iu.edu

RSC PST 1 - Research Poster Session 1

Collaborative Work of Patients and Providers: Symptoms, Challenges, Shared Meaning, and Planning the Work

Donald E. Bailey, PhD, RN, FAAN, USA

Ruth Anderson, PhD, RN, FAAN, USA

N. Marcus Thygeson, MD, MPH, USA

Abstract

Purpose: Patients with CHC face treatment regimens that worsen the already unpleasant and sometimes debilitating symptoms they experience from the disease, including fatigue, depression fever, poor appetite, nausea, vomiting, abdominal and joint pain (Fusfeld et al., 2013). We used the Adaptive Leadership Framework for Chronic Illness to explore how healthcare providers work with patients to share treatment information and examine whether the way it is shared influences patients' symptoms and self-management over time. The Adaptive Leadership framework, originating in business (Heifetz) has recently been applied in healthcare to describe technical challenges as ones that have known technical solutions that can be mediated by the expertise and authority of a clinician (Adams, Bailey, Anderson, & Thygeson, 2013; Bailey et al., 2012). On the other hand, adaptive challenges are complex in nature, are easy to deny, and require a the patient to adapt, learn or change their behavior in some fashion (Thygeson, 2013). In earlier work, we expanded the framework specifically for chronic illness to reflect the dynamic nature of symptoms and challenges and to characterize the events that create the need for patients and families to engage in adaptive work (Anderson et al., 2015). Adaptive work is defined as developing and using the skills and actions required to change behavior and overcome adaptive challenges (Anderson et al., 2015). Our framework also proposes that the best plans of care for self-management can be developed through collaborative work, defined as patients and family members working together with the provider to jointly develop the most effective approaches for adaptive work by monitoring symptoms, assessing the challenges, verifying shared understanding of symptoms and challenges, and planning the work. The purpose of this study was to explore how healthcare providers interact with patients to share treatment information (collaborative work) and whether the way it's shared influences patients' symptom self-management.

Methods: This descriptive mixed methods study was part of a longitudinal case study of patients and their providers as they engaged in aggressive treatment for Chronic Hepatitis C. Data includes patient participant interviews following the initial and final clinical encounter; these office visits were recorded and transcribed verbatim. Follow-up interviews were conducted by telephone over the 12-24 weeks of treatment. The patient also completed a measure of patient activation at each time point. We interviewed the provider following the initial encounter and after the final clinic visit where treatment results were shared with the patient. Textual data reporting provider notes and records of phone contacts with the patients were abstracted from the electronic medical record. Data collection is complete.

We are analyzing the data of patient provider interactions using responses from patients and providers during these encounters and interviews following these encounters. We are identifying the conditions under which we see examples of patient/provider collaboration (collaborative work) and coding these using the concepts from our framework. They are: 1). monitor symptoms, 2). assess challenges, 3) verifying shared understanding of symptoms and challenges, and 4). plan the work. We will further describe the collaborative work for depth by quantizing the data, using a Likert type scale. For example, collaborative work that is limited to monitoring symptoms only would be scored lower than collaborative work that included higher levels of engagement such as assessing challenges and joint planning. We are also analyzing the scores from the Patient Activation Measure (PAM) collected at each data collection time point.

Results: Our 20 cases include 13 men and 7 women participants with an average age of 55 (Range 42-65.) The sample was 50% (10) African American. Healthcare provider participants were 5 MD, 3PA's and 2NP's. In our preliminary analyses we found multiple examples of patient participants and their healthcare providers monitoring symptoms. However we found few examples of providers assessing these symptom

challenges for their patients and even fewer examples of providers and patients verifying share understanding of challenges and interacting to plan the work of self-management during treatment. Preliminary analyses scores on the Patient Activation Measure (PA) varied across the treatment period. Most participants reported a downward trajectory on the PAM suggesting that as symptoms increased, patient's ability to self-manage decreased. A small number of participants reported a mixed trajectory e.g., as symptoms fluctuated, patients' ability to self-manage increased or decreased. Quantizing of the qualitative data is underway and will be completed and presented in this paper.

Conclusion: This study is the first to explore the collaborative work of patients and their healthcare providers while undergoing treatment for CHC. Findings from this study underscore the importance of developing new self-management interventions and care models for mobilizing support for monitoring symptoms, assessing challenges, and planning the work.

References

- Adams, J. A., Bailey, D. E., Jr., Anderson, R. A., & Thygeson, M. (2013). Finding your way through EOL challenges in the ICU using Adaptive Leadership behaviours: A qualitative descriptive case study. *Intensive and Critical Care Nursing*, 29(6), 329-336. doi:10.1016/j.iccn.2013.05.004
- Anderson, R. A., Bailey, D. E., Jr., Wu, B., Corazzini, K., McConnell, E. S., Thygeson, N. M., & Docherty, S. L. (2015). Adaptive leadership framework for chronic illness: framing a research agenda for transforming care delivery. *ANS: Advances in Nursing Science*, 38(2), 83-95. doi:10.1097/ANS.000000000000063
- Bailey, D. E., Jr., Docherty, S. L., Adams, J. A., Carthron, D. L., Corazzini, K., Day, J. R., . . . Anderson, R. A. (2012). Studying the clinical encounter with the Adaptive Leadership framework. *J Healthc Leadersh*, 2012(4). doi:10.2147/JHL.S32686
- Fusfeld, L., Aggarwal, J., Dougher, C., Vera-Llonch, M., Bubb, S., Donepudi, M., & Goss, T. F. (2013). Assessment of motivating factors associated with the initiation and completion of treatment for chronic hepatitis C virus (HCV) infection. *BMC Infectious Diseases*, 13(1), 234. doi:10.1186/1471-2334-13-234
- Thygeson, N. M. (2013). Implementing adaptive health practice: A complexity-based philosophy of health care. In J. P. Sturmberg & C. M. Martin (Eds.), *Handbook of systems and complexity in health* (pp. 661-684). New York: Springer. Retrieved from <http://public.eblib.com/choice/publicfullrecord.aspx?p=1081866>.

Contact

chip.bailey@duke.edu

RSC PST 1 - Research Poster Session 1

Catheter-Associated Urinary Tract Infection (CAUTI) Prevention Strategy Using Education in an Intensive Care Unit (ICU)

Laura M. Locke, BSN, RN, USA

Cynthia Louise Grissman, BSN, RN, USA

Rita Denise Crasta, MSN, RN, OCN, BMTCN, USA

Gisele Nicole Bazan, BSN, RN, USA

Kari Love, BS, RN, MSHS, CIC, FAPIC, USA

Cindy Ford, PhD, MSN, BSN, RN, CNE, USA

Jamie K. Roney, DNP, RN-BC, CCRN-K, USA

JoAnn D. Long, PhD, MSN, MA, BSN, RN, NEA-BC, USA

Abstract

Purpose: The purpose of this study was to measure the clinical impact of an evidence-based educational strategy on urinary tract infection (UTI) rates in a 900+ bed acute care facility located in a southwestern state. The research team sought to answer the question, "Will a focus on staff education in the intensive care unit (ICU) on the proper placement techniques, care, and early removal of urinary retention catheters reduce incidences of catheter-associated urinary tract infections (CAUTIs) in an ICU setting?" Indwelling urinary catheters are frequently used in critically-ill patients worldwide. Hospital-acquired infections from indwelling urinary catheters are associated with increased morbidity, length of stay, and healthcare costs (World Health Organization [WHO], 2016). Urinary tract infections acquired during a hospitalization account for 40% of all hospital-acquired infections (HAIs) with 80% of UTIs being associated with use of urinary retention catheters (Quinn, 2015). HAIs from indwelling urinary catheters are associated with more than 113,000 deaths annually in the United States (Ternavasio-de la Vega et al., 2016). Review of peer reviewed literature demonstrated various strategies to decrease CAUTIs, including computer reminders and evidence-based guidelines for urinary catheter care and maintenance. One 301-bed non-academic hospital in the northeastern United States demonstrated a 50% reduction in CAUTIs one year after introducing a nurse-driven process designed to daily question the need for a urinary catheter through use of nursing assessment and targeted clinician education (Quinn, 2015). Hospital acquired infection rates have declined in the United States except for CAUTIs, which rose 3% from 2009 to 2012 (Knudson, 2014). Clinicians in this study sought to implement specific opportunities for improvement in CAUTI rates in an ICU unit through reduction of urinary catheters used, implementation of urinary catheter insertion and maintenance best practices, and timely nursing assessment for need leading to urinary catheter removal if indicated through a structured educational strategy. Additionally, this study measured the impact on CAUTI incidence after implementation of the project intervention. Knudson (2014) reported analyzed data from 1,653 ICUs found that CAUTI prevention strategies were followed 27-67% of the time, thus informing the need for implementation and adherence measures for CAUTI prevention in this ICU. Evidence-based protocols designed to decrease urinary catheter associated infections may not capture point of care practices contributing to this significant problem. In response to this significant issue for critically ill patients, a targeted education intervention was developed and implemented by the infection prevention CAUTI team and the cardiac intensive care unit (CICU) nursing staff.

Methods: The intervention of a targeted, evidence-based educational program was implemented to raise nursing staff awareness and uptake of evidence-based protocol and point of care practices designed to decrease risks of catheter-associated urinary tract infections (CAUTI) in CICU patients. A descriptive design was used. Sampling was made at the unit and not the individual level. The CICU was selected by infection prevention CAUTI team members to implement specific nursing staff education focused on urinary catheter insertion hands-on training using low fidelity simulation, daily catheter care best practices, and timely nursing assessment of early urinary catheter removal. Targeted education and training was initiated December 2015. One hundred percent of CICU staff nurses ($N = 76$) received hands on training for insertion and care of urinary retention catheters. Periodic rounding in CICU by infection prevention CAUTI team members was performed to assess 100% of patients with an indwelling urinary catheter. The infection prevention team checked for daily care compliance by nursing staff, nurse assessment for necessity of continued urinary catheter placement, proper urinary catheter securement

devices in use, and appropriate positioning of closed drainage units. “Just in time” coaching and recognition was provided by the assessment team as needed.

Results: Catheter induced infection rates dropped significantly after training was initiated for the CICU staff. For FY2015, a total of 16 CAUTIs were recorded for the CICU with a rate of 3.91 per 1,000 device days and 2.22 per 1,000 patient days. For FY2016, the current total for CAUTIs reported in CICU is 4, reflecting a 75% reduction in the number of CAUTIs for CICU. The infection rate per 1,000 device days is currently at 1.15 and the rate per 1,000 patient days is 0.69. The incidence of improper care was reduced significantly with the periodic rounding by the infection prevention CAUTI team nurses.

Conclusion: With regular use of urinary retention catheters in ICU settings, patients are at increased risk for developing a CAUTI. Working in partnership with experts outside nursing units improved collaboration across disciplines in this CICU. Use of an infection prevention CAUTI team aided in increasing staff education and awareness of CAUTI nurse-led prevention strategies in this ICU. With targeted evidence-based education for the nursing staff and routine rounding by the infection prevention CAUTI team, a reduction in the number of CAUTIs have resulted in this ICU setting. The significance of this project to nursing practice and patient clinical outcomes is demonstrated in the reduction of CAUTIs through nurse-driven monitoring and processes. Further research is recommended to fully demonstrate the impact of targeted evidence-based clinician education and nurse-led protocols on CAUTI rates in the CICU setting.

References

- Knudson, L. (2014). CAUTI prevention requires improved practices and policies. *AORN Journal*, 99(5), C1-C10. doi:10.1016/S0001-2092(14)00377-9
- Quinn, P. (2015). Chasing Zero: A Nurse-Driven Process for Catheter-Associated Urinary Tract Infection Reduction in a Community Hospital. *Nursing Economic\$,* 33(6), 320-325.
- Ramping Up CAUTI Prevention Strategies. (2014). *AACN Bold Voices*, 6(8), 8.
- Ternavasio-de la Vega, H., Barbosa Ventura, A., Castaño-Romero, F., Sauchelli, F., Prolo Acosta, A., Rodríguez Alcázar, F., & ... Laso, J. (2016). Assessment of a multi-modal intervention for the prevention of catheter-associated urinary tract infections. *Journal of Hospital Infection*, 94(2), 175-181. doi:10.1016/j.jhin.2016.07.011
- World Health Organization [WHO]. (2016). *Urinary Tract Infections* [PowerPoint]. Retrieved from http://www.who.int/gpsc/information_centre/cauda-uti_eccmid.pdf?ua=1

Contact

jroney@covhs.org

RSC PST 1 - Research Poster Session 1

Families and Surrogate Decision Makers of Critically Ill Patients in Saudi Arabia

Omaimah A. Qadhi, MSN, BSN, RN, USA

Abstract

Critical illness often results in serious physical and / or psychological impairments (Brummel et al., 2012; Granja, Amaro, Dias, & Costa-Pereira, 2012) . The critical care professional will often require a proxy or a surrogate decision maker, especially for incapacitated individuals (Azoulay, Kentish-Barnes, & Nelson, 2016a). The experience of being responsible for making serious decisions regarding someone else's health can be a challenging trajectory (Hickman, Daly, Douglas, & Clochesy, 2010). Healthcare providers should give more attention to this phenomenon. Not only for critical illness survivors who suffer from physical and mental problems, but there is vast evidence that families and proxies demonstrated to have a high rate of depression, anxiety and Post-Traumatic Stress Disorder (PTSD) (Azoulay et al., 2016a). Researchers support that psychological disturbances may prevent the affected person from thinking appropriately or being unable to take the right decision. Failure to provide these families and decision makers with the adequate support and care may result in endangering patients` lives (Azoulay et al., 2016a; Fortunatti, 2014; Wendler & Rid, 2011). We as care providers tend to use medical terminology that is not easy for the families of patients to understand (Azoulay, Kentish-Barnes, & Nelson, 2016b; Lamas, 2014). Lots of the families report their lack of understanding regarding the patient`s prognosis (Azoulay et al., 2016b; Peigne et al., 2011). Families who are not aware of the patient`s health preferences report more dissatisfaction with patient`s outcomes than families who knew the patient`s preferences before the onset of the illness (Azoulay et al., 2016b; Wendler & Rid, 2011). The decision taken by the surrogate may conflict with the patient`s preferences (Wendler & Rid, 2011). There is a lack of information about how families and decision makers of critical illness survivors in Saudi Arabia report their lived experience of having their loved ones in the ICU and needing to make serious medical decisions for them. The official language for the medical healthcare providers in Saudi Arabia is English. However, some of the Saudi families don't understand English, which may cause language barriers and impose more of a burden on them. Understanding how these families live the experience will help us to provide the appropriate intervention. This research is trying to explore and understand the experience of having a loved one in the critical care unit and being delegated to make the decision for them. The findings will help nurses and other healthcare professions to understand the concerns of this population to efficiently address them. Meeting the needs for the families of the critically ill patients will contribute in promote clinical and patients`outcomes.

Purpose: to understand how the Families of patients report their experience of having critically ill patients and making decisions for them Saudi Arabia.

Methods: Structured open ended-question interviews

Results: in progress

Conclusion: It is crucial to understand how families in Saudi Arabia describe their experience of having critically ill patients and the experience of being responsible to make decisions for them. This study will help to understand the phenomenon and contribute in promoting the clinical outcomes for the patients in the ICU by supporting their families in the decision-making process.

References

- Adhikari, N. K., Fowler, R. A., Bhagwanjee, S., & Rubenfeld, G. D. (2010). Critical care and the global burden of critical illness in adults. *The Lancet*, *376*(9749), 1339-1346.
- Arat, S., Van, d. Z., Van Rillaer, M., Moons, P., Vandenberghe, J., De Langhe, E., & Westhovens, R. (2016). Development and preliminary evaluation of the validity and reliability of a revised illness perception questionnaire for healthcare professionals. *BMC Nursing*, *15* doi:10.1186/s12912-016-0156-4
- Azoulay, E., Kentish-Barnes, N., & Nelson, J. E. (2016). Communication with family caregivers in the intensive care unit: Answers and questions. *Jama*, *315*(19), 2075-2077. doi:10.1001/jama.2016.5637

Baszanger, I. (2012). One more chemo or one too many? defining the limits of treatment and innovation in medical oncology. *Social Science & Medicine*, 75(5), 864-872. doi:10.1016/j.socscimed.2012.03.023

Brummel, N. E., Jackson, J. C., Girard, T. D., Pandharipande, P. P., Schiro, E., Work, B., . . . Ely, E. W. (2012). A combined early cognitive and physical rehabilitation program for people who are critically ill: The activity and cognitive therapy in the intensive care unit (ACT-ICU) trial. *Physical Therapy*, 92(12), 1580-1592. doi:10.2522/ptj.20110414 [doi] 6

Curtis, J., Sprung, C., & Azoulay, E. (2014). The importance of word choice in the care of critically ill patients and their families. *Intensive Care Medicine*, 40(4), 606-608. doi:10.1007/s00134-013-3201-8

Davidson, J. E., Jones, C., & Bienvenu, O. J. (2012). Family response to critical illness: Postintensive care syndrome-family. *Critical Care Medicine*, 40(2), 618-624. doi:10.1097/CCM.0b013e318236ebf9 [doi]

Fortunatti, C. F. P. (2014). Most important needs of family members of critical patients in light of the critical care family needs Inventory/Necesidades mas importantes de los familiares del paciente critico a la luz del instrumento critical care family needs Inventory/Necessidades importantes dos familiares do paciente critico a luz do instrumento critical care family needs inventory.(original article)(report). *Investigacion y Educacion En Enfermeria*, 32(2), 306.

Granberg, A., Engberg, I. B., & Lundberg, D. (1999). Acute confusion and unreal experiences in intensive care patients in relation to the ICU syndrome. part II. *Intensive and Critical Care Nursing*, 15(1), 19-33.

Hickman, R. L., Daly, B. J., Douglas, S. L., & Burant, C. J. (2012). Evaluating the critical care family satisfaction survey for chronic critical illness. *Western Journal of Nursing Research*, 34(3), 377-395. doi:10.1177/0193945911402522

Jackson, J. C., Pandharipande, P. P., Girard, T. D., Brummel, N. E., Thompson, J. L., Hughes, C. G., . . . Shintani, A. K. (2014). Depression, post-traumatic stress disorder, and functional disability in survivors of critical illness in the BRAIN-ICU study: A longitudinal cohort study. *The Lancet Respiratory Medicine*, 2(5), 369-379.

Kon, A. A. (2012). Difficulties in judging patient preferences for shared decision- making. *Journal of Medical Ethics*, 38(12), 719. doi:10.1136/medethics-2012-100725

Lamas, D. (2014). Chronic critical illness. *The New England Journal of Medicine*, 370(2), 175-177. doi:10.1056/NEJMms1310675

Palesjö, C., Nordgren, L., & Asp, M. (2015). Being in a critical illness- recovery process: A phenomenological hermeneutical study. *Journal of Clinical Nursing*, 24(23-24), 3494-3502. doi:10.1111/jocn.13002

Peigne, V., Chaize, M., Falissard, B., Kentish-Barnes, N., Rusinova, K., Megarbane, B., . . . Azoulay, E. (2011). Important questions asked by family members of intensive care unit patients*. *Critical Care Medicine*, 39(6), 1365-1371. doi:10.1097/CCM.0b013e3182120b68

Ullman, A. J., Aitken, L. M., Rattray, J., Kenardy, J., Le Brocque, R., Macgillivray, S., & Hull, A. M. (2014). Diaries for recovery from critical illness. *The Cochrane Database of Systematic Reviews*, (12), CD010468. doi:10.1002/14651858.CD010468.pub2

Wendler, D., & Rid, A. (2011). *Systematic review: The effect on surrogates of making treatment decisions for others* doi:10.7326/0003-4819-154-5-201103010-00008

Contact

oqadhi1@binghamton.edu

RSC PST 1 - Research Poster Session 1

Effects of Acupression on Pericardium 6-Point With Wrist Band on Postoperative Complications of Patients

Nurten Kaya, PhD, RN, Turkey
Meryem Ünüdü, MSN, RN, Turkey

Abstract

Purpose: This study was done to evaluate the effects of acupression on the pericardium 6 point on the wrist with a wrist band on prevention of nausea and vomiting, decrease the anxiety and increase the patient comfort in the postoperative period with this randomized and controlled experimental study.

Methods: The study was conducted on 97 individuals (experiment group, n:47; control group, n:50) who had underwent gynecological operations (Operations of A, B and C groups) except cesarean section at an obstetrical hospital in Bursa. Data were collected in the forms of Patient Information Form, Nausea and Vomiting Surveillance Form, State-Trait Anxiety Inventory, Perianesthesia Comfort Scale and General Comfort Scale and the data obtained were analyzed using SPSS program.

Results: No statistically significant differences were found between the groups in the specifications that might affect the postoperative nausea and vomiting status of the patients (age, type of operation, nausea and vomiting experience in prior operations, status of cigarette smoking, history of car sickness, body mass index, preoperative state-trait anxiety points, and type and duration of anesthesia; $p>0,05$). Application of acupression on the point of P6 in 0-48 hours after the operation was identified to be as effective as pharmacological methods on the prevention of vomiting, while it was even more effective on the severity of nausea and was equally effective on vital signs compared to the pharmacological methods. Median duration of hospitalization of the individuals, perianesthesia comfort points, postoperative state-trait anxiety points and General Comfort Scale were 4 days and 5 days, 5,33 and 4,87 points, 46 and 44 points, and 156 and 148 points in the experiment and control groups, respectively. These data obtained demonstrated that the duration of hospitalization was shorter, state-trait anxiety was decreased further and general comfort was better in the experiment group compared to the control group.

Conclusion: In conclusion, acupressure application on the P6 acupuncture point on the wrist with a wrist band is as effective as pharmacological methods in the prevention of nausea and vomiting which develop during the postoperative period. On the other hand, this study suggested that absence of nausea and vomiting might have provided comfort and thus comfort of the individual might have resulted in the decrease of anxiety level.

References

- Chandrakantan, A. ve Glass, P. S. A. (2011). Multimodal therapies for postoperative nausea and vomiting, and pain. *British Journal of Anaesthesia*, 107 (1), i27-i40.
- Chatterjee, S. Rudra, A. ve Sengupta S. (2011). Current Concepts in the Management of postoperative nausea and vomiting. *Anesthesiology Research and Practice*, 1-10.
- Chung, Y., Tsom, M., Chen, H.C., Lin, J., Yeh M. (2014). Integrative acupoint stimulation to alleviate postoperative pain and morphine-related side effects: A sham-controlled study. *International Journal of Nursing Studies* 51, 370-378.
- Hmwe, N. T. T., Subramanian, P., Tan, L. P., & Chong, W. K. (2015). The effects of acupressure on depression, anxiety and stress in patients with hemodialysis: A randomized controlled trial. *International journal of nursing studies*, 52(2), 509-518.
- Lee, A., & Fan, L. T. (2009). Stimulation of the wrist acupuncture point P6 for preventing postoperative nausea and vomiting. *The Cochrane Library*.

Contact

nurka@istanbul.edu.tr

RSC PST 1 - Research Poster Session 1

Effects of Activity Group Therapy for Children With ASD on Social Skills and Self-Esteem

Tomokazu Sugaya, MSN, RN, Japan

Tomoko Shimada, RN, Japan

Kaori Ogiwara, RN, Japan

Akio Sakurai, RN, Japan

Hayato Anzai, BN, RN, Japan

Fujiko Kudo, RN, Japan

Momoko Aoki, MD, Japan

Chizuru Mori, PhD, RN, Japan

Abstract

Introduction: In recent years, there has been an increase in consultation of Autism Spectrum Disorder (ASD) children at medical field. Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5) said that the essential features of ASD are persistent impairment in reciprocal social communication and social interaction, and restricted, repetitive patterns of behavior, interests, or activities. Children with ASD suffer from isolation and friendship at school because of their impairment in reciprocal social communication and social interaction. Because they do not understand the difference from typical development children, they deepen the sense of alienation and isolation. In this way, children with ASD cause maladjustment at school and often become school refusal, so the necessity of support is pointed out. Children with ASD are difficult to acquire social skills naturally, so it is necessary to experience various interpersonal experiences and acquire social skills. It is pointed out that self-esteem of Japanese children is lower than that of children of other countries (e.g., United States, China, Korea, Netherlands, Germany, Finland and Turkey). Furthermore, it has been pointed out that children with ASD have lower self-esteem than Japanese typical development children. Therefore, it is necessary to raise self-esteem of these children.

Activity group therapy (AGT) is one of group psychotherapy advocated by Slavson. In AGT, it is possible to express emotions, re-experience early conflict of development, by providing an acceptable environment and playing with groups. We thought that participation in AGT enables children with ASD to experience interpersonal communication and interaction. We thought that in AGT with same interests by utilizing restricted patterns of interests which is one of the essential features of ASD, participants who are not good at interpersonal relationships are easy to participate and can actively participate in group activities. In addition, we thought when we are carrying out AGT of their interesting theme, they could experience being recognized by others and increase their self-esteem.

In this study, we chose railway as interesting theme. Railway has orderliness, predictability, consistency, arrangement of numbers (e.g., rail timetable), arrangement beauty, symmetry and regularity of tracks and sleepers, and unique driving sound. Because those features are fit in their interests, it is pointed out that railway is very attractive for them. It is also reported that some people with ASD are interested in the railway picture books and some children remember and memorize in the rail timetable in detail. Therefore, we thought that conducting AGT of railway was useful for children with ASD.

Purpose: The purpose of this study is to clarify the utility of AGT with same interests for children with ASD.

Methods: Subjects - 9 subjects who were inpatients or outpatients at the adolescent psychiatry in Japan were recruited in the present study. They were children with ASD and from 5th-grade to 9th-grade. They participated in AGT of railway, it's called "RAILWAY FRIENDS".

Framework of AGT called "RAILWAY FRIENDS" - AGT "RAILWAY FRIENDS" was conducted once a week for 1 hour, and it was conducted 10 sessions a course. Until the 9th session, they got conversations and consultations on railway, appreciation of railway magazines and DVD, demonstration and driving of

their own railway models at the playroom in the hospital. They went to a day trip outside the hospital using railway at the 10th session. The staff participated in 2 nurses (1 is conductor and 1 is co-conductor), 1 psychologist (co-conductor), and 1 medical doctor (co-conductor). AGT "RAILWAY FRIENDS" period was from August 2014 to January 2016.

AGT assessment - In order to verify the utility of AGT "RAILWAY FRIENDS", we conducted a self-administered questionnaire survey before and after AGT "RAILWAY FRIENDS". The questionnaire we used was a Basic Communication Skills Scale for Junior High School Students for measuring social skills and a Japanese version of the Rosenberg Self-Esteem Scale for measuring self-esteem. A Basic Communication Skills Scale for Junior High School Students has 24 items and 4 subscales (Behavioral Expression, Emotional Regulation, Cognitive Decoding, and Cognitive Monitoring). A Japanese version of the Rosenberg Self-Esteem Scale is 10 items and one factor. Demographic information (age, gender, grade, and the treatment situation) was investigated from medical record in the hospital.

Wilcoxon signed-rank test were used to detect the difference before and after AGT "RAILWAY FRIENDS". The Statistical Package for Social Sciences (SPSS) version 22, at the 95% confidence level was used.

Ethical consideration - This study was approved by Ethics Committee of University of Tsukuba Faculty of Medicine, and Research Facility. Informed consent was obtained from participants and their guardian caregivers before the initiation of any research procedures.

Results: The subjects are 2 elementary school students and 7 junior high school students, 5 inpatients and 2 outpatients, and all boys. The average attendance rate of the participants was 93.3%. Univariate analysis showed no significant difference in social skills (before AGT: $M=44.78$ $SD=10.97$, after AGT: $M=48.44$ $SD=8.02$, $p=.057$), and the effect size was large ($r=.634$). In the subscale of social skills, there were no significant differences in Behavioral Expression (before: $M=16.33$ $SD=4.72$, after: $M=18.11$ $SD=3.59$, $p=.172$), in Emotional Regulation (before: $M=11.11$ $SD=3.62$, after: $M=10.56$ $SD=2.65$, $p=.670$), in Cognitive Decoding (before: $M=7.33$ $SD=2.35$, after: $M=8.22$ $SD=2.17$, $p=.074$), and in Cognitive Monitoring (before: $M=10.00$ $SD=4.03$, after: $M=11.56$ $SD=2.74$, $p=.104$). Effect size in Behavioral Expression is medium ($r=.455$), in Emotional Regulation is small ($r=.142$), in Cognitive Decoding ($r=.595$) and in Cognitive Monitoring ($r=.542$) are large. There is no statistically significant differences in Self-Esteem (before: $M=22.78$ $SD=6.85$, after: $M=26.44$ $SD=4.64$, $p=.065$), and effect size is large ($r=.614$).

Discussion: In this study, there are no statistical differences in social skills and Self-Esteem. However, because the significant difference is influenced by the sample size, in this study, the number of subjects was 9, which was considered to be related to this result. On the other hand, since the effect size does not change depending on the sample size, it can be considered that the effect of this research can be examined by the effect size.

It was suggested that participation in AGT "RAILWAY FRIENDS" improves social skills. Considering from effect sizes of Cognitive Decoding and Cognitive Monitoring are large, it was thought that they could think about the thought of others and themselves by participating in AGT "RAILWAY FRIENDS" and interacting with members of the same interest. Also, in Behavioral Expression effect size is medium, it was thought that participating in AGT "RAILWAY FRIENDS" and having experience of communicating one's own thoughts to others makes it possible to appropriately convey their feelings and thoughts to the others. It is pointed out that improving self-esteem is not so easy, but in this study, effect size of self-esteem is large, it was thought that it was possible to improve their self-esteem by participating in AGT "RAILWAY FRIENDS". In this AGT "RAILWAY FRIENDS", attention was focused on the subject's interests, which is a feature of ASD, and we conducted activities using those characteristics. Therefore, it was thought that their self-esteem was improved as a result of using the biological elements of participants with ASD, performing their favorite activities with others and getting positive feedback.

Conclusion: The purpose of this study is to clarify the utility of Activity Group Therapy with same interests (Railway) for children with ASD. Comparison of before and after has been carried out on social skills and self-esteem. There are no significant differences but effect sizes were medium to large.

References

Shoji, W., Adachi, T., Takahashi, K., & Mifune, N. (2012). Development of a Basic Communication Skills Scale for Junior High School Students. *Japanese Journal of Educational Psychology*, 60, 137-152.

Tsuboi, H., Matsumoto, M., Keskinen, S., Kivimäki, R., Suzuki, N., Hatagaki, C., ... & Morita, M. (2012). Japanese Children's Quality of Life (QOL): A Comparison with Finnish Children. *Japanese Journal of Child and Adolescent Psychiatry*, 53 (Supplement), 14-25.

Contact

tomokaz-sugaya14@ob.md.tsukuba.ac.jp

RSC PST 1 - Research Poster Session 1

Comparison of Skin Temperature and Bed Climate of Bedridden Elderly Patients in Summer and Winter

Aino Hayashi, MSN, RN/PHN, Japan
Aki Ibe, PhD, RN/PHN, Japan
Yoko Aso, PhD, RN/PHN, Japan
Masako Miyajima, PhD, RN, Japan
Megumi Katayama, PhD, RN/PHN, Japan
Kaori Fujimoto, MS, RN, Japan
Mihoko Ishizawa, PhD, RN, Japan
Tomoyuki Haga, BE, Japan
Kazuhiro Takeda, LLB, Japan

Abstract

Purpose: Peripheral skin temperature fluctuations are susceptible to the external environment. When exposed to a low-temperature environment, usually the peripheral blood vessels quickly contract to prevent heat dissipation and a lowering of the body temperature. However, because elderly people have lower thermoregulatory functions than younger people, such reactions are sluggish, heat is deprived, and the skin temperature decreases. Therefore, covering behaviors, which is one behavioral thermoregulation, are critical. However, since it is difficult for bedridden elderly patients to cover themselves with blankets, nurses must adjust the bed climates (temperature and humidity). Failure to properly control the peripheral skin temperature also increases the risk of pressure ulceration due to insomnia or peripheral circulation failure caused by getting chilled. In our previous study, we confirmed the change in skin temperature caused by placing blankets on healthy elderly people, but the actual situation remains unknown for elderly who are bedridden. In addition, due to the obvious climate difference between summer and winter, we must adjust the bed's climate based on a hot and humid environment in the summer and winter's low-temperature environment. Unfortunately, few studies have clarified this point. Therefore, to examine the adjustment method of the covering environment for feet, we compared the skin surface temperature and the humidity of the feet of bedridden elderly patients covered by a blanket in summer and winter.

Methods: 1) Participants: 20 hospitalized, bedridden patients who required assistance in excretion, eating, and changing their clothes. 2) Experimental period: August-October 2016 (summer) and December 2015-February 2016 (winter). 3) Procedure: After resting for more than 15 minutes without a blanket covering their lower feet and legs, they rested for 30 minutes with a blanket covering their whole body, and then rested for 15 minutes with their legs uncovered below the knee again. We measured the temperature and the humidity of the feet's soles and bed climate by a temperature/humidity data logger called Maxim ibutton Hygrochron (DS1923). We attached a temperature/humidity data logger to the three locations on the subject's feet and at the foot of the bed and measured the values every minute. The material of the used blankets is feathers in the summer, and down and feathers in the winter. We calculated the average of the temperature and humidity data of following period: for 30 minutes that the feet were covered by blanket and for 15 minutes after removing the blanket. The values are expressed as mean (SD).

Results: Our analysis included 20 participants (6 males, 14 females), 84.6 (5.7) years old in the summer experiment and 18 participants (5 males, 13 females), mean age 83.3 (8.7) years old in the winter experiment. The mean temperature at the bed's measurement location was 26.2°C (0.03) in summer and 24.2°C (0.2) in winter, and the mean humidity was 53.6% (0.1) in summer and 35.1% (0.4) in winter. Regarding the temperature and humidity under the blanket, the mean temperature 30 minutes after being covered was 26.4°C (0.1) in the summer and 24.5°C (0.3) in the winter, and the mean humidity was 54.8% (0.3) in the summer and 38.4% (0.7) in the winter. The mean temperature for 15 minutes after removing the blanket was 26.4°C (0.08) in the summer and 24.4°C (0.4) in the winter, and the mean humidity was 52.3% (0.6) in the summer and 34.8% (1.0) in the winter. The mean temperature of the feet's soles for 30 minutes covered by a blanket was 31.6°C (0.3) in the summer and 30.3°C (0.6) in the

winter, and the mean temperature 15 minutes after the blanket was removed was 31.1°C (0.3) in the summer and 30.0°C (0.6) in the winter. Regarding the humidity, the mean of the feet's soles covered by a blanket for 30 minutes was 67.1% (0.9) in the summer and 53.2% (2.3) in the winter, and the mean humidity in the 15 minutes after the blanket was removed was 64.1% (1.0) in the summer and 51.0% (2.1) in the winter. The changes in the skin temperature of the feet's soles reached an equilibrium state 30 minutes after being covered in the summer 17 minutes after being covered, whereas in the winter, the skin temperature continued to rise continuously for 30 minutes after being covered. Even after being uncovered, equilibrium was reached in eight minutes in the summer, but it continued to decrease for 15 minutes in the winter. The feet's soles temperature rose by 1.0°C for 30 minutes after being covered in the summer and decreased by 1.1°C in 15 minutes after the blankets were removed. It increased by 2.0°C in 30 minutes after being covered and decreased by 1.6°C in 15 minutes after the blankets were removed in the winter.

Conclusion: The changes in the skin temperature of the feet's sole due to the presence or absence of a blanket were small in the summer after it was removed, and fluctuation in the winter was large. The time required for the temperature change also quickly reached an equilibrium state in the summer, but it continued to change during the measurement time in the winter. In other words, warming up was more difficult in the winter than in the summer, and cooling off was also easier in the winter. In our previous studies on healthy elderly people, the skin temperatures of their feet were about 2°C higher in the summer and 3°C higher in the winter than in this paper's subjects. Effective warming is necessary to adjust the bed climate of bedridden elderly patients, especially in the winter. In the future we will continue to discuss concrete methods for adjusting the covering environments of the feet.

References

- 1) F. Khan, et al (1992) Cutaneous vascular responses and thermoregulation in relation to age, *Clinical Science*, 82(5),521-528.
- 2) K Okamoto-Mizuno, et al (2010) Effects of season on sleep and skin temperature in the elderly, *International Journal of Biometeorology*,54(4),401-409.
- 3) Miyajima M, et al (2016) Evaluation of foot skin temperature maintenance with or without a Japanese futon over feet bedrest elderly, *The Japanese Journal of Ergonomics*,52,154-155(in Japanese)

Contact

a-hayashi@tsuruga-nu.ac.jp

RSC PST 1 - Research Poster Session 1

A Neglected Subject in Nursing: Eye Care

Nuray Turan, PhD, RN, Turkey

Hatice Kaya, PhD, RN, Turkey

Gulsun Ozdemir Aydin, MSc, RN, Turkey

Abstract

Purpose: In a healthy individual, the eyelids create both a physical and a mechanical barrier against trauma and dryness. However, loss of consciousness, giving respiratory support, sedation and the administration of muscle relaxant drugs lead to insufficient closure of the eyelids, reduction in blink reflex, and the emergence of problems with the eye. Accordingly, problems with the cornea, complications such as keratitis, conjunctival edema and dry eye may occur.

Methods: In this article, nursing interventions applied for the prevention of eye dryness were discussed by examining the literature and research findings, and application-oriented suggestions were proposed.

Results: The application of evidence-based nursing care standards is the most basic element in the prevention of eye dryness. However, nursing care applications for eye care are not performed based on evidence in our country, only the medicines prescribed by the physician are applied, and applications are started after a problem related to the eye has been detected. In studies carried out based on eye care protocols, it is seen that problems such as keratopathy, conjunctivitis and keratitis have been focused, eye dryness that can be avoided by a simple protocol before it has been neglected. In the prevention of eye dryness, eye hygiene should be ensured, tears should be protected or replaced, and the open eye should be closed. The use of tear preparations without preservatives and eye pomade, closing of the eye with polyethylene cover forming a humid chamber, isotonic-soaked or dry gauze bandage and eye protective pads are recommended. In a research carried out in our country, it has been stated that closing eye with polyethylene cover is more effective in preventing eye dryness.

Conclusion: One of the most important responsibilities of the nurse is to prevent the development of complications in the individual. In this context, nursing practices should be based on evidence in the prevention of advanced problems that may arise due to the eye dryness and further studies should be carried out in this field.

References

- Kocaçal, E., Eşer, İ. (2008). A significant problem in intensive care patients: Eye complications: Medical education. *J Med Sci 2008*, 28: 193-197.
- Saritas, T.B., Bozkurt, B., Simsek B., Cakmak, Z., Ozdemir M., Yosunkaya, A. (2013). Ocular surface disorders in intensive care unit patients. *The Scientific World Journal*, 1-5. doi.org/10.1155/2013/182038
- Kocacal, E.G., Eser, I., Deeb Fashafsheh, I.H. (2013). Intensive care nurses' views and practices for eye care an international comparison, *Clin Nurs Res*, 18. doi:10.1177/1054773816631471.
- Grixti, A. Madri, M. Edgar, S J., DattaA. V. (2012). Common ocular surface disorders in patients in intensive care units. *The Ocular Surface*, 10: 26–42.

Contact

nkaraman@istanbul.edu.tr

RSC PST 1 - Research Poster Session 1

Mother's Anxieties Before the Proton Beam Therapy of Child

Noriko Ozawa, MSN, RN, Japan
Kayuri Furuya, DNSc, RN, PHN, Japan

Abstract

Background: Proton beam therapy is one of the radiation therapy in pediatric cancer treatment. Proton beam therapy is expected to reduce the late complications. However, there are only a few centers offering this promising therapy in the world. The largest centers in the world in Japan, but there are still only four centers that are treating children. Patients and their families usually need to travel to a proton center and stay for approximately 2 months in order to avail of it. It has been studied that there are the family impacts by environmental changes (Amy et al., 2012).

Radiation therapy itself is a noninvasive treatment, but it can be stressful and challenging for the children. Children are exposed to an unknown large radiation equipment and the new medical staff such as radiologists. Additionally, the children have to remain alone in the treatment room during treatment. These factors can cause the children stress and anxiety, so anesthesia is often used in radiation therapy for children's safety.

However, preparation programs for children to receive radiation therapy has been studied in some countries, and they have been shown that it is possible to reduce the amount of anesthetic. So we have created a program with reference to previous research, and carried out for the children to receive proton beam therapy in Japan. Through this program we were able to reduce the amount of sedatives (Mizumoto et al., 2015).

The radiotherapy treatment process involves interactions with the most advanced skills in pediatric oncology care, so there is a need to continue to improve the preparation program. Although There are few studies have investigated the child's and the parents' view of this particular procedure, a study reported the parents have various uneasiness due to radiation therapy (Charlotte et al., 2015). Parent's mental stability has been reported to lead to mental stability of the child (David, et al., 2013). Therefore, we thought that incorporation of parent intervention in the program of children receiving proton therapy would lead to a more effective program.

Purpose: The purpose of this study is to clarify anxieties encountered by parents of children who will receive proton therapy, before the treatment.

Methods: Our study subjects were mothers of children they received the proton beam therapy after implementing the current preparation program. Our study's target facility was one of the proton therapy center in Japan.

We conducted Semi-structured interviews after the treatment. We carried out content analysis, we found codes, subcategories, and categories.

The current preparation program: At the center nurses and radiologists care the children using the preparation program. The preparation program starts at 1~2 days before the CT scanning for the proton beam therapy and continue during treatment. First they explain to the children about treatment using picture book or pamphlet. Next they invite the children to facility for become familiar with the treatment room and staff before starting the treatment. Then the children practice to stay a treatment bed with mothers, and little by little they practice to stay alone using favorite DVD or music for their relaxation. Nurses and radiologists play with the children every time after practice and we give them the stickers of the reward.

Ethical considerations: Our study obtained the ethics committee's proposal of the organization. We explained to participants about the purpose and method of this study, the participation is free, and keeping anonymous in document. Participants signed on consent form.

Results: 5mothers participated in our study. Their children are 3male and 2 females, 4-13years old. 4 of the children could receive proton beam therapy without sedation.

We found 4 categories such as [Anxiety whether children can overcome proton beam therapy], [Anxiety as to whether you can receive similar care as hospitals so far] ,[Anxiety about mothers themselves after transference] ,[Anxiety what happens to other family members by mother's absence].

The mother was concerned that the child could successfully overcome it. Before the child 's preparation program, they could not understand how the child' s proton beam therapy will proceed specifically. They had few opportunities to encounter new medical stuff until they moved to the hospital, so they could not hear the way of care and could not figure out what they could do for their children. Besides, mothers were concerned that there might be a change not only in proton beam therapy but also in normal cancer care by moving through the hospital, too.

And also they had to leave the house as they had to accompany the child for proton beam therapy. So mothers expressed anxiety about changes in their lives and changes in the lives of other families, too.

Conclusion: The proton beam therapy is an unknown treatment not only for children but also for mothers. From the background that it is often necessary to transfer to receive proton beam therapy, it is expected that the mother will be transferred to the proton beam treatment center without information and the mother's anxiety will increase after the transfer. The current children's proton therapy preparation program has been found to reduce children's anxiety and deepen their understanding. However, unlike normal radiation therapy, it often requires metastasis. As a result, the time available for children's preparation program is limited.

Until now, it has been shown that the mental state of mother influences children. In order to do effective care in a limited time, it is thought that it is necessary to consider not only children but also programs incorporating mother's preparation. It is suggested that it is necessary to provide information on proton therapy and information on a new medical environment in advance.

References

- Ångström-Brännström, C., Engvall, G., Mullaney, T., Nilsson, K., Wickart-Johansson, G., Svärd, A. M., ... & Lindh, V. (2015). Children Undergoing Radiotherapy: Swedish Parents' Experiences and Suggestions for Improvement. *PLoS one*, *10*(10), e0141086.
- Fedele, D. A., Hullmann, S. E., Chaffin, M., Kenner, C., Fisher, M. J., Kirk, K., ... & Mullins, L. L. (2013). Impact of a parent-based interdisciplinary intervention for mothers on adjustment in children newly diagnosed with cancer. *Journal of pediatric psychology*, jst010.
- Houtrow, A. J., Yock, T. I., Delahaye, J., & Kuhlthau, K. (2012). The family impacts of proton radiation therapy for children with brain tumors. *Journal of Pediatric Oncology Nursing*, *29*(3), 171-179.
- Mizumoto, M., Oshiro, Y., Ayuzawa, K., Miyamoto, T., Okumura, T., Fukushima, T., ... & Sakurai, H. (2015). Preparation of pediatric patients for treatment with proton beam therapy. *Radiotherapy and Oncology*, *114*(2), 245-248.

Contact

s1530479@u.tsukuba.ac.jp

RSC PST 1 - Research Poster Session 1

Exploring the Relationship Between Docetaxel-Induced Peripheral Neuropathy and Quality of Life in Breast Cancer Survivors

You-Wun Jheng, MS, RN, Taiwan

Ya-Jung Wang, PhD, RN, Taiwan

Chih-Jung Wu, MS, RN, Taiwan

Abstract

Purpose: Docetaxel is benefit breast cancer survival demonstrated by numerous randomized trials. Docetaxel-induced peripheral neuropathy (DIPN) is one of side effects which is not easy to be aware and negatively influences women's physical, psychological, social status and quality of life (QOL). There are many studies to survey the phenomenon of peripheral neuropathy in other countries, but it's no study investigating its impact on Taiwanese women with breast cancer. The primary purpose of this study was to investigate the distribution and relationship among peripheral neuropathy and QOL in women with breast cancer after docetaxel treatment.

Methods: This study utilized a cross-sectional study design and purposive sampling. Women with breast cancer received at least one treatment with docetaxel were recruited in this study from a medical center in northern Taiwan. Instruments included Patient Neurotoxicity Questionnaire, Total Neuropathy Score-clinical version, and Functional Assessment for Cancer Treatment-Breast and Taxane. The data were analyzed utilizing mean, standard deviation, frequency, percentage, independent-samples t test, one-way ANOVA, Chi-square test, and Pearson correlation.

Results: The average age of 111 subjects was 50.78 years. The TIPN subjective measure found sensory and motor symptoms were 67.6% and 62.2%, respectively. Nearly half of the participants were with slight symptoms but only 4.5 to 7.2% of them were with a severe degree. The objective method indicated that 82.9% had peripheral neuropathy. Moreover, two of the most common symptoms were the deterioration of sensation on pinprick and vibration tests. PNQ sensory and motor scores were significantly higher in patients are undergoing docetaxel therapy compared to therapy has been completed. Women were keep exercise more than three times a week who got TNSc higher scores. There was a positive correlation between subjective and objective DIPN ($\rho=0.495$, $p<0.001$), a negative correlation between subjective DIPN and quality of life ($\rho=-0.552$, $p=0.001$), and then a negative correlation between objective DIPN and quality of life ($\rho=-0.407$, $p<0.001$).

Conclusion: Women with breast cancer after docetaxel treatment induced peripheral neuropathy negatively affected QOL. Oncology nurses are expected to have skills utilizing the TIPN subjective and objective tools to early detect and timely manage the DIPN. Therefore, the quality of life in this population is able to be advanced.

References

Eckhoff, L., Knoop, A. S., Jensen, M. B., & Ewertz, M. (2015). Persistence of docetaxel-induced neuropathy and impact on quality of life among breast cancer survivors. *European Journal of Cancer*, 51(3), 292-300. doi: 10.1016/j.ejca.2014.11.024

Smith, E. M. (2013). Current methods for the assessment and management of taxane-related neuropathy. *Clinical Journal of Oncology Nursing*, 17, 22-34. doi: 10.1188/13.CJON.S1.22-34

Contact

yaijungw@ym.edu.tw

RSC PST 1 - Research Poster Session 1

Feeding Behaviors for Premature Infants Who Received Extended Tube Feedings

Rosemary C. White-Traut, PhD, RN, FAAN, USA

Abstract

Purpose: The overall prevalence of feeding problems occurs in 25 - 35% of children, peaking by 6 months. Feeding problems are more common and more serious in infants who have had extended tube feedings and lead to delayed oral feeding, growth failure, and disengagement with the caregiver, leading to less optimal parent-infant interaction. The study was guided by the Developmental Science Model. For hospitalized infants who have long term exposure to tube feedings, we prospectively identified the range of early feeding behaviors encompassing the infant's feeding experience through hospital discharge to address the question: What are the early feeding behaviors of infants who receive extended tube feedings and do these behaviors change with maturation?

Methods: The research was conducted at a Level IV Neonatal Intensive Care Unit in the Midwest, USA. Premature infants were enrolled if they were expected to receive a minimum of two weeks of tube feedings. Non-surgical or surgical (non cardiac) infants who required a minimum of 2 weeks of tube feedings, may be receiving oxygen and IV therapy, or previously treated for sepsis, pneumonia, or assisted ventilation were eligible to participate. Infants experiencing current sepsis, pneumonia, on assisted ventilation, or IV only intake, had congenital anomalies of the oral cavity, chromosomal abnormalities, were in opiate withdrawal, or not neurologically intact (e.g. seizures) were not eligible to participate.

A prospective design estimated changes in feeding behavior over time and their variability. Infants were video recorded weekly for 30 minutes before feeding, during the tube feeding, and for 30 minutes after the feeding. The video recordings were later coded for feeding behaviors. Orally directed feeding behaviors (mouthing, swipes at mouth, hand to mouth, sucking on hand, sucking on tongue, empty sucking, tonguing, rooting, and yawning) and behavioral state (asleep, awake, drowsy, or crying) were evaluated through the in-hospital weekly video recorded sessions.

Results: Thirty-five infants were enrolled. Analyses will include GEE/GLM and predictive models. The sample demographics and orally directed feeding behaviors data have been analyzed on 14 infants. The final analysis for orally directed behaviors and behavioral state will be completed by April 2017. For the first 14 infants, the mean gestational age at birth was 28.85 weeks, mean birth weight was 1060.71 grams, mean Apgar Score at 5 minutes was 6.81, eight participants were male, 12 were delivered by Cesarean section, and 4 infants were still tube feeding at hospital discharge. The highest mean frequency of orally directed behaviors occurred in the 5 minutes immediately prior to the beginning of feeding (mean .67) followed by the first five minutes of feeding (.59). The mean frequencies for mouthing and tonguing were highest over the course of hospital stay. During the 15 minutes prior to feeding, tonguing occurred at the highest frequency (mean 5.7) followed by mouthing (mean 4.4). None of the infants exhibited sucking on hand, which is a more mature behavior. Fewer behaviors were exhibited post feeding. When orally directed behaviors were combined by age, younger infants between 30-33 weeks postmenstrual age (PMA) exhibited a higher mean frequency of all orally directed behaviors (17.5) when compared with infants between 34-36 weeks (15.4) prior to feeding and (19.7 vs 15.2 respectively) during feeding.

Conclusion: For infants between 30 and 36 weeks PMA, the frequency of orally directed behaviors was highest during feeding and did not increase with maturation as was expected. The findings suggest that extended tube feedings may influence the decrease in orally directed behaviours. Interventions are required to address the lack of maturation of orally directed behaviors and alleviate the long term consequences of oral feeding difficulty.

References

Bingham PM, Ashikaga T, Abbasi S. Relationship of behavioral state and tube-feeding to non-nutritive sucking in premature infants. *J Neonatal Nurs.* 2011;17:150-157.

Pickler RH. A Model of Feeding Readiness for Preterm Infants. *Neonatal Intensive Care*. 2004;17(4):31-36.
White-Traut R, Norr K. An ecological model for premature infant feeding. *J Obstet Gynecol Neonatal Nurs*. Jul-Aug 2009;38(4):478-489; quiz 489-490.

Contact

rwhite-traut@chw.org

RSC PST 1 - Research Poster Session 1

Invisible Nature of Self-Care: Clinical Issues Raised By People With Multiple Long-Term Conditions

Kim van Wissen, PhD, RN, New Zealand

Denise L. Blanchard, PhD, RN, Australia

Abstract

Purpose: People with illness are involved in their own care on a daily basis, constantly varying care according to the peaks and troughs of their illness experience. Despite people's important role in self-care, their work remains obscure and under-researched, hence a clearer picture is required of what work patients undertake. This presentation aims to typify the work of people with illness requiring self-care in community settings. Extending this line of thinking, our research indicates how managing illness at home requires an accomplished level of expressed self-care.

The invisible nature of self-care and the signs and symptoms of long term illness have been made more perceptible, for example fatigue as an invisible symptom often managed by the person themselves. Identifying invisible aspects of illness as a disease, may not always identify the needs of people striving for independence and consequently instigating self-care. Our research provides insight into how people with illness trivialise their role as the principal provider of their own care.

To clarify, self-management is that care that is directed by a health professional, while self-care is controlled by personal choices and accommodations made when living with illness. To attain levels of well-being through efforts that are largely imperceptible, people with illness make compromises. Unless health professionals examine people's input into their health status closely, important cues are missed in terms of the extent of how self-care has become entrenched in a person's life living with illness.

Methods: Interpretive description was instrumental to ensure our research remained orientated to the person-with-illness. Twenty nine participants were individually interviewed nine months after they had been discharged home from hospital, following an acute coronary syndrome event. All participants had sustained high blood glucose at the time of admission to hospital, indicating prediabetes, in addition to their cardiovascular disease (CVD). This combination of conditions is now clearly identified to have a shared pathogenesis and subsequent illness sequelae, which is why this group of people was specifically targeted.

Results: Findings highlight that invisible self-care persists as absent in patient assessments and conversations. Participants in our research described in their interviews how prediabetes frequently remained in the background, concealed by ongoing manifestations or treatments of CVD. In addition, participants had visible and less visible conditions that required ongoing monitoring and management, such as arthritis and hypertension. Consequently there was a notable indifference to the invisible work undertaken by participants to self-care for ongoing health issues arising from multiple long term conditions.

Conclusion: Nurses in any clinical setting are working with people with multiple long term conditions such as CVD and diabetes. To reduce the burden of evolving disease and subsequent illness, nurses are in an ideal position to provide support and partnership for those undertaking self-care. Professional nursing practice should elucidate self-care with people at every turn, to make the invisible work of caring for one-self with illness an important feature of nursing assessment and clinical judgement.

References

- Barley, E., & Lawson, V. (2016). Health psychology: Supporting the self-management of long-term conditions. *British Journal of Nursing*, 25(20), 1102-1107.
- Kralik, D., Telford, K., Price, K., & Koch, T. (2005). Women's experiences of fatigue in chronic illness. *Journal of Advanced Nursing*, 52(4), 372-380. doi:10.1111/j.1365-2648.2005.03602.x

Leon, B. M., & Maddox, T. M. (2015). Diabetes and cardiovascular disease: Epidemiology, biological mechanisms, treatment recommendations and future research. *World Journal of Diabetes*, 6(13), 1246-1258. doi: <http://dx.doi.org/10.4239/wjd.v6.i13.1246>

Thorne, S. (2016). Research toward clinical wisdom (editorial). *Nursing Inquiry*, 23(2), 97-98. doi: 10.1111/nin.12138

Contact

dblanchard@csu.edu.au

RSC PST 1 - Research Poster Session 1

An Analysis of Maternal Near Misses and Failure to Rescue Using Two National Data Sets

Fuqin Liu, PhD, RN, USA

Peggy J. Mancuso, PhD, RN, CNM, USA

Patti Hamilton, PhD, RN, USA

Elizabeth B. Restrepo, PhD, RN, USA

Abstract

Purpose: The aim of this study is to use a population-level approach to identify and quantify maternal near misses and failure to rescue in the United States from 2012 through 2015 with data derived from 96.2% of deliveries and maternal deaths during the period.

Methods: We will use a descriptive, epidemiological, cohort design and will analyze Birth and Multiple-Cause of Death records available from the U.S. National Center for Health Statistics to identify vulnerable groups and vulnerable locations where failure to rescue occurs. We will calculate failure to rescue using an approach endorsed by the National Quality Measure Clearinghouse and the Agency for Healthcare Research and Quality, but tailored to fit the care of mothers during pregnancy, birth, and the puerperal period. Data documenting seven specific complications (maternal morbidities) will be extracted from national birth records for 2012-2015. These records describe births in 47 states, the District of Columbia, Guam, Puerto Rico, and the Northern Marianas. While some states do not use the 2003 revised birth certificate, variables that are comparable across various versions of the birth certificate are included and flagged. These data represent approximately 4 million births, annually (16 million births over the four-year period). All deaths processed by the National Center for Health Statistics are included in the national multiple-cause death files. We will analyze only death records having ICD-10 Maternal Death codes (O001-O999) as the underlying cause of each maternal death as well as the Record Axis codes corresponding to the maternal morbidities in the birth records. Each of the four years will include approximately 1000 maternal deaths for a total of 4000 cases analyzed during the study period.

Results: Preliminary analyses are derived from a population cohort comprised of all women who delivered a live-born infant in the U.S. in 2014 and died in that period as a result of the pregnancy, a condition occurring during the pregnancy, the birth, or in the postpartum period. The 2014 birth data were comprised of 3,998,175 births representing mothers for whom a U.S. certificate of live birth was submitted. Mothers giving birth in 2014 ranged in age from 12 to 50 years, with the greatest percentage of births occurring to women in the age range of 25 – 29 years and the least percentage occurring to those under 15 and in the 50-54 year range (0.1% and 0.0%, respectively). Race/ethnicity data indicate that for 3.3% of the maternal population, these data are missing. For the remaining mothers in the data, 23.0% were Hispanic and 76.3% were non-Hispanic (including origin unknown). Regarding marital status, 59.8% of the mothers were married and 40.2% were unmarried at the time of the birth. Mothers in 2014 had from 1 through 17 children still living from previous births. The majority of mothers (39.1%) had no living children at the time of the birth in 2014. Thirty two percent had one living child at the time of the birth, 16.7% had two living children, 7.0% had three living children, and 2.7% had four living children. Two percent of mothers had from 5 to 17 children alive at the time of the birth in 2014, and for 0.3% of the mothers, the number of children living at the time of the birth is unknown or unstated. For mothers giving birth in 2014, 98.3% had no children dead from a previous live birth, 1.0 % had one child dead from a previous live birth, and 0.1% had two children dead. The remaining mothers (0.0%) had between 3 and 12 children dead from a previous live birth. For 0.5%, it is unknown or unstated as to whether the mother had children dead from previous live births.

Regarding other terminations of pregnancy, 73.5% of mothers did not have a prior other termination of pregnancy, while 16.5% had one prior other termination of pregnancy, 5.5% had two prior other terminations, and 1.9% had three. The remaining 2.6% of mothers had between 5 (0.3%) and 29 (0.0%) prior other terminations. For 1.4%, information for prior other terminations is unknown or not stated. For approximately 3.6% of the population, data for the month of pregnancy in which prenatal care began are

missing. For the 96.4% of mothers who had prenatal care data, the breakdown by month prenatal care began indicated that 1.5% of the mothers had no prenatal care. The plurality of mothers began prenatal care in the second month of pregnancy (38.4%). Regarding participation in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), approximately 41% of the mothers received WIC. Concerning the socioeconomic indicator, principal payment source for the delivery, 3.6% of the maternal population had missing data. Removing the missing data from consideration, the principal payment source for the delivery was private insurance (47.3%) or Medicaid (43.2%). Regarding place of birth, the majority of the population (98.5%) gave birth in a hospital. Another 1% gave birth in a residence, and 0.5 % gave birth in a free-standing birthing center.

Conclusion: This will be the first population-level study to identify and quantify maternal near misses and failures to rescue across ethnic and sociodemographic groups and across counties and states - focusing especially on Medically Underserved Areas and Health Professional Shortage Areas in the U.S.

References

- MacDorman, M. F., Declercq, E., Cabral, H., & Morton, C. (2016). Recent increases in the U.S. maternal mortality rate: Disentangling trends from measurement issues. *Obstetrics & Gynecology*, *128*, 1-10. doi: 10.1097/AOG.0000000000001556
- Friedman, A., M., Ananth, C. V., Huang, Y., D'Alton, M. E., & Wright, J. D. (2016). Hospital delivery volume, severe obstetrical morbidity, and failure to rescue. *American Journal of Obstetrics & Gynecology*, pii: S0002-9378(16)30474-4. doi: 10.1016/j.ajog.2016.07039
- World Health Organization. (2012). *The WHO application of ICD-10 to deaths during pregnancy, childbirth, and the puerperium: ICD-MM*. Geneva: WHO Press.

Contact

fliu@twu.edu

RSC PST 1 - Research Poster Session 1

Care Models of Individuals With Dementia and Properties of Care at the Home

Nurten Kaya, PhD, RN, Turkey
Nuray Turan, PhD, RN, Turkey
Gulsun Ozdemir Aydin, MSc, RN, Turkey

Abstract

Purpose: As with population ageing, increasing older individuals are affected by dementia in the world. The dementia brings new behavioral problems in the lives of individuals with this disorder. These problems, both health team member who are caring for individuals with dementia and their caregivers makes it difficult to continue the process of care and reduces the quality of life.

Methods: This article examines literature and research findings about the dementia, care models, home care, nursing care and discusses the importance of subject.

Results: Dementia is a generic term indicating diseases that involve a loss of cognitive function. In the future, the number of individuals with dementia in the world is expected to be 115.4 million in 2050. Over the last two decades, there has been a growing interest in how to provide the best care for individuals with dementia. The models have developed in order to directly address this gap, by providing a theoretically driven, yet pragmatically focused framework to guide optimum dementia care practice. Therefore there are few well defined models to guide long-term dementia care. They are; Person-Centered Care, The Dementia Care Mapping/Planning, Need-Driven Dementia-Compromised Behaviour Model, Treatment Routes for Exploring Agitation, Progressively Lowered Stress Threshold Model, Elderly Abuse and Neglect on Care Models and Other Nursing Models. Those that are most widely used, such as individual centered care, aren't always well understood by care providers, leading to inconsistent implementation and a discrepancy between philosophy and practice. Researches have shown that, compared with other patients, individuals with dementia have added risks and poorer health outcomes. Especially home care of individuals with dementia are more comprehensive than other individuals. The home care of individuals with dementia includes; home health service delivery, support health care, personal care/self-care services, household services, social support, food and nutrition services and consultancy services.

Conclusion: Many of the day-to-day caregiving responsibilities for individuals with dementia are performed by either family or care givers of long-term care settings. Health care team members have an important responsibility especially home care of individuals with dementia. Individual care is a holistic alternative to conventional care practices that can moderate the effects of malignant social psychology and help personhood to persist as dementia develops.

References

- Desai, A. K., Schwartz, L., & Grossberg, G. T. (2012). Behavioral disturbance in dementia. *Current Psychiatry Reports*, 14, 298–309. doi:10.1007/s11920-012-0288-5.
- Sloane, P. D., Miller, L. L., Mitchell, C. M., Rader, J., Swafford, K., & Hiatt, S. O. (2007). Provision of morning care to nursing home residents with dementia: Opportunity for improvement? *American Journal of Alzheimer's Disease and Other Dementias*, 22, 369–377. doi:10.1177/1533317507305593.
- Romeo, R., Knapp, M., Salverda, S., Orell, M., Fossey, J., Ballard, C. (2016). The cost of care homes for people with dementia in England: a modelling approach. *International Journal of Geriatric Psychiatry*, DOI: 10.1002/gps.4637.
- Rosvik, J., Brooker, D., Mjorud, M., Kirkevold, Q. (2013). What is person-centred care in dementia? Clinical reviews into practice: the development of the VIPS practice model, *Reviews in Clinical Gerontology*, 23(2): 155-163.
- Galik, E., Resnick, B., Hammersia, M., Brightwater, J. (2014). The Gerontologist, 54 (6):930-943.
- Galik, E. (2010). Function-focused care for LTC residents with moderate-to-severe dementia: A social ecological approach. *Annals of Long Term Care*, 18, 27–32.

Contact

gulsunoz@istanbul.edu.tr

RSC PST 1 - Research Poster Session 1

Restorative Justice in Mental Health Communities: The Importance of Interagency Cooperation

Susan L. Adams, PhD, RN, NP-BC, USA

Elizabeth I. Rice, PhD, RN, PMHNP-BC, USA

Abstract

Purpose: Standard community criminal justice procedures are ineffective in reducing the high rates of recidivism by offenders diagnosed with severe mental illness (SMI). With limited access to community based mental health programs and the closure of institutional settings that serve people with mental health problems, jails and prisons have become the de facto institutions for people who suffer with severe mental illness across the United States. Adults diagnosed with SMI are overrepresented in our criminal justice system nationally (10-20%) and community-based interventions vary greatly in access and design. Beyond the human suffering, there are financial costs to this high incarceration rate. Housing an inmate with a severe mental health problem ranges between \$31,000 to \$168,000 (US)/inmate/year. Despite this high cost, the mental health needs of this population are not being adequately served. Recent national research in the United States indicates that many people with severe mental illness fail to receive minimally adequate mental health treatment in prisons (Wilper, et al. 2009).

The development of offender courts for persons with mental illness have changed this dynamic. The success of these programs is dependent upon the availability of appropriate community based services and treatment, therapeutic oversight from the courts and an interprofessional collaborative that is highly motivated to contribute to the success of the program. This presentation will focus on a model program, the California Support and Treatment After Release (STAR) program developed in Marin Co. in northern California, United States.

Methods: This comprehensive community intervention was designed using a public health evidence-based practice framework.

Results: In 1998, California State Sheriffs worked with the legislature to create Senate Bill 1485 to fund pilot demonstration programs to reduce the recidivism rate of mentally ill offenders in local jails. A call was sent to local governments to submit applications for the 3-year grant funded Mentally Ill Offenders Crime Reduction Act (MIOCRA) program. SB 1485 required counties to form Strategy Committees comprised of the sheriff or department of corrections director; chief probation officer; county mental health director; a superior court judge; representatives of local law enforcement agencies and mental health provider organizations; and a client from a mental health treatment facility. The assumption was that local governments have a better understanding of the nuances of local criminal justice issues than a one size fits all statewide approach. Marin County, California was one of the recipients of the grant and developed the STAR program for severely mentally ill offenders.

Leaders in Marin Co. identified that a primary factor in the program would be an interprofessional collaborative form of leadership to advance the program. Too often, divergent interests between mental health professionals and the criminal justice system cause promising programs to fail. In Marin, important elements in the STAR program included implementation of an array of mental health services, pharmacologic management, safe housing, job training, oversight by the courts and the probation department for a one to two-year period and regular case management meetings with the interprofessional team. The program was implemented as volunteer entry by the offenders. Offenders regularly check in with the overseeing judge and the court team to monitor the progress with treatment. With completion of the program, offenders were able to petition for expunging their record of the offense, thus reducing the problem with stigma surrounding a mental health diagnosis.

Over a 10 year period, Marin demonstrated a reduction in recidivism by more than 80% and psychiatric emergency visits by more than half. Today the Marin County jail is one of the few jails in the State of California that can boast of empty jail beds. In summary, the positive outcomes of this program include

reduction in recidivism, decreased use of psychiatric emergency visits, empty jail beds, employed and housed people, expansion of community-based services and a more humane way to treat people with mental illness who had become involved with the criminal justice system.

Conclusion: The Marin Co. program is a model that has focused on interprofessional collaboration and can be replicated to develop programs that serve people with severe mental illness.

References

Lamberti, J. (2016). Preventing criminal recidivism through mental health and criminal justice collaboration. *Psychiatric Services, 67*:11.

McInerney et al. (2013). Implementing a court diversion and liaison scheme in a remand prison by systematic screening of new receptions: A 6-year participatory action research study of 20,084 consecutive male remands. *International Journal of Mental Health Systems, 7*:13.

DeMatteo, D., LaDuke, C. Lockair, B. & Heilbrun, K. (2013). Community-based alternatives for justice-involved individuals with severe mental illness: Diversion, problem-solving courts, reentry. *Journal of Criminal Justice, 41, 64-71*.

Contact

sladams@ucdavis.edu

RSC PST 1 - Research Poster Session 1

Discrepancies in Necessary Support for Long-Term Care From Perspective of Patient's Family in Japan

Tomoko Ito, PhD, RN, Japan

Abstract

Purpose: Cerebrovascular disease is the primary reason to need long-term care in Japan, and family caregiver will face their caregiving at home with uncertainty (Byun, Riegel, Sommers, Tkacs, & Evans, 2016) or burden (Camak, 2015). At patient discharging, support for family caregiver has come general, however, its quality has not been sufficiently controlled yet (Lutz, Young, Creasy, Martz, Eisenbrandt, Brunny, & Cook, 2016). This study aim was to find family caregiver's own requests for support by interview survey at 1 year later than their patients' discharge and to discuss for clinical discrepancy between actual and ideal support.

Methods: This study was conducted at one hospital located in northern Kanto field of Japan. This hospital is a general hospital that advocates over 30 departments, and it is an acute care hospital for tertiary emergency care. Study subjects were family caregivers of whom patients were collected with inclusion criterion as following, 1. Diagnosed as cerebral infarction or atraumatic intracranial hematoma; 2. Discharged at 1 year ago; 3. Age at admission was 40 or more; 4. Modified ranking scale at discharge was 3, 4, or 5. The final criteria for collection was to be stable in their symptom and physician allowed their participation. In the interview survey, researchers visited the subjects for whom the consent of research participation was obtained, and asked questions including structured and unstructured items. This study was approved by the ethical review board of the field hospital.

Results: We found six respondents who had informed and consent. There were three males who were husband of patients. Among three females, the relationships to patients were wife in 2 cases and daughter. In the one case, a subject lost the patient. They showed their requests for support at discharge including advice about financial supports or utilization of long-term care services. One said "I had known nothing about long-term care. Completely I relied on social worker or care manager, but their support was never enough. They never told us what we wanted."

Conclusion: We found comments meaning clinical discrepancies in necessary support for long-term care through interviews for family caregivers. At that time to be family caregiver, they were concerned only "I do not know," but in retrospect, they made feelings closed to the indignation of "why did not you tell me." This feeling seemed to be appeared after a certain period (more than 1 year in this study) from injury. It was suggested the assessment for problems among family caregivers was needed with estimation for their future caring.

References

- Byun, E., Riegel, B., Sommers, M., Tkacs, N., & Evans, L. (2016). Caregiving Immediately After Stroke: A Study of Uncertainty in Caregivers of Older Adults. *Journal of Neuroscience Nursing*, 48(6), 343-351.
- Camak, D. J. (2015). Addressing the burden of stroke caregivers: a literature review. *Journal of Clinical Nursing*, 24(17-18), 2376-2382.
- Lutz, B. J., Young, M. E., Creasy, K. R., Martz, C., Eisenbrandt, L., Brunny, J. N., Cook, C. (2016). Improving Stroke Caregiver Readiness for Transition From Inpatient Rehabilitation to Home. *Gerontologist*, (Epub ahead of print).

Contact

tito@md.tsukuba.ac.jp

RSC PST 1 - Research Poster Session 1

Anemia is Associated With Rehospitalizations of Patients With Heart Failure

Youn-Jung Son, PhD, RN, CCAPN, Korea, Republic of (South)
Youngye Park, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Anemia is a frequent comorbidity in patients with heart failure (HF). However, the exact incidence of anemia in patients with HF varies widely and little attention has been focused on the relationship between anemia and hospital readmissions or emergency department (ED) visits, and on its health consequences in patients with HF. We aimed to identify the prevalence of anemia and its influence on hospital readmissions and ED visits in outpatients with HF.

Methods: A cross-sectional study design was used. We enrolled 298 patients with HF from outpatient cardiology clinics at an academic-affiliated hospital in Cheonan, South Korea. The institutional research board of Soonchunhyang University Hospital in Cheonan approved the study protocol. We obtained socio-demographic and clinical information, including frequencies of readmissions and ED visits, using face-to-face interviews and medical record reviews. In this study, anemia was defined for adult men and women according to the criteria of the World Health Organization as a hemoglobin concentration lower than 13.0 g/dL in men and 12.0 g/dL in women. The data were analyzed using SPSS version 23 (IBM Corp., Armonk, NY). P values of <0.05 were considered statistically significant. In order to investigate the association between anemia and readmission or ED visits, we adopted a multiple logistic regression model adjusting for age, gender, job, duration of diagnosed HF, NYHA class, hyperlipidemia, use of angiotensin-converting enzyme (ACE) inhibitors, and EF.

Results: The prevalence of anemia as assessed using modified World Health Organization guidelines was 111/284 (39.1%) in outpatients with HF. Anemia was significantly more prevalent in patients who were aged 65 and older ($p < 0.001$), those who had no monthly income ($p = 0.004$), those whose HF was diagnosed for one year or longer prior to their visit ($p = 0.014$), those with chronic renal failure (CRF) as a comorbidity ($p = 0.012$), and those with less than 40% of the EF of patients without anemia ($p = 0.019$). Anemia was also significantly more prevalent in patients with BMI ($p = 0.001$) and diastolic blood pressure (DBP) ($p = 0.002$), and those with higher BNP ($p = 0.024$), BUN ($p < 0.001$), and Cr ($p < 0.001$) levels than patients without anemia.

In adjusted multiple logistic regression, anemia was 8.04 times more prevalent (95% confidence interval [CI], 2.19-29.54) in patients readmitted to hospitals. Anemia was also 2.37 times more prevalent (95% CI, 1.22-4.60) in patients visiting the ED.

Conclusion: In conclusion, although cardiovascular nurses and allied professionals are aware of the importance of the assessment and treatment of anemia in patients with HF, their specific knowledge on this subject could be improved. Thorough nursing assessments and appropriate nursing interventions are imperative in safeguarding patients with HF presenting with anemia. Future prospective studies targeting interventions to improve anemic conditions are needed to determine whether anemia influences readmission rates and ED visits.

References

- Berry C, Poppe KK, Gamble GD, et al. Prognostic significance of anaemia in patients with heart failure with preserved and reduced ejection fraction: results from the MAGGIC individual patient data meta-analysis. *QJM*. 2016; 109: 377-82.
- Cooper TJ, Anker SD, Comin-Colet J, et al. Relation of Longitudinal Changes in Quality of Life Assessments to Changes in Functional Capacity in Patients With Heart Failure With and Without Anemia. *The American Journal of Cardiology*. 2016; 117: 1482-7.
- Kyriakou M and Kiff PF. Prognosis of the comorbid heart failure and Anemia: A systematic review and meta-analysis. *Clinical Trials and Regulatory Science in Cardiology*. 2016; 16: 12-21.
- Lee JH, Lim NK, Cho MC and Park HY. Epidemiology of Heart Failure in Korea: Present and Future. *Korean Circ J*. 2016; 46: 658-64.

Venkateswaran RV, Freeman C, Chatterjee N, et al. Anemia and its association with clinical outcome in heart failure patients undergoing cardiac resynchronization therapy. *J Interv Card Electrophysiol*. 2015; 44: 297-304.

Contact

yjson@cau.ac.kr

RSC PST 1 - Research Poster Session 1

"Gift of Life": Comparing Factors Involving Non-Directed Kidney Donor Motivation for Social Workers and Nurses

Cheryl K. Giefer, PhD, MSN, BSN, APRN, FNP-BC, USA

Abstract

Purpose: This research examines donor motivations using a research design from earlier investigations evaluating the persuasiveness of the National Kidney Foundation's (NKF) altruistic "gift of life" frame. Earlier studies produced mixed results, showing, in particular, substantially more support for material incentives among an international sample of nursing professionals as compared to a convenience sample of college students. The purpose of this exploratory study is to compare nurses and social workers on each of three measures used as indicators of kidney donor motivation: 1) social distance between donor and recipient; 2) support for material incentives as a component of motivation to undergo a living kidney donation; and 3) self-ratings concerning compassion fatigue and worker burnout as possible factors influencing donor motivations among nursing and social work professionals. A total of 159 social workers and nurses participated in a survey that addressed not only the relationship between material incentives, social distance and motivation to donate; but also work-related burnout and compassion fatigue as structural factors that might reduce donor motivation. This study does not shy away from a debate surrounding "cash for organs" and other controversial ideas. Instead, ethical concerns were incorporated into the research model in an effort to explore what motivates an individual to undergo living kidney donation surgery.

Methods: The data for this research are based on a self-administered, self-reported survey using a non-representative sample of convenience administered at the National Kidney Foundation (NKF) 2015 Spring Clinical Meetings to social workers, nurses, and other healthcare professionals. The study assessed the willingness of NKF member nurses and social workers to undergo a living kidney donation with a modified version of the Bogardus Social Distance Scale (Bogardus, 1925; 1933), which is regarded as a valid measure of the level of comfort individuals have in associating with individuals who are increasingly "distant" or dissimilar on various key traits. The researchers also used a cumulative summated-rating scale linking various material rewards to willingness to donate. This ethical-motivation scale (EMS) was developed in accordance with ethical issues raised in the literature on donor compensation and consists of nine items of increasing monetary or material value. To measure compassion fatigue, an 11-item summated rating scale was utilized, again using issues raised in the literature on burnout and compassion fatigue. SPSS 22 was utilized for the statistical analysis of these data. Percentages and simple cross tabulations were used for nominal and ordinal variables to observe bivariate relationships. Descriptive statistics, including means and standard deviations, were used for the three ordinal-level scales. A Cronbach's alpha was used to test the reliability and internal consistency of the ethical-motivation scale and produced $\alpha = .82$. The Cronbach's alpha for the modified Bogardus Social Distance Scale was $\alpha = .72$. A Spearman correlation technique was used to examine the relationship between the social distance scale and the ethical-motivation scale.

Results: The nurses and social workers in this study were compared on each of three measures used as indicators of kidney donor motivation: 1) social distance between donor and recipient; 2) support for material incentives as a component of motivation to undergo a living kidney donation; and 3) self-ratings concerning compassion fatigue and worker burnout as possible factors influencing donor motivations among nursing and social work professionals. With respect to social distance, a modified Bogardus Social Distance Scale based on the hypothesis that those with the least social distance from the respondent would elicit the most willingness to donate. The data supports the hypothesis that as social distance increases, the willingness of respondents to donate a kidney decreases. 95.8% of nursing, social work, and other healthcare respondents indicated they would donate one of their kidneys to an immediate family member. Regarding a family member, 74.4%, or 21.4% less, were willing to donate a kidney to a member of their extended family. Regarding donation to a friend, 71.3%, or 24.5% less, were willing to donate a kidney to a close friend. In contrast to the high willingness associated with donations to immediate and extended family, however, only 22.9% of nursing, social work and other healthcare

respondents were willing to donate a kidney to an acquaintance and only 14.5% were willing to donate to a stranger. Hence, 81.3% fewer respondents were willing to donate a kidney to a stranger than to an immediate family member. This result is statistically significant at $p > .001$. A comparison between nurses and social workers on the Bogardus Social Distance Scale supports the hypothesis that social workers are more altruistic. Compared to nurses, social workers are 6.3% more willing to donate when it comes to donation to an immediate family member; 9.6% more willing when it comes to an extended family member; and 11.7% more willing when it comes to a close friend. In addition, despite the low level of willingness to donate to unrelated others among both groups, social workers are 23.8% more willing to donate to an acquaintance than are nurses, and 22% more willing to donate to a total stranger. Thus, the range of difference in willingness to donate to related and unrelated others is much greater in nurses at 89.6% ($p > .09$ 2df) as compared to 73.9% for social workers ($p > .001$, 2df). To examine the amount of support associated with material incentives of increasing value, a nine-statement ethical-motivation scale developed by Humphries et al (2009) was utilized. The results indicate nursing and social work respondents agreed that living donors should be compensated for medical expenses, both groups also agreed that donors should be compensated for lost wages and should receive a federal tax deduction. High agreement was also expressed for non-compensated altruistic giving in the nursing respondents as well as the social work respondents.

Conclusion: To assess the persuasiveness of the NKF's altruistic "gift of life" frame among member nurses and social workers, this research design was developed by a team member and included a measure of compassion fatigue as well as work-related burnout. Results from the use of the Bogardus Social Distance Scale confirm, consistent with prior research studies, that respondents are more willing to donate a kidney to a close other (e.g., a member of their immediate family) than to a distant other (e.g., a stranger). Thus, this research, considered in conjunction with prior research, provides strong empirical evidence that, regardless of target population, social distance is the single most important motivating factor in altruistic living kidney donation.

Additionally, a comparison of nurses and social workers using the Bogardus Social Distance Scale reveals that nurses are less willing than social workers to participate in a living kidney donation. For nurses, these findings are consistent with earlier research and support the hypothesis that nurses are "pragmatic" in their orientation. In contrast, the greater willingness among social workers to donate a kidney supports the hypothesis of an "idealistic" orientation. However, on the ethical-motivation scale item that suggests donating a live kidney should be a "free-will donation and purely altruistic", nurses express somewhat more agreement than social workers. Both nurses and social workers expressed low support for cash payouts and other high-value rewards. Furthermore, on the compassion fatigue scale, both nurses and social workers reported that while they "feel physically and emotionally exhausted at the end of the work day," they found work personally rewarding and were not "burned out." Compassion fatigue also does not appear to explain the greater social distance expressed by the current sample of nurses in that the results on the compassion fatigue scale are comparable for both nurses and social workers. This may be due to cultural rather than structural factors, such as the different professional worldviews and socialization experiences of nurses and social workers. Despite lack of support for high-value material rewards, results from the ethical-motivation scale show strong support among both nurses and social workers for limited material incentives in the form of compensation for medical expenses, lost wages, and a federal tax deduction. These findings suggest that the "gift of life" frame is not persuasive when it comes to motivating individuals to undergo a live kidney donation, particularly when it involves an unrelated other. Specifically, the results show that unless the recipient has a close relationship to the donor, there is a low willingness to donate. Given this, the research team is in favor of re-framing living donation to emphasize both justice and rights. Specifically, these authors argue that material compensation could be construed as a just reward that preserves the rights of a selfless donor to autonomy, integrity, and dignity. In the view of these authors, this restorative frame avoids the perception of "cash for organs" that lacked resonance with the nurses and social workers in this study.

References

Humphries, H. L., Conrad, B. K., Giefer, C. K., Hite, A. L., & Bishop, K. J. (2014). Re-framing the "gift of life": An examination of altruism, social distance, and material incentives as factors in non-directed kidney donor motivation among nurses. *Journal of Nephrology Social Work*, 38(2), 36–43.

Humphries, H. L., Conrad, B. K., Berry, R., Reed, S., & Jennings, C. (2009). Framing the “gift of life”: An empirical examination of altruism, social distance, and material incentives in non-directed kidney donor motivation. *Journal of Nephrology Social Work*, 31, 20–27.

Lombardo, D., and Eyre, C. (2011). Compassion fatigue: A nurse’s primer. *OJIN: The Online Journal of Issues in Nursing*, 16(1). Retrieved from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-16-2011/No1-Jan-2011/Compassion-Fatigue-A-Nurses-Primer.html>

Matas, A. J. (2007). A gift of life deserves compensation: How to increase living kidney donation with realistic incentives (Report No. 604). Policy Analysis. Washington, D.C.: Cato Institute.

Organ Procurement and Transplantation Network (OPTN). (2015). National data. Retrieved from <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/>

Salomon, D. R., Langnas, A. N., Reed, A. I., Bloom, R. D., Magee, J. C., Gaston, R. S., & AST/ASTS Incentives Workshop Group. (2015). AST/ASTS workshop on increasing organ donation in the United States: Creating an “arc of change” from removing disincentives to testing incentives. *American Journal of Transplantation*, 15(3), 1173–1179.

Working Group on Incentives for Living Donation. (2012). Incentives for organ donation: Proposed standards for an internationally acceptable system. *American Journal of Transplantation*, 12(2), 306–312.

Contact

cgiefer@pittstate.edu

RSC PST 1 - Research Poster Session 1

Regular Sport Activity Is Positively Associated With Biopsychosocial Outcomes in Adults With Congenital Heart Disease

Hsiao-Ling Yang, PhD, RN, Taiwan

Abstract

Purpose: The purpose of this study was to explore whether adults with congenital heart disease (CHD) engaged in regular sport, and to examine whether participating in sport activities on a regular basis was associated with increase exercise capacity as well as better quality of life in adults with CHD.

Methods: From March 2014 to July 2014, a total of one hundred and thirty adults (82 female, 48 male, 18 -61 years) with various CHD were included in this study, twenty four (18.5%) with simple CHD, seventy four with moderate CHD (56.9%), and thirty two (24.6%) with great complexity CHD. Participants completed two self-report scales and cardiopulmonary exercise test. Self-report scales including the Health Behavior Scale-Congenital Heart Disease (HBS-CHD) and the Satisfaction with Life Scale (SWLS) were used to assess whether adults with CHD practiced sport activity regularly and to evaluate their quality of life respectively. Cardiopulmonary exercise test was conducted to evaluate patient's exercise capacity using the Ultima™CPX. Data were analyzed using SPSS version 16.0 (SPSS Inc., Chicago, Illinois, USA).

Results: Most adult patients with CHD (n=87, 66.9%) did not participated in sports activities regularly. Age, education level, complexity of the heart defect and comorbidities were not related to patients whether practiced sport regularly ($p>0.05$). However, female significantly reported less regular sport activities than male (22.0% vs. 51.1%, $p=0.01$). Both exercise capacity and quality of life of patients who participated sport regularly were better than patients who did not practiced sport regularly (Peak O₂ consumption: 24.56 ml/kg/min vs. 20.69 ml/kg/min, $p<0.001$; METs: 7.00 vs. 5.93, $p<0.001$; percentage of the predicted: 68.60 value vs. 60.33, $p=0.016$; SWLS score: 26.19 vs. 23.59, $p=0.035$).

Conclusion: Most adults with CHD did not perform regular physical sport, especially female adults with CHD. The results provided evidence that regular physical sport is positively associated with not only physical function, exercise capacity, but also psychosocial domain, quality of life. The future study should examine the causal relationship between regular sport activity and exercise capacity and quality of life in patients with CHD. However, continued efforts are needed in early intervention to promote patient with CHD to do sport regularly.

References

- Duppen, N., Takken, T., Hopman, M., ten Harkel, A. D., Dulfer, K., Utens, E. M., & Helbing, W. A. (2013). Systematic review of the effects of physical exercise training programmes in children and young adults with congenital heart disease. *International journal of cardiology*, 168(3), 1779-1787.
- Longmuir, P. E., Brothers, J. A., de Ferranti, S. D., Hayman, L. L., Van Hare, G. F., Matherne, G. P., . . . McCrindle, B. W. (2013). Promotion of physical activity for children and adults With congenital heart disease: A scientific statement from the American Heart Association. *Circulation*, 127(21), 2147-2159.
- Müller, J., Hess, J., & Hager, A. (2012). Daily physical activity in adults with congenital heart disease is positively correlated with exercise capacity but not with quality of life. *Clinical Research in Cardiology*, 101(1), 55-61.

Contact

slyang@ntu.edu.tw

RSC PST 1 - Research Poster Session 1

The Emerging Adults' Lived Experience of Perinatally Acquired Human Immunodeficiency Virus (PAHIV)

Angela Marie Wright, MSN/Ed., ARNP, FNP-BC, USA

Abstract

Background: Globally, Human Immunodeficiency Virus (HIV) continues to be a serious health issue. In 2015 there were 2.1 million new cases; an estimated 36.7 million people were living with the disease; and 1.1 million people died from the disease around the world. Of these amounts, 25.6 million people were living with the disease in Sub-Saharan Africa which also accounted for two thirds of new HIV infections globally in 2015. Between 2000 and 2015, new HIV infections fell by 35% and AIDs related deaths fell by 28% globally. There is an estimated 150,000 new infections in children globally in 2015, a significant decrease from 2008 where 430,000 children were born with HIV. In 2012, approximately 2.1 million adolescents were living with HIV worldwide. Between 2005 and 2012, HIV-related death among adolescents increased by 50% while the global number of HIV-related deaths decreased by 30%.

Since the first cases of HIV infections in the United States were diagnosed in 1980, an estimated, 1.8 million people in the U.S. have been diagnosed with the disease and 658,992 have died from the virus or other related diseases. Although the incidence of HIV in the U.S. has decreased, it has remained steady at approximately 50,000 new cases each year. Presently, more than 1.2 million people in the United States are living with HIV infection. In 2009, an estimated 10,834 persons who were diagnosed with HIV when they were under the age of 13 were living within 46 of the U.S. territories. Of this amount 9,522 (88%) were infected perinatally. There has been a 90% decline in the number of children perinatally infected with the HIV virus in the United States since the 1990s; however, in 2010, 162 or 75% of children under the age of 13 who were diagnosed with HIV were infected perinatally; and at the end of 2012, an estimated 7,300 adolescents and 33,334 young adults were living with HIV in the U.S.

Advancement in drug therapy, research, development and healthcare workers preparation has decreased the incidence of HIV infections and seroconversions among infants in high resourced countries drastically. This has changed the face of HIV and acquired immune deficiency syndrome (AIDS) from being a terminal disease to a chronic one. It has been difficult to track long-term complications and survival of the Perinatally Acquired HIV (PAHIV)-infected or seroconvert infants through global and national data systems because they are not reported on or accounted for as a sub-category. In the United States there are approximately 10,000 PAHIV emerging adults who have emerged as a growing population of whom very little knowledge exist.

This growing population of survivors is faced with the same challenges as their HIV negative peers; however, there is a paucity of information on the population, the developmental stage and the barriers to achieving the benchmarks of this developmental stage that they may encounter. Further studies are needed in resource poor regions; where success in the fight against HIV/AIDS are not as evident as in North America and Europe; utilizing the resources that are available in those regions, to provide evidence based appropriate programs and services to meet the needs of the PAHIV emerging adults in those regions.

Purpose: The purpose of this qualitative study is to explore the emerging adult's lived experience of perinatal acquired HIV.

Research Question: What is the emerging adult's lived experience of perinatally acquired HIV?

Methods: A phenomenological process will guide the proposed study. A purposive sample of 20 PAHIV emerging adults receiving care in a major Metropolitan city will be used to explore their lived experience of PAHIV. Study data will be collected via demographic questionnaire; individual conversational audio-taped interviews and follow-up interviews (45-60 minute); participant's journal; and researcher's reflexive journal. The data will be analyzed into themes; composite depictions of common qualities experienced by

the individual participants; and the narrating or drawing of unique combinations of all data from all co-researchers. The results of the proposed study may inform nursing education, nursing practice, further research and public health policy.

Results: Pending

Conclusion: Pending

References

Arnett, J.J. (2006). The psychology of emerging adulthood: What is known, and what remains to be known? pps. 303-330. In Jeffrey Jenson Arnett & Jennifer Lynn Tanner, J.L. Emerging adults in America: Coming of age in the 21st Century. Washington: DC. American Psychological Association. ISBN: 1-59147-329-2.

Centers for Disease Control & Prevention (CDC). (2015a, July 1). HIV in the United States: At A glance. Retrieved from: http://www.cdc.gov/hiv/pdf/statistics_basics_ataglance_factsheet.pdf

World Health Organization (WHO). (2016). HIV/AIDS. Retrieved from: <http://www.who.int/hiv/data/en/>

Contact

angdab61@yahoo.com

RSC PST 1 - Research Poster Session 1

Someone to Watch Over Me: Feeling Safe and Cared for in Clinical Settings

Madeline Marie O'Donnell, DNP, RN, USA

Inge B. Corless, PhD, RN, FAAN, USA

Lisa Quinn, PhD, OCN, USA

Catherine Griffith, PhD, RN, USA

Margie Sipe, DNP, NES-BC, USA

Patrice Kenneally Nicholas, DNSc, MPH, RN, ANP, FAAN, USA

Abstract

Purpose: The purpose of this exploratory study is to identify what makes patients feel cared for and how caring behaviors and feeling safe contribute to feeling cared for in clinical settings.

- To determine whether there is a significant relationship between:
 - patients' perceptions of caring behaviors and feeling safe.
 - patients' perceptions of caring behaviors and feeling cared for.
 - patients' perceptions of feeling safe and feeling cared for.
- To investigate whether participants' responses vary by demographic factors, the length of the current hospital stay, whether the patient can identify a primary nurse caregiver, and the length of time the patient has been receiving care at the current facility other than the current hospitalization.
- To identify themes in the open-ended questions regarding feeling safe and feeling cared for.

Methods: After Institutional Review Board approval of the research, this mixed methods pilot study will be conducted on three medical and three surgical units in a tertiary care facility. Patients who have been hospitalized from 3 to 12 days, are English speaking and reading, and indicate a willingness to participate will be given an explanation of the study and their rights, an informed consent document for review of their rights, the questionnaire, and a return envelope addressed to the Principal Investigator. The questionnaire will be collected at a time convenient for the patient. It will be emphasized that current and future care at the tertiary care facility will not be affected by the decision regarding participation in the study. Completion of the questionnaire will imply consent. The questionnaire for this study is comprised of the CBI-24 (Wu, Larrabee & Putnam, 2006) that was reduced from the 42-item instrument (Wolf, 1986). The CBI-24 is preceded by a socio-demographic section containing questions on gender, age, ethnicity, education, length of hospital stay, identification of a primary nurse, and length of time receiving care at the tertiary care facility (other than the current stay). This is followed by questions on current physical and psychological status, perceptions of social support by family and friends, as well as perceptions of social support by nurses while hospitalized. The visual analog scales, measured on a 1-10 metric, assess self-perceived physical status, psychological status and social support and have been used multiple times in previous studies (Coleman, et al., 2006). Slight modifications to these scales query social support from nurses, feeling safe, presence of nurses in feeling safe, and presence of relatives in feeling safe. The next sections of the questionnaire contain the CBI-24 questionnaire and two variations of this instrument addressing feeling safe (CBI-24-FS) and feeling cared for (CBI-24-FCF) while hospitalized. The instrument also contains open-ended questions where participants can express their views about feeling safe and feeling cared for while in the hospital.

Results: If the data demonstrate an overlap between caring and feeling safe, this in itself has implications for both nursing education and practice. First, this formulation resolves the discrepancy in the caring literature where nurses emphasize the psychosocial aspects of caring given that technical proficiency is assumed as a requisite for providing safe care. Nurses can take pride in caring for patients knowing that their technical, as well as their psychosocial, skills are essential for caring for the patient and should be acknowledged as contributing to the patient's well-being. Further, identification of what makes patients feel cared for will be useful to nurses in practice as well as for nurse educators who strive to help their students achieve these skills.

Conclusion: The findings of this study will reinforce the importance of making explicit to patients what nurses take for granted, namely, their technical and monitoring activities. Nurses doing so as a part of providing care will help patients feel more secure in the clinical setting. With this as a foundation, much like Maslow's hierarchy, nurses then can address the other needs of patients confronting a health issue; a health issue with ramifications for other aspects of a patient's life and well-being. Finally, the findings of this study will contribute to the patient's knowing "I have someone to watch over me" which we contend is essential to patients feeling safe and cared for in the clinical setting.

References

Lovink, M.H., Kars, M.C., de Man-van Ginkel, J., & Svhoonhoven, L. (2015). Patients' experiences of safety during haemodialysis treatment- a qualitative study. *Journal of Advanced Nursing*, 71(10), 2374-2383. Doi: 10.1111/jan.12690

Papastavrou, E., Efstathiou, G., Tsangari, H., Suhonen, R., Leino-Kilpi, H., Patriaki, E. . . . Merkouris, A. (2012). A cross-cultural study of the concept of caring through behaviours: Patients' and nurses' perspectives in six different EU countries. *Journal of Advanced Nursing*, 68(5), 1026-1037.

Wassenaar, A., Schouten, J.S., & Schoonhoven, L. (2014). Factors promoting intensive care patients' perception of feeling safe: A systematic review. *International Journal of Nursing Studies*, 51, 261-273

Contact

MOdonnell@mghihp.edu

RSC PST 1 - Research Poster Session 1

Developing Clinical Guidelines to Improve Home Care for Patients After Prostatectomy

Hui-Tzu Chen, BS, RN, Taiwan

FangHua Hsu, MN, RN, Taiwan

Miaofen Yen, PhD, RN, FAAN, Taiwan

Abstract

Purpose: This study aims to develop clinical guidelines for both patients and their families with regard to taking care of those with prostatectomy home care (PHC). This would help to improve the quality of PHC and reduce the re-admission rate due to the complication of hematuria.

Methods: This study was an action research. The subjects were post-prostatectomy patients without complication. A task force was composed of three urologists, five nurses, and two administrators. The postoperative care procedure was analyzed by the task force using a quality control circle approach, while references were cross-checked and charts were reviewed. The care processes used were carefully examined. Regular meetings were held among the five nurses and three urologists to delineate the care quality indicators. Three dimensional models were applied to analyze the care process, staffing, and patient characteristics. An analysis of the results showed three factors related to poor quality care: (1) with regard to the process, there was lack of monitoring standards for postoperative care quality; (2) with regard to the nursing staff, there was a the lack of coherence and integrity in the content of the guidance guidelines; and, (3) with regard to the patients, there was a lack of knowledge about hematuria, and thus greater anxiety. We thus develop a guidelines for caregiver education, including an innovative urinary color card and educational tools. Interventions include: (1) The development of clinical guidelines for post-prostatectomy care, focusing on six aspects, such as diet, exercise, Foley care, incontinence care with Kegel exercise (pelvic floor), urine color differentiation (for hematuria), and re-scheduling for subsequent diagnosis. (2) The innovative design of a urine color education card (UCEC) for urine color differentiation. And (3) organizing in-service education on prostatectomy home care (PHC)

Results: A total of 525 subjects were included from February 2014 to May 2016, and an analysis of their data showed the completion rate of PHC was 99.5% (with the threshold set at 90%). Meanwhile, the percentage of telephone consultations for home care service after discharge was 10%, down from 25%, indicating an improvement of 60%. The re-admission rate for hospitalization due to hematuria in the 14 days after discharge was 2%, down from 9%, indicating an improvement of 78%.

Conclusion: This research focused on the development of clinical care guidelines for PHC. Care service quality could be closely monitored and regularly checked for improvement. The innovative urine color education card designed as part of this work could be applied in the home care guide for post-prostatectomy patients, in order to effectively improve self-care and reduce the re-admission rate due to hematuria. The development of guidelines for home care education had the following benefits: (1) Integration of disease care service for more comprehensive post-discharge care; (2) preparation of the urine color education card, inspiring creativity in health care workers and providing a standard tool for educating patients; and (3) from the perspective of risk management, the introduction of clinical care guidelines could identify individual cases at high risk of re-admission and so assist the medical team in establishing systematic preventive measures, and serve as a reference for the effects and quality of post-prostatectomy home care services.

References

Dall'Era, M. A., Albertsen, P. C., Bangma, C., Carroll, P. R., Carter, H. B., Cooperberg, M. R., ... & Soloway, M. S. (2012). *Active surveillance for prostate cancer: a systematic review of the literature. European urology*, 62(6), 976-983.

Heidenreich, A., Bellmunt, J., Bolla, M., Joniau, S., Mason, M., Matveev, V., ... & Zattoni, F. (2011). *EAU guidelines on prostate cancer. Part 1: screening, diagnosis, and treatment of clinically localised disease. European urology*, 59(1), 61-71.

Ilic, D., O'Connor, D., Green, S., & Wilt, T. J. (2011). *Screening for prostate cancer: an updated Cochrane systematic review*. *BJU international*, 107(6), 882-891.

Contact

andy305a@yahoo.com.tw

RSC PST 1 - Research Poster Session 1

Evaluation of the Use of Standard Operating Procedures in the Professional Practice of Nursing

Camila Balsero Sales, MSN, RN, Brazil

Andrea Bernardes, PhD, RN, Brazil

Carmen Sílvia Gabriel, PhD, RN, Brazil

Maria de Fátima Paiva Brito, RN, Brazil

André Almeida de Moura, MSN, RN, Brazil

Ariane Cristina Braboza Zanetti, MSN, Brazil

Abstract

Purpose: The aim of this study was to evaluate the use of Standard Operating Procedures in the professional practice of the nursing team as well as identify fragilities and potentialities after their implantation in health institutions.

Methods: This is an evaluation research, with a quantitative approach, structured in two stages: documentary analysis and subsequent application of a questionnaire to the nursing professionals who work in the Health Units of a city in São Paulo state, Brazil, from April to June 2015 (this questionnaire was previously elaborated and validated by a judges' committee). The questionnaire applied is divided into two segments: sociodemographic characterization of the subjects and items referring to the use, potentialities and fragilities of the protocols implemented. Furthermore, 14 operating procedures were implanted into the locals of study in mid-2012 (nasogastric and nasoenteral catheterization protocol, catheterization by cystostomy, bladder catheterization for relief and delay, vital signs measurement, venous puncture, blood's sample collection, capillary glycosimetry, intestinal and gastric lavage, tracheostomy cannula care, airway aspiration, medication administration and dressings). The educational process of nursing professionals' training began on the same occasion. Thereunto for a theoretical reference this study used the evaluation triad of the proposed health services which is composed by: structure, process and results. The study was attended by 247 nursing professionals (nurses, technicians and nursing assistants) who worked in the Basic Health Units, the Family Health Units and the Prehospital Care Service, selected in order to meet the stipulated inclusion criteria: two years of prior contact with the protocols at least. In these circumstances, it should be noted that those nurses, technicians and nursing assistants who were on vacation or medical absence during the period of data collection were excluded from this study. All statistical tests were performed with a significance level of 5% ($\alpha=0.05$).

Results: More than half of the interviewed professionals consulted the procedures protocols basis daily, reporting that they were used at least once in the twelve months preceding the survey. There was a statistically significant difference between the variables "professional category" and "daily use of protocols" ($p=0.000$), as well between "professional category" and "consultation protocols in the last 12 months" ($p=0.000$), indicating the existence of an association between them. The professionals reported changes in the execution of nursing interventions after the implementation of the operational procedures. Concerning to the association between the knowledge of nursing professionals' improvement and the participation in the training related to the protocols, a statistically significant result ($p=0.009$) was obtained, as well as the result derived from the comparison between the intervention interventions ($p=0.025$). It reinforces the importance of education's actions in the quality of care improvement because these actions generate positive results. The main fragilities of the implanted protocols pointed to the reduced number of professionals, inadequate physical structure and lack of materials. Among the potentialities were the standardization of materials and the concern about professional and patient safety. Considering the contemporary scenario of health, the triad model structure, process and result is intended to provide subsidies for the systematic practice of evaluating the quality of services provided. In this context, the process component of this study encompassed the potentialities and fragilities perceived by professionals in the services and procedures performed from the implantation, training and use of the protocols. Regarding the evaluation of results established by the same model, the incorporation and subsequent execution of operational procedures showed implications for the clinical competence of

nursing professionals, compliance with patient safety standards, quality of care provided and satisfaction of the customer. Concerning to the structure, the research emphasized the importance of the structural preparation of the health units, emphasizing the need to adapt the facilities in terms of organization and resources for the training related to protocols and subsequent development of interventions in the daily practice of nursing professionals.

Conclusion: According to the results found in the study and based on the health service evaluation framework the reassessment of the protocols is necessary as well the adoption of the strategy of permanent education of the professionals. The introduction of the educational action may have improved the quality of nursing care evidenced by the detection of changes in the way interventions are implemented, the knowledge improvement and the increase in the number of services offered by health units.

References

- Ayanian, J. Z., & Markel, H. (2016). Donabedian's Lasting Framework for Health Care Quality. *New England Journal of Medicine*, 375(3), 205–207. <http://doi.org/10.1056/NEJMp1605101>
- Duarte, M. L. C., & Oliveira, A. I. (2012). Compreensão dos coordenadores de serviços de saúde sobre educação permanente. *Cogitare Enfermagem*, 17(3), 506–512. <http://doi.org/10.5380/ce.v17i3.29292>
- Fermo, V. C., Radünz, V., Rosa, L. M., & Marinho, M. M. (2015). Patient safety culture in a bone marrow transplantation unit. *Revista Brasileira de Enfermagem*, 68(6), 1139–1146. <http://doi.org/10.1590/0034-7167.2015680620i>
- Fox, M. T., & Butler, J. I. (2016). Nurses' perspectives on how operational leaders influence function-focused care for hospitalised older people. *Journal of Nursing Management*. <http://doi.org/10.1111/jonm.12421>
- Nunes, F. D. O., Barros, L. A. A., Azevedo, R. M., & Paiva, S. S. (2014). Segurança do paciente: como a enfermagem vem contribuindo para a questão? *Rev. Pesqui. Cuid. Fundam. (Online)*, 6(2), 841–847. Retrieved from http://www.seer.unirio.br/index.php/cuidadofundamental/article/viewFile/3007/pdf_1297
- Oliveira, A. R. S., Carvalho, E. C., & Rossi, L. A. (2015). From The Principles of Practice to The Nursing Outcomes Classification: perspectives on care strategies. *Ciência, Cuidado E Saúde*, 14(1), 986–992. Retrieved from <http://www.periodicos.uem.br/ojs/index.php/CiencCuidSaude/article/view/22034/14208>
- Oliveira, J. S. A., Cavalcante, E. F. O., Macêdo, M. L. A. F., Martini, J. G., & Backes, V. M. S. (2013). Practice of permanent education by nursing care in health services. *Journal of Nursing UFPE on Line*, 7(2), 598–607. <http://doi.org/10.5205/3073>
- Politelo, L., Rigo, V. P., & Hein, N. (2014). Eficiência da Aplicação de Recursos no Atendimento do Sistema Único de Saúde (SUS) nas Cidades de Santa Catarina. *Revista de Gestão Em Sistemas de Saúde*, 3(2), 45–60. <http://doi.org/10.5585/rgss.v3i2.105>
- Sardinha, P. L., Cuzatis, L. G., Dutra, T. C., Tavares, C. M. M., Dantas, A. C. C., & Antunes, E. C. (2013). Educação permanente, continuada e em serviço: desvendando seus conceitos. *Enfermería Global*, 12(29), 324–340. Retrieved from http://scielo.isciii.es/pdf/eg/v12n29/pt_revision1.pdf
- Uña Cidón, E., Cuadrillero Martín, F., Hijas Villaizán, M., & López Lara, F. (2012). A pilot study of satisfaction in oncology nursing care: an indirect predictor of quality of care. *International Journal of Health Care Quality Assurance*, 25(2), 106–117. <http://doi.org/10.1108/09526861211198272>
- Viana, D. S., Viana, D. M. S., Nogueira, C. A., Araújo, R. S., Vieira, R. M., Rennó, H. M. S., & Oliveira, V. C. (2015). A educação permanente em saúde na perspectiva do enfermeiro na estratégia de saúde da família. *Revista de Enfermagem Do Centro-Oeste Mineiro*, 5(2), 1658–1668. <http://doi.org/10.19175/recom.v0i0.470>

Contact

andalmo@usp.br

RSC PST 1 - Research Poster Session 1

Use ISBAR Communication Tool to Reduce the Rate of Unplanned Endotracheal Extubation in Neonates

Shun-Lin Chen, BS, RN, Taiwan

Abstract

Purpose: Patients with unplanned endotracheal extubation have a higher mortality rate if re-intubation is required. We expect unplanned extubation is reduced to 0% after implementation of quality improvement in our neonatal intensive care unit.

Methods: Implementation of quality improvement included: 1. Reform the fixation method of endotracheal tube. Elastic adhesive tape is divided into 3 phalanges or 2 phalanges with different length. We set up a table by weight to decide the number and length of phalanges, and take a video to demonstrate how to fix endotracheal tube by different phalanges of elastic adhesive tape. We replace a new elastic adhesive tape every 2 days or when wet tape is noted. 2. We revise "endotracheal tube care guide book", and also formulate "security of endotracheal tube assessment form", to promote the nursing staff to confirm the depth of the endotracheal tube and to perform auscultation of breath sounds. 3. Promote the nursing staffs to use "N-PASS: Neonatal Pain, Agitation and Sedation Scale" to evaluate pain, restlessness for intubated babies. If N-PASS is ≥ 3 points, the physician is called to deal with this condition. We also use ISBAR tool at hand-off communication every shift. 4. Set up neonatal positioning guide and also encourage the use of pacifiers to achieve greater comfort of each intubated infant. 5. Consider early extubation according to VAP Buddle daily assessment. 6. Arrange education and training of patients' safety.

Results: There is improvement of the care of endotracheal tube after implementation of quality improvement. However, we found out that evaluation of N-PASS was difficult to be applied because attending physicians is worried that sedation analgesics easily lead to neonatal respiratory depression, which may result in delayed extubation. They recommended to use "containment" and oral sugar to pain relief. if fail, we will further consider use of sedatives.

After implementation of quality improvement, we still did not reach the target value of 0%. In February 2016, there was an unplanned endotracheal extubation occurred in the night. The physician assessed that there was no need for re-intubation, and nasal continuous positive pressure was decided to use. We carried out this case by RCA approach to explore the reasons and found that we did not have an endotracheal extubation program guideline. Therefore, this will be the future direction of improvement.

Conclusion: The project will continue to work to reduce unplanned endotracheal extubation, which aims to maintain patient safety, and improve quality of care, enhancing the communication and collaboration between healthcare teams.

References

1. Reducing unplanned extubations in the NICU. Merkel L, Beers K, Lewis MM, Stauffer J, Mujsce DJ, Kresch MJ. Pediatrics. 2014 May;133(5):e1367-72. doi:10.1542/peds.2013-3334.
2. Unplanned extubation in the NICU. Barber JA. J Obstet Gynecol Neonatal Nurs. 2013 Mar-Apr;42(2):233-8. doi: 10.1111/1552-6909.12009.

Contact

770295@ms.kmuh.org.tw

RSC PST 1 - Research Poster Session 1

Systematic Review of Cyberbullying Interventions for Youth and Parents

Elizabeth N. Hutson, MS, RN, PMHNP-BC, USA

Stephanie Kelly, PhD, RN, FNP, USA

Lisa K. Militello, PhD, MPH, RN, CP, USA

Abstract

Purpose: Cyberbullying is a relatively new risk factor for the well-being of pediatric populations in which research is growing worldwide. Consequences of cyberbullying include both physical and mental health concerns such as depression, anxiety, and somatic concerns. Adolescents who have been victims of cyberbullying and consequently developed physical and mental health problems are often recommended to visit their pediatric or psychiatric provider to obtain effective, evidence-based treatment. To date, no interventions exist in the healthcare setting for adolescents who are victims of cyberbullying. The purpose of this project is to review interventional studies on cyberbullying that have components for adolescents who have been involved with cyberbullying and their parents and to provide recommendations on effective intervention components with the goal of guiding clinical practice.

Methods: A systematic review was conducted using the Institute of Medicine guidelines. A comprehensive electronic literature search was completed targeting interventions of cyberbullying in any setting. As cyberbullying is a new phenomenon, no date limits were used. Literature was searched in MEDLINE, Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, Communication and Mass Media Complete, Education Information Resource Center (ERIC) and PsycINFO databases. The following search terms were applied “cyberbullying” + “intervention” or “treatment” or “therapy” or “program”. Only articles with a pediatric population of 18 and younger were selected for review.

Results: Sixteen cyberbullying intervention programs in 23 articles were found to meet the search criteria. A globally representative sample was found with intervention programs from 11 countries across four continents. The most frequently used components included coping skills, education on cyberbullying for the adolescent and their parents, and digital citizenship. Past systematic reviews on this topic have focused on interventions in the school setting. To date, no interventions exist in the healthcare setting for adolescents who are victims of cyberbullying. No studies examined specific interventions that can be utilized by individual adolescents and their parents dealing with cyberbullying.

Conclusion: As more youth present for with symptoms related to cyberbullying, effective interventions are needed to guide evidence-based practice. Since cyberbullying is a global phenomenon with both short and long-term negative consequences, evidence-based clinical guidelines are urgently needed.

References

1. Moreno MA. Cyberbullying. *JAMA pediatrics*. 2014 05;168(5):500.
2. Olenik-Shemesh D, Heiman T, Eden S. Cyberbullying victimisation in adolescence: relationships with loneliness and depressive mood. *Emotional and behavioural difficulties*. 2012 09;17(3-4):361-74.
3. Fridh MM, Lindström M, Rosvall M. Subjective health complaints in adolescent victims of cyber harassment: moderation through support from parents/friends - a Swedish population-based study. *BMC public health*. 2015 2015;15(8):949.
4. Gini G, Pozzoli T. Bullied children and psychosomatic problems: a meta-analysis. *Pediatrics (Evanston)*. 2013 2013;132(4):720-9.
5. Nixon C. Current perspectives: the impact of cyberbullying on adolescent health. *Adolescent health, medicine and therapeutics*. 2014;5:143-58.

Contact

hutson.80@osu.edu

RSC PST 1 - Research Poster Session 1

Factors Predicting Readmission Among Coronary Artery Disease

Rapin Polsook, PhD, RN, Thailand

Yupin Aunguroch, PhD, RN, Thailand

Abstract

Purpose: Coronary artery disease is a serious, chronic, progressive of symptom, unpredictable exacerbation, and incurable medical condition that are a major cause of mobility, mortality, and high readmission rates. Especially heart failure and myocardial infarction are growing epidemic and affects many people world wide. Hospital readmissions for heart failure and myocardial infarction are a major clinical problem and associated financial burden. Additionally, readmission in the hospital is a drain on the health care system and recognized as a maker of quality of care and a significant contributor to rising health care cost. Despite the fact that readmission is a marker of quality of care, prior studies have found that readmission rates vary between 15 % and 30% respectively, within 30 to 60 days post-discharge and between 25 % and 50 % within 6 months after the first hospitalization as well as increasing 80% within one year and account for approximately 70% of the health care cost. Various reasons are given for readmission, such as other medical health problems, nonadherence to health recommendations such as medication adherence, diet, fluid restriction, emotional or mental factors such as pain anxiety, depression, substance abuse and cognitive disorder, environment, and inadequate discharge planning. Thus, readmission remains an important health problem which is frequent, costly, and life threatening event were associated with quality of care. So, the purpose of the study was to examine the predictive ability between selected factors and readmission among Thai coronary artery disease patients.

Methods: A descriptive –correlational study was conducted to examine whether the potential factors can predict readmission among coronary artery disease. A total 77 patient with heart failure and myocardial infarction were recruited from all regions of Thailand. The participants who met the inclusion criteria were approached and requested to participate in the study, creating a purposive sample. All research instruments used showed adequate validity and reliability. Preliminary data analysis was analyzed using descriptive statistic and multiple regressions.

Results: The overall regression model shown Multiple R (.465) and R^2 (.216), followed by the adjusted R^2 (.161) and the standard error of estimate (1.946). Five factors were correlated with readmission ($R^2 = 0.216$), explaining 21.6% of the variance of the criterion variables. The overall F ratio for this analysis was 3.919 ($df=5,71$, $p=0.003$). Thus, the independent variables as a group were significantly correlated with the dependent variable, readmission. The coefficient for depression was significant beyond the .05 level which is consistent with other literature. Co-mobility, symptom severity, social support, and quality of life were not significant.

Conclusion: The preliminary analysis examined the predictive ability between selected factors and readmission and found that only one predictor- depression explained readmission among Thai with coronary artery disease patients. However, the influence of depression on readmission in this preliminary data analysis was consistent with previous studies.

References

- Annema, C., Luttk, M. & Jaarsma, T. (2009). Reasons for readmission in heart failure: Perspectives of patients, caregivers, cardiologists, and heart failure nurses. *Heart & Lung*, 38 (5), 427-434.
- Benbassat, J. & Taragin, M. (2000). Hospital readmissions as a measure of quality of health care. *Archive Internal Medicine*, 160, 1074-1081.
- Bennett, S.J., Perkins, S. M., Lane, K.A., Deer, M., Brater, D.C. & Murray, M.D. (2011). Social support and health related quality of life in chronic heart failure patients. *Quality of Life Research*, 10, 671-682.
- Betihavas, V., Davidson, P.M., Newton, P. J., Frost, S. A., Macdonald, P. S & Stewart, S. (2012). What are the factors in risk prediction models for rehospitalization for adults with chronic heart failure? *Australian Critical Care*, 25, 31-40.

Betihavas, V., Newton, P. J., Frost, S. A., Alexandrou, E., Macdonald, P. S & Davidson, P.M. (2013). Importance of predictors of rehospitalization in heart failure: A survey of heart failure experts. *Heart, Lung and Circulation*, 22, 179-183.

Carel, R.A. (2004). The association between disease severity, functional status, depression, and quality of life in congestive heart failure patients. *Quality of Life Research*, 13, 63-72.

Coffey, R.M., Misra, A., Barrett, M., Andrews, R.M., Mutter, R. & Moy, E. (2012). Congestive heart failure: Who is likely to be readmitted? *Medical Care Research and Review*, 69(5), 602-616.

Dahlem, N.W., Zimet, G. D. & Qalker, R.R.(1991). The Multidimensional Scale of Perceived Social Support: A confirmation study. *Journal of Clinical Psychology*, 47 (6), 756-761.

Duffy, R.R (2009). *Quality Caring in Nursing: Applying theory to clinical practice, education, and leadership*. New York, Springer Publishing Company, LLC.

Faller, H., Steinbuchel, T., Stork, S., Schowalter, M., Ertl, G. & Angermann, C. E. (2010). Impact of depression on quality of life assessment in heart failure. *International Journal of Cardiology*, 142, 133-137.

Gheorghide, M., Vaduganathan, M., Fonarow, G.C. & Bonow, R.O. (2013). Rehospitalization for heart failure. *Journal of the American College of Cardiology*, 61 (4), 391-403.

Giamouzis, G., Kalogeropoulos, A., Georgiopoulou, V., Laskar, S., Smith, A. L. & Dunbar, S et al. (2011). Hospitalization epidemic in patients with heart failure: Risk factor, risk prediction, knowledge gap, and future directions. *Journal of Cardiac Failure*, 17, 54-75.

Hansan, O., Meltzer, D.O., Shaykevich, S.A., Bell, C.M., Kaboli, P.J. & Auerbach, A.D. et al. (2009). Hospital readmission in general medicine patients: A prediction model. *Journal of General Internal Medicine*, 25(3), 211-219.

Hare, D. L. & Davis, C. R. 1996. Cardiac Depression Scale: validation of a new depression scale for cardiac patients. *Journal of Psychosomatic Research*, 40:379-86.

Heo, S., Lennie, T. A. Okoli, C. & Moser, D. K. (2009). Quality of life in patients with heart failure: Ask the patients. *Heart & Lung*, 38, 100-108.

Jencks, S.F., Williams, M. & Coleman, E. A. (2009). Rehospitalizations among patients in the Medicare Free-for-Service program. *The New England Journal of Medicine*, 360 (2), 1418-1428.

Jenghua, K. & Jedsadayanmata, A. (2011). Rate and predictors of early readmission among Thai patients with heart failure. *Journal of Medicine Association Thailand*, 94(7), 782-788.

Ment, R.J., Roessing, L., Greenberg, B. H., Sato, N., Shinagawa, K., Yeo, D. et al., (2016). Heart failure clinical trials in East and Southeast Asia: Understanding the importance and defining the next step. *Heart Failure*, 4 (6), 419-427.

Oldridge, N. B. 1997. Outcomes assessment in cardiac rehabilitation: Health-related quality of life and economic evaluation. *Journal of Cardiopulmonary Rehabilitation*, 17(3) 179-194.

O'Loughlin, C., Murphy, N. F., Colon, C., O'Donovan, A., Ledwidge, M. & McDonals, K. (2010). Quality of life predicts outcome in a heart failure disease management program. *International Journal of Cardiology*, 139, 60-67.

Pelle, A.J.M., Gidron, Y.Y., Szabo, B.M. & Denollet, J. (2008). Psychological predictors of prognosis in chronic heart failure. *Journal of Cardiac Failure*, 14 (4), 341-350.

Public Health Statistic. (2013). Health Information Division, Bureau of Health Policy and Plan. Number of deaths and death rates per 100,000 population by leading causes of death, [online]. Available: [http:// epid.moph.go.th](http://epid.moph.go.th)

Ryan, J., Andrews, R., Barry, M.B., Kang, S., Iskander, A. & Mehla, P et al. (2013). Preventability of 30-day readmissions for heart failure patients before and after a quality improvement initiative. *American Journal of Medical Quality*, online available sagepub.com/journalsPermissions.nav DoI:10.2277/1062860613496135

Sangsiri, A., Thanasilp, S. & Preechawong, S. (2011). Predicting factors of quality of life among coronary artery disease patients post percutaneous coronary intervention. Unpublished dissertation, Nursing Science, Faculty of Nursing, Chulalongkorn University.

Seow, S., Chai, P., Lee, Y., Chan, Y., Kwok, B., Yeo, T et al. (2007). Heart failure mortality in Southeast Asia patients with left ventricular systolic dysfunction. *Journal of Cardiac Failure*, 13(6), 476-481.

Sethares, K.A. & Elliott, K. (2004). The effect of a tailored message intervention on heart failure readmission rates, quality of life, and benefit and barrier beliefs in persons with heart failure. *Heart & Lung*, 33, 249-260.

Shimizu, Y., Suzuki, M., Okumura, H. & Yamada, S. (2014). Risk factors for onset of depression after heart failure hospitalization. *Journal of Cardiology*, 64, 37-42.

The Criteria Committee of the New York Heart Association. (1994). *Nomenclature and Criteria for Diagnosis of Diseases of the Heart and Great Vessels*. (9th ed.). Boston: Little, Brown & Co. pp. 253-256.

Volz, A., Schmid, J., Zwahlem, M., Kohls, S., Saner, H. & Barth, J. (2011). Predictors of readmission and health related quality of life in patients with chronic heart failure: A comparison of different psychosocial aspects. *Journal of Behavioral Medicine*, 34, 13-22.

Zimet, G. D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 52, 30-41.

Zimet, G. D., Power, S. S., Farley, G.K., Werkman, S. & Berkoff, K.A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 55(3&4), 610-617.

Contact

rapin.p@chula.ac.th

RSC PST 1 - Research Poster Session 1

Disclosure of Mental Health Symptoms: A Concept Analysis

Tamar U. Rodney, MSN, RN, PMHNP-BC, USA

Abstract

Purpose: This is an analysis of the concept disclosure of mental health symptoms. The assessment of mental health symptoms is primarily dependent on the individual experiencing them sharing their experience of symptoms with a healthcare provider. The social consequences of revealing such symptoms are often negative and prevents early assessment and treatment provision for these individuals. Disclosure have been defined to capture “a telling of the unknown”. It has previously been defined in the context of cancer (Sun & Knobf, 2008), HIV (Eustace & Ilagan, 2010), and as a general concept (Saiki & Lobo, 2011). However the disclosure of feelings, emotions and concerns during a mental health interview captures new meaning because of the potential impact of having shared that information with a nurse.

Methods: A computer search of the following databases was conducted to capture the meaning and processes of HIV disclosure among HIV-positive individuals: PubMed, CINAHL and PSYCINFO. Only English language journals were used. Publication dates of the literature review ranged from 2006 to 2016. The following key words were used: mental health symptoms, psychiatric symptoms, diagnosis, and disclosure. The Walker and Avant (2004) concept analysis model (Strategies for Theory Construction in Nursing, Pearson Prentice Hall, River, NJ, 2005) was used to guide the analysis process. The defining attributes to disclosure of information relevant to psychiatry and mental health were explored as unique aspects to analysis of the concept.

Results: The concept analysis revealed that mental health symptoms disclosure is a process that can have positive and negative implications for the individual. This dichotomy influences the time to disclosing these symptoms and is characterized by the following attributes: self-interpretation of changes in behavior and emotions, re-experiencing symptoms, vulnerability, trust, timing, fear, expectation of change.

Conclusion: The exploration of this concept highlights the differential experiences that needs to be considered when assessing individuals with mental health concerns. The approach to mental health assessment should reflect a process of non-judgmental inquiry. The subsequent implications include the need to develop approaches that protect individual and encourage an environment receptive to early disclosure of symptoms to allow for timely treatment planning.

References

- Eustace, R. W., & Ilagan, P. R. (2010). HIV disclosure among HIV positive individuals: A concept analysis. *Journal of Advanced Nursing*, 66(9), 2094-2103. doi:10.1111/j.1365-2648.2010.05354.x [doi]
- Saiki, L. S., & Lobo, M. L. (2011). Disclosure: A concept analysis. *Journal of Advanced Nursing*, 67(12), 2713-2722. doi:10.1111/j.1365-2648.2011.05741.x [doi]
- Sun, Y., & Knobf, M. T. (2008). Concept analysis of symptom disclosure in the context of cancer. *ANS: Advances in Nursing Science*, 31(4), 332-341. doi:10.1097/01.ANS.0000341413.09801.7a [doi]

Contact

trodney1@jhu.edu

RSC PST 1 - Research Poster Session 1

Evaluating Differences of Implementing Fall Prevention Strategies on Low and High Risk of Falling Inpatients

Yueh-Li Yu, MSN, RN, Taiwan
Shu-Yuan Lin, PhD, RN, Taiwan

Abstract

Purpose: To investigate the differences of implementing fall prevention strategies between the two groups of high and low fall risk inpatients.

Methods: This is a prospective survey study. Data collected from a convenience sample. A total of 380 inpatients were recruited from 12 medical / surgical wards in a medical center located in south Taiwan. Inpatients selected in this study were met criteria of having an age above 20 years old, admission to hospital within 3 days, and fall risk as identified by the Hendrich II scale (Fall Risk Score ≥ 5). Inpatients were excluded if they were long-term bedridden, severe/ moderate impaired without ambulation capability, and critical ill or absolutely bed rest by doctor orders. Structured questionnaires including personal demographic information, the Hendrich II scale, Peninsula Health-Fall Risk Assessment Tool (PH-FRAT), of which composed the "risk factor checklist" and "strategies for patients at risk of falling". Questionnaires and intra-hospital electronic information system were used to collect data and this survey conducted during Nov 5, 2015 to Feb 26, 2016. Totally 375 valid questionnaires were analyzed. Descriptive statistics and Chi-square test are done via SPSS 19.0 software.

Results: The mean age was 69.1 years old for all inpatients. Approximately 60% of inpatients were male, and 71% admitted to medical wards. Patient who had a score higher than 11 on the risk factor checklist of the PH-FRAT was assigned to the high risk group (23.8%). Their counterparts were assigned to the low risk group (76.2%). Six fall prevention strategies were implemented 100% for both group patients, they were "optimize environmental safety," "regular equipment and aids maintained," "obtain details of previous fall to determine any pattern," "document in nurse care plan," "place fall alert identifier in chart and nurse care plan," and "medication review in the last month". Not any patient in two groups received the following fall prevention strategies: vision or hearing tests within the last year, communication with gestures, cues and assistances from family members, referral to speech therapists, evaluation an appropriate incontinence management plan and referral to urologic or gynecological clinics. Results of Chi-square tests showed there were significant differences of eight fall prevention strategies implementing between two groups. They were: ensure the wheelchairs as safe ($p=.04$), evaluate causes of a patient's anxiety and agitated behavior ($p < .01$), referral to dietitian ($p < .01$), offer nutritional supplement ($p < .01$), monitor the heights of beds and chairs ($p < .01$), consider removal of gait aid if patient consistently used in unsafe manner ($p < .01$), and consider engagement in physical activities or other activities ($p < .05$).

Conclusion: The results showed there were differences existed on implementing fall prevention strategies between inpatients with high falling risk and low falling risk. The high risk group received more fall prevention strategies than the low risk group. Fall prevention strategies, of which had not received by any patient, deserved more concern. Eight fall prevention strategies that implemented differently between two groups needed more attention. An improvement of selecting appropriate fall prevention strategies in nurses is suggested. The results would be a reference for training nurses to consider the feasibility of fall prevention strategies in the future.

References

- Chang, Y. L., Wu, M. F., Poon, S. K., Chang, L. Y., Lee, W. H., & Liou, W.S. (2014). Medications Prescribed and Occurrence of Fall. *Formosa Journal of Clinical Pharmacy*, 22(4), 219-232.
- Tseng, C. C., Su, P. Y., Huang, H.T., Chang, Y. C., & Tai, Y. M. (2013). Risk Factors for Inpatient Falls at a Mental Hospital. *Taiwanese Journal of Psychiatry*, 27(2), 131-139.
- Yates, K. M., & Creech, T. R. (2012). Acute care patient falls: evaluation of a revised fall prevention program following comparative analysis of psychiatric and medical patient falls. *Appl Nurs Res*, 25, 68-74.

Contact

880156@ms.kmuh.org.tw

RSC PST 1 - Research Poster Session 1

Effectiveness of Small-Bore Pigtail Catheters for Management of Spontaneous Pneumothoraxes : A Meta-Analysis

Mei-Chin Huang, BSN, RN, Taiwan

Yueh-Yen Fang, PhD, RN, Taiwan

Chih-Hsing Shen, BSN, RN, Taiwan

Hui-Chuan Chen, BSN, RN, Taiwan

Abstract

Purpose: Spontaneous pneumothorax (SP) can be a life-threatening condition. It can be primary and caused by unknown reason, or secondary from acute or chronic lung diseases. It was estimated that the SP affected over 20,000 patients and accounted \$130 million health-care costs in the United States. The primary management of SP is to remove air from the pleural space. The recommendations of SP management differ across guidelines. Though the trend tends to suggest the use of less invasive small catheters, applying a large chest tube is still common. To validate drainage methods for SP, we compared the effectiveness of a small-bore pigtail catheter with the traditional chest tube in the management of SP.

Methods: A search of studies comparing the effect of a small-bore pigtail catheter and a traditional chest tube for SP management was conducted using three Chinese databases (CEPS, the Chinese Thesis/Dissertation database, and the Chinese Journal database) and four English databases (CINAHL, Medline, PubMed, and the Cochrane Central Register of Controlled Trials). The search was up to April, 2016. Evaluations of study quality were conducted by the 2011 Oxford Centre for Evidence-Based Medicine-Levels of Evidence and the Cochrane Collaboration's tool for assessing risk of bias. Meta-analyses were performed by the random effect model. Pooled effects of drainage failure and length of hospitalization were calculated to present the effectiveness of tubing methods.

Results: Eleven studies involving 783 subjects were identified from 110 citations. Among included studies, only three studies are randomized controlled trials. All studies were unclear or high in risks of random sequence generation, allocation concealment, and blinding of participants and personnel. No difference in the risk of drainage failure was found between the pigtail method and the chest tube method (OR=.67, 95%CI=.41-1.09, $p=.10$). Among the secondary SP subjects, the length of hospital stay did not differ between two methods as well (OR=-.3, 95% CI=-.68 - -.08, $p=.12$).

Conclusion: Findings of this study support the use of small-bore pigtail catheters to manage SP. The application of small-bore pigtail catheters is suggested to promote patient compliance and comfort.

References

Wei, Y.H., Lee, C.H., Cheng, H.N., Tsao, L.T., & Hsiao, C.C. (2014). Pigtail catheters versus traditional chest tubes for pneumothoraces in premature infants treated in a neonatal intensive care unit. *Pediatr Neonatol*, 55(5), 376-380. doi: 10.1016/j.pedneo.2014.01.002

Kuo, H.C., Lin, Y.J., Huang, C.F., Chien, S.J., Lin, I.C., Lo, M.H., & Liang, C.D. (2013). Small-bore pigtail catheters for the treatment of primary spontaneous pneumothorax in young adolescents. *American Journal of Emergence Medicine*, 30(3), e17. doi: 10.1136/emmermed-2011-200986

Contou, D., Razazi, K., Katsahian, S., Maitre, B., Mekontso-Dessap, A., Brun-Buisson, C., & Thille, A.W. (2012). Small-bore catheter versus chest tube drainage for pneumothorax. *American Journal of Emergence Medicine*, 30(8), 1407-1413. doi: 10.1016/j.ajem.2011.10.014

Contact

800078@ms.kmu.org.tw

RSC PST 1 - Research Poster Session 1

Risk Factors of Pressure Ulcer Development During Spinal Surgery

Chun-Chen Lin, MSN, RN, Taiwan
Yueh-Yen Fang, PhD, RN, Taiwan
Yi-Pei Chien, BSN, RN, Taiwan
Pei-Chun Chung, BSN, RN, Taiwan
Yi-Ping Wang, BSN, RN, Taiwan

Abstract

Purpose: Healthcare related pressure ulcer is an important quality indicator for nursing care. The cost of its treatment was estimated around 2,000 to 3,000 US dollars per patient in the United States. It may extend the length of hospitalization and cause pain and discomfort in patients. Uncontrolled infections of the ulcers may even contribute to the presence of sepsis or death. The prevalence of pressure ulcers in surgical patients is between 12 to 66%. Among these events, 25% were developed during surgery. Surgery related pressure ulcer is an unresolved problem in the operational theatre. It is common in long-hour operation. This study intended to identify risk factors related to pressure ulcer development during spinal surgery. It is expected that the identification of risk factors may contribute to the prevention of surgery related pressure ulcers.

Methods: OR records of spinal surgery between year 2012-2016 from one acute care hospital in Taiwan were reviewed. 394 patients received spinal surgery were identified. Risk factors of pressure ulcer development during surgery were retrieved, including categories of surface stress factors, blood perfusion factors, and oxygenation factors. Descriptive statistics and logistic regression were used to describe characteristics of study subjects and identify risk factors of surgery related pressure ulcers.

Results: All 394 subjects took a prone position on a pressure reducing mattress placed over a circulating water bed. The temperature of the water bed was controlled at 37°C. The range of surgical time was between .8 to 11.5 hours. Age of patients ranged from 32 to 95 years. Nine patients were found to develop intraoperative pressure ulcers with the severity from 1 to 2 degrees. The injured sites were on the front chest and cheek. Age of these patients ranged from 43 to 95 years old. The operation time was more than four hours, with an average of 6.21 hours. Risk factors of surgery related pressure ulcers identified were high BMI, hypertension, smoking history, and blood loss more than 500 cc.

Conclusion: This study had identified risk factors that contributed to development of surgery related pressure ulcers. Clinicians may manage these factors prior to or during the surgical procedure to prevent surgery related pressure ulcers.

References

- Engels, D., Engels, M., McNichol, L., & Fencl, J. (2016). Pressure ulcers: factors contributing to their development in the OR. *Journal of AORN*, 103(3), 271-281. doi.org/10.1016/j.aorn.2016.01.008
- Wright, K. M., DipTeaching, Y.VN., Dorrington, C. A., & Hoffman, G. R. (2014). Pressure injury can occur in patients undergoing prolonged head and neck surgery. *American Association of Oral and Maxillofacial Surgeons*, 72, 2060-2065. doi.org/10.1016/j.joms.2014.04.018
- Wilczweski, P., Grimm, D., Gianakis, A., Gill, B., Sarver, W., & McNett, M. (2012). Risk factors associated with pressure ulcer development in critically III traumatic spinal cord injury patients. *Journal of Trauma Nursing*, 19(1), 5-11. doi:10.1097/JTN.0b013e31823a4528

Contact

840122@ms.kmuh.org.tw

RSC PST 1 - Research Poster Session 1

Characteristics of Mortality Cases With Advance Care Planning Issues

Anna Dermenchyan, MSN, RN, CCRN-K, USA

Wendy Simon, MD, USA

Abstract

Purpose: The UCLA Department of Medicine (DOM) Rapid Mortality Review (RMR) is an innovative in-person, near real-time review of all deaths to capture the unique insight of the care providers into aspects of end-of-life care quality that otherwise go undocumented and unreported. The purpose of this study is to examine characteristics of mortality cases that are more likely to have advance care planning (ACP) issues identified during RMR.

Methods: This study is a primary analysis of a mortality database that is used in tracking patients who expired in the medicine wards and intensive care units from October 2012 to May 2016 at the Ronald Reagan and Santa Monica UCLA Medical Centers. The data elements were obtained through chart abstraction as well as during the RMR meetings with the primary medical team. Descriptive statistics and logistic regression was performed. The study sample is 498 patients, 299 males (60.0%) and 199 females (40.0%), with a mean age of 69.6 (range 21-105, SD 16.51). The dependent variable is the identifiable ACP issue and covariates include demographic and clinical characteristics of the sample, such as, age and length of stay, primary and secondary reason for mortality.

Results: In a sample of 498 mortality cases, issues with ACP were identified in 112 cases (22.49%).

Goals of care discussions took place at multiple outpatient and inpatient settings: outpatient (12.7%), hospital admission (50.0%), clinical deterioration (62.7%), and the day of death (18.7%). From the total sample, 131 (26.3%) were Do Not Resuscitate/Do Not Intubate (DNR/DNI) at the time of admission and 422 (84.7%) were DNR/DNI at the time of death. In addition, 352 (70.7%) were placed on comfort care with 196 (39.4%) receiving palliative care consultation.

The results of logistic regression examined characteristics of mortality cases that are more likely to have ACP issues. Strong associations were seen for female gender (OR: 1.601; 95% CI: 1.011-2.536; p=.045), longer length of stay (OR: 1.014; 95% CI: 1.003-1.025; p=.016) and primary reason for mortality infection (OR: 2.02; 95% CI: 1.144-3.567; p=.015) or acute medical (p=.04). All other variables were not significantly associated with ACP issues, including older age, transfer patient, preventability, UCLA patient with primary care physician, goals of care discussion in the outpatient setting, DNR/DNI at admission and time of death, and palliative care consult.

Conclusion: The findings of this primary data analysis demonstrate some characteristics of mortality cases that will more likely have ACP issues. Gender (being female), length of stay (longer), and primary reason for mortality (acute and infection) were all strongly associated with the cases that had ACP issues. Further study could investigate the etiology of the gender association, whether improved ACP reduces lengths of stay, and the potential benefit of more universal ACP.

References

1. Provenzano, A, Rohan, S, Trevejo, E, et al. (2014). Evaluating inpatient mortality: a new electronic review process that gathers information from front-line providers. *BMJ quality & safety*, 24, 31-37.
2. Sulistio, M., Franco, M., Vo, A., Poon, P., & William, L. (2015). Hospital rapid response team and patients with life-limiting illness: a multicentre retrospective cohort study. *Palliative Medicine*, 29(4), 302-309.
3. Vogt, H., Ulvestad, E., Eriksen, T. E., & Getz, L. (2014). Getting personal: can systems medicine integrate scientific and humanistic conceptions of the patient?. *Journal of evaluation in clinical practice*, 20(6), 942-952.

Contact

adermenchyan@mednet.ucla.edu

RSC PST 1 - Research Poster Session 1

Perspectives of Emergency Nurses With Overcrowding State in Taiwan

Chun-Chih Lin, PhD, RN, Taiwan

Li-Chin Chen, MSN, RN, Taiwan

Chin-Yen Han, PhD, RN, Taiwan

Chiung-Jung (Jo) Wu, DrHlthSc, MN (ICU), BN, RN, FACN, Australia

Abstract

Purpose: The purpose of this presentation is to provide an overview of emergency registered nurses' perceptions and express their work identity within an overcrowded emergency department.

Methods: A qualitative approach with symbolic interactionism was used to allow participants to express their own individual experience. Data collection was undertaken by semi-structured interviews was used to collect data between May and November, 2014 in a tertiary hospital in Taiwan. Purposeful sampling was performed and forty nurses were recruited as saturation of data reached. The interview data were analyzed by adopting grounded theory approach, including open, axial and selective coding. The credibility, transferability, dependability, and confirmability were carried out to ensure the trustworthiness throughout the data collection and analysis process.

Results: Main themes of *seeking and keeping within boundaries* were identified supporting by perceptions of being an emergency nurse as working and continually enduring within a state of overcrowded environment. . The identified themes have been supported by three categories, including *identifying herself, searching for possible solutions, and going on the situation*. The first category was further supported by *defining the role of emergency department, characterizing overcrowding and interacting work within an overcrowded environment*. The second category was reinforced by *searching for possible* within multi-factorial emergency in overcrowding, nurses' experience about their professional social behaviors. The last category was, *going on the situation*, illustrated by the consequences of nurses' work and clients' satisfactions, as well as leading to a psychosocial distress.

Conclusion: The findings fill a gap in knowledge about how emergency nurses working and searching for their work role within the overcrowded emergency state. The results informed that emergency nurses' perceptions of working in an overcrowding situation. Consequently, three strategies are recommended to support emergency nurses facing the overcrowded state, including using a bed –transferring manager position, considering to modify current government health insurance policy; and decreasing the nurses-clients ratio .

References

Filippatos G & Karasi E (2015)The effect of emergency department crowding on patient outcomes. Health Science Journal, 9 (1:6). 1-6.

Foley G & Timonen V (2015) Using grounded theory method to capture and analyze health care experiences. Health Services Research 50, 1195–1210.

Geelhoed G, Klerk, M H (2012). Emergency department overcrowding, mortality and the 4-four rule in Western Australia. MJA 122 196 (2), 122-126.

Contact

cclin01@mail.cgust.edu.tw

RSC PST 1 - Research Poster Session 1

Neuropathic Pain and Related Factors in Patients After Lumbar Spine Surgery: A Prospective Study

Feng-Ling Chen, MSN, RN, Taiwan

Hsiao Fen Chang, BSN, RN, Taiwan

Su-Ying Fang, PhD, RN, Taiwan

Abstract

Purpose: Neuropathic pain exists even after receiving lumbar spine surgery. These painful conditions often reduce the quality of life and limit the activities of daily living. However, the prevalence of neuropathic pain (NP) before and after lumbar spinal surgery among patients with degenerative lumbar diseases is still unknown. The purpose of this study was to understand the prevalence, characteristics of neuropathic pain and related factors among patients receiving lumbar spine surgery. This study also aimed to identify the risk factors related to NP and compare the clinical outcomes after surgical treatment between patients with and without NP.

Methods: Prospective and observational study design as well as convenience sampling will be used in this study. Patients scheduled for lumbar spinal surgery will be recruited from neurosurgical ward in one medical center in South of Taiwan. According to the number of inpatients suffered degenerative lumbar diseases in the neurosurgical ward each year, we will recruit 200 patients in this study. Inclusion criteria are as follows: age over 18, patients with degenerative lumbar disease who are scheduled for lumbar spine surgery. Exclusion criteria are patients have another source of NP such as diabetes mellitus, herpetic zoster, traumatic injury, amputation, cancer, stroke, and AIDS. Structured questionnaire including demographic and disease questionnaire, Numerical Rating Scale, and the simplified Chinese Identification Pain Questionnaire will be given to the patients in pre-operative day 1, post-operative day 3, week 3, month 1 and month 3 to measure wound pain, neuropathic pain and related factors.

Results: This study has been approved by institutional review board of the hospital. Results in this study will help us understand the prevalence of NP among patients with lumbar spine surgery as well as identify related factors of NP.

Conclusion: This can help health care professionals to develop an appropriate intervention to strengthen future pain control for patients with lumbar surgery and thus enhance patient comfort and quality of life.

References

Attal, N., Perrot, S., Fermanian, J., & Bouhassira, D. (2011). The neuropathic components of chronic low back pain: A prospective multicenter study using the DN4 Questionnaire. *The Journal of Pain: official journal of the American Pain Society* 12(10): 1080 – 1087.

El-Badawy, M. A., & El Mikkawy, D. M. (2016). Sympathetic dysfunction in patients with chronic low back pain and failed back surgery syndrome. *The Clinical Journal of Pain*, 32(3), 226-231.

Gilron, I., Baron, R., & Jensen, T. (2015). Neuropathic pain: Principles of diagnosis and treatment. *Mayo Clinic Proceedings*, 90(4), 532-545.

Contact

n021516@gmail.com

RSC PST 1 - Research Poster Session 1

Hope and Health-Related Quality of Life of Older Women Who Have Had Heart Attacks

Alice Mary Kelly-Tobin, PhD, RN, GNP-BC, USA

Abstract

Purpose: Examination of the relation of hope and HRQoL of older women with history of heart attacks. Heart disease is the number one cause of death and leading cause of disability in adults in the United States and worldwide (Centers for Disease Control and Prevention [CDC], 2013). Coronary heart disease (CHD) is the most common form of heart disease with heart attack as its acute manifestation. Health Related Quality of Life (HRQoL) is a multidimensional concept of self-perception of physical, emotional health, and overall sense of well-being (Stewart & Ware, 1992; Centers for Disease Control and Prevention [CDC], 2012). Hope, an inner process focusing on maintaining physical and mental well-being, is considered necessary for survival of chronic illnesses, such as CHD (Herth, 1993; Duggleby, et al., 2012).

This study is significant because it focused on older women who have had heart attacks and it examined the relationship between HRQoL, as multidimensional assessment of health perceptions and hope, as an inner process related to physical and mental health. The population of women over age 65 is growing and they are a vulnerable group because they are likely to live alone and in poverty. The incidence and prevalence of heart attacks is greatest among women, age 65 and older, as approximately 200,000 women die from heart attacks in the US annually (CDC, 2013). However, there are few research studies that focus upon women who have had heart attacks, their consequent perceptions on the quality of their lives or their perceived levels of hope. Healthy People 2020 and the Institute of Medicine have identified HRQoL as a focus of the US health agenda (Healthy People, 2013).

Previous studies of HRQoL have focused upon adults of all ages and gender with specific diseases such as heart disease, cancer, arthritis and diabetes mellitus type 2 (Khanna, et al., 2011; White, Wheelwright, Fitzsimmons & Johnson, 2012; Williams, et al., 2012) or adults living in long term care facilities (Kanwar, et al., 2013; Van Malderen, Mets & Gorus, 2013). There is a gap in research studies from 1990's and 2014 that focuses upon women, heart attacks and the relationship between hope and HRQoL.

Methods: Older women with history of heart attacks (N=91) volunteered for this quantitative non-experimental correlational study. Instruments: demographic questionnaire, SF12 (HRQoL), Herth Hope Index (HHI). Parameters for inclusion in the sample of 84 voluntary participants are female gender, age 65 years and older, history of a heart attack, living in community, ability to speak and read English without need of interpreter services, no diagnosis of cognitive impairment and ability to independently complete questionnaires with minimal prompting.

The HHI is a 12 question tool measured on a 4 point Likert scale in which the higher scores represent the greater level of hope. The HHI questions probe inner thoughts and feelings about outlook on life, goals and fears. Scores can range from 12 to 48, with 12 as the lowest score and 48 as the highest. One point is assigned to responses of "strongly disagree" and four points is assigned to responses of "strongly agree." Lower scores represent less hope and higher scores represent more hope.

The SF 12 is a 12 question tool measured on a 4 point Likert scale in which higher scores represent a higher level health related quality of life (HRQoL). Scores can range from 0 to 100, with 0 as the lowest score and 100 as the highest. Lower scores indicate lower health related quality of life and higher scores indicate higher health related quality of life.

Results: Marital status correlated to HHI scores, $t(90) = -2.70, p = .041$, married participants having greater mean score (40.87) compared to singles (38.39). General Health, $r(89) = .244, p = .02$; Mental Health, $r(89) = .352, p = .001$; Vitality, $r(89) = .221, p = .035$; Social Functioning, $r(89) = .333, p = .001$ and Role Emotion, $r(89) = .223, p = .034$ correlated with HHI. Marital Status, $t(89) = 2.07, p = .041$ and Mental Health, $t(88) = 3.40, p = .001$.

Conclusions : Registered nurses and advanced practice registered nurses who include evaluation of hope and HRQoL when performing comprehensive assessments of older adults will uncover health problems and unmet needs such as low vitality in women under 70, pain management in Non-White women and risk for depression. This information will serve as the bases for comprehensive plans for health and wellness.

References

Boehm, J. K., Peterson, C., Kivimaki, M., & Kubzansky, L. (2011). A prospective study of

positive psychological well-being and coronary heart disease. *Health Psychology*, 30(3), 259.

Centers for Disease Control and Prevention (2012a). Chronic illness prevention and health promotion. Retrieved from <http://www.cdc.gov/chronicdisease/>.

Centers for Disease Control and Prevention (2012b). Health related quality of life (HRQoL). Retrieved from <http://www.cdc.gov/hrqol/>.

Centers for Disease Control and Prevention (2013). Heart disease facts and statistics. Retrieved from <http://www.cdc.gov/heartdisease/statistics.htm>.

Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, 3(1), 1-43. Duggleby, W., Hicks, D.,

Nekolaichuk, C., Holtlander, L., Williams, A., Chambers, T., & Eby, J. (2012). Hope, older adults and chronic illness: A metasynthesis of qualitative research. *Journal of Advanced Nursing*, 68(6), 1211-1223. Dunn, S.

L. (2016). Identifying and Promoting Hope in Patients. *Western Journal of Nursing Research*, 38(3), 267-269.

Healthy People 2020 - Foundation Health Measures. (2013). Retrieved from <http://www.healthypeople.gov/2020/about/Foundation-Health-Measures>.

Visser, M. M., Aben, L., Heijenbrok-Kal, M. H., Busschbach, J. J., & Ribbers, G. M. (2014). The relative effect of coping strategy and depression on health-related quality of life in patients in the chronic phase after stroke. *Journal of rehabilitation medicine*, 46(6), 514-519.

White, A. K., Wheelwright, S., Fitzsimmons, D., & Johnson, C. D. (2012). Health-Related Quality of Life in Cancer. *Mediterranean Oncology Journal*, 2(2), 38-42.

Williams, S. A., Shi, L., Brenneman, S. K., Johnson, J. C., Wegner, J. C., & Fonseca, V. (2012). The burden on hypoglycemia on healthcare utilization, costs, and quality of life among type 2 diabetes mellitus patients. *Journal of Diabetes and its Complications*, 26(5), 399-406.

Contact

tobina@sunysuffolk.edu

RSC PST 1 - Research Poster Session 1

Gaps in Palliative Care Provision in Saskatchewan, Canada: Learning From Palliative Care Management

Susan Eva Fowler-Kerry, PhD, RN, Canada

Louise Racine, PhD, RN, Canada

Abstract

Purpose: This study is part of an ongoing project to develop a working knowledge about the long-standing uneven development and delivery of palliative care in Saskatchewan, Canada; subsequently providing a foundation for continuing study and facilitating practical improvement of palliative care programs.

Methods: The results to be presented are based on the current stage of this project, the analysis of longitudinal survey data which were collected from the management personnel of palliative care in each health region in 1998, 1999 and 2002. The three surveys are composed of both close-ended and open-ended questions, therefore both quantitative and qualitative analysis are conducted

Results: The results in this study have shown that 1) the disproportion of palliative care services among health regions and between rural and urban areas have been persistent from 1998 to 2002; 2) there has been no significant improvement in terms of the undersupplied and/or understaffed services in vast majority of the health regions throughout the survey period, for example, pain/symptom management, physician and nurse support, and designated funding are the top three on the list; 3) there have been several prominent concerns regarding the palliative care system, such as, lack of palliative care training programs or clear guidance for nurses and physicians, ineffective communication between facilities as well as communities due to geographic distance, and a lack of functional collaborations within palliative care team or advisory committee. Nevertheless, the analysis is also able to identify some primary strategies adopted by the palliative care management to improve palliative care in their regions, for instance, organizing activities to enhance community involvement and public awareness, establishing an information center to collect resources from all health regions, and developing systematic networks for palliative care support with other health regions especially the resourceful metropolitan health regions. Despite the rich information obtained from the current study, some major knowledge gaps can be identified: for example, surveys were only designed to target the palliative care management personnel thus perspectives from palliative care providers, patients and their family caregivers have been largely ignored; the differences between rural/remote and urban areas especially in terms of palliative care accessibility and portability are not directly addressed; information related to culturally-diverse health practices in palliative care has been missing in all current

Conclusion: The current study provides the knowledge base and inspiration for a new study, which is not only comparable with the current longitudinal data but also able to generate critical new information which has been neglected in the current data. Upon completing this project, both the current and new study would provide practical knowledge to inform health professionals regarding the current situation and prominent issues regarding palliative care in Saskatchewan, and to allow health policy makers to develop feasible educational and service programs to enhance accessibility, portability, and cultural-safety in palliative care delivery to meet the professional and public demands.

References

Fowler-Kerry, S., Ogenchuk, M., Knapp, C. & Kerry, C. (2016).

Intersection of Care: Children with Palliative Care needs Versus Acute, Preventative Oral Health. In Press. International Journal of Palliative Care.

Downing, J., Knapp, C., Muckaden, M.A., Fowler-Kerry, S., & Marston, J. (2015, August). Priorities for global Research into Children's Palliative Care: Results of an international Delphi Study. BMC Palliative Care.

Fowler-Kerry, S., & Peterson, N. (2016, August 5). Education key to improving pediatric palliative care services in Norway. Ehospace (8), 3.

Contact

susan.fowler.kerry@usask.ca

RSC PST 1 - Research Poster Session 1

Improving Care for the Veteran Population Through Respectful Interprofessional Collaboration: One College's Experience

Susan B. Connor, PhD, RN, USA

Paula Byrne, DNP, RN, USA

Abstract

Purpose: The purpose of this study is to determine the impact of a novel educational offering on the interprofessional knowledge and attitudes related to health care of the rural veteran. With roots back in the 1960s, the interprofessional education (IPE) movement did not become energized in the United States until 2009 when six national education associations of schools of the health professions formed the Interprofessional Education Collaborative (IPEC) followed in 2010 when the World Health Organization's (WHO) proposed a global framework for implementing IPE and collaborative practice. Yet, Bankston and Glazer (2013) and even the American Nurses Association (2013) ponder why despite concerted efforts by some institutions of higher learning and healthcare systems, many future health care providers are not educated to provide cost-effective, patient centered coordinated care as part of an integrated team. Challenged by resource shortages, many smaller colleges continue to funnel future health care students through fast-paced, highly technical, and specialty focused curricula or silos. However, as Hudson, Sanders and Pepper (2013) detailed, there is only a limited amount of evidence to help nursing educators break these silos and enrich the future practice of nursing students.

Methods: Spearheaded by the school of nursing, a modular program of study was developed based on the Interprofessional Education Collaborative (IPEC) core competencies and focused on the veteran population. In order to include different disciplines into this nursing-centric course, four free standing modules were developed that focused on ethics, roles, communication, and teamwork. This design enabled the various disciplines to schedule their students around their discipline-specific calendars, space, credit, and grading requirements. Students from The College's Health Sciences (e.g., health informatics, physical therapy, occupational therapy, and social work) attended the course as their clinical rotations allowed. In each class there was a mixture of student health care professions. Nursing was the only constant group throughout the course. Using the veteran population as exemplars throughout each module helped to generate active interprofessional classroom experiences and bridge educational silos. Each module offered didactic, group activities focused on shared interprofessional values, collaboration and evidence-based practice, complex interprofessional simulation and case studies, and guest speakers from the veteran community. Course work was patient/client centric and did not emphasize any one particular profession. Measurements of interprofessional knowledge and attitudes were used to determine the impact of the education program. Attitudes were assessed before and following each 15 week course.

Results: Ninety-eight students completed the first set of pre- and post-surveys. Preliminary findings suggest that education grounded in Benedictine values at a liberal arts college and tailored to the needs of a large rural population of veterans resulted in increased attitudes toward ethical components of teamwork and improved knowledge of and communication with various health professionals and veterans related to healthcare. The attitudes that significantly improved were related to collaboration. Attitudes related to professional ethics and values were unchanged. Course evaluations and student reflections exemplify the importance of respectful collaboration. As an unintended result, many of the health clinics where students worked added a question about uniformed service on their health history forms. Due to student feedback, enthusiasm and interest in continuing this course grew.

Conclusion: IPE and respectful collaboration is the future of healthcare. The state of the science is limited for educators interested in developing curricula to help future health care professionals collaborate with patients and their families to cut cost, improve their health experience as well as their overall health as outlined in the Triple Aim (2016). This unique educational experience will add to the literature and may inform future IPE curriculum development at smaller institutions challenged by costs, credit loads, and faculty availability.

References

Bankston, K., Glazer, G., (2013). Legislative: Interprofessional Collaboration: What's Taking So Long? *The Online Journal of Issues in Nursing*, Vol 19. DOI: 10.3912/OJIN.Vol18No01LegCol01

Camicia, M., Chamberlain, B., Finnie, R. R., Nalle, M., Lindeke, L. L., Lorenz, L.,... & Jones, T. (2013). The value of nursing care coordination: A white paper of the American Nurses Association. *Nursing Outlook*, 61(6), 490-501.

Gilbert, J.H.V., Yan, J., Hoffman, S.J. (2010). A WHO report: Framework for action on interprofessional education and collaborative practice. *Journal of Allied Health*, 39(3), 196-197.

Hudson, C. E., Sanders, M. K., & Pepper, C. (2013). Interprofessional education and prelicensure baccalaureate nursing students: An integrative review. *Nurse Educator*, 38(2), 76-80.

Interprofessional Education Collaborative. (2016). Core competencies for interprofessional practice (update 2016). Washington, DC: Author

Institute for Healthcare Improvement (2016). Triple aim for populations (modified 2016). Retrieved from <http://www.ihl.org/Topics/TripleAim>

Rosler, K.L., Buelow, J.R., Thompson, A.W., Knofczynski, G. (2016). Effective learning of interprofessional teamwork. *Nurse Education* (Epub ahead of print).

DOI:10.1097/NNE.0000000000000313

World Health Organization (WHO). (2010). Framework for action on interprofessional education & collaborative practice. Retrieved from http://www.who.int/hrh/resources/framework_action/en/

Contact

sconnor1@css.edu

RSC PST 1 - Research Poster Session 1

Applying Social Network Analysis to the Spread of Moods and Emotions Among Graduate Nursing Students

Patricia M. Schmidt, PhD, RN, USA

Christine E. Kasper, PhD, RN, FAAN, USA

Patrick D. Finley, MA, USA

Greg Lambert, MS, USA

Abstract

Purpose: Turnover costs average 21 percent of an employee's annual salary in healthcare.

Organizations invest more for the turnover of specialized employees. Hospitals expend thousands of dollars annually hiring and training new staff. Healthcare workers spend a significant percentage of time at work. Heavy workloads and long hours, burn out and turnover are a continued concern. Relationships in a nursing environment are complex and highly integrated. Affect is the experience of moods and emotions, and is influenced by behavior and interactions. Affect influences performance, decision making, safety, turnover and absence, prosocial behavior, and negotiation and conflict resolution which may impact on patient outcomes. Affect contagion, the transfer of moods and emotions in groups, occurs with interaction. It's existence is well established in corporate and industry settings to influence workplace outcomes. Understanding how relationships impact affect, behaviors, and cognition can lead to a healthier work environment therefore improving patient outcomes. Workplace affect can be of critical importance. An individual's work affect is influenced by those around them. Affect contagion, the transfer of affect between individuals, is well documented. Affect transmission has been studied in healthcare. The purpose of the study was to observe and describe the spread of affect in a group of military graduate nursing students using social network analysis.

Healthcare affect contagion research has occurred on the dyadic level or as a single time point, identifying the presence of collective affect but does not account for the dynamic capabilities of affect to evolve and change. Using social network methodologies to examine affect contagion provides a conduit to understand affect contagion as an environmental phenomenon. Social network analysis (SNA) identifies important individuals, channels of affect flow, the dynamics behind positive and negative self-reinforcement, and the impact of network topologies on the effectiveness of affect-oriented interventions.

Methods: The Kelly and Barsade middle range theory of moods and emotions in small groups and work teams was used to develop the design of the study, find valid measurement tools, and conduct analysis. There were 35 participants from a closed network of 60 advanced practice nursing students. Social network surveys established relationships among the participants. Student's affect was surveyed twice daily 14 times over the course of a semester to measure changes in affect. Affect expressivity and susceptibility to the affect of others was measured. This study utilized social network analysis and linear statistics to identify and visualize relationships among graduate nursing students during an academic semester. The relationships were correlated with the affect of participants to determine the impact of individual moods and emotions on those with whom they interact.

Results: Using assortative mixing calculations, affect among participants was correlated with their identified "friends" at four time points and affect similarity was correlated with academic specialty program and the amount of time spent with classmates. Stimulus exposure on three data collection days changed the affect of exposed participants. The students exposed to the stimuli demonstrated a change in affect, and assortativity correlation demonstrated similar affect. Environmental events occurring during the semester were identified and associated with changes in affect among the participants. Affect contagion occurs in advanced practice nursing student networks and affect influencing stimuli have the potential to influence the exposed individual.

Conclusion: The moods and emotions of nurses are impacted by the events of the day and those whom they spend much of their time. Developing environments that support and facilitate high positive affect and low negative affect of nursing staff should improve the quality of patient care. Utilizing advanced statistical methods, like social network analysis, promotes comprehensive quantification of the relationship that exists among group members. An understanding of the behaviors exhibited by group members related their affective state may facilitate development of methods to decrease negative affect and increase positive affect as a means to promote a healthy productive environment.

References

Graves, B. (2013). Lower costs and better outcomes: a system of care built on relationships. *BMJ (Clinical Research Ed.)*, 347, f5301-5303. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/23996151>

Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., ... North, N. (2012). Nurse turnover: a literature review - an update. *International Journal of Nursing Studies*, 49(7), 887–905. <http://doi.org/10.1016/j.ijnurstu.2011.10.001>

Mundt, M. P., & Zakletskaia, L. I. (2014). Social network structures of primary health care teams associated with health outcomes in alcohol drinkers with diabetes. *Social Computing, Behavioral -Cultural Modeling, and Prediction*, 7(1), 325–332.

Petiitta, L., Jiang, L., & Härtel, C. E. J. (2016). Emotional contagion and burnout among nurses and doctors: Do joy and anger from different sources of stakeholders matter? *Stress and Health*. <http://doi.org/10.1002/smi.2724>

Contact

patricia.m.schmidt10.mil@mail.mil

RSC PST 1 - Research Poster Session 1

Health-Related Quality of Life and Treatment Outcomes for Individuals With ESRD Treated By Hemodialysis

Chiung-Yu Huang, PhD, MSN, RN, Taiwan

Hui-Ling Lai, PhD, MS, MSN, RN, Taiwan

Chun-I Chen, PhD, Taiwan

Abstract

Purpose: This research investigated risk factors and support style on health-related quality of life (HrQoL) and depressive symptoms (DSs) in adults with end-stage disease (ESRD). Previous studies focused on the psychosocial correlations studies or the presence of DSs but not on the specific causal antecedents that lead to DSs or HrQoL.

Methods: A descriptive, correlational design was used to examine related factors and social support on health outcomes. This study was conducted at the dialysis center in a general hospital. A convenience sample of 178 adults with ESRD aged 20 or above was recruited. Data were collected by a self-reported questionnaire and physiological examination. Using the structural equation modeling technique analyzed all relationships among factors, mediators, and health outcomes.

Results: The average age of the participants was 62.9 years (± 11.5), the mean time since dialysis was about 57 months (± 40.2), and most were males. Over 70% individuals with ESRD have sleep disturbances. The results revealed younger, more education, lower pain, more appraisal support, and better sleep quality of individuals with ESRD are more likely have better physical quality of life and lower depressive symptoms. All four types of social support (emotional support, appraisal support, informational support, and tangible support) were negatively correlated with depressive symptoms. Moreover, sleep disturbances are negatively related to both physical and mental quality of life. The best fitted SEM model included individual demographics and disease characteristics, and social support as significant predictors on depressive symptoms, with social support acting as a mediator in this relationship. Subjects' characteristics and social support both contributed substantial indirect effects on depressive symptoms and physical and mental related quality of life.

Conclusion: Identifying risk factors and the mediators of support are an integral part of disease management. This integrated model provides a whole understanding of how factors and mediating effects of support influence HrQoL and DSs in individuals with ESRD. If people with ESRD perceived themselves with more support, they were more likely to report less depressive symptoms and better physical quality of life.

References

Fallon, M. (2011). Depression in End stage renal disease. *Journal of Psychosocial Nursing*, 49(8), 30-34.

Araujo, S., de Bruin, V., Daher, E., Almeida, G., Medeiros, C., & de Bruin, E. (2012). Risk factors for depressive symptoms in a large population on chronic hemodialysis. *International Urol Nephrol*, 44, 1229-1235.

Contact

chiung.huang@gmail.com

RSC PST 1 - Research Poster Session 1

A Frontline Approach to Investigating Nurses' Handover: A Focus on Content and Structure

Verna A. Sitzer, PhD, RN, CNS, USA

Rhea A. Eusebio, BSN, RN, CMSRN, CBN, USA

Julianna M. Timmerman, BSN, RN, CMSRN, USA

Karen Reavis, PhD, RN, ANP-BC, USA

Lynn E. Marder, MSN, RN, CNS, CCNS, PCCN, USA

Abstract

Purpose: The aims of these multi-phased studies was to describe the content of nurses' handwritten patient notes used during change of shift report, design an electronic medical record (EMR) generated handover tool and evaluate the impact of a handover structure.

Background: Miscommunication is a frequent root cause in safety errors particularly during handovers (World Health Organization, 2007). Nurses play an essential role in the transfer of patient information among and between providers and particularly at the change of shift. A standardized structure has been recommended to improve handover communication and patient safety (Agency for Healthcare Research and Quality, 2012). Electronic solutions (templates and summary screens) have been shown to be insufficient requiring handwritten notes. However, information technology such as electronic medical records can be leveraged to support the handover process and effectiveness (Smeulders, Lucas, & Vermeulen, 2014; Staggers & Blaz, 2012)).

Methods: Born from an organizational Delphi study to identify nursing research priorities in a Southern California non-profit community hospital, novice investigators learned the research process to conduct multi-phased, IRB-approved research studies on a top priority result – patient safety at change of shift. Delphi qualitative results together with organizational quality report data were used to refine the research focus. Following an extensive literature review, the research team, comprised of frontline clinical nurses and research mentors, determined a multi-phase approach was needed to fully investigate the clinical issue. The first phase (Phase 1) was a descriptive, cross-sectional design using a convenience sample of bedside nurses who voluntarily submitted their patient assignment notes (aka report sheets) for content analysis. The second phase (Phase 2) was a quasi-experimental design using a convenience sample of bedside nurses working in the intervention and the control unit. The intervention was a newly developed and EMR-generated handover tool. Development of this tool was based on Phase 1 content analysis findings. The handover tool was generated from the EMR and included pre-populated patient information as well as “white space” for customized handwritten notes. Intervention unit nurses agreed to use the EMR-generated handover tool during the study period. Satisfaction with the handover tool and process was measured pre and post implementation of the handover tool in the intervention and control units using an investigator-developed satisfaction survey. The survey included 9 items on the handover tool and handover process with a 5-point Likert-like response set ranging from strongly agree to strongly disagree. Additionally, feedback was obtained from the intervention unit on the handover tool content and structure. Basic quantitative and qualitative methods were used to analyze Phase 1 and Phase 2 data. The third phase and final study is in progress which is an interrupted time-series design to evaluate the impact of a structured nursing handover process at change of shift on patient safety outcomes and is mentioned to illustrate the complexity of the clinical issue and the investigative strategy.

Results: Phase 1. Findings from the Phase 1 study yielded patterns from clinical nurses on what was handwritten in their patient notes or report sheets. A convenience sample of 103 RNs from 11 patient care units submitted their report sheets over a 24-hour period. There were 26 different report sheets submitted customized with more than one color or type of writing implement (41%), emphasis markings (87%), and symbols (100%). The majority of content included in the report sheets consisted of: patient identifiers (i.e., name 99%, room 85%) physician names (99%), diagnosis (84%), systems review (78% - 92%), and task reminders (99%). Isolation status (48%), fall risk (38%), hospital-acquired pressure ulcer risk (8%), other risks (20%), and vaccination status (12%) had low percentages of handwritten presence on report sheets. These finding were congruent with subsequent analyses of 29 matched handover sheets (same patient, different RNs) where percent agreement between content were highest with patient identifiers (i.e., name 87%, account number 70%) and lowest with safety and risk information (i.e., fall risk 27%, pressure ulcer risk 17%, vaccination status 0%).

Phase 2. A convenience sample of 138 RNs assigned to either an intervention unit or a control unit participated in the study. Satisfaction: Although perceptions improved for all nine items on the handover satisfaction survey, the Mann-Whitney U test found no statistically significant difference in satisfaction levels within and between the intervention unit and control unit, pre (n=79) and post (n=59) implementation of the EMR-generated handover tool. Handover Tool Feedback: Content analysis of feedback obtained from nurses (n=28) in the intervention unit revealed themes related to content, structure and context. Nurses had positive comments on prepopulated information including patient identification, allergies, provider names, reason for visit, vital signs, last bowel movement and labs. The ability to trend patient data such as vital signs and labs were recommended. Added sections for plan of care priorities and pre-identified tasks were not seen as useful. Numerous recommendations were provided for font size, flow, and space allocation for certain sections and white space. Comments often referred to previous report sheet formats. One example was to add the anatomical figure and the lab values diagram. Suggestions to add patient population specific information were also provided.

Conclusion: What is handwritten on report sheets can be interpreted as important to nurses in the care of patients and communication at shift change. Phase 1 analysis revealed report sheets and content were neither standardized across the organization nor within a unit. Content and structure favored the medical model. Although rich in patient specific medical and nursing care task information, notes often lacked common safety or risk related information. This finding may indicate a discrepancy between organizational and bedside nurse priorities for patient care. The sample of report sheets submitted show handwritten symbols, emphasis markings, tasks and activities which may indicate the sheets are used as a mnemonic device. This supports previous research on the need for nurses to interact with, and modify their report sheets (Hardey, Payne, & Coleman, 2000). While Phase 2 analysis had insignificant findings in nurses' satisfaction with the EMR-generated handover tool and process, perceptions on the survey items improved after using the tool and rich qualitative information was provided. The positive feedback on the EMR-generated, printable, pre-populated report sheet and designated white space supports previous research on the need for report sheets to be adaptable and contextual (Staggers & Blaz, 2012). A standardized handover tool and a structured process have been recommended to improve handover communication. In order to standardize to one handover tool, it was important to determine what nurses write about on their report sheets. The patterns can then be used to design a user-friendly handover tool that meets nurses' needs for accurate and up-to-date information, personalization and portability (Hardey, Payne, & Coleman, 2000). The results of these multi-phased studies assist the investigators in further improving the handover content and structure. A modification to the EMR-generated tool will facilitate the goal of standardizing handover content and structure to improve nurses' satisfaction and more importantly, communication and patient safety. In a technologic age, a handover tool can be generated from the EMR and contain the information that nurses want as well as critical information to influence and promote transparency, quality and patient safety.

References

- Agency for Healthcare Research and Quality. (2012). Patient safety primer: Handoffs and signouts. Retrieved from <http://psnet.ahrq.gov/primer.aspx?primerID=9>
- Hardey, M., Payne, S., & Coleman, P. (2000). Scraps: Hidden nursing information and its influence on the delivery of care. *Journal of Advanced Nursing*, 32, 208-214.
- Smeulders, M., Lucas, C., & Vermeulen, H. (2014). Effectiveness of different nursing handover styles for ensuring continuity of information in hospitalized patients. *Cochrane Database of Systematic Reviews* 2014, Issue 6. Art. No.: CD009979. DOI: 10.1002/14651858.CD009979.pub2
- Staggers, N., & Blaz, J. W. (2012). Research on nursing handoffs for medical and surgical settings: An integrative review. *Journal of Advanced Nursing*, 69, 247-262.
- World Health Organization. (2007). Communication during patient hand-overs. Patient Safety Solutions. Retrieved from <http://www.who.int/patientsafety/solutions/patientsafety/PS-Solution3.pdf>

Contact

verna.sitzer@sharp.com

RSC PST 1 - Research Poster Session 1

Effects of Lower Extremity Strength Training on Physical Recovery in Patients Underwent Total Knee Replacement

Yu-Hua Lin, PhD, RN, Taiwan

Su-Ying Lee, MSN, RN, Taiwan

Chia-Chan Kao, PhD, RN, Taiwan

Abstract

Purpose: Patients with knee of osteoarthritis (OA) after surgery had experienced physical function decrease and impact their quality of life. However, they always lack a long-term, home-style, and continuous legs exercise training methods, and rare study to explore the effects on physical recovery and quality of life after exercise training. The purpose of this study was to examine the effects of lower extremity muscle strength training on patients' physical recovery and quality of live underwent total knee replacement.

Methods: The quasi-experimental design was conducted, and using a simple randomize sampling (as patients admission priority order) to collect participants' data. Eligible sample recruited from a hospital in Tainan. Inclusion criteria were above 20 old, and will be received total knee replacement (TKR). Outcome measurements included the Knee injury and osteoarthritis outcome score (KOOS, including pain, symptoms, active daily life [ADL], sport & recreation, and quality of life five subscales), disease related variables, and personal demographics. Participants were distributed into with a lower extremity muscle strength training and the training started before surgery (experimental group, n=100) or with usual care (control group, n=100). The lower extremity strength training was conducted by a nurse practitioner. We examined outcome indicators before surgery (T1) and follow up at two weeks (T2), one month (T3), two months (T4), and three months (T5) after TKR.

Results: The KOOS subscales scores showed that all the two groups' patients experienced physical function (ADL and sport & recreation) and quality of life decreased at the two weeks after received TKR, but all the subscales scores gradually increased from one month to third months after TKR ($p < .001$). The generalized estimating equation (GEE) tests showed that both group and time were significantly different, indicated that both group patients experienced physical function and quality of life improvement, however, the exercise group physical function and quality of life was early recovery and better than no exercise group physical function and quality of life after TKR.

Conclusion: The study confirmed that after lower extremity muscle strength training exercise helps to improve the quality of life and physical function recovery in patients who undergone TKR. This results recommend for the healthcare staff embed this training into pre-surgical nursing care and patients' discharge plan in care of TKR patient as a continuous daily rehabilitation activity at home.

References

Artz, N., Elvers, K. T., Lowe, C. M., Sackley, C., Jepson, P., & Beswick, A. D. (2015). Effectiveness of physiotherapy exercise following total knee

replacement: systematic review and meta-analysis. *BMC Musculoskeletal Disorders*, 16(1), 1.

Collins, N. J., Misra, D., Felson, D. T., Crossley, K. M., & Roos, E. M. (2011). *Measures of knee function: International Knee Documentation Committee*

(IKDC) Subjective Knee Evaluation Form, Knee Injury and Osteoarthritis Outcome Score (KOOS), Knee Injury and Osteoarthritis Outcome Score

Physical Function Short Form (KOOS-PS), Knee Outcome Survey Activities of Daily Living Scale (KOS-ADL), Lysholm Knee Scoring Scale, Oxford

Knee Score (OKS), Western Ontario and McMaster. *Arthritis Care and Research*, 63(SUPPL. 11).

DOI: [10.1002/acr.20632](https://doi.org/10.1002/acr.20632)

Mizner, R. L., Petterson, S. C., Clements, K. E., Zeni, J. A., Irrgang, J. J., & Snyder-Mackler, L. (2011). Measuring functional improvement after total

knee arthroplasty requires both performance-based and patient-report assessments: a longitudinal analysis of outcomes. *The Journal of*

Arthroplasty, 26(5), 728-737.

Contact

lin2368@isu.edu.tw

RSC PST 1 - Research Poster Session 1

Right Time in Medication Administration: A Multifaceted Concept

Juliana J. Brixey, PhD, MPH, MSN, RN, USA

William Scott Erdley, DNS, RN, CHSE, USA

Abstract

Purpose: The medication administration process is a five-step procedure entailing prescribing, transcribing, dispensing, administering, and monitoring. Medication administration involves giving a pharmacological agent, such as a drug, to a patient or client. Within medication administration the patient expects the right medication, in the right dose, to be at the right time, and by the right route. 'Right time', which is clearly identified as an important component of the medication administration process, should therefore be clearly defined as well achievable. 'Right time' also implies a measurable period of time. The literature does not clearly define 'right time' instead defining through linking to, for example, a prescribing provider's order or the most recent administration. The purpose of this study was to review the literature to determine themes, trends, and definitions of 'right time' of medication administration.

Methods: A retrospective review of the literature was conducted to identify themes and trends of 'right time' of medication administration.

Results: A specific definition of 'right time' was not readily discovered in the literature. The following trends were identified from the literature. For example, 'right time' is coupled with an exact time such as an hour for administration (e.g., at 0600). Moreover, 'right time' is intimately related to frequency. For example, twice a day at 0900 and 1700. 'Right time' may also be coupled with a range in hours. For instance, every two hours or every six hours. What is more, 'Right time' can be extended to a seasonal event. For example, the 'right time' to receive the flu vaccine during the flu season. Right time is teamed with vital signs. For example, administer acetaminophen every 6 hours as needed for temperature greater than 100 degree F. 'Right time' is also coupled with laboratory values. Administer Warfarin 5 mg for INR < 1.5. Additionally 'right time' is frequently denoted with a specific parameter such as with food or without food. These attributes should ultimately be based on drug action, distribution, absorption, metabolism, and excretion.

Conclusion: A definition for 'right time' medication administration needs to be explicitly stated. This research study indicates 'right time' is a multifaceted concept without a clear and precise definition. This research begins development of a taxonomy of 'right time' drug administration.

References

Federico, F. (2016). The five rights of medication administration. Retrieved from <https://goo.gl/GLDIkF>

Pharmacokinetics Basics- Absorption, Distribution, Metabolism and Excretion. (2011). Retrieved from <http://pharmaxchange.info/press/2011/04/pharmacokinetics-basics-absorption-distribution-metabolism-and-excretion/>

Contact

Juliana.j.Brixey@uth.tmc.edu

RSC PST 1 - Research Poster Session 1

Outcomes of Study on Quality Life and Perception of Dyspnea: Patients With Advanced Lung Cancer

Barbara A. Roces, PhD, NP, RN, USA

Abstract

Purpose: This study was proposed to help fill the gap in knowledge regarding quality of life and dyspnea perception in the advanced lung cancer population. The overall purpose of this study was to examine the relationship between quality of life and perception of dyspnea in a group of advanced lung cancer patients.

Methods: This was a descriptive correlational, cross-sectional study. Quality of life was measured using The Assessment of Quality of life at the End of Life (AQEL). Perception of dyspnea was measured using the Cancer Dyspnea Scale (CDS). The participants were 22 patients in a hospice care setting diagnosed with advanced lung cancer that reported dyspnea.

Results: The aims of this proposed study were formulated to address the research questions of whether relationships existed between relevant demographic variables, the subscales component of AQEL and CDS, and the total score for both the Assessment of Quality of Life at the End of Life and the Cancer Dyspnea Scale. The findings supported the literature review suggestions that there was indeed relationship between the subscales, AQEL, and CDS measurement total scores. In the sample of advanced lung cancer patients in the hospice care setting, results revealed the AQEL subscales (basic function, activity, cognitive function and perception of care) had a significant correlation to the AQEL total score. In addition, the physical symptoms (pain and bowel movement) indicated a strong inverse relationship to the AQEL total score. As indicated by prior research, analysis revealed the CDS subscales (discomfort, anxiety, and sense of effort) had a strong significant relationship to the CDS total score. Furthermore, it is important to note that the result geared toward the second aim of this research study, indicated no significant relationships between the participants demographics, AQEL total score, and CDS total score.

Conclusion: Precipitants of dyspnea included both physical and emotional sensations triggered by immediate reactions connected to participants' experience of dyspnea perception amongst advanced lung cancer patients in the hospice setting. Therefore, The need to explore numerous interventions in lung cancer and dyspnea is imperative. It is vital that the healthcare team work therapeutically with patients and family to help them live better with illness and its manifestations.

References

References

- Gupta, D., Braun, D. P., Staren, E.D. (2012). Association between changes in quality of life scores and survival in non-small cell lung cancer patients. *European Journal of Cancer Care*, 12, 614-622.
- Hermann, C.P., Looney, S.P. (2011). Determinants of quality of life in patients near the end of life: A Longitudinal perspective. *Oncology Nursing Forum*, 38(1), 23-31
- Kamal, H. A., Maguire, M. J., Wheeler L. J., Currow, C. D., Abernethy, P. A. (2011). Dyspnea review for the palliative care professional: Assessment, Burdens, and Etiologies. *Journal of Palliative Medicine* 14(10) 1167-1172.

Parshall, M.B., Schwartzstein, R.M., Adams, L., Banzett, R.B., Manning, H.L., Bourbeau, J., et al., (2012). An official American Thoracic Society statement: Update on the mechanisms, assessment, and management of dyspnea. *American Journal of Respiratory and Critical Care Medicine*, 185, 435-452.

Contact

broces@westcoastuniversity.edu

RSC PST 1 - Research Poster Session 1

Travel Motivation and Influencing Factors of Travel Decision Making in Hemodialysis Patients

Wan-Chen Lo, MSN, RN, Taiwan

Abstract

Background: Hemodialysis patients suffered physical and psychological stress come from chronic disease. Patients may experience troubling symptoms, such as fistula puncture related pain, nausea, vomit, fatigue, diet and fluid restriction, time constrained of dialysis. Studies showed that leisure activities can relief stress, anxiety, depression, and improve patient's health. Traveling is one of the leisure activities. However, previous studies focused on obstacles and related factors about traveling in dialysis patients, seldom explored travel motivation and factors influencing travel decision making.

Purpose: 1. To explore the travel motivation and factors influencing travel decision making in dialysis patients.

2. To analyze the relationship between demographic characteristics, travel motivation, and travel decision making in dialysis patients.

Methods: A cross-sectional study and recruited dialysis patients by purposive sampling. Participants were aged 20 and above, conscious clear, able to communicate and willing to join study. Questionnaire was self-designed by referencing literature, include travel motivation and factors influencing decision making dimensions. Total 27 items and calculated by 5-point Likert scale, higher scores mean higher travel motivation and more important influencing factor of travel decision making. Content validity index were 0.95 and 0.90, Cronbach's α were 0.875 and 0.825 respectively.

Results: One hundred dialysis patients were recruited, most of them were 41~60 year-old (46%) followed by over 60 year-old (41%), male and married. Dialysis years in average was less than 5 years (65%). At travel motivation, relaxation (4.00 ± 1.19), maintain physical and mental health (3.91 ± 1.01), and experience local natural environment (3.90 ± 1.25) were the major motivations. In terms of travel decision making, the influencing factors were dialysis schedule (3.97 ± 1.26), tourist destination image (3.83 ± 1.18) and travel motivation (3.60 ± 1.10) in sequence. The relationship between demographic data and travel motivation was no significant, but younger patients tend to have higher travel motivation. On the travel decision making, there was significant relationship between age and travel decision making. Younger patients believed the importance of traveling and most of factors influenced the travel decision making.

Conclusion: Study results revealed that relaxing, maintaining health and experiencing local natural landscape were the major motivation to travel. Those travel decision making would be influenced by dialysis schedule. Younger patients have higher travel motivation and deem travel was very important. As a clinical nurse, feasible dialysis schedule will help and promote patients to arrange travel activities. Though older patients have lower motivation, we should encourage them and join the travel activities.

References

1. Lee, C. J., Wu, C. S., & Lin, C. T. (2012). Leisure activity and coping with stress: Adolescents as case study. *Quality & Quantity*, 46(3), 979-991.
2. Reza Jalilvand, Mohammad, Samiei, Neda, Dini, Behrooz, & Yaghoubi Manzari, Parisa. (2012). Examining the structural relationships of electronic word of mouth, destination image, tourist attitude toward destination and travel intention: An integrated approach. *Journal of Destination Marketing & Management*, 1(1-2), 134-143.
3. Shi, Lei, Cole, Shu, & Chancellor, H.Charles. (2012). Understanding leisure travel motivations of travelers with acquired mobility impairments. *Tourism Management*, 33(1), 228-231.

Contact

wanchen@ntuh.gov.tw

RSC PST 1 - Research Poster Session 1

An Early Rehabilitation Intervention for Enhancing Oxygenation and Recovery From Lung Cancer Surgery

Tsae-Jyy Wang, PhD, ARNP, RN, Taiwan

Wei-Ling Hsiao, MSN, NP, RN, Taiwan

Abstract

Purpose: The purpose of this study is to test the effects of an early rehabilitation intervention on oxygenation, postoperative complications, and recovery from lung cancer surgery.

Methods: The study uses an experimental design. Ninety patients scheduled for lung cancer surgeries was recruited from thoracic surgery units of a medical center in Taiwan. Patients were randomly assigned to the intervention or the control group. The intervention includes a 5-day preoperative home-based rehabilitation and a 5-day postoperative in-hospital rehabilitation. The main components of the rehabilitation were aerobic and strength exercises as well as breathing training by using an incentive spirometry. Peripheral capillary oxygen saturation (SpO₂) was measured in the morning of the preoperative day and of the 4 consecutive days from postoperative day one to four by using the Nellcor™ OxiMax N-65 Portable Pulse Oximeter. The SpO₂/FiO₂ (S/F) ratio was then calculated to assess patients' oxygenation. Data on postoperative pulmonary complications and durations of chest tube drainage were collected from the patients' charts.

Results: The patients' demographics and baseline measures were equivalent between groups. Results of GEE showed a significant group by time interaction effect on S/F ratio. As for the parameter estimates, from postoperative day 1 to day 4, the S/F ratio improvement in the intervention group was 74.49 (Wald $X^2 = 46.42$, $p < 0.001$) more than in the control group. Result of Chi-square test showed that the number of postoperative lung complications in the intervention group ($n = 1$) was significantly less ($X^2 = 8.39$, $p = 0.004$) than it in the control group ($n = 10$). Result of t- test showed that the duration of chest tube drainage in the intervention group (2.00 ± 1.00 days) was significantly shorter ($t = -2.32$, $p = 0.022$) than it in the control group (2.56 ± 1.25 days).

Conclusion: The study results support the effects of the early rehabilitation intervention on enhancing oxygenation, preventing complications, and promoting recovery from lung cancer surgery as indicated by shortened the duration of chest tube drainage. Surgery to remove the cancer is one of the primary treatment options for non-small cell lung cancer. However, lung cancer surgery may result in decreasing lung capacity and expansion; therefore, increase risks for postoperative pulmonary complications. Pulmonary rehabilitation designed to enhance lung expansion and ventilation may help to reduce postoperative lung complications and promote patients' recovery from lung cancer surgery.

References

- Agostini, P., Cieslik, H., Rathinam, S., Bishay, E., Kalkat, M. S., Rajesh, P. B., ... & Naidu, B. (2010). Postoperative pulmonary complications following thoracic surgery: are there any modifiable risk factors?. *Thorax*, 65(9), 815-818
- Arbane, G., Tropman, D., Jackson, D., & Garrod, R. (2011). Evaluation of an early exercise intervention after thoracotomy for non-small cell lung cancer (NSCLC), effects on quality of life, muscle strength and exercise tolerance: randomised controlled trial. *Lung Cancer*, 71(2), 229-234. doi: 10.1016/j.lungcan.2010.04.025
- Benzo, R., Wigle, D., Novotny, P., Wetzstein, M., Nichols, F., Shen, R. K., ... & Deschamps, C. (2011). Preoperative pulmonary rehabilitation before lung cancer resection: results from two randomized studies. *Lung Cancer*, 74(3), 441-445.
- Brocki, B. C., Nielsen, L. R., Nekrasas, V., Due, K. M., & Andreassen, J. (2010). Rehabilitation after lung cancer operation - a randomised controlled study. Abstract from 3rd Nordic Respiratory Congress, København, .
- Cavalheri, V., Tahirah, F., Nonoyama, M., Jenkins, S., & Hill, K. (2014). Exercise training for people following lung resection for non-small cell lung cancer - A cochrane systematic review. *Cancer Treatment Reviews*. 40 (4), 585-594.
- Cesario, A., Ferri, L., Galetta, D., Pasqua, F., Bonassi, S., Clini, E., ... & Margaritora, S. (2007). Post-operative respiratory rehabilitation after lung resection for non-small cell lung cancer. *Lung cancer*, 57(2), 175-180.
- Coats, V., Maltais, F., Simard, S., Fréchette, É., Tremblay, L., Ribeiro, F., & Saey, D. (2013). Feasibility and effectiveness of a home-based exercise training program before lung resection surgery. *Canadian Respiratory Journal*, 20(2), e10-e16.

Gao, K., Yu, P. M., Su, J. H., He, C. Q., Liu, L. X., Zhou, Y. B., ... & Che, G. W. (2015). Cardiopulmonary exercise testing screening and pre-operative pulmonary rehabilitation reduce postoperative complications and improve fast-track recovery after lung cancer surgery: A study for 342 cases. *Thoracic Cancer*, 6(4), 443-449.

Granger, C. L., Chao, C., McDonald, C. F., Berney, S., & Denehy, L. (2012). Safety and feasibility of an exercise intervention for patients following lung resection: a pilot randomized controlled trial. *Integrative Cancer Therapies*, 2(3):213-224.

Kim, S. K., Ahn, Y. H., Yoon, J. A., Shin, M. J., Chang, J. H., Cho, J. S., ... & Shin, Y. B. (2015). Efficacy of systemic postoperative pulmonary rehabilitation after lung resection surgery. *Rehabilitation Medicine*, 39(3), 366-373

Neto, A. S., Cardoso, S. O., Ong, D. S., Espósito, D. C., Pereira, V. G., Manetta, J. A., ... & Cremer, O. L. (2013). The use of the pulse oximetric saturation/fraction of inspired oxygen ratio for risk stratification of patients with severe sepsis and septic shock. *Journal of Critical Care*, 28(5), 681-686.

Ni, H. J., Pudasaini, B., Yuan, X. T., Li, H. F., Shi, L., & Yuan, P. (2016). Exercise training for patients pre- and postsurgically treated for non-small cell lung cancer: A systematic review and meta-analysis. *Integrative Cancer Therapies*. 90(1), 5-11.

Pons-Odena, M., Palanca, D., Modesto, V., Esteban, E., González-Lamuño, D., Carreras, R., & Palomeque, A. (2013). SpO₂/FiO₂ as a predictor of non-invasive ventilation failure in children with hypoxemic respiratory insufficiency. *Journal of Pediatric Intensive Care*, 2(3), 111-119.

Rodriguez-Larrad, A., Lascurain-Aguirrebena, I., Abecia-Inchaurregui, L.C., & Seco, J. (2014) Perioperative physiotherapy in patients undergoing lung cancer resection. *Interactive Cardio-Vascular and Thoracic Surgery*, 19(2) 269-281.

Sommer, M. S., Trier, K., Vibe-Petersen, J., Missel, M., Christensen, M., Larsen, K. R., ... & Langberg, H. (2016). Perioperative rehabilitation in operable lung cancer patients (PROLUCA): A feasibility study. *Integrative Cancer Therapies*. 20(2), 56-61

Contact

amberhsiao101501@gmail.com

RSC PST 1 - Research Poster Session 1

The Important Factors to Improve Nurse's Self-Confidence in Utilizing of Nursing Information Systems (SIMKEP)

Dewi Sartika Asril, MKep, NS, Indonesia

Tutik Sri Haryati, SKp, MARS, Indonesia

Abstract

Purpose: A phenomenology study was carried out to explore nurse's experience about self-efficacy in utilizing nursing information system (SIMKEP) in Bunda Mother and Child Hospital Jakarta, Indonesia, included response, self-confidence, adaptability, factors, barriers, and expectations.

Methods: The method of data collection was the in-depth interview to ten nurses who utilizing SIMKEP in Bunda Mother and Child Hospital Jakarta. Participant recruitment process carried out through cooperation with the Manager of Nursing and Head Nurses in each room. The method used in this research was in-depth interview which was conducted for about 30-45 minutes at the participants. The central question posed in-depth interview were with open-ended question. This question topic was developed based on the dimensions of self-efficacy included magnitude, strength, and Generally. The main tool for collecting data in this study was researchers themselves. The tool used for data collection was a voice recorder to record the verbal expression of participants and handy camcorder to record the participants' nonverbal expression, which was used by permission of the participants. Other tool used was field notes or field notes to help researchers gain an overview of all the events during the process the interview took place. Each completed in-depth interviews with participants, researchers directly create documentation through verbatim transcript and field notes. Furthermore, researchers conducted a data analysis by using Colaizzi. The validity of research data was conducted by credibility, confirmability, transferability and dependability.

Results: The study found theme about the factors that improve the nurse's self-confidence in utilizing SIMKEP, covering the factors of the nurses, the factor of co-workers. About reward can improve the self-confidence of nurses in utilizing SIMKEP. The newly found in this study were the emergence of self-confidence in utilizing SIMKEP, shape constraints of co-workers, and expectations about reward can improve the self-confidence of nurses in utilizing SIMKEP.

Conclusion: Recommended to the nurses to improve their self-confidence by increasing the interest to the SIMKEP, learning SIMKEP, often using SIMKEP, and training with co-workers. To the nurse manager is expected to optimize the role and management functions for improving the self-confidence of nurses in utilizing SIMKEP by granting rewards.

References

Ammenwerth, E., Rauchegger, F., Ehlers, F., Hirsch, B., & Schaubmay, C. (2011). Effect of a nursing information system on the quality of information processing in nursing: An evaluation study using the HIS-monitor instrument Nursing documentation: Frameworks and barriers *International Journal of Medical Informatics*.

Bagus, N.A. & Hasan, B. M. (2014). Electronic Medical Record Design to Enhance Hospital Performance (Case Study JAVACARE Hospital). *The Indonesian Journal of Business Administration*, 3 (2).

Blair, W., Smith, B. (2011). Contemporary Nurse. *Journal for the Australian Nursing Profession*.

Ferreira, S., Echer, I., Lucena, A. (2014). Nursing diagnoses among kidney transplant recipient: Evidence from clinical practice. *International Journ*.

Fiander, et al. (2015). Interventions to increase to use of electronic health information by healthcare to improve clinical practice and patient outcomes. *The Cochrane Database of Systematic Review*, Issue 3. Art. No. CD004749. John Wiley & Sons.

Geurden, B., Wouters, C., Franck, E., Weyler, J., & Ysebaert, D. (2014). Does documentation in nursing records of nutritional screening on admission to

hospital reflect the use of evidence-based practice guidelines for malnutrition?
International Journal Nursing Knowledge.

Hariyati, R.T.S, Delimayanti, K.M., & Widiatuti. (2011). Developing prototype of the nursing management information system in Puskesmas and hospital, Depok Indonesia. *African Journal of Business Management.*

Hariyati, R.T.S, Yani, A., Eryando, T., Hasibuan, Z., & Milanti, A. (2015). The Effectiveness and Efficiency of Nursing Care Documentation Using the SIMPRO Model. [*International Journal of Nursing Knowledge.* 27 \(3\).](#)

Jefferies, D., Johnson, M., Nicholls, D., & Lad, S. (2012). A ward-based writing coach program to improve the quality of nursing documentation. *Journal Nurse Education Today.*

Kelley, T. F., Brandon, D. H., Docherty, S. L. (2011). Electronic Nursing Documentation as a Strategy to Improve Quality of Patient Care. *Journal of Nursing Scholarship*, 43(2), 154-162.

Park, H. (2014). Identifying core NANDA -I nursing diagnoses, NIC interventions, NOC outcomes, and NNN linkages for heart failure. *International Journal of Nursing Knowledge.*

Ross, B. H. (2012). *The psychology of learning and motivation, volume 57.* Amsterdam: Academic Press.

Sugiyono. (2011). *Metode penelitian kuantitatif, kualitatif dan R & D.* Bandung: Alfabeta.

Zeigler, C. (2011). *Computerization in practice: The lived experience of experienced nurses.* Capella University). ProQuest Dissertations and Theses.

Retrieved from

<http://search.proquest.com/docview/908437918?accountid=17242>

WHO. (2014). *Health Technology Assesment of Medical Devices.* WHO.

Contact

tika27asril@gmail.com

RSC PST 1 - Research Poster Session 1

Life Meaning in Patients Diagnosed With End-Stage Liver Cancer: An Interpretive Phenomenological Approach

Dinah Hernandez, MSN/Ed, RN, PHN, CRN, USA

Abstract

Purpose: The purpose is to present a synthesized review of the literature regarding the occurrence of existential needs for meaning and purpose in end stage liver cancer patients.

Methods: Meaning in life, liver cancer, cancer, end of life, palliative, hospice were key words used to search for the English research articles in CINAHL, EBSCOHost, Medline, and Medscape. Ninety peer-reviewed publications of cancer patients with respect to life's meaning were found, none in end stage liver cancer patients. Based from the inclusion and exclusion criteria, forty-seven studies were eliminated in the search. The remaining forty-three peer-reviewed articles were included in the synthesis that met the inclusion criteria: cancer patients that are terminally diagnosed who are seeking purpose and meaning in life.

Phenomenology brings to the fore the perceptions of human persons regarding essential truths that are grounded in the lived experience. Interpretive Phenomenology allows for the description of the phenomena surrounding human existence and facilitates the understanding of persons' internally experienced and processed meaning. The focus is not on the objective measures but on the uniqueness of one's experience and its corresponding meaning or meanings. The French Existentialist Gabriel Marcel (1189-1973) envisions the human person as *homo viator*, one who is on a journey, a traveler, a pilgrim. Life is a kind of pilgrimage that goes beyond the present world and ultimately leads to God. This is transcendence. As a philosopher of transcendence, Marcel professes that the intrinsic value of the human life is a gift of God that is meant to be shared with others. The human person thus, makes a personal choice for an intimate communion with God and for the genuine dialogue with others in an inter-human relationship. While the human is very much present in the world, he/she recognizes the reality of something more than what this world and life can offer. Death is not the end. Authentic existence here on earth gives human person hope, a bridge to go beyond a deeper and fuller intimacy in the afterlife with the Divinity. But at the same time the human person is not on a journey alone. For Marcel, to exist is to co-exist. Existence thus means presence for others and for the Other. He/she is a *being-in-the-world- with others*, totally engaged in an actual and conscious communion with Being (God) and with other human beings through love, hope, fidelity, and availability.

Jean Watson's Caring Science exemplifies the act of caring in an interpersonal way, stands for values that honor and respect human capacity, preserving human dignity, spirituality, and wholeness in the midst of threats and crises of life and death. All of which transcend illness, diagnosis, condition, setting that were, and remain enduring and timeless across time and space, and changes in systems, society, civilization, and science.

- One of the basic assumptions of Jean Watson's Caring Science is the intersubjective human-to-human process that teaches the individual to be human by identifying oneself with others, whereby the humanity of one is reflected in the other.
- The caring moment becomes transpersonal when two persons (nurse and other/patient) together with their unique life stories and phenomenal field (perception) become a focal point in time, from which the moment has a field of its own that is greater than the occasion.
- This conveys a concern for the inner world and subjective meaning of another who is fully embodied and goes beyond the ego self and the given moment, thereby reaching to the deeper connections of the spirit and the broader universe.
- It also implies the uniqueness of self and others, of the moment and the coming together as mutual and reciprocal, each fully embodied and capable of transcending the moment and being open to new possibilities.
- Nurses participate in the patient's realm of experience in finding meaning and purpose, in a way that the patient and nurse are "in tune" with each other and are aware of the uniqueness of each other.

Significance

Patient care necessitates not only the knowledge of the medical condition but one must be able to look beyond the patient's diagnosis, see the person as a whole, and understand the meaning that the

experience holds for him/her. The search for meaning in life can contribute to the development of meaning-based interventions in the context of cancer. The knowledge generated can be used in the planning of holistic care services; and this may increase the awareness among healthcare professionals in honoring the remaining precious moments of dying patients by respecting their humanity, preserving dignity, ensuring comfort, and advocating optimum palliative care. Such knowledge may empower healthcare providers to assist individuals that are approaching death and their families to do so in a way that is meaningful rather than simply tolerable. Nurses and other healthcare providers may assist patients for necessary referrals to counselors and chaplains who could provide strength and comfort during life's final stages.

Results: Meaning in life is a multi-dimensional concept involving the value and purpose of life, and the motivation to find both. It is a matter of living authentically, that is, with a certain quality, depth, abundance, and intensity thus, making life worth living. The way a person becomes aware of the changed circumstances of his/her life, as being diagnosed with liver cancer for instance, and how he/she deals with this awareness is decisive for the way the individual continues to live. Hope has been found to be a dominant component when terminally ill patients describe their lived experience. A higher sense of meaning has been associated with greater social, psychological, emotional adjustments, and has exhibited to have a positive impact on the quality of life of these patients. Existential meaning-focused interventions have also shown to effectively improve well-being. A successful search for meaning may contribute to one's ability to cope with suffering. Regardless of the coping mechanism, patients attempt to find meaning, inner peace, and hope during the uncertainty inherent to the fight against cancer.

Implication

Understanding how individuals attach meaning to their experience would enable the nurses to help patients adjust to difficult situations such as approaching death in liver cancer patients. Research findings can contribute to the identification of concepts and subsequent development of quantitative tool to measure identified constructs in patients with same illness and prognosis and profile. The results can aid in future clinical research related to the meaning in life and the predictive factors in patients with cancer. Findings of this type of research can be used to develop continuing education programs for nurses and healthcare providers related to the meaning in life.

Conclusion: Life's meaning is a multi-dimensional concept associated with greater social, psychological, and emotional adjustments that relate to the quality, depth, abundance, and intensity of life. Hence, the best supportive care for end-stage liver cancer patients should include efforts to assist them in search for meaning.

Considering the meaning in life for the dying patients as the essence of this research and intuiting that the end stage liver cancer patients would in general be affirming the value of hope and the greater purpose in continuing to live despite inevitability of death, Marcel's existential phenomenological approach is a fitting philosophical framework that can dialogue with Jean Watson's nursing framework in caring for the dying.

References

References

- American Cancer Society (2016). What are the key statistics of liver cancer? Retrieved from www.cancer.org
- Burke, L., & Neimyer, R. (2012). *Meaning making* (Chapter 19 in Spirituality and Healthcare ed.). United States: Oxford University Press.
- Lee, V., & Loisele, C. G. (2012). The salience of existential concerns across the cancer control continuum. *Palliative Supportive Care, 10*, 1-11
- Scheiffold, K., Mehnert, A., Muller, V., Koch, U., Harter, M., & Vehling, S. (2014). Sources of meaning in cancer patients- influences on global meaning, anxiety and depression in a longitudinal study. *European Journal of Cancer Care, 23*, 472-480.
- Tomas-Sabado, J., Villavicencio-Chavez, C., Monteforte-Royo, C., Guerrero-Torrelles, M., Johannes Fegg, M., & Balaguer, A. (2015). What gives meaning in life to patients with advanced cancer? A comparison between Spanish, German, and Swiss patients. *Journal of Pain and Symptom Management, 50*(6), 861-866.

Contact

dshernandez12@apu.edu

RSC PST 1 - Research Poster Session 1

A Holistic Wellness Program for Low-Income Women: A Pilot Study

Debra Henline Sullivan, PhD, MSN, RN, CNE, COI, USA

Deborah Weatherspoon, PhD, MSN, RN, CRNA, COI, USA

Abstract

Purpose: It is well documented that the health of women in the United States (US) is declining primarily due to the high rates of obesity and sedentary lifestyle. In 2014, 66.2% of women in the US were overweight or obese and 38.1 obese (Center for Disease Prevention and Control [CDC], 2015b). These women are also inactive, with only 50% of the population participating in leisure-time and muscle-strengthening activities. Obesity and inactivity are known causes for chronic disease and premature death (Booth, Roberts, & Laye, 2012). Another complication is that low-income women are less likely to have resources to combat obesity and inactivity consequently; we see high rates of obesity in the population (CDC, 2015b).

The state of Tennessee (TN) ranks as the ninth highest adult obesity rate in the nation with 32% of women falling in the obesity range in 2012 (Segal, Rayburn, & Martin, 2016). Adult Blacks rank the highest in TN with 43% of the population, making it 4th in the nation. Latinos were 27.6% ranking 40th in the nation and whites were 31.5% and 7th in the nation (Segal et al., 2016). Higher rates of overweight and obesity are correlated with low-income adults in TN (Tennessee Department of Health, 2010) Due to this serious health problem in TN, a holistic health program was developed to offer low-income women the opportunity to receive lifestyle coaching. Coaching in nutrition, exercise, and empowerment are offered through a scholarship program. Each year 350 women receive these scholarships. A holistic wellness program has produced excellent results with positive health outcomes, and offers a wealth of information for further study. Participants have decreased diabetic and high blood pressure medications, controlled eating, and increased overall health and vitality (The New Beginnings Center, n.d.).

The purpose of this poster is to outline a pilot study to look at the progress of this unique program to determine if positive health outcomes of the program could be applied to a larger community population, which could be managed by nurses.

Methods: A pilot study is designed to research the correlations in participant outcomes.

Results: Results are not complete as of this date.

Conclusion: Conclusions have not been drawn as of this date.

References

- Booth, F. W., Roberts, C. K., & Laye, M. J. (2012). Lack of exercise is a major cause of chronic diseases. *Comprehensive Physiology*, 2(2), 1143–1211. Retrieved from <http://doi.org/10.1002/cphy.c110025>
- Center for Disease Prevention and Control (2015a). Participation in leisure-time aerobic and muscle-strengthening activities that meet the federal 2008 Physical Activity Guidelines for Americans among adults aged 18 and over, by selected characteristics: United States, selected years 1998–2014. Retrieved from <http://www.cdc.gov/nchs/data/hus/2015/057.pdf>
- Center for Disease Prevention and Control (2015b). Normal weight, overweight, and obesity among adults aged 20 and over, by selected characteristics: United States, selected years 1988–1994 through 2011–2014. Retrieved from <http://www.cdc.gov/nchs/data/hus/2015/058.pdf>
- Tennessee Department of Health (2010). Tennessee statewide nutrition and physical activity plan: A comprehensive plan to reduce obesity. Department of Health Authorization No. 343047
- Glasgow, R. E., Askew, S., Purcell, P., Levine, E., Warner, E. T., Strange, K. C., Colditz, G. A., & Bennett, G. G. (2012). Use of RE-AIM to address health inequities: Application in a low-income community health centered weight loss and hypertension self-management program. *Translational Behavioral Medicine* 3(2), 200-210. doi:10.1007/s13142-013-0201-8
- Segal, L. M., Rayburn, J., & Martin, A. (2016). The State of Obesity: Better Policies for a Healthier America. *Trust for America's Health and Robert Wood Johnson Foundation*. Retrieved from <http://stateofobesity.org/files/stateofobesity2016.pdf>
- The New Beginnings Center (n.d.). Client testimonials. Retrieved on December 7, 2016 from <http://www.thenewbeginningscenter.org/testimonials/>

Contact

debrahsullivan@gmail.com

RSC PST 1 - Research Poster Session 1

Clinical Alert System to Reduce Hospital Unexpected Cardiac Arrest Event

Chi-Hsuan Asphodel Yang, PhD, RN, Taiwan

Lee-Ling Huang, MSN, RN, Taiwan

Abstract

Purpose: The purpose of the paper was to determine whether clinical alert system led by nurses prompted by clinical instability in a patient could reduce the incidence of unexpected cardiac arrest in hospital.

Methods: A retrospective analysis of data extracted from medical records was performed to compare the incidence of UAC before and after the implantation of the CAS. The study was conducted at a 350-bed teaching hospital in central Taiwan area. Medical records of all adult patients admitted to the non-ICU wards of the hospital from January 1, 2010 to December 31, 2015 were reviewed. Patients who had signed do-not resuscitate order were excluded. We measure the incidence of unexpected cardiac arrests that occurred outside of the intensive care unit and occurred over the study period.

Results: There were 557 CAS calls during the study period. In the 36 months before the CAS began, the overall unexpected cardiac arrest was 0.020% per month. In the subsequent 36 months, that UAC rate was 0.021% per month. A slightly increase of UAC incidence was noted. A Bai-Perron method was used to test if there was any structure break appeared in the UAC rate of the 72 months. The analysis of Bai-Perron method identified the structural break date to be the 4th month of 2015 ($F = 26.1732, p < .01$), that after April 2015, the trend of UCA rate was shifted to a lower rate. In addition, the result of a order logistic regression showed three possible determinants of clinical outcomes after CAS; they were comorbidity ≥ 4 ($p = .0054$); presentation of neurological sign and symptom ($p = .0000$) and presentation of cardio-pulmonary sign and symptom ($p = .0000$).

Conclusion: While it may take up to 16 months to see the positive effect, the deployment of a clinical alert system may help in early recognition and response to patients' deterioration to further *prevent UCA*. Nurses should familiarize with the important clinical alerting sign and symptoms of patients; so that nurse could initiate early response to patients' deterioration and could further help *prevent UCA*.

References

Guirgis, F. W., Gerdik, C., Wears, R. L., Williams, D. J., Kalynych, C. J., Sabato, J., & Godwin, S. A. (2013). Proactive rounding by the rapid response team reduces inpatient cardiac arrests. *Resuscitation, 84*(12).

<http://doi.org/10.1016/j.resuscitation.2013.08.013>

Smith, G. B., Prytherch, D. R., Meredith, P., Schmidt, P. E., & Featherstone, P. I. (2013). The ability of the National Early Warning Score (NEWS) to discriminate patients at risk of early cardiac arrest, unanticipated intensive care unit admission, and death. *Resuscitation, 84*(4).

<http://doi.org/10.1016/j.resuscitation.2012.12.016>

Smith, M. E. B., Chiovaro, J. C., O'Neil, M., Kansagara, D., Quiñones, A. R., Freeman, M., ... Slatore, C. G. (2014). Early warning system scores for clinical deterioration in hospitalized patients: A systematic review. *Annals of the American Thoracic Society*.

<http://doi.org/10.1513/AnnalsATS.201403-102OC>

Contact

chyang@nutc.edu.tw

RSC PST 1 - Research Poster Session 1

Status of Foot Care for Chronic Dialysis Patients and Issues With Implementation

Sachiko Tamura, PhD, RN, Japan

Abstract

Purpose: We are developing a foot care that will prevent foot lesions for chronic dialysis patients. As the first step, we conducted a survey of the actual conditions in order to grasp the status and issues with implementation.

Methods: Head nurses at all dialysis facilities in one prefecture were posted question sheets we prepared, which were later collected.

Results: Responses for these question sheets were obtained from 33 of the 40 facilities targeted. Foot care was carried out on all dialysis patients at 46% of the facilities. The implementation period was during dialysis for 76% of the facilities, while a foot care checklist was used at 70% of the facilities. The most common types of care were observation of the foot and walking (91%), provision of knowledge of foot diseases and assessment of lifestyle (65%), instruction for how to care for one's own feet and the application of ointment (61%), cutting and filing toenails (52%), and foot baths (48%). Issues with the implementation of foot care included problems with ensuring enough time (86%), lack of knowledge and skills for foot care (73%), lack of a proper environment for foot care (50%), and the burden of recording in checklists, etc. (47%).

Conclusion: There is a high level of interest in foot care among dialysis nurses. In many facilities, a foot check chart is used alongside observation and care, but in terms of preventing foot lesions, there are issues with a lack of assessment and implementation of care, and in support for self-care. In order to prevent foot lesions in patients undergoing chronic dialysis, it is necessary to further enhance assessment and care, and it is very important to use a simple yet effective checklist to that end. Recording in checklists and so on needs to be improved to allow it to be done on a daily basis without it causing a burden.

References

(1) Japanese Society for Dialysis Therapy, "Current State of Chronic Dialysis Treatment Methods in Japan"

(*Wagakuni no mansei tōseki ryōhō no genkyō*)

(2) Japanese Society for Dialysis Therapy, "Guidelines for the Assessment and Treatment of Cardiovascular Complications in Haemodialysis Patients" (*Ketsueki tōseki kanja ni okeru kokoro kekkan gappeishō no hyōka to chiryō ni kansuru gaidorain*)

(3) Japan Academy of Diabetes Education and Nursing, "Foot Care Techniques" (*Futtokea gijutsu*)

Contact

tamura@ns.kanagawa-it.ac.jp

RSC PST 1 - Research Poster Session 1

Using a Bundle Prophylactic Approach in Post-Operative Total Knee and Hip Arthroplasty

Haofei Wang, DNP, RN, NEA-BC, USA

Patrick G. Ryan, MS, RN, CNS, ANP, CCRN, USA

Abstract

Background: Evidence is limited on which prophylactic intervention(s) to prevent post-operative VTE is/are optimal or suboptimal in TKA and THA population.

Objectives: To examine the different types of prophylactic interventions (pharmacological and mechanical), patient age and BMI, bleeding tendency and renal function, and type of surgeries (TKA and THA) in relation to VTE incidence.

Purpose: Deep vein thrombosis (DVT) is a blood clot that occurs in a deep vein of the body; pulmonary embolism (PE) occurs when a clot breaks free and enters the arteries of the lungs (CDC, 2015). Both DVT and PE comprise venous thromboembolism (VTE), which is a serious condition associated with prolonged duration of hospitalization and mortality. Each year in the United States, an estimated 350,000-900,000 people develop incident VTE, of whom approximately 100,000 die (CDC, 2014). Patients who undergo major orthopedic surgeries such as total hip arthroplasty or total knee arthroplasty are at the highest risk for postoperative VTE due to coagulation activation from tissue and bone injury, venous injury, reduced venous emptying intra-or post-surgery, and prolong immobilization (Florescu et al., 2013). The incidence of DVT varies from 42% to 57% after hip arthroplasty and from 41% to 85% after knee arthroplasty; the incidence of PE varies from 0.9% to 28% after hip arthroplasty and from 1.5% to 10% after arthroplasty (Januel et al., 2012). **Methods** of VTE prophylaxis include mechanical interventions such as compression stockings, compression device, or ambulation, and pharmacological intervention such as oral or subcutaneous anticoagulation agents. The purpose of this study is to look at the rates of VTE between those that received mechanical intervention only, pharmacological intervention only and those that received both mechanical and pharmacological interventions in the post-operative total hip and total knee arthroplasty patients.

Methods: A retrospective chart review study on a total of 135 adult patients underwent TKA ($n = 66$, 49%) and THA ($n = 69$, 51%) between October 2015 and December 2015 was conducted at a large tertiary Academic Medical Center. A convenient sample of the charts of all patients who underwent total hip or total knee arthroplasty and discharged from the hospital from October 2015 to December 2015 was pulled from the electronic medical record using the International Classification of Disease (ICD-10) code. Information was extracted including: age, gender, race, ethnicity, body mass index (BMI), surgery type, VTE risk factors, bleeding risks, mechanical measure used, pharmacological prophylaxis used, and duration of the mechanical measures used. The inclusion criteria included all adult patients greater than 18 years of age who underwent hip and/or knee arthroplasty procedures from October 1, 2015 to December 31, 2015. Exclusion criteria included patients with a documented VTE at the time of the surgery, past medical history of VTE and a past medical history of malignancy.

Results: None of the patients developed post-operative VTE complications during the hospitalization. Compliance rate of using both pharmacological and mechanical prophylaxis was 99%. Majority of the patients were on either Rivaroxaban ($n = 54$, 40%) or aspirin ($n = 63$, 46.7%) and mechanical intervention(s). Sixty-three percent of patients received early mobilization therapy within 24 hours of the surgery.

Conclusion: Use of a bundle prophylactic interventions, both pharmacological and mechanical, improved venous circulation and prevented the likelihood of VTE development in postoperative TKA and THA patients. Aspirin used along with mechanical intervention(s) might be as effective as an anti-coagulant agent. Strategies to improve practice compliance are crucial in efforts to prevent post-operative VTE. Future clinical trials of multiple VTE prophylactic interventions involving different types of pharmacological and mechanical approach for TKA and THA population and evaluation of the relative risks and benefits of these interventions are needed.

References

- Florescu, S., Anastase, D.-M., Munteanu, A.-M., Stoica, I. C., & Antonescu, D. (2013). Venous Thromboembolism Following Major Orthopedic Surgery. *Mædica*, 8(2), 189–194.
- Januel, J.-M., Chen, G., Ruffieux, C., Quan, H., Douketis, J.D., Crowther, M.A., Colin, C., Ghali, W.A., & Burnand, B., (2012). Symptomatic in-hospital deep vein thrombosis and pulmonary embolism following

hip and knee arthroplasty among patients receiving recommended prophylaxis: A systematic review. *JAMA*, 307(3), 294-303.

Centers for Disease Control and Prevention (CDC), (2014). CDC grand rounds: Preventing hospital-associated venous thromboembolism. *MMWR*, 63(9), 190-193.

Contact

haw9004@nyp.org

RSC PST 1 - Research Poster Session 1

Using Barthel Index and Performance Status Scale to Predict Inpatient Bowel Preparation Quality

Yu-Chi Kuo, BSN, RN, Taiwan

Ming-Wun Wong, MD, Taiwan

Ning-Hsin Lee, BSN, RN, Taiwan

Tzu-an Hsu, RN, Taiwan

Wei-Chen Lin, RN, Taiwan

Chun-Han Cheng, MD, Taiwan

Abstract

Purpose: Bowel preparation, cecal intubation rate, and adenoma detection rate influence the quality of colonoscopy and interval cancer rate. Adequate bowel preparation is first and essential step for not only procedure safety but also lesions deflection ability. According to literature, several factors affect inpatient bowel preparation such as age, socioeconomic class, opiate/ tricyclic antidepressants use, and physical status classification system by American society of anesthesiologists. However, there was still lack of general predicting model. Under hypothesis that patient's activity may be related to bowel movement then influence the bowel preparation. Thus we tried to predict inpatient bowel preparation by activity scoring system: Barthel index and performance status scale by eastern cooperative oncology group that routinely assessed in our inpatient nursing work. This study was aimed to evaluate predicting power of Barthel index and performance status scale by eastern cooperative oncology group for inpatient bowel preparation. We also investigated the cutoff values of scoring systems for inadequate bowel preparation.

Methods: All consecutive patients hospitalized for colonoscopy at the gastroenterology ward between 2016 May to 2016 June were retrospectively analyzed. We used Aronchick scale for bowel preparation evaluation. The level "excellent" and "good" were defined as adequate; "fair" and "poor" were defined as inadequate. All patients' activity statuses were assessed by Barthel index and performance status scale by eastern cooperative oncology group. The results were tested by receiver operating characteristic curve. Final the cutoffs were calculated by Youden's index.

Results: During the period of study, 100 hospitalized patients were retrospectively reviewed. The adequate bowel preparation rate was 70%. In addition, adenoma detection rate was 35%; cecal intubation rate was 99%. In receiver operating characteristic curve, area under curve of Barthel index was 0.798; area under curve of performance status scale by eastern cooperative oncology group was 0.824. Both of them were good discrimination for bowel preparation. After Youden's index calculation, we found 82 was cutoff for Barthel index and 1 was for performance status scale by eastern cooperative oncology group.

Conclusion: Both Barthel index and performance status scale by eastern cooperative oncology group were valuable to predicting inpatient bowel preparation. In daily practice, cutoffs let medical team pay more attention to possible inadequate bowel preparation.

References

- [1]Chambers, K., Whiteman, K., Stephens, K., Goodloe, L., & Kirsteen, H. (2016). Improving Inpatient Colonoscopy Preparation in a University Hospital: An Evidence-Based Practice Project. *Gastroenterology Nursing*, 39(2), 86-94.
- [2]Saltzman, J. R., Cash, B. D., Pasha, S. F., Early, D. S., Raman Muthusamy, V., Khashab, M. A., ... & Fonkalsrud, L. (2015). Bowel preparation before colonoscopy. *Gastrointestinal endoscopy*, 81(4), 781-794.
- [3]Yadlapati, R., Johnston, E. R., Gregory, D. L., Ciolino, J. D., Cooper, A., & Keswani, R. N. (2015). Predictors of inadequate inpatient colonoscopy preparation and its association with hospital length of stay and costs. *Digestive diseases and sciences*, 60(11), 3482-3490.

Contact

sweetkiwikimo@gmail.com

RSC PST 1 - Research Poster Session 1

PTSD in Neurology Nurses Coping With Verbal and Physical Abuse From Patients and Families

Roy Trahan, PhD, RN, USA

Abstract

Purpose: The purpose of the study was to assess the incidence, intensity, and impact of verbal and physical abuse experienced by neurology nurses from patients and families, identify current coping strategies of neurology nurses, and explore the relationships between selected demographic characteristics, high and low abuse from patients and families and coping strategies.

Methods: A descriptive, exploratory research design utilizing an anonymous online survey was used for this study. The sample consisted of registered nurses living in the United States currently employed full or part-time in direct care roles with neurology patients.

A total of 112 participants were recruited from three sources: 1) a contact population of 5000 neurology nurses via email using purposive sampling design techniques through an online database service specializing in healthcare marketing and research, 2) three metropolitan hospitals with full IRB reviews and 2) invitations submitted to nursing directors at local and regional hospitals.

Data was analyzed using descriptive statistics, tests of differences (analyses of covariance), and correlation (Pearson's and Spearman's rho and partial correlations). A statistical significance of $p < .05$ was the standard used for this research.

Results: Results of the study enriches the current literature by confirming the occurrence of verbal and physical abuse against neurology nurses, as well as contributing new data on intensity, impact and coping strategies of neurology nursing as it relates to verbal and physical abuse by patients and families. In addition, predictors of PTSD symptomatology and differences in genders on types of violence and the effects of verbal and physical abuse on coping strategy utilization were identified.

Conclusion: The findings of the study enrich the current literature by confirming the occurrence of verbal and physical abuse against neurology nurses, provided a forum for this nursing population to join in the discussion as legitimate victims of healthcare abuse, as well as contributing new data on intensity, impact and coping strategies of neurology nursing as it relates to verbal and physical abuse by patients and families.

References

Khademloo, M., Moonesi, F.S., & Gholizade, H. (2013). Health care violence and abuse towards nurses in hospitals in North of Iran. *Global Journal of Health Science*, 5(4), 211-216.

Speroni, K.G., Fitch, T., Dawson, E., Dugan, L., & Atherton, M. (2014). Incidence and cost of nurse workplace violence perpetrated by hospital patients or patient visitors. *Journal of Emergency Nursing*, 40(3), 218-228.

Trahan, R.L. & Bishop, S.L. (2016). Coping strategies of neurology nurses experiencing abuse from patients and families. *Journal of Neuroscience Nursing*, 48(3), 118-123.

Contact

rltrahan@utmb.edu

RSC PST 1 - Research Poster Session 1

Uncertainty and Depression as Mediators of Quality of Life in Patients With Heart Failure

Ting-Yu Chen, RN, Taiwan

Chi Wen Kao, PhD, RN, Taiwan

Abstract

Purpose: Based on the Mishel's uncertainty in illness theory (UIT), this study is to investigate the mutual relationships among uncertainty in illness, depressive status (DS) and health-related quality of life (HRQoL) in the patients with heart failure (HF).

Methods: In this cross-sectional observational study, 147 patients with a primary diagnosis of HF completed six self-report questionnaires: demographic and clinical characteristic, Mishel's Uncertainty in Illness Scale (MUIS), Beck Depression Inventory-II (BDI-II), Social Support Scale, Heart Failure Symptom Distress Scale, and Minnesota Living with Heart Failure Questionnaire. In this study, the AMOS 8.0 software package was used to conduct Structural Equation Modeling (SEM) analysis.

Results: The majority of subjects were male (54.4%), with a mean age of 71.04 ± 13.29 years. The left ventricular ejection fraction (LVEF) is between 10% and 80%, with an average of 46.42% (SD=17.20). The mean score of MUIS was 73.5 (SD=18.55), BDI-II was 19.42 (SD=11.29), and MLHFQ was 54.41 (SD=21.24). According to Mishel's UIT, the full model incorporated education, NYHA, LVEF, symptom distress, emotional support, and depressive status set up as measured variables. Uncertainty in illness and HRQoL were the latent variables. The final model has good fitness (/df 2.60, GFI 0.93, AGFI 0.85, CFI 0.96, RMSEA 0.10). Symptom distress, LVEF, education and emotional support explained 40% variance of uncertainty. Symptom distress, emotional support and uncertainty explained 56% variance of depressive status. Symptom distress, emotional support, uncertainty and depressive status explained 89% of HRQoL. Examination using Sobel's test found that uncertainty was the mediator between symptoms distress and HRQoL (Z value = 3.12 ; p value < 0.01), depressive status was the mediator between symptoms distress and HRQoL (Z value = 2.38 ; p value < 0.01), depressive status was also the mediator between emotional support and HRQoL (Z value = -2.25 ; p value < 0.01).

Conclusion: Our study identified uncertainty and depressive status as mediators between symptoms distress and HRQoL in HF patients. Therefore, we suggest that the clinicians should identify the patients' uncertainty and depressive status in clinical care, and providing non-pharmacological management strategies to improve patients' uncertainty and depression.

References

D

Dekker, R. L. (2014). Patient perspectives about depressive symptoms in heart failure: a review of the qualitative literature. *The Journal of Cardiovascular Nursing*, 29(1), 9-15.

Graven, L. J., & Grant, J. (2013). The impact of social support on depressive symptoms in individuals with heart failure: update and review. *The Journal of Cardiovascular Nursing*, 28(5), 429-443.

Jiang, X., & He, G. (2012). Effects of an uncertainty management intervention on uncertainty, anxiety, depression, and quality of life of chronic obstructive pulmonary disease outpatients. *Research in Nursing & Health*, 35(4), 409-18.

Contact

m098022@cjc.edu.tw

RSC PST 1 - Research Poster Session 1

Assessment of Human Trafficking Awareness

Karen L. Hoblet, PhD, MSN, RN, CNL, USA

Abstract

Background: Human trafficking is modern day slavery. INTERPOL, the world's largest police organization reported that human trafficking is a multi-billion dollar enterprise (2016). The Federal Bureau of Investigation in the United States reported that human trafficking may be the "third largest criminal activity in the world" (2016). The Ohio Department of Health reported that human trafficking is one of the fastest growing criminal industries in the world (2016). Literature identified nurses and other healthcare workers in working in emergency departments, physician offices, and urgent care centers as being positioned to identify and rescue victims of human trafficking (Peters, 2013). Currently there is limited if any content that included in curriculum in medicine and nursing to inform these healthcare providers about how to identify victims of human trafficking and then how to effectively access or provide support for victims of human trafficking.

Purpose: This study was conducted to assess Toledo, Ohio area emergency department nurses and physician knowledge of indicators of human trafficking and resources to help rescue victims of human trafficking. The study design also educated participants about indicators of human trafficking and about available resources to rescue and help victims.

Methods: The quantitative study was approved by the University of Toledo Social and Behavioral Science Institutional Review Board. Reciprocal institutional approval was obtained from a large health care corporation with multiple acute care facilities with emergency departments in the Toledo, Ohio area. Data collection took place in local Toledo, Ohio area emergency rooms. Once informed consent was obtained participants were given a 14-item instrument, The Human Trafficking Awareness Survey. This instrument was developed after a review of literature from 2004-2014 using a key word search which included: human trafficking, emergency departments, assessment, signs, symptoms, healthcare providers, sex trafficking, trafficking, minors, knowledge, and protocol. The instrument included six demographic items and eight items specific to human trafficking and took approximately ten minutes to complete.

Results: Data are currently being analyzed using SPSS23 and results will be available prior to the conference.

Conclusion: Human trafficking is modern day slavery and a multi-million dollar global industry. Emergency department nurses and physicians are positioned to identify, rescue, and help these victims. Unfortunately, not all nurses and physicians working in emergency departments are educated to enable them to identify and help victims of human trafficking. This study provided a means to not only assess the knowledge level of nurses and physicians working in Toledo, Ohio area emergency departments about indicators of human trafficking and available resources to help rescue victims, it also provided a means to educate these professional about indicators of human trafficking and available resources as well. The benefits of this work is self-evident. If one more person is identified, rescued, and helped than it was a meaningful work.

References

INTERPOL (2016). *Trafficking in human beings*. Retrieved on June 3, 2016 from <http://www.interpol.int/Crime-areas/Trafficking-in-human-beings/Trafficking-in-human-beings>.

Ohio Department of Health (2016). Human trafficking initiatives and resources. Retrieved on June 1, 2016 from <https://www.odh.ohio.gov>

Peters, K. (2013). The growing business of human trafficking and the power of emergency nurses to stop it. *Journal of Emergency Nursing*, 39(3), 280-288 9p. doi:10.1016/j.jen.2012.03.017

Contact

karen.hoblet@utoledo.edu

RSC PST 1 - Research Poster Session 1

Validity and Reliability of the Social Adjustment Scale for Adolescents With Tourette Syndrome

Mei-Yin Lee, PhD, RN, Taiwan

Abstract

Purpose: Tourette syndrome is a childhood-onset neurodevelopmental movement disorder, characterized by unwanted multiple motor and vocal tics, and lasting longer than a year. The unpredictable and abnormal tics result in negative effects on the physical, psychological, social, and academic domains of adolescents with Tourette syndrome. Worse still, they suffer difficulties in interpersonal interactions and drawbacks in adulthood. Therefore, developing a social adjustment scale suitable for adolescents with Tourette syndrome will facilitate the evaluation of their social adjustment and future studies. The objective of this study is to evaluate the reliability and validity of the social adjustment scale for adolescents with Tourette syndrome.

Methods: The in-depth interviews of this qualitative study are held with 16 adolescents with Tourette syndrome to explore their social adjustment experience. Meanwhile, the dimensions and items of the scale are based on relevant academic papers. In this study, 5 experts are invited for expert validity testing regarding the appropriateness, comprehensiveness, and relevance of the scale. Moreover, 100 adolescents with Tourette syndrome are taken as the samples for analysis of the reliability and validity of the social adjustment scale for Adolescents with Tourette syndrome.

Results: The mean content validity index of this study was 86.4%. Originally, the questionnaire consisted of 26 items; however, after item analysis, correlation analysis, and factor analysis, only 22 items were retained, and a higher score indicated stronger social adjustment. According to the factor analysis and the maximum variance method, four dimensions formed the best mode, including "Academic performance", "Familial relationship", "Peer relationship", and "Self-disease relationship", which could explain 52% of the variances. Cronbach's alphas of the social adjustment scale for adolescents with Tourette syndrome were 0.81. The Stress Index for Children or Adolescents with Tourette Syndrome was adopted to test criterion-related validity, and the result indicated negative correlation.

Conclusion: The social adjustment scale for adolescents with Tourette syndrome is a self-management tool developed according to the understanding of the social adjustment experience of adolescents with Tourette syndrome, and is designed to evaluate the social adjustment of adolescents with Tourette syndrome. The scale features high expert validity, inner consistency, and construct validity. The results of the scale can be taken as the basis for understanding and evaluating the social adjustment of adolescents with Tourette syndrome. The social adjustment scale for adolescents with Tourette syndrome is an ideal tool to evaluate social adjustment, and can serve as reference for the design and development of interference measures of clinical medical workers, relevant counselors, and educators.

References

- Cohen, S. C., Leckman, J. F., & Bloch, M. H. (2013). Clinical assessment of Tourette syndrome and tic disorders. *Neuroscience & Bio behavioral Reviews*, 37, 997-1007.
- Lee, M.Y., Mu, P.F., Wang, W.S., & Wang, H. S.(2016). Living with tics : Self-experience of adolescents with Tourette syndrome during peer interaction. *Journal of Clinical Nursing*, 23, 463-471.
- Wei, M. H.(2011). Social Adjustment, Academic Performance, and Creativity of Taiwanese Children with Tourette's Syndrome. *Psychological reports*,108(3), 791-798.

Contact

meiyin@mmc.edu.tw

RSC PST 1 - Research Poster Session 1

Improving Door-to-ECG Time for Patients Presenting With Chest Pain in the Adult Emergency Department

Barbara Maliszewski, MS, RN, USA

Heather Gardner, MS, RN, USA

Diana Lyn Baptiste, DNP, MSN, RN, USA

Cathleen Lindauer, MSN, CEN, RN, USA

Abstract

Purpose: The American Heart Association/ American College of Cardiology guidelines recommend rapid door-to-electrocardiography (ECG) times for patients who present with chest pain. Reducing ECG-to-door time is important so that health care providers adhere to the recommended door-to-balloon times (less than or equal to 90 minutes) for patients who present with ST-segment elevation myocardial infarction (STEMI).

The objective of this quality improvement project was to measure the mean time that it takes to obtain an electrocardiography (ECG) for patients who present to the emergency department with complaints of chest pain. The goal of this project was develop and evaluate an intervention that promote meeting the American Heart Association/ American College of Cardiology standard for ECG-to-door time of less than 10 minutes upon patients' arrival to the emergency department (ED).

Methods: We implemented a door-to-ECG protocol that included moving the ECG station to a specialized area in triage, where patients can quickly receive an ECG upon arrival to the ED. Patients who presented to the ED with complaints of chest pain were provided with a red heart symbol as an indicator for clinical technicians to identify those in need of an ECG, and process them quickly. Pre and post intervention data was collected over a six-month period.

Results: Prior to the intervention, the mean door-to-ECG time was 21minutes among (N=292) patients over three months. After the intervention, the mean door-to ECG time for (N=701) patients was 10.6 minutes, over the next 3 months. Initially, the percentage of compliance with door-to ECG standard was 26% and improved to 73% after implementation of the door-to ECG protocol. We found that door-to-EKG times for patients who walked in to the ED were relatively shorter than those who arrived via ambulance.

Conclusion: The overall door-to-ECG compliance improved by 47% in the post intervention period. By implementing a door-to ECG protocol, we not only improved door-to ECG-times, potentially decreasing door-to-balloon times for patients who presented with STEMI. Door-to-EKG times may vary among method of arrival. Further investigation is warranted to evaluate door-to-balloon times for patients with STEMI, and for development of strategies to improve door-to-EKG times for patients arriving via ambulance.

References

Coyne, C. J., Testa, N., Desai, S., Lagrone, J., Chang, R., Zheng, L., & Kim, H. (2015). Improving Door-to-balloon Time by Decreasing Door-to-ECG time for Walk-in STEMI Patients. *Western Journal of Emergency Medicine*, 16(1), 184–189. <http://doi.org/10.5811/westjem.2014.10.23277>

Kelly, E. W., Kelly, J. D., Hiestand, B., Wells-Kiser, K., Starling, S., & Hoekstra, J. W. (2010). Six Sigma process utilization in reducing door-to-balloon time at a single academic tertiary care center. *Progress in cardiovascular diseases*, 53(3), 219-226.

Kim, M. W., Oh, S. H., Park, K. N., Lee, J. M., Lee, Y. M., Kim, H. J., ... & Kang, D. J. (2014). Effect of emergency bell on door to ECG time in walk-in patients presented to emergency department with chest pain. *Quality Improvement in Health Care*, 20(1), 12-24.

Stanton, J. A., Spitzer, J. A., Becker, L. A., Craighead, B., Burt, D., & Johnson, T. (2013). A Novel Approach to Address Door-to-ECG Time for Walk-In Patients by Training Non-Medical Staff to Recognize Symptoms of Possible Acute Coronary Syndrome. *Circulation*, 128(Suppl 22), A18259-A18259.

Takakuwa KM et al. A method for improving arrival-to-electrocardiogram time in emergency department chest pain patients and the effect on door-to-balloon time for ST-segment elevation myocardial infarction. *Acad Emerg Med* 2009 Oct; 16:921.

Contact

dbaptis1@jhu.edu

RSC PST 1 - Research Poster Session 1

A Prospective Study to Explore Pain, Anxiety, and Acute Confusion in Patients With Abdominal Surgery

Kalaikai Patzukele, MSN, RN, Taiwan

Ya-Jung Wang, PhD, RN, Taiwan

Abstract

Purpose: Abdominal surgery is a very stressful process for patients. Pain, anxiety and acute confusion were common complication during surgery. Unfortunately, Acute confusion adverse outcomes, including longer hospital stay, and higher mortality. In Taiwan, most studies utilized a cross-sectional study design to respectively explore pain, anxiety and acute confusion in patients with surgery. Former studies lack of focus on trends of pain and acute confusion as well as predictors of acute confusion during pre-post operation. Therefore, this study were designed to search trends and predictor of pain, anxiety and acute confusion at pre-operative period(T1), 24 hours within post-operation (T2), and 72 hours after post-operation.

Methods: A prospective, observational, repeated-measure, correlational design was adopted. From August 2014 to May 2015, there were 60 patients with abdominal surgery who admitted to intensive care unit were recruited from a medical center in the northern Taiwan. Inclusion criteria were patients aged twenty and above, and with a Richmond Agitation Sedation Scale score between -3 and +4. This study assessment of acute confusion using confusion assessment method for the ICU (CAM-ICU), and Pain assessment using the critical-care pain observation tool in Chinese, and anxiety measurement tool using heart rate variability.

Results: Using generalized estimating equation analysis, results showed that the change of pain and acute confusion were significantly different over the three time points. The highest pain score was at T2, and then it decreased at T3, and also predicting acute confusion. The highest incidence was at T2, and then increased as time passed by. The change in anxiety through the pre-post operation was not significantly different. The different domains of heart rate variation were all with downward trends at T2, and then followed upward curves at T3.

Conclusion: Results of this study help to understand the change of pain, anxiety and acute confusion over the pre-post operation period, and pain level and anxiety were predictors of acute confusion in patients with abdominal surgery. Recommendations from this study results are (1) to include the acute confusion assessment within the routine nursing care, and (2) to monitor predictors of acute confusion in patients with abdominal surgery during their pre-post operation period.

References

Detroyer, E., Dobbels, F., Verfaillie, E., Meyfroidt, G., Sergeant, P., & Milisen, K. (2008). Is preoperative anxiety and depression associated with onset of delirium after cardiac surgery in older patients? A prospective cohort study. *Journal of American Geriatric Society, 56*(12), 2278-2284.

Guenther, U., Popp, J., Koecher, L., Muders, T., Wrigge, H., Ely, E. W., & Putensen, C. (2010). Validity and reliability of the CAM-ICU Flowsheet to diagnose delirium in surgical ICU patients. *Journal of Critical Care, 25*(1), 144-151. doi: 10.1016/j.jcrrc.2009.08.005

Van den Boogaard, M., Schoonhoven, L., Van der Hoeven, J. G., Van Achterberg, T., & Pickkers, P., (2012). Incidence and short-term consequences of delirium in critically ill patients: A prospective observational cohort study. *International Journal Nursing Studies, 49*(7), 775-783. doi: 10.1016/j.ijnurstu.2011.11.016

Vaurio, L. E., Sands, L.P., Wang, Y., Mullen, E.A., & Leung, J. M. (2006). Postoperative delirium: the importance of pain and pain management. *Anesthesia and Analgesia, 102*(4), 1267-1273.

Contact

zxc730409@gmail.com

RSC PST 1 - Research Poster Session 1

Is There Gender Difference in Maintenance of Peritoneal Dialysis: Analysis Using Competing Risk Model

Hsiao-Ling Chen, MS, RN, Taiwan

Jin-Lain Ming, MS, RN, Taiwan

Abstract

Purpose: Peritoneal dialysis (PD) is one choice of renal replacement therapies in patients with end-stage renal disease (ESRD). Gender difference was known with involving long-term outcome of nursing care such as quality of life among ostomy patients. However, little is known about the gender difference of PD usage and maintenance. This retrospective study aimed to clarify the gender effect on withdrawing PD.

Methods: ESRD patients, who had received PD catheter insertion, were enrolled in a tertiary hospital in northern Taiwan. The clinical data were reviewed and analyzed for the outcomes of PD-withdrawing time and events using competing risks regression model. Receiving renal transplantation or death was considered as a competing risk for the outcomes of withdrawing PD. Univariate analysis model was used to investigate the relationship between each independent variable, while multivariate analysis model was used to determine the independent variables that continued to be associated with outcomes after inclusion with significant variables in univariate analysis. Subdistribution hazard ratios (SHR) of covariates of competing risks regression were expressed with respective confidence intervals of 95%. Data were analyzed using the software Stata 12.0. *P*value less than 0.05 is considered statistically significant.

Results: A total of 514 patients receiving PD were enrolled for analysis between 2001 and 2013. One hundred and four patients (26%) had events of PD infection or malfunction and received removal of the PD catheter. Forty patients had received renal transplantation and avoided PD thereafter. Eighty-three patients had mortality events and 79 of them died with functioning PD. In the competing risk regression model, female patients had fewer events to remove PD catheter than male (SHR 0.67, 95% confidence interval 0.48-0.94, *p* = 0.019).

Conclusion: Male is a risk factor to have episode for removal of their PD catheters. Women may keep longer duration of PD usage and gender difference affects maintenance of PD catheters. Caring PD catheter is essential for ESRD patients and requiring self-care education. Gender difference for the maintenance of PD should be considered for further patient education and individual care.

References

Cho, Y., & Johnson, D. W. (2014). Peritoneal dialysis-related peritonitis: towards improving evidence, practices, and outcomes. *Am J Kidney Dis*, 64(2), 278-289. doi:10.1053/j.ajkd.2014.02.025

Haller, B., Schmidt, G., & Ulm, K. (2013). Applying competing risks regression models: an overview. *Lifetime Data Anal*, 19(1), 33-58. doi:10.1007/s10985-012-9230-8

Contact

rochasling@yahoo.com.tw

RSC PST 1 - Research Poster Session 1

The Relationship Between Magnet® Hospitals and Nurse-Driven Patient Outcomes

Amelia M. Joseph, PhD, MBA, RN, USA

Abstract

Purpose: Magnet® hospitals were established as a standardized program in 1990 by the American Nurses Credentialing Center to allow hospitals to be designated as excellent places for nurses to practice. Hospitals with this designation have the reputation of improved nurse-driven patient outcomes due to the structures and processes that support the organizational culture. However, the evidence does not conclusively support the effect that this designation has on patient outcomes. The aim of this study was to use publically available Medicare data to compare nurse-driven patient outcomes in Magnet® hospitals versus non- Magnet® hospitals across the United States.

The term “magnet” was first applied to hospitals following a 1983 study commissioned by the American Academy for Nursing to determine why certain hospitals easily hired and retained nurses. Forty-one hospitals were found to have specific characteristics that were especially attractive to nurses which created the idea of Magnet® hospitals ([McClure, Poulin et al. 1983](#)). In December, 1990, the American Nurses Association Board of Directors established the Magnet® Hospital Recognition Program which designated specific hospitals that demonstrated a work environment that encouraged and rewarded professional nursing. The first hospital was named in 1994. The program was renamed in 2002 to the Magnet® Recognition Program and is directed by a nine member, voluntary governing body made up of representatives from national nursing organizations as well as nurse managers and direct care nurses ([Morgan, Lahman et al. 2006](#)). Designation of Magnet® status is voluntary for hospitals and involves a multifaceted, peer review evaluation system. Final determination is made by the governing body. Designation is conferred for four years at which time, the facility must re-apply and undergo the same rigorous review. In the past five years, the standards have focused more on outcomes than on structure and process ([Morgan, Lahman et al. 2006](#), [Goode, Blegen et al. 2011](#)).

The evidence for the effect that this designation has on patient outcomes is mixed. A multi-site study using the Agency for Healthcare Quality and Research (AHRQ) data among 60 Magnet®, 720 non-Magnet®, and 19 Magnet® aspiring hospitals found a lower incidence of central nervous system disorders, hospital acquired pneumonia, and hospital acquired urinary tract infections in Magnet® hospitals when compared to non-Magnet® hospitals. Magnet® aspiring hospitals also had a lower incidence of central nervous disorders and hospital acquired pressure ulcers than non-Magnet®. However, non-Magnet® facilities had lower incidence of deep vein thrombosis/pulmonary embolism, failure-to-rescue, and pulmonary complications. There was no difference among the three groups for mortality, sepsis or surgical infections ([Carlson 2009](#)). Goode and colleagues used University Hospital Consortium data to measure patient outcomes in 19 Magnet® and 35 non-Magnet® hospitals based on patient safety indicator software published by AHRQ. Non-Magnet® hospitals had better outcomes for infections, post-operative sepsis, and postoperative metabolic derangement. Only pressure ulcers showed a lower incidence in Magnet® hospitals ([Goode, Blegen et al. 2011](#)). Among surgical patients treated in Magnet® hospitals, 7.7 percent were less likely to die within 30 days and 8.6 percent were less likely to die after a postoperative complication than in non-Magnet® hospitals ([Friese, Rong et al. 2015](#)). Among emerging Magnet® hospitals, 30-day mortality decreased by 2.4 fewer deaths per 1000 patients during an 8 year period. Failure-to-rescue decreased by 6.1 fewer deaths per 1000 patients during the same period ([Kutney-Lee, Stimpfel et al. 2015](#)). Using AHRQ Cost and Utilization data, no significant difference were found between Magnet® and non-Magnet® hospitals among pressure ulcers and failure to rescue ([Mills and Gillespie 2013](#)).

A systematic review of studies of patient outcomes among Magnet® hospitals found that the evidence for the effect of Magnet® designation on patient outcomes is inconclusive. Among the 141 studies that were screened, only ten met the inclusion criteria. This small sample was due to the methodological heterogeneity and poor quality design of studies. The sample was too small to allow for any strong conclusions to be reached by the investigators ([Daniel and Regnaud 2015](#)).

Methods: This is a retrospective, descriptive study using three different data sources. The first data source is from the Centers for Medicare and Medicaid (CMS) web-site using hospital compare data. These data are the results of the efforts of the Hospital Quality Alliance in collaboration with CMS. A

variety of different data sets are available for use. For the purposes of this study, data on hospital acquired infections and hospital acquired conditions were selected. Only variables thought to be sensitive to nursing care were considered using indicators established by the National Quality Forum ([Naylor, Volpe et al. 2013](#)). Catheter associated urinary tract infections (CAUTI) and central line blood stream infection (CLAB) were selected from the data set on hospital acquired infections and are reported over a 24 month time period, July, 2009 through June, 2011. Pressure ulcers, falls, and glycemic control were selected from the hospital acquired conditions set and are reported over the same time frame. Hospitals that did not report data for all of the five selected variables were excluded. The final sample contained data from 2780 hospitals.

The second is a list of Magnet® designated hospitals which was obtained from the American Nurses Credentialing Center (ANCC) web site. The ANCC is the arm of the ANA that administers the Magnet® Program. Three hundred fifty-eight hospital names were downloaded. These were then matched with data from the Medicare Compare web-site. Children's hospitals were excluded as were any hospital which was obviously a specialty care hospital based on the name (orthopedics, spine, eye, etc.). International hospital and hospitals with the Department of Veterans Affairs were excluded as they do not accept Medicare assignment and are not required to report data to Medicare. Critical Access Hospitals were also excluded as they are exempt from reporting data. Some hospitals could not be matched to hospitals in the Medicare data set by name or address and these were excluded leaving a total of 290 Magnet® hospitals.

The final data set that was used was data from the American Hospital Association web-site which provided information on the type of hospital ownership: private (voluntary private church based (VOLNPCHU); voluntary private (VOLNPPRI); voluntary private other (VOLNPOTH), public: federal government (GOVFED); hospital district (GOVHOSDIS); local (GOVLOC); or state (GOVST), or proprietary (PROP). Hospitals were also classified into geographic region as follows: New England (NE); mid-Atlantic (MA); Atlantic-south (AS); deep south (DP); great plains (GP); great lakes (GL); Rocky Mountains (RM); southwest (SW); and Pacific area (PA).

The dependent variable is Magnet® hospital status which is defined as any hospital that is listed on the ANCC web site.

The independent variables are:

- Central line associated blood stream infection (CLAB) which is measured in number of infections per 100 discharges;
- Catheter associated urinary tract infections (CAUTI) which is measured in number of infections per 100 discharges;
- Glycemic control (BS) which is blood glucose greater than 180 mg/Dl per 100 discharges;
- Hospital acquired pressure ulcers (PU) is the incidence of severe (stage 3 or 4) pressure ulcers per 100 discharges;

Falls are an unanticipated contact with the floor per 100 discharges.

Descriptive analysis was done on the full data set. As each variable performs independently of the others, that is the possibility of developing a pressure ulcer is not related to experiencing a fall, t-tests were used to compare the mean scores of Magnet® versus non-Magnet® hospitals for each variable.

Results: Ten percent of the 2780 hospitals that were reviewed held Magnet® designation at the time of the study. The Great Lakes region had the most designated hospitals. The overwhelming majority of designated hospitals fell into a voluntary ownership status at 82.7%.

There was no significant difference between the rates of pressure ulcers and glycemic control between Magnet® and non-Magnet® hospitals. Rates of CAUTI and CLAB were found to be better in non-Magnet® hospitals. Only the rate of falls was significantly better among Magnet® hospitals.

Conclusion: The evidence to support improved patient outcomes in Magnet® hospitals is inconsistent. This most recent study adds little to our knowledge. Glycemic control has not previously been reported in the literature related to Magnet® designation and findings from this study do not support a relationship. Although lower hospital acquired pressure ulcer rates have been reported in Magnet® hospitals ([Mills 2008, Goode, Blegen et al. 2011](#)), this association could not be confirmed. Evidence of a lower rate of hospital acquired urinary tract infections in Magnet® hospitals could neither be confirmed or denied as this measure is not the same as catheter associated urinary tract infections which was the variable that was used in this study. Only the findings for falls were consistent with the published literature ([Lake, Shang et al. 2010](#)).

References

Carlson, T. (2009). Patient outcomes in Magnet, Magnet-aspiring, and non-Magnet hospitals. Nursing. Denver, CO, University of Colorado.

Daniel, O. P. and J.-P. Regnaud (2015). "Do Magnet accredited hospitals show improvements in nurse and patient outcomes compared to non-Magnet hospitals: a systematic review." JBHI Database of Systematic Reviews and Implementations **13**(6): 168-219.

Friese, C. R., et al. (2015). "Hospitals in "Magnet" program show better patient outcomes on mortality measures compared to non-"Magnet" hospitals." Health Affairs **34**(6): 986-992.

Goode, C. J., et al. (2011). "Comparison of patient outcomes in Magnet and non-Magnet hospitals." Journal of Nursing Administration **41**(12): 517-523.

Kutney-Lee, A., et al. (2015). "Changes in patient and nurse outcomes associated with Magnet hospital recognition." Medical Care **53**(6): 553-557.

Lake, E. T., et al. (2010). "Patient falls: association with hospital Magnet status and nursing unit staffing." Research in Nursing & Health **33**: 413-425.

McClure, M., et al. (1983). Magnet Hospitals: Attraction and Retention of Professional Nurses. Kansas City, American Nurses Association.

Mills, A. (2008). Failure to rescue and pressure ulcer rates in Magnet hospitals compare to a matched set of non-Magnet hospitals. ANCC National Magnet Conference Presentation. Salt Lake City, Utah.

Mills, A. C. and K. N. Gillespie (2013). "Effect of Magnet hospital recognition on 2 patient outcomes." Journal of Nursing Care Quality **28**(1): 17-23.

Morgan, S., H, et al. (2006). "The Magnet recognition program: transforming healthcare through excellence in nursing services." Journal of Nursing Care Quality **21**(2): 119-120.

Naylor, M. D., et al. (2013). "Linkages between nursing and the quality of patient care: a 2-year comparison." Medical Care **51**: s6-s14.

Contact

ajoseph1@citadel.edu

RSC PST 1 - Research Poster Session 1

Factor Influencing Satisfaction about Using PCA of Postoperative Patients a General Ordered Logistic Regression Analysis

Wonhee Baek, MSN, RN, Korea, Republic of (South)

Mir Moon, BSN, RN, Korea, Republic of (South)

Abstract

Purpose: The aim of this study was to identify the factor that influence the satisfaction about using patient controlled analgesia of postoperative patients.

Methods: A descriptive design was selected for this study. The participants were abdominal surgery, limited to GS surgery, that included gastrectomy, colectomy, lobectomy, pancreatectomy and so on. And the patients who received the patient controlled analgesia treatment after surgery. The type of the patient controlled analgesia are intravenous or epidural patient controlled analgesia. A total of 2724 patents were participated. The survey was conducted between May 2014 and August 2015 in severance hospital. Pain has been measure using the Numeric Pain Rating Scale. To estimate patient controlled analgesia consumption, researchers measured the patient controlled analgesia residual dose after removing patient controlled analgesia. The patient satisfaction of patient controlled analgesia was measured by Likert scale. Statistics analysis was conducted using SPSS 23.0 and STATA 13.0. Researchers used to ANOVA and chi-square to identify the impact factor of patient satisfaction. In addition, researchers used the generalized ordered logistic regression to investigate the factor influencing the patient satisfaction about using patient controlled analgesia.

Results: Comparing of the patient satisfaction depending on passage of time, it was significantly decreased when the patients' pain was increased. In the 6 to 24 hours after surgery, the lower level group of satisfaction score was decreased satisfaction further than the higher level group. In the lower level group of satisfaction, the nausea and vomiting didn't significantly affect the patient controlled analgesia satisfaction. However, in the higher level group of satisfaction, the nausea and vomiting were effect the patient satisfaction. In all groups, patient satisfaction is significantly decreased when the patient experienced dizziness and headache. The patient controlled analgesia consumption affected the patient satisfaction.

Conclusion: The postoperative patients pain management using the patient controlled analgesia is important to improve patient satisfaction. It would be able to contribute to affect the postoperative pain management resulting in patient satisfaction promotion.

References

Sinha A, Paech M, Ledger R, McDonnell N, Nathan E. (2012). A clinical Evaluation of the Gemstar and the AmbIT Pumps for Patient- Controlled Epidural Analgesia. *Anesth Pain*, 2(2), 66-71.

Harrell, F. (2015). *Regression modeling strategies: with applications to linear models, logistic and ordinal regression, and survival analysis*. Springer.

Patak, L. S., Tait, A. R., Mirafzali, L., Morris, M., Dasgupta, S., & Brummett, C. M. (2013). Patient perspectives of patient-controlled analgesia (PCA) and methods for improving pain control and patient satisfaction. *Regional anesthesia and pain medicine*, 38(4), 326.

Kolvekar, S., Pilegaard, H., Ashley, E., Simon, N., & Grant, J. (2016). Pain management using patient controlled anaesthesia in adults post Nuss procedure: an analysis with respect to patient satisfaction. *The Journal of Visualized Surgery*, 2(3).

Chang, C. B., & Cho, W. S. (2012). Pain management protocols, peri-operative pain and patient satisfaction after total knee replacement. *J Bone Joint Surg Br*, 94(11), 1511-1516.

Contact

peridotmil@yuhs.ac

RSC PST 1 - Research Poster Session 1

The Effects of Music on Anxiety of Hospitalized Psychiatry Patients

Chyn-Yng Yang, PhD, RN, Taiwan

Abstract

Purpose: Music could be used as a non-invasive therapeutic tool to relieve the anxiety of patient. But less study is designed to compare the role of music therapy on the level of anxiety in Taiwan. The purpose of this study was to explore the effectiveness of music relaxation therapy in reducing anxiety in hospitalized psychiatric patients.

Methods: We used a single-group experimental repeated measures design and allocated the 22 enrolled participants. Based on the severity of the patient's anxiety divided into mild, moderate and severe three levels, who received 20 minutes of music relaxation therapy for 10 consecutive days. Soft music was played to patients using CD player and headphones. We administered the Beck Anxiety Inventory (BAI) and measured skin temperature, alpha brain waves and beta brain waves to determine anxiety level before, during, and after intervention.

Results: The results showed that the anxiety scores among the three levels had significant difference after music relaxation therapy ($p = 0.0339$). Each level of anxiety compared pretest and posttest anxiety scores have decreased, ranging from 3-12, also reached significant difference ($p = 0.0277$). After the music relaxation therapy, 50% of patients with mild anxiety had returned to normal, and 37.5% of patients with moderate anxiety had returned to normal. In the severe anxiety group, 16.7% of patients had returned to normal, 16.7% had returned to mildly anxiety and 33.6% had recovered to moderate anxiety. Three levels of anxiety demonstrated a significant difference in the pre-test and post-test differences in the alpha EEG percentage ($p = 0.0435$) and the beta EEG percentage ($p = 0.0147$).

Conclusion: Our results showed that music relaxation therapy can relieve on different levels of anxiety. During the listen to music, the patient's alpha EEG percentage increased, that confirming the patient in a relaxed state. Therefore music relaxation therapy can be recommended to relax relieve anxiety symptoms as non-drug effective interventions.

References

American Music Therapy Association (2015). What is Music Therapy? Available at: <http://www.musictherapy.org/about/musictherapy/> (accessed 4 September 2015).

Yang CY, Chen CH, Chu H, Chen WC, Lee TY, Chen SG & Chou KR (2012). The effect of music therapy on hospitalized psychiatric patients' anxiety, finger temperature, and electroencephalography: a randomized clinical trial. *Biological Research for Nursing* 14, 197–206.

Yinger OS & Gooding LF (2015). A systematic review of music-based interventions for procedural support. *Journal of Music Therapy* 52, 1-77.

Contact

caring@h.tmu.edu.tw

RSC PST 1 - Research Poster Session 1

Women's Experience of Perinatal Loss: A Collaboration to Develop a Learning Resource for Nurses

Gerri C. Lasiuk, PhD, RPN, RN, CMHPN(C), Canada

Susan E. Fowler-Kerry, PhD, RN, Canada

Angela Bowen, PhD, RN, Canada

Carla M. Ransom, MN, BScN, RN, Canada

Wendi N. Stumborg, BScN, RN, Canada

Abstract

Purpose: The death of an infant is a profound and devastating experience for women and families. Nurses who work in emergency departments; obstetric, neonatal, and pediatric units; and in public health settings are likely to encounter women who experience a miscarriage, stillbirth, or infant death. These nurses are responsible to address women's physical, psychosocial, and instrumental needs, however the existing research suggests that many feel ill prepared to do so and there is limited research evidence to guide nurses on how to best do this. **Our purpose is to collaborate with women to describe their experience of perinatal infant loss and develop a learning resource to help nurses effectively support bereavement.**

Methods: Purposive sampling will be used to recruit 10-12 English-speaking women who have experienced perinatal infant death, in hospital, during the previous two years and provide informed consent. In phase 1 of the study, women will be interviewed about their experience of perinatal infant death. The interviews will be recorded, transcribed verbatim, and analyzed for themes using Interpretive Description. Phase 2 of the study will employ photovoice, a participatory action method, which invites participants to collaborate with researchers to document significant aspects of their everyday lives in photographs and descriptive texts. Participants and researchers will meet five times as a group to discuss and refine the themes identified in the interviews; take photographs that reflect the themes; and write about the meaning of the photographs. Through consensus, the group will then select photographs and textual descriptions to develop a learning resource for nurses.

Results: Although the study is ongoing, it is clear that women who have experienced the loss of an infant can offer a unique perspective on the experience of perinatal loss and bereavement.

Conclusion: Targeted efforts to educate nurses about these experiences will help them to provide compassionate and competent care.

References

Puia, D.M., Lewis, L., & Tatano Beck, C. (2013). Experiences of obstetric nurses who are present for a perinatal loss. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 42(3), 321–331. DOI: 10.1111/1552-6909.12040.

Smart, C. J., & Smith, B.L. (2013). A transdisciplinary team approach to perinatal loss. *MCN American Journal of Maternal Child Nursing*, 38(2), 110-4. DOI: 10.1097/NMC.0b013e318270db45.

Wool, C. (2013). Clinician confidence and comfort in providing perinatal palliative care. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 42(1), 48-58. DOI: 10.1111/j.1552-6909.2012.01432.x. Epub 2012 Nov 26.

Contact

gerri.lasiuk@usask.ca

RSC PST 1 - Research Poster Session 1

Preschool Children: What They Know About Asthma and How They Learn

Adaya A. Troyer, BSN, RN, USA

Tami Wyatt, PhD, RN, USA

Abstract

Purpose: Childhood asthma is a growing societal problem that causes suffering for children and families. Asthma currently impacts 6.8 million children in the United States, with as many as 50-80% developing symptoms before the age of five (Beydon et al., 2007; National Heart, Lung, and Blood Institute, 2007). Short of finding a cure, the best way to address this health concern is to give children with asthma the resources they need to control their condition. Unfortunately, research and resources for young children with asthma are lacking. The authors hypothesize using age-appropriate education via technology, which promotes self-regulation with psychosocial elements, could decrease exacerbations and establish healthy habits.

Methods: This qualitative, descriptive study uses in-depth semi-structured interviews and direct participant observation to explore preliterate children's (3-5 years) understanding of asthma causes, symptoms, and treatments and educational strategies for this age group. Preliterate children who meet at least 3 out of 4 of the National Asthma Education and Prevention Program (NAEPP) criteria are interviewed to determine cognitive development and understanding of asthma and are then allowed a free-play period to help determine the children's preferences for entertainment and educational tools.

Results: A systematic evaluation of texts (e.g., field notes, transcripts) will provide qualitative data to categorize and identify themes. Additional analysis will determine what elements of the entertainment tools are most attractive to children in this age group by evaluating time spent with the toys and children's physical and verbal responses during the play period.

Conclusion: Research suggests that children can begin learning to regulate their health behaviors within the first few years of life and that early self-regulation leads to better health and socio-emotional outcomes later in life; therefore, educating preliterate children on how to self-manage their asthma is a key step to decreasing asthma exacerbations and healthcare costs (Archibald et al., 2015; Bandura, 2005; Fraley et al., 2013; Lieberman, 2001; National Heart, Lung, and Blood Institute, 2007; Yang et al., 2010). Early management of asthma also has the potential to minimize stigma placed on the child due to their chronic disease, thus decreasing feelings of social isolation (Stewart et al., 2011). The ability to use a unique and effective education tool for this aggregate of children would be a significant benefit for the child experiencing asthma and for the healthcare professionals providing care. These data are the foundation to develop future educational materials that enhance cognitive understanding and health-related behavioral regulation in preliterate children diagnosed with asthma.

References

Archibald, M. M., Caine, V., Ali, S., Hartling, L., & Scott, S. D. (2015). What is left unsaid: An interpretive description of the information needs of parents of children with asthma. *Research in Nursing & Health, 38*(1), 19-28.

doi:<http://dx.doi.org/10.1002/nur.21635>

Bandura, A. (2005). The primacy of self-regulation in health promotion. *Applied Psychology, 54*(2), 245-254.

Beydon, N., Davis, S. D., Lombardi, E., Allen, J. L., Arets, H. G., Aurora, P., . . . Eigen, H. (2007). An official American Thoracic Society/European Respiratory Society statement: pulmonary function testing in preschool children. *American journal of respiratory and critical care medicine, 175*(12), 1304-1345.

Lieberman, D. A. (2001). Management of chronic pediatric diseases with interactive health games: Theory and research findings. *The Journal of ambulatory care management, 24*(1), 26-38.

Lung, N. H., & Institute, B. (2007). Expert Panel Report 3 (EPR 3): guidelines for the diagnosis and management of asthma. *Bethesda: National Institutes of Health*.

Stewart, M., Masuda, J. R., Letourneau, N., Anderson, S., & McGhan, S. (2011). "I Want to Meet Other Kids Like Me": Support Needs of Children with Asthma and Allergies. *Issues in comprehensive pediatric nursing, 34*(2), 62-78.

Yang, T. O., Sylva, K., & Lunt, I. (2010). Parent support, peer support, and peer acceptance in healthy lifestyle for asthma management among early adolescents. *Journal for Specialists in Pediatric Nursing, 15*(4), 272-281.

Contact

akirk9@vols.utk.edu

RSC PST 1 - Research Poster Session 1

Pain-Me-Free: A Video Game to Improve Geriatric Pain Management Using a Multi-Discipline Approach

Martha Martinez, MN, RN, USA

Sandra Sanchez-Reilly, MD, USA

Jeanette Ross, MD, AGSF, FAAHPM, USA

Abstract

Purpose: In response to the IOM report the Association of American Medical Colleges (AAMC), Accreditation Council for Graduate Medical Education (ACGME) and American Association of Colleges of Nursing (AACN) recognized the importance adequately preparing healthcare professionals to care for elders and developed minimum geriatrics competency guidelines grounded in evidence-based principles of quality care for older adults. Despite its prevalence, evidence suggests that pain is often poorly assessed/managed, especially in the elderly. The **PAIN-ME-FREE (Pain Activity for Inter-professional Nursing and Medical Student Education Focusing on Response, Effectiveness and decreasing side Effects among elders)** educational intervention aims to promote collaboration and patient-centered best practices by educating health care trainees in the assessment, diagnosis, and safe treatment of total pain for elders, as an integral part of an inter-professional team.

Methods: This interactive game includes video, audio, and text to gain a general history of the patient the learner will be caring for. Intervention targeted nursing (NL) and medical learners (medical students: MS and fellows: F) at a teaching institution. Pain Game had 3 pain-related scenarios (Older Adult (OA) at home, hospitalized OA after fall and OA at rehabilitation facility). Pain Game has questions related to pain assessment, management and opioid side effects. Scores were compared between learners' groups.

Aim 1. To evaluate the educational effectiveness of a geriatric chronic interactive pain video-game comparing different types of learners from different disciplines and educational levels.

Aim 2. To evaluate the effectiveness of this teaching tool by the learners.

Results: Current data presents: N: 77, 78% female, Ethnicity: 36% Hispanic, 33% Caucasian, 4% African American. When comparing NL vs. MS/F; there were no significant differences related to rating or classifying pain. When asking about naming physical, emotional, social and spiritual factors influencing "total pain" when a patient was suffering, 89.5%F were knowledgeable as compared with 77.8%MS and 47%NL ($p=0.02$). When deciding on a specific pharmacological pain regimen, 100% MS/F had accurate recommendations vs. only 54% NL ($p=0.03$). When discussing side effects, 100% MS knew opioids caused constipation and how to treat it vs. only 60% NL ($p=0.04$).

Conclusion: Incorporating chronic pain education into clinician's curriculum will greatly improve the management of chronic pain for Older Adults. An innovative intervention such as the Pain Game could be ideal to gain such expertise, and is much needed for all learners, including nursing: the forefront of patient care. Reaching to MS and NL early in their education and providing them with the skills and specialized training to treat chronic pain in Older Adults will improve patient satisfaction and overall quality of care.

References

Fishman SM, Y. H.-W. (2013). Core competencies for Pain Management: results of an interprofessional consensus summit. *Pain Medicine*, 971-81.

Larson C, H. E. (2016). Chronic pain in older adults: prevalence, incidence, and risk factors. *Scandinavian Journal of Rheumatology*, 1-9.

Tick H, C. S. (2015). core Competencies in Integrative Pain Care for Entry-Level Primary Care Physicians. *Pain Medicine*, 2090-7.

Contact

Martinezm44@uthscsa.edu

RSC PST 1 - Research Poster Session 1

Does 3D Technology Have Clinical Application in Nursing Assessment of Wounds in Adult Care Settings?

Martina Mendoza, MSN, BSN, RN, CWOCN, USA

Joyce Elaine Emery, MSN, BSN, RN, CDE, USA

JoAnn D. Long, PhD, MSN, MA, BSN, RN, NEA-BC, USA

Abstract

Purpose: The purpose of this project is to describe the state of nursing science using 3D imaging as an adjunct for pressure injury documentation and subsequent clinical care.

Background: Pressure injuries present a major health care challenge worldwide

(http://www.woundsinternational.com/media/issues/64/files/content_24.pdf).

Pressure injuries are considered a “never event” by the Center for Medicare and Medicaid Services (Soban et al, 2016). Accurate measurement of wound size is vital in monitoring the wound healing process and is a central concern in the practical management of wounds and the development of new treatment preferences. Additionally, the United States Centers for Medicare and Medicaid Services and insurance companies require accurate wound surface dimension data (Martin et al, 2011). Data is used to determine reimbursement for specialized treatment such as negative pressure therapy, specialty surfaces, and bioengineered skin substitutes. Wound measurement methods need to be accurate, reliable and feasible if they are to be useful in evaluating the wound healing process. A factor affecting the accuracy of wound measurement is definition of the wound boundary, which is often difficult to identify (Jorgensen et al, 2015). The National Pressure Ulcer Advisory Panel recommends at least a 1.5-3 megapixel digital camera for photographing wounds as an adjunct to support written wound documentation (Bryant et al, 2015). Problems with current digital imaging, resulting in underestimation of the wound area, include: poor lighting, location and size of the wound, differences in camera angle, user error, inaccurate recording of wound dimensions, documentation errors, and ineffective internet connectivity to upload into EMR (Jorgensen et al, 2015). Digital imaging is time consuming from the instant the image of the wound is captured by the camera until the wound area is estimated by the software. Recent advances in 3D imaging may help to overcome obstacles related to precise wound measurement; however, the efficacy of this technology as a tool in nursing assessment of wounds is not fully known.

Methods: An integrative literature review was conducted using PubMed; Google Scholar; CINAHL; Cochrane Database of Systematic Reviews. Key Words included: Stereophotogrammetry (SPG), 3D scanning; Instruments to Measure Pressure Ulcers; stereophotogrammetry technique and wounds; instruments to measure pressure ulcers; wound documentation; stereophotogrammetry and 3D photographs, legal costs of pressure ulcers, use of 3D scanners in wound assessment, Pressure ulcer Assessment; pressure ulcer documentation, , measuring wounds, wound assessment, 3 D photography, digital planimetry. All peer-reviewed articles published to date were included. The following were included: adult care settings, wounds and pressure injuries. Children and animals were excluded. Eleven articles were initially located and five were included in the final sample. Data were extracted and synthesized.

Results: One level one meta-synthesis (Jorgensen et al, 2015); One level three comparative study (O'Meara, S.M. et al, 2012); One level four qualitative study were included (Hammond, C.P., & Nixon, M.A. 2011). In the past decade various 3D imaging from a volume perspective have appeared on the market, however none of the reviewed technologies have yet had a major impact due to low accuracy, high cost and difficulty in handling the system setup. Only a few of the studies provide data on wound selection criteria, thus reducing the generalizability of the results (Jorgensen et al, 2015). The SilhouetteMobile, Aranz Medical, included five wounds and was found to have low intra-and inter-rater variation and with approximately two minutes were required to capture photographic documentation (Hammond, C.P., & Nixon, M.A. 2011). Twelve studies were included, however no definitive conclusion could be reached in regards to the diameter or depth of the wounds (O'Meara, S.M., et al 2012).

Conclusion: The use of digital planimetry or digital imaging may be a solution for wound measurement if a high accuracy is required, however, the methods can also be time consuming for everyday clinical practice. Absence of a Gold Standard method for wound area and volume measurement against which other methods can be tested is a current concern. Currently there is little evidence to recommend clinical guidelines. Technological advances in digital imaging may help to advance the science underpinning wound care and more research is required to find ways to better validate wound volume measurement.

References

- Bryant R.A., Nix P.N. (2016) *Acute & Chronic Wounds Current Management concepts*. St. Louis, Missouri: Elsevier.
- Davis A.J., Nishimura J., Seton J., Goodman B.L., Ho C.H., Bogie K.M. (2013). Repeatability and clinical utility in stereophotogrammetric measurements of wounds. *Journal of wound care* Vol 22 (2); 90-97
- Jorgensen L.B., Sorensen J.A., Jemec G.B., Yderstraede K. (2016). Methods to asses area and volume of wounds-a systematic review. *Int Wound Journal* Vol 13; 540-553
- Soban L.M., Kim L., Yuan A.H. & Miltner R.S. (2016). Organizational strategies to implement hospital pressure ulcer prevention programmes: findings from a national survey. *Journal of Nursing Management*
- Wendelken M.E., Berg W. T., Lichtenstein P., Markowitz L., Comfort C., Alvarez O.M. (2011). Wounds measured from digital photographs using photo-digital planimetry software: validation and rater reliability. *WOUNDS*; 23(9):267–275
- http://www.ahrq.gov/sites/default/files/wysiwyg/professionals/systems/hospital/qitoolkit/combined/d4a_combo_psi03-pressureulcer-bestpractices.pdf retrieved **12-06-2016**
- http://www.woundsinternational.com/media/issues/64/files/content_24.pdf. retrieved 12-07-16

Contact

mamendoza@covhs.org

RSC PST 1 - Research Poster Session 1

Innovative Use of Video Telerounding to Improve Patient Satisfaction and to Expedite Discharge

Ginger S. Pierson, RN, CCRN, CCNS, USA

Joseph F. Burkard, DNSc, MSNA, BSN, RN, CRNA, USA

Abstract

Purpose: The purpose of this study, is to evaluate the intervention of remote presence, video telerounding as the real-time, virtual physician discharge visit, on patient satisfaction and acceptance of this technology, to expedite the time to hospital discharge.

Methods: This prospective, quasi-experimental study will enroll 36 eligible post-procedure cardiac patients who consent to this study, to serve as the intervention group for telerounding. The control group, who had a traditional face-to-face hospital discharge visit, will be created from patients who meet study criteria in the three months prior to the telerounding intervention, from two Electrophysiologist (EP) cardiologist partners. The telerounding intervention group will plan a pre-established, morning timeframe for the patient to receive a virtual, remote discharge visit from their EP/cardiologist on the anticipated day of discharge. Telerounds will be collaboratively facilitated with the telemetry unit charge nurse at the patient's bedside, with the EP cardiologist on the remote presence, video conferencing robot- for real-time, interactive, discharge evaluation rounds. The nurse researcher will collect observational data and time measures during each telerounding interaction, but will not actively participate in the discharge process. Patient satisfaction data targeting hospital and discharge experiences will be completed for the intervention group, after the telerounding intervention, prior to discharge, utilizing the 20-item *Patient Judgment of Hospital Quality*, a psychometrically sound questionnaire- which includes 11 items specific to telerounding (Ellison, Pinto, Kim, Ong, Patriciu, Stoianovici, Rubin, Jarrett & Kavoussi, 2004). The control group will retrospectively complete nine items of this same patient satisfaction questionnaire, excluding the telerounding questions, and will mail their consent and study surveys back to the researcher in a pre-addressed, stamped envelope. A short, five-item phone survey regarding the two-week post-discharge time period, conducted by the nurse researcher for both groups, will aim to capture any stated, unplanned need for medical evaluation, emergency services, or hospitalization due to any concern for a post-discharge complication. Both groups will have been admitted, cared for, and discharged from the same cardiac telemetry unit. One EP/cardiologist will perform all intervention group telerounding discharges. Patient satisfaction and time measures related to the hospital stay and discharge, including demographic data obtained from the Electronic Health Record (EHR), will be compared to the pre-intervention control group, who received the traditional, face-to-face physician discharge visit.

Results: Study in progress; results pending. The data analysis plan will include the use of current SPSS statistical software. Descriptive statistics will be used to analyze frequencies of categorical outcome variables, including patient satisfaction scores for each group. Independent *t*-tests will be used to compare patient demographic characteristics and satisfaction scores between the two groups. Chi-square testing will be analyzed for significant associations of categorical variables between groups as appropriate. Logistic regression analysis will be performed for continuous outcome variables of satisfaction. Confounding variables, for patients who may differ in co-morbidities or need for additional discharge consultations, will be evaluated for correlation with specific identified delays in discharge.

Conclusion: Study in progress; results pending. Telerounding allows for real-time, two-way audio/visual, and physical assessment telecommunication between the patient, nurse and physician. There is a gap in the literature regarding the use of telerounding as a strategy to expedite the hospital discharge process. This innovative approach may improve patient satisfaction, acceptance of this technology for future use, and improve discharge efficiency.

References

Becevic, M., Clarke, M., Alnijoumi, M., Sohal, H., Boren, S., Kim, M., & Mutrux, R.

(2015). Robotic telepresence in a medical intensive care unit- Clinicians' perceptions.

Perspectives in Health Information Management (Summer): 1-7.

<http://bok.ahima.org/doc?oid=301170#.V55KifkrLIU>

Bettinelli, M., Lei, Y., Beane, M., Mackey, C., & Liesching, T. (2015). Does robotic

telerounding enhance nurse-physician collaboration satisfaction about care decisions?

Telemedicine Journal E-Health, August (8): 637-643. doi: 10.1089/tmj.2014.0162.

Boquiren, V., Hack, T., Beaver, K., & Williamson, S. (2015). What do measures of patient satisfaction with the doctor tell us? *Patient Education and Counseling*, <http://dx.doi.org/10.1016/j.pec.2015.05.020>.

Brewster, L., Mountain, G., Wessels, B., Kelly, C., & Hawley, M. (2013). Factors affecting frontline staff acceptance of telehealth technologies: A mixed-methods systematic review. *Journal of Advanced Nursing*, 21-33.

Davis, M., Freeman, M., Kaye, J., Vuckovic, N., & Buckley, D. (2014). A systematic review of clinician and staff views on the acceptability of incorporating remote monitoring technology into primary care. *Telemedicine and e-Health*, 20(5): 428-438.

Masterson Creber, R., Hickey, K., & Maurer, M. (2016). Gerontechnologies for older patients with heart failure: What is the role of smartphones, tablets, and remote monitoring devices in improving symptom monitoring and self-care management? *Current Cardiovascular Risk Reports*, 10(30); doi: 10.1007/s12170-016-0511-8.

Contact

gingerpierson@sandiego.edu

RSC PST 1 - Research Poster Session 1

Nursing Care Technology and Patient Safety

Nuray Turan, PhD, RN, Turkey

Gulsun Ozdemir Aydin, MSc, RN, Turkey

Hatice Kaya, PhD, RN, Turkey

Turkinaz Asti, PhD, RN, Turkey

Abstract

Purpose: The general public believes that technology will improve health care efficiency, quality, safety, and cost. However, few people consider that these same technologies may also introduce errors and adverse events. Hospitals and health care organizations are under relatively little pressure to implement safety practices. Regulators and accreditors are pushing health care organizations to adopt various “safe practices” or to avoid particular adverse events that are considered wholly or largely preventable.

Methods: In this article, the literature and research findings regarding the nursing care technology and patient safety. This subject was analyzed, the importance of the issues was discussed and the suggestions for implementation were proposed.

Results: Patient safety has received increased attention in recent years, patient care technology has become increasingly complex, transforming the way nursing care is conceptualized and delivered. Over time, the nurses' unaided senses have replaced with technology designed to detect physical changes in patient conditions. Before extensive application of technology, nurses relied heavily on their senses of sight, touch, smell, and hearing to monitor patient status and to detect changes. Patient care technologies of interest to nurses range from relatively simple devices, such as catheters and syringes, to highly complex devices, such as barcode medication administration systems and electronic health records. While nursing care technology holds much promise, the benefits of a specific technology may not be realized due to four common pitfalls: (1) poor technology design that does not adhere to human factors and ergonomic principles, (2) poor technology interface with the patient or environment, (3) inadequate plan for implementing a new technology into practice, and (4) inadequate maintenance plan.

Technologies used by nurses offer the means for preventing errors and adverse events (e.g., medication errors, miscommunications, delays in treatment, and adverse events such as failure to rescue, nosocomial infections, pressure ulcers, falls, and complications of immobility). Implementation of new technologies offers nurses yet another avenue for ensuring safe and efficient use of technology. While technology has the potential to improve care, it is not without risks. Technology has been described as both part of the problem and part of the solution for safer health care, and some nursing educators warned of the introduction of yet-to-be errors after the adoption of new technologies. Selecting the wrong equipment and technology can be costly and expose the patient to errors and ethical issues.

Conclusion: Nurses providing direct patient care can ensure that the technologies they use meet international quality and safety standards and technical specifications needed to perform in the clinical environment in which they are used. Being informed consumers and users of technology in nursing care means that nurses be involved in the selection of new equipment, receive the proper training for its use, and monitor equipment safety and the effect of technology on patients and families on an ongoing basis. Therefore, nurses should be sensitive to developing and changing products with technology and develop themselves.

References

- Barnard, A., & Sandelowski, M. (2001). Technology and humane nursing care:(ir) reconcilable or invented difference?. *Journal of Advanced Nursing*, 34(3), 367-375.
- Barton, A. (2009). Patient safety and quality: an evidence-based handbook for nurses. *AORN Journal*, 90(4), 601-602.
- Hughes, R. (Ed.). (2008). *Patient safety and quality: An evidence-based handbook for nurses* (Vol. 3). Rockville MD: Agency for Healthcare Research and Quality.
- Powell-Cope, G., Nelson, A. L., & Patterson, E. S. (2008). Patient care technology and safety.
- Rudraraju, K. L. (2015). Patient care technology and safety. *Narayana Nursing Journal*, 4(1), 31-33.
- Shojania, K. G., Duncan, B. W., McDonald, K. M., Wachter, R. M., & Markowitz, A. J. (2001). Making health care safer: a critical analysis of patient safety practices. *Evid Rep Technol Assess (Summ)*, 43(1), 668.
- Shekelle, P. G., Wachter, R. M., Pronovost, P. J., Schoelles, K., McDonald, K. M., Dy, S. M., ... & Larkin, J. W. (2013). Making health care safer II: an updated critical analysis of the evidence for patient safety practices. *Evidence report/technology assessment*, (211), 1-945.
- Wachter, R.M. (2010). Patient safety at ten: unmistakable progress, troubling gaps. *Health Aff (Millwood)*;29:165–173.

Waneka, R., & Spetz, J. (2010). Hospital information technology systems' impact on nurses and nursing care. *Journal of Nursing Administration*, 40(12), 509-514.

Rudraraju, K. L. (2015). Patient care technology and safety. *Narayana Nursing Journal*, 4(1), 31-33.

Contact

tasti@bezmialem.edu.tr

RSC PST 1 - Research Poster Session 1

Testing Validity of Evaluating Skin Blood Perfusion by Our Developed Device in the Elderly

Aki Ibe, PhD, RN/PHN, Japan

Yoko Aso, PhD, RN/PHN, Japan

Tomoyuki Haga, BE, Japan

Masako Miyajima, PhD, RN, Japan

Aino Hayashi, MSN, RN/PHN, Japan

Megumi Katayama, PhD, RN/PHN, Japan

Kaori Fujimoto, MS, RN, Japan

Mihoko Ishizawa, PhD, RN, Japan

Kazuhiro Takeda, LLB, Japan

Abstract

Purpose: Nurses play an important role in the prevention of pressure ulcers. However, because the determination of stage 1 (the early status of pressure ulcers) is based on the appearances of such ulcers, nurses have difficulty determining their presence. In our previous study, one out of three Japanese nurses admitted having difficulty judging stage 1 by themselves. In addition, no simple device exists with which nurses can directly evaluate the status of skin blood perfusion. Given the leading role that blood flow plays in the transfer of body heat, we focused on the heat transfer efficiency of skin tissue, and developed a device for evaluating the blood perfusion. Heating in the local area of the skin surface, the skin-surface temperature response depends on the amount of blood perfusion. We estimated the skin blood perfusion by solving the bio-heat transfer equation with skin-surface temperature responses.

In this study, we experimentally tested the validity of evaluations made with our new device and compared its estimated skin blood perfusion with the measured values of the Laser Tissue Blood Flowmeter (OMEGAFLO, OMEGAWAVE, INC.) of the feet of participants covered by a blanket, which was a Japanese futon.

Methods: Twenty healthy elderly people participated (10 men and 10 women) wore 100% cotton pajamas and lay in bed in a climate chamber. The ambient temperature and relative humidity were controlled at 25°C and 55% RH. The subjects lay in bed for 30 minutes with their body and extremities covered by a blanket and for another 15 minutes without a blanket covering from their knees down. We measured the skin-surface temperature and the superficial blood flow by the flowmeter on the sole of feet at the following three times: just before the body and extremities were covered with a blanket (before), 30 minutes after being covered with a blanket (after being covered), and 15 minutes after it was removed from below the knee (without blanket). We estimated the blood perfusion with skin-surface temperature responses and compared it with the flowmeter value.

Results: The mean (S.D.) age of the subjects was 71.5 (3.6) years. The mean (S.D.) skin-surface temperature was 31.8 (1.8) °C before being covered, 33.7 (2.0) °C after being covered, and 31.7 (1.7) °C without a blanket. The mean (S.D.) estimated blood perfusion by the proposed device was 0.8 (0.3) before, 1.6 (1.6) after being covered, and 0.8 (0.2) without a blanket. The mean (S.D.) flowmeter value was 8.4 (4.4) before, 10.4 (5.3) after being covered, and 7.7 (4.6) without a blanket. Like the skin-surface temperature and the flowmeter value, the estimated blood perfusion significantly increased after being covered with a blanket and significantly decreased after it was removed. Positive correlations were observed between the estimated blood perfusion with the flowmeter value ($r=0.49$, $p<0.05$). But no relationship was observed between the ratios of the change (before and after being covered with a blanket) of the estimated blood perfusion and the flowmeter.

Conclusion: We confirmed the ability of our new device to evaluate skin blood perfusion. With it, we will be able to objectively and easily predict pressure ulcer developments. However, we found no relationship between the ratio of the change of the estimated blood perfusion and the flowmeter value. The validity of evaluating skin blood perfusion must also be investigated in further study.

References

1) Haga T, et al (2012) Development of methodology for the estimation of skin blood perfusion by applying inverse analysis of skin model, *biomedical engineering*,50(4),317-328 (in Japanese)

- 2) Van-Marum-R-J, et al (2002) The Relationship Between Pressure Ulcers and Skin Blood Flow Response After a Local Cold Provocation, Arch Phys Med Rehabil,83,40-43
- 3) Pennes.H (1948) Analysis of tissue and *arterial* blood temperatures in the resting human forearm, Journal of Applied Physiology,1(2) ,93-122

Contact

a-ibe@tsuruga-nu.ac.jp

RSC PST 1 - Research Poster Session 1

Derek Hoy: The Legacy of the First Scottish Nursing Informatician

Siobhan O'Connor, BSc, CIMA, CBA, RN, FHEA, United Kingdom

Abstract

Purpose: Derek Hoy was a prominent Scottish nursing informatician. This paper aims to explore his career and its impact on nursing, patients and the health services in Scotland and beyond.

Methods: A literature review of Derek's academic research was undertaken to establish his contribution to nursing informatics as a field. An exploratory case study approach was adopted to explore his career in depth. A selection of people are being interviewed including his wife and close personal colleagues in the National Health Service (NHS), Glasgow Caledonian University where he worked and the Scottish Government among others. The qualitative dataset will undergo thematic analysis using the constant comparative method.

Results: Preliminary results show that Derek made a significant contribution to his field. He developed numerous electronic applications including AGNIS (A Generic Nursing Information System) to capture nursing assessments, interventions and care plans. He also worked on the Scottish Health Service EPPIC (Effective Purchasing and Providing in the Community) project to use minimum patient and nursing datasets in combination with mobile devices to improve care delivery. His most ambitious and successful eHealth project was the ALISS (Access to Local Information Systems to Support Self-Management, <https://www.aliss.org/>) which is still in use supporting people with long-term conditions in Scotland today. He also worked with international colleagues on numerous digital health initiatives such as International Classification for Nursing Practice (ICNP) a data standard for nursing and patient records. Derek also taught nursing and informatics to students at Glasgow Caledonian University and inspired many in the profession to pursue clinical careers that utilised technology to the fullest.

Conclusion: Derek Hoy's writing and work spans a 20 year timeframe from the early 1990's right up until his death in 2012. This demonstrates a clear commitment to developing nursing informatics as an important clinical and academic speciality in the United Kingdom and further afield.

References

- Hoy, J. D., & Hyslop, A. Q. (1995). Care planning as a strategy to manage variation in practice: from care plan to integrated person-based record. *Journal of the American Medical Informatics Association*, 2(4), 260-266.
- Hoy, D. (2009). Going paperless: uptake may be slow but, as Derek Hoy explains, electronic health records will be a huge benefit. *Nursing Standard*, 23(25), 23-24.
- Hoy, D., Hardiker, N. R., McNicoll, I. T., Westwell, P., & Bryans, A. (2009). Collaborative development of clinical templates as a national resource. *International journal of medical informatics*, 78, S3-S8
-
-

Contact

S.OConnor@napier.ac.uk

RSC PST 1 - Research Poster Session 1

Early Detection of Stage I Pressure Ulcers Identifying Non-Blanchable Erythema Using Electric Impedance

Masako Miyajima, PhD, RN, Japan

Aki Ibe, PhD, RN/PHN, Japan

Nanae Ikeda, PhD, RN, Japan

Masako Hirano, MS, RN, Japan

Kaori Fujimoto, MS, RN, Japan

Tomoko Tamaki, MS, RN, Japan

Abstract

Purpose: Early detection and identification of pressure ulcers is very important for the well being of patients as well as for controlling medical expenses. Under Japanese Society of Pressure Ulcers guidelines, either finger method or disk method is considered appropriate to identify such erythema or pressure ulcers, because non blanchable erythema(NBE) is not always clearly visible. Since electric impedance typically reduces resistance in interstitial fluids, measuring the impedance of skin tissue under erythema conditions can find evidence of whether Stage I Pressure Ulcer exists. The purpose of this study was to examine the relevance of impedance measurement for classifying complete NBE or partial NBE or blanchable erythema (BE) .

Methods: Subjects involved patients who were judged to have complete NBE, partial NBE, or BE by the disk method. Impedance data were collected by the two electrodes method using an LCR METER NF Corp.. One electrode sensor was placed on the edge of an erythema and another electrode sensor was on the opposite edge of erythema. The range of frequency was 1mHZ to 100kHz. The differences of impedance data between complete NBE , partial NBE, or BE and each opposite healthy local area to erythema were analyzed by ANOVA. Finally, to improve the accuracy of impedance difference, devised formula of total deviations which was removed erythema size effect were used .

Results: Subjects were 23 bedbound patients, and the local areas of erythema were the thigh, knee, heel, toe, sacrum, and spinal curvature. By the disk method, five patients were classified as having complete NBE, eleven as partial NBE and seven as BE. The mean (SD) size(mm) was 18.6(12.6) in complete NBE, 10.5(12.8) in partial NBE, or 11.9(6.1) in BE. As for ANOVA analysis, a significant difference was observed among complete NBE, partial NBE and BE($p<0.05$). Impedance difference for complete NBE is larger than normal control, while that for partial NBE was smaller than normal control. As there were observed a linear relation and a coefficient of determination, analysis by revised formula of total deviation, which removed erythema size effect, proved that three distribution of impedance values existed. The mean (SD) impedance data by revised formula of total deviation was 0.14(0.03) in complete NBE, 0.52(0.02) in partial NBE and 0.34(0.02) in BE, and a significant difference was observed ($p<0.001$).

Conclusion: The result of this work indicate that complete NBE can predict blood flow disturbance , while partial NBE can predict complicated skin tissue conditions of vessel dilation or increasing interstitial fluids, and there may be possibility of skin damage. Therefore, there is possibility of developing a new early detective and identifiable device of Stage I pressure ulcer using electric impedance. In the future ,we will use a larger sample size and clarify the difference between complete and partial NBE, additionally using a blood flow measurement and a digital erythema color instrument.

References

Sarah L. Swisher(2015,Mar)Impedence sensing device enables early detection of pressure ulcers in vivo. nature COMMUNICATIONS

Li,L(2012)Electric fields guide migration of epidermal stem cells and promote skin wound healing.Wound Repair Regen.20,840-851

Contact

m_miyajm@mukogawa-u.ac.jp

RSC PST 1 - Research Poster Session 1

The Tele-Case-Management Program Improves Resilience, Symptoms Distress, Fatigue, and Depressive Symptoms in Heart Transplant Recipients

Chi Wen Kao, PhD, RN, Taiwan

Pai-Hui Lin, MSN, RN, Taiwan

Abstract

Purpose: Patients with severe heart failure (NYHA Fc IV) without effective responses to medical therapy have to receive the treatment of heart transplantation. Although patients may prolong their life after undergoing heart transplantation, they need to take immunosuppressive drugs lifelong. How to strike a balance between avoiding infection and preventing rejection causes patients both physiological and psychological distress. Due to the special conditions after heart transplantation, telehealth care could provide immediately and timely care, and reduce the degrees of anxiety and depression for heart transplant recipients. Therefore, the purposes of this study were to develop the Tele-Case-Management Program, and determine its effects on the improvements of the depressive and fatigue symptoms, resilience, and the symptom frequency and distress.

Methods: This study used experimental design with pretest, post-test. According to pretest of depression scores, we stratified and randomly assigned participants to the experimental group and control group. The heart transplant recipients in experimental group (n=31) received Tele-Case-Management Program intervention, and the recipients in control group (n=30) received the usual care. Each study participants was evaluated by Resilience Scale, Symptom Frequency and Symptom Distress Scale, Beck Depression Inventory-II Scale, and Fatigue Scale at pre- intervention (pre-test), and one-month and three-month follow-up. This study used independent t-test and chi-square test to evaluate the homogeneity of the characteristics between the two groups. The generalized estimating equation (GEE) was used to examine the effects of the Tele-Case-Management Program on the improvements of resilience, symptom frequency and distress, depressive and fatigue symptoms.

Results: The majority of participants were male (78.7%), with a mean age of 53.2 ± 12.28 years, and mean ejection fraction (EF) after heart transplant of $61.74 \pm 10.04\%$. The participants receiving the Tele-Case-Management Program intervention showed significantly greater improvement than those in the control group in the symptom frequency ($p= 0.029$) and distress ($p= 0.014$), and depressive symptom ($p=0.029$) at one-month follow-up. Furthermore, the intervention effects on resilience ($p= 0.001$), symptom frequency ($p= 0.001$) and distress ($p= 0.001$), and depressive symptom ($p= 0.001$) were significantly improved in experimental group compared with control group at 3-month follow-up.

Conclusion: The Tele-Case-Management Program is able to improve resilience, symptom frequency and distress, depressive symptoms in heart transplant recipients.

References

Dar, O., & Banner, N. R. (2013). Cardiac transplantation: Who to refer and when. *British Journal of Hospital Medicine*, 74(5), 258-263.

Edward, K. (2013). Chronic illness and wellbeing: using nursing practice to foster resilience as resistance. *British Journal of Nursing*, 22(13), 741-746.

Gorst, S. L., Armitage, C. J., Brownsell, S., & Hawley, M. S. (2014) Home telehealth uptake and continued use among heart failure and chronic obstructive pulmonary disease patients: a systematic review. *Ann Behav Med*, 48(3), 323-336.

Contact

chiwenkao@ndmctsgn.edu.tw

RSC PST 1 - Research Poster Session 1

Effect of Massage Balls on Breast Engorgement for Taiwanese Postpartum Women: A Randomized Clinical Trial

Hsiu-Jung Lee, MSN, MA, Taiwan

Abstract

Purpose: The multitude of benefits that come from breastfeeding has been very well established and recognized. Breast engorgement, however, is a common problem of early postpartum breastfeeding, one that contributes to lower willingness to breastfeed. The development of effective strategies aimed at increasing milk secretion is, therefore, highly important, for it helps to prolong the duration of breastfeeding. It is incumbent upon health-care providers to find the best strategies in assisting women to both manage the discomfort of breast engorgement and increase milk secretion. The purpose of this study was to evaluate the efficacy of massage balls toward treating breast engorgement in postpartum women.

Methods: A quasi-experimental design was used. Participants were recruited from the postpartum ward of a regional hospital in northern Taiwan. They were all within seven days postpartum and gave informed consent. Participants were randomly assigned into two groups of 30 participants each. Participants in experimental group used the massage balls 30 mins per day for 3 consecutive days. Standard postpartum nursing was provided for the control group. Symptoms of breast engorgement were assessed via a self-report scale before and after the intervention. Data was documented and analyzed using SPSS version 22.0. Differences between two groups were evaluated by use of generalized estimating equations.

Results: The results showed that symptoms of breast engorgement (pain, swelling, heat sensation and discomfort) lessened in both groups, with more significant lessening in the experimental group. Differences between two groups reached statistical significance ($B = -13.46^{***}$).

Conclusion: This study demonstrated that the use of massage balls may be a more effective method in mitigating the symptoms of breast engorgement. This form of treatment helps mothers and health-care providers handle breast engorgement symptoms more effectively in primary care, which in turn promotes the length and quality of breastfeeding. This method provides an alternative for nurses to manage breast engorgement more effectively and thus increases the quality of care in early postpartum mothers and infants.

References

- CLabayen, I., Ruiz, J. R., Ortega, F. B., Loit, H. M., Harro, J., Villa, I., et al. (2012). Exclusive breastfeeding duration and cardiorespiratory fitness in children and adolescents. *American Journal of Clinical Nutrition*, 95(2), 498-505.
- Morhenn, V., Beavin, L.E., Zak, P.J. (2012). Massage increases oxytocin and reduces adrenocorticotropin hormone in humans. *Journal of Alternative Therapies in Health & Medicine*, 18 (6) , 11-18.
- Priscilla K, Santha & Nalini J (2014). Massage Therapy- Complementary and Alternative Therapeutic approach. *Asian Journal of Nursing Education and Research*.4(4), 514-517.
- Quigley, M. A., Hockley, C., Carson, C., Kelly, Y., Renfrew, M. J., & Sacker, A. (2012). Breastfeeding is associated with improved child cognitive development: a population-based cohort study. *Journal of Pediatrics*, 160(1), 25-32.
- Yang Chengjia (2013). Breast feeding common breast problems. In Wang Shufang, Chen Zhaohui total review, breast-feeding theory and practice (190-196). Taipei: Taiwan Breastfeeding Joint Institute.

Contact

B1359@tpech.gov.tw

RSC PST 2 - Research Poster Session 2

Adaptation to Curriculum Delivered via iPad Technology

Melissa A. Stec, DNP, APRN, CNM, FACNM, USA

Abstract

Purpose:

With the emergence of new and innovative technology, an evolution of nursing education must be considered. Traditional methods of teaching, while effective, cannot be expected to be successful with the new technology literate populations of students. Instead active learning strategies that utilize tablets and other technologies are becoming more of the norm than the exception. Initiatives incorporating tablets into educational programs are largely aimed at improving the student experience through increased engagement, collaboration, and interactivity (Wong, 2012; Bond-Raacke & Raacke, 2008). The thoughtful integration of emerging technologies throughout the teaching and learning environment relies on the successful diffusion of the innovations, and that diffusion depends on acceptance of change (Rogers, 2003). This study aimed to fill this gap by exploring student perceptions, attitudes, and skill levels related to iPad use before, during, and after the first year of the iPad Initiative.

Methods:

This convergent mixed methods study was designed to examine the skills and attitudes toward using an iPad to support curriculum for sophomore Bachelor of Science in Nursing (BSN) and Doctor of Nursing Practice (DNP) students at a Midwestern university. Data were collected using an investigator-developed survey to identify student perceived iPad skill levels and attitudes towards the iPad before, during, and after the first year of the implementation of a one-to-one iPad requirement (i.e., the iPad Initiative). We used focus groups to identify factors that contribute to students' attitude and skill levels. Initial data were collected from participants during the iPad orientations in August of 2013 (sophomore BSN n = 158; DNP n = 29). Follow-up sessions occurred at the end of fall semester 2013 (survey only) and spring semester (survey and focus groups) 2014. Qualitative and quantitative data were rigorously analyzed.

Results:

Significant improvement was seen in students' perception of their technology proficiency. However, students reported significantly less use of the iPad than they had predicted in the fall. Preliminary analysis of qualitative data resulted in a variety of themes including portability of the device and increased access to information. Students were concerned about the cost of the iPad and felt that the technology was under-utilized by their professors. Once data analysis from both sets of data concluded, the results were fully integrated in order to develop plausible conclusions. The overall findings of the study (meta-inference) was informed by all data sets from all participant groups.

Many themes emerged from the quantitative data that were divided into three subgroups. The first group described positive attitudes and attributes that are called drivers. The second group of themes articulate negative experiences or attitudes that were classified as speed bumps. The third and final group of themes were seen as moderators of both the positive (drivers) and negative (speed bumps) themes. These moderators must be carefully considered when planning a technology integrated curriculum. Additionally, the results of this study elucidated challenges inherent in being early adopters of technology in education.

Conclusion:

Meaningful technology integration requires a thorough understanding the the challenges that may be faced initially. Faculty use of technology was a strong moderator of the student experience. Thoughtful and well planned faculty development can be a useful first step to proficient use of technology in the classroom and therefore a positive student experience. This study identifies the challenge of being early adopters of technology and offers insight into the specific indicators to be considered in implementing a successful technology initiative.

References

- Armstrong, D. A. (2011). Students' perceptions of online learning and instructional tools: A qualitative study of undergraduate students use of online tools. *Turkish Online Journal of Educational Technology, 10*(3), 222-226.
- Beetham, H., & Sharpe, R. (2013). *Rethinking pedagogy for a digital age*. New York, NY: Routledge.
- Berkowitz, S. J., Kung, J. W., Eisenberg, R. L., Donohoe, K., Tsai, L. L., & Slanetz, P. J. (2014). Resident iPad use: Has it really changed the game? *Journal of the American College of Radiology, 11*(2). doi:10.1016/j.jacr.2013.04.017

Bond-Raacke, J., & Raacke, J. (2008). Using tablet PCs in the classroom: An investigation of students' expectations and reaction. *Journal of Instructional Psychology*, 35(3), 235-239.

EDUCAUSE. (2007). M-Learning and mobility, January 2007. Retrieved May 11, 2015, from <http://www.educause.edu/ELI/LearningTechnologies/MLearningandMobility/12397>

George, P., Dumenco, L., Doyle, R., & Dollase, R. (2013). Incorporating iPads into a preclinical curriculum: A pilot study. *Medical Teacher*, 35, 226-230.

Johnson, L., Adams, S., & Cummins, M. (2012). *The NMC horizon report: 2012 higher education edition*. Austin, TX: The New Media Consortium. Retrieved from <http://www.nmc.org/pdf/2012-horizon-report-HE.pdf>

Lobo, M. J., Crandley, E. F., Rumph, J. S., Kirk, J. S., Dunlap, N. E., Rahimi, A. S., . . . Read, P. W. (2013). Pilot study of iPad incorporation into graduate medical education. *Journal of Graduate Medical Education*, 5(1), 142-144. doi:10.4300/JGME-D-12-00007.1

Luo, N., Chapman, C. G., Patel, B. K., Woodruff, J. N., & Arora, V. M. (2013). Expectations of iPad use in an internal medicine residency program: Is it worth the "hype"? *Journal of Medical Internet Research*, 15(5). doi:10.2196/jmir.2524

O'Neil, M. (2014, April 21). Confronting the myth of the 'digital native.' *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Confronting-the-Myth-of-the/145949/>

Rossing, J. P., Miller, W. M., Cecil, A. K., & Stamper, S. E. (2012). iLearning: The future of higher education? Student perceptions on learning with mobile tablets. *Journal of the Scholarship of Teaching and Learning*, 12(2), 1-26.

Wallace, S., Clark, M., & White, J. (2012). 'It's on my iPhone': Attitudes to the use of mobile computing devices in medical education, a mixed-methods study. *BMJ*, 2(4), e001099. doi:10.1136/bmjopen-2012-001099.

Wong, W. (2012). Tools of the trade: How mobile devices are changing the face of higher education. *Community College Journal*, 82(5), 54-61.

Contact

melissa.willmarth@uc.edu

RSC PST 2 - Research Poster Session 2

Growing the Next Generation of Nurse Leaders in Palliative Care: An International Case Study

Kathryn A. Pfaff, PhD, RN, Canada

Linda J. Patrick, PhD, MSc, MA, BScN, RN, Canada

Laurie Freeman-Gibb, PhD, RN, ANP, Canada

Abstract

Purpose: There is a global need to address the growing palliative and end of life care needs of individuals who are living longer, and who also live with serious and complex life-limiting and life-threatening illnesses. This will require significant growth in point-of-care resources, including a sustainable palliative care workforce. More importantly, it will require a complement of nurse leaders who will play key roles in education, evidence-based practice change, care coordination, and program evaluation. This presentation summarizes the findings of an evaluation of an international exchange program in palliative care. The project's aim was to engage graduate students in nursing to develop advanced knowledge and leadership skills in palliative care. The program was funded by the Canadian government and was built on an existing collaborative academic relationship between the University of Windsor in Canada, and Keele University in the United Kingdom. It also leveraged the shared community relationships among four community hospices, one hospital-based palliative care unit, one community outreach program, and a cadre of clinicians who served as champions and mentors.

Methods: The study employed a descriptive single case study design (Yin, 2003) with three embedded units of analysis: scholars, universities, and organizations.

Results: The findings revealed three overarching project processes that supported the project's success. These were: readiness, engagement, and outcome achievement. Within these processes, a number of themes emerged from the data. These were: passion and perseverance, discovery and inquiry, committed mentors, partnerships, and unexpected synergies that span the Atlantic Ocean.

Conclusion: This project is a beginning step in developing global nursing leaders in palliative care. International exchange in palliative care enables the sharing of best evidence in palliative care. It requires the partnership of academic institutions and practice organizations who are willing to invest significant time, funds, and energy. The findings of this project suggest processes and strategies for successful international collaborations in palliative care education and leadership. Project expansion and sustainability will require new and ongoing resources.

References

Canadian Nurses Association, Canadian Hospice Palliative Care Association, & Canadian Hospice Palliative Care Nurses Group. (2015). Joint position statement. The palliative approach to care and the role of the nurse. Retrieved from: [https://www.cna-aic.ca/~media/cna/page-content/pdf-en/the-palliative-approach-to-care-and-the-nurse_e.pdf](https://www.cna-aic.ca/~media/cna/page-content/pdf-en/the-palliative-approach-to-care-and-the-role-of-the-nurse_e.pdf)

International Society of Nurses in Cancer Care. (2015) ISNCC Palliative Care Position Statement. Retrieved

from: http://c.ymcdn.com/sites/www.isncc.org/resource/resmgr/Position_Statements/ISNCC_Palliative_Care_Positi.pdf

Mula, C. (2014). Nursing leadership in palliative care. *International Journal of Palliative Care*, 9(2), 48. doi: [10.12968/ijpn.2003.9.2.48](https://doi.org/10.12968/ijpn.2003.9.2.48)

Phillips, J., & Agar, M. (2016). Exemplary nursing leadership is essential to improving care for the dying. *Journal of Nursing Management*, 24(1), 1-3.

Contact

kpfaff@uwindsor.ca

RSC PST 2 - Research Poster Session 2

Prelicensure International Immersion Illuminates Shared Professional Values and Discovery of Nursing Voice in Cultural Humility

Gina B. Diaz, DNP, RN, ANP, GNP, USA

Paula Byrne, DNP, RN, USA

Edna Imperial, MA, RN, Philippines

Abstract

Purpose: This project's purpose is to explore collaborative strategies for developing a sustainable international pre-licensure nursing educational experience. Nursing scholars and the International Council of Nurses (ICN) recognize that as our world becomes more culturally diverse, nurses will be the linchpin for transforming healthcare that is culturally flexible and responsive to the needs of patients and their families (ICN, 2013; Henly, 2016). The two goals of this project are (a) to deepen the student's understanding of shared professional values and (b) develop the nursing voice. This project is framed by the assumption that when students are immersed into healthcare systems different from their own, they witness how nursing leaders model the shared values of the profession and demonstrate intercultural and collaborative skills of respect and humility. Kumagi & Lypson (2009) describe how the ability of understanding and bracketing one's own assumptions, biases, and values, enables one to see care through different lenses and expand their perspectives on what constitutes the genuine art and science of nursing. Complex pre-licensure nursing curricula rarely offer pre-licensure students the opportunity to engage in actual patient care that occurs in different health systems, which may delay students' experiences with recognizing their own positionality and understanding the positionality of others.

Methods: This program involves a collaboration between a small Midwestern private college and a private nursing school which operates in a highly underserved community in Manila, Philippines. A collaboration was initiated by a faculty member at the Midwestern private college who is an alumna of the nursing school in Manila. Students initially meet before the two-week trip using social media and then travel to Manila to be immersed in clinical practice and community nursing projects. Filipino students are matched with American students in clinical to serve as translators and guides within the organizations. Experiences include OR, Labor and Delivery, ICU, ER, and medical surgical floors. In addition, there is a pre-school screening and family feeding project that enhances family nursing and developmental assessment skills. The aim of the immersion for the students of both colleges is to identify their shared professional values while practicing cultural humility during different nursing educational experiences. The aim for faculty and administration is to explore best practices in nursing education and evaluation that can support the growth of future international nursing leadership. Leaders from each college have visited alternate sites each year to exchange ideas and plan for the future. Fifty seven American nursing students aged 21-23 years have participated and shared their perceptions. The underlying framework of collaboration balances the prioritized educational needs of both colleges as identified by the leaders. This shared vision of the purpose of the immersion has allowed the pilot to expand the length of the trip and to offer faculty development opportunities.

Results: Students wrote reflective papers before and after the experience to examine their assumptions before the trip and to validate their growth upon their return. Critical reflection is one of the guidelines for culturally competent nursing care. Nurses shall engage in critical reflection of their own values, beliefs, and cultural heritage in order to have an awareness of how these qualities and issues can impact culturally congruent nursing care (Douglas et al., 2014). Reframing care delivery is the main theme gleaned from the students' reflections of the intercultural immersion experience. Reframing care delivery refers to application of therapeutic communication with cultural context, enhancing care through high human contact (touch), providing quality care despite low use or no technology used, and acute awareness of social justice within healthcare delivery systems.

American Student Reflection: "This course offered an amazing learning experience for me. I am so grateful to have had the opportunity to participate in this experience. I am able to evaluate personal, professional, and cultural values that impact clinical decision-making that are respectful of patients' values and preferences after participating in this intercultural exchange."

Filipino Student reflection: "The cultural differences adds up new dimensions in taking care of patients. We learn from them and they learn from us. And also a lot of Filipinos are very happy seeing them

because it unusual to be taken care by foreigners, they brought joy to the patients and also to the working area. The nurses enjoys talking to the CSS students even they are not so good in speaking English.”

Conclusion: Developing a sustainable international immersion experience allows both students and faculty the opportunity to examine cultural bias and practice openness and empathy in a diverse healthcare setting. Clarity in the vision regarding the outcomes for the immersion experience allows leadership to align each of their unique faith based missions and address curricula needs for highly desired cultural humility outcomes. The strength of the collaboration is catalyzed by the shared interests of alumna and alignment of faith based colleges. The sustained collaboration encourages the organizations to develop new initiatives; the most recent plan includes designing a synchronous semester long class focused on leadership and assertive communication techniques such as TeamSTEPPS (AHRQ, 2016) to promote patient safety. Integrated technology will narrow distances between students.

References

Agency for healthcare Research and Quality (AHRQ). (2016) TeamSTEPPS. Retrieved from <http://www.ahrq.gov/teamstepps/index.html>

Douglas, M. K., Rosenkoetter, M., Pacquiao, D. F., Callister, L. C., Hattar-Pollara, M., Lauderdale, J., & Purnell, L. (2014). Guidelines for implementing culturally competent nursing care. *Journal of Transcultural Nursing*, 25(2), 109-121. doi:10.1177/1043659614520998

Dayer-Berenson, L. (2013). *Cultural competencies for nurses (2ed)*. Jones & Bartlett Learning: Burlington, MA.

Henly, S. J. (2016). Global Migrations, Ethical Imperatives for Care, and Transcultural Nursing Research. *Nursing Research*, 65, 339. doi:10.1097/NNR.000000000000181

International Council of Nurses. (2013) *The ICN position statement: Cultural and linguistic competence (revised 2013)*. Geneva, Switzerland: Author

Kumagi, A. K., & Lypson, M. L. (2009). Beyond cultural competence: Critical consciousness, social justice, and multicultural education. *Academic Medicine*, 84(6), 782-787. doi:10.1097/ACM.0b13e3181a42398

Contact

gdiaz@css.edu

RSC PST 2 - Research Poster Session 2

Advancing Caring Science in Global Health: Assessment of Mental Health Needs in Bondeau, Haiti

Beth M. King, PhD, RN, PMHCNS-BC, PMHNP-BC, USA

Charlotte D. Barry, PhD, RN, NCSN, FAAN, USA

Abstract

Purpose: The purpose of this exploratory study was to investigate the mental health needs of adults living in Bondeau, Haiti, a rural community located in the southwest region of the country. The aims of the study were to: (1) develop collaborative partnerships and relationships to facilitate the study, (2) determine the severity of depressive symptomatology (measured by the PHQ-9 & Zanmi Lasante Depression Inventory Scale), (3) assess the degree of anxiety (measured by the PROMIS Anxiety scale), and (4) appraise resiliency (measured by Connor-Davidson Resilience scale) for participants in the study compared to the global community.

Significance: In 2011, the World Health Organization (WHO) called for a comprehensive, coordinated response to the global burden of mental disorders. The World Bank reports that 350 million persons are impacted by depression and is “the leading cause of disability world wide” (2016, para 1). Yet, assessment and treatment of mental health disorders remains limited, with estimates of 76% to 85% of persons living in low and middle-income countries receiving no treatment for mental health disorders (WHO, 2015).

Haiti, declared a priority nation by the Pan American Health Organization & World Health Organization (PAHO/WHO) in 2002 is the poorest and most vulnerable country in the Americas (PAHO, 2006, World Bank, 2016). With an estimated population of 10.4 million, only 40% of the population has access to health care (WHO, 2014). The country has no specific mental health policies or legislation and has only 2 mental health hospitals and .07 psychiatrists, .07 psychologists, .29 nurses, and .06 social workers per 100,000 populations to care for persons with mental health disorders (WHO, 2014).

Theoretical Framework: The Community Nurse Practice Model (CNPM) served as the framework for this study. Based in the values of respect, wholeness, and caring, the CNPM promotes community participation and intersectoral collaboration. The CNPM is grounded in the beliefs: respect for person, persons are caring, and persons are whole and connected to the community and environment (Parker, Barry, & King, 2015). In addition, services and activities are intentionally guided by the concepts of community participation/partnership, empowerment, access, essentiality, and intersectoral collaboration (World Health Organization, 1978).

Literature Review: Rasmussen et al. (2015) described the development of a 13 item, culturally sensitive, depression screening tool, the Zanmi Lasante Depression Symptom Inventory (ZLDSI) for use in Haiti. Using an emic-etic approach, the investigators developed a screening tool with construct and concurrent validity for depression. Wagenaar et al. (2013) asserts that mental health resources should be community based, as supported by the report that there were ten psychiatrists practicing in the public sector at the time of the earthquake mostly located in Port au Prince and mental health services were nonexistent in rural communities. The findings of their study revealed a lack of faith in biomedical providers and the high likelihood of seeking help from a local healer or religious leader for mental health problems. The authors supported the WHO’s initiative to scale up mental health interventions in low income countries by using trained community based health care providers who are not psychiatrists.

Barry, King, Goodman, Gullett, and Grumme (2016) identified overall health needs of the community in Bondeau, Haiti and the need to investigate the mental health needs of the community. Health disparities and limited access to health care in Haiti impact the mental health and well-being of persons. The authors asserted that competence, compassion and humility are needed to develop collaborative partnerships and relationships to explore the mental health needs and resources of the community.

Methods: The study design was a sequential (quantitative-qualitative) mixed methods design. Only the quantitative phase of the study has been conducted which assessed the severity of depressive symptomatology, anxiety and resilience of a convenience sample comprised of adults’ age 18-84 living in Bondeau, Haiti. Data analysis consists of descriptive statistics and correlational statistics (Pearson r , Spearman ρ) which compare the participants’ scores on the Promise Anxiety tool, PHQ-9, Zanmi Lasante Depression Symptom Inventory and Connors-Resilience scores to the participants’ demographics. IRB approval was obtained by the University IRB and written and/or oral consents were obtained by all participants.

Results: The study is in process and findings will be completed in 2017.

Conclusion: This study advances caring science in the discipline of nursing, arrived through intentional research focused on the relationship of caring to mental health and well-being of the whole person within the family and community. The critical role nursing plays in global collaborations and in attaining the United Nation's Sustainable Health Goals of "people-centeredness" healthcare programs (United Nations, 2015) was demonstrated in the study.

References

Barry, C., King, B, Goodman, R, Gullett, D. & Grumme, V. (2016). Coming to know a community: A community assessment in rural Haiti. In M. Ray, *Transcultural caring dynamics in nursing and health care* (2nd ed., pp. 420-430). Philadelphia: F. A. Davis Company.

Pan American Health Organization. (2006). *The challenge of Haiti Health: A right for all*. Retrieved from <https://www.google.com/#q=pan+american+health+organization+haiti>.

Parker, M.E. & Barry, C. D. & King, B. (2015). The Community Nursing Practice Model. In M. Smith, & M. Parker. (Eds.). *Nursing Theories & Nursing Practice*, (4th edition, pp.435-447). Philadelphia: FA Davis.

Rasmussen, A., Eustache, E., Raviola, G., Kaiser, B., Grelotti, D., & Belkin, G. (2015). Development and validation of a Haitian Creole screening instrument for depression. *Transcultural Psychiatry*, 52(1), 33-57.

The World Bank. (2016). *Data: Haiti*. Retrieved from <http://data.worldbank.org/country/haiti>

The World Bank. (2016). *Haiti overview*. Retrieved from

<http://www.worldbank.org/en/country/haiti/overview>

World Health Organization. (1978). Declaration of Alma-Ata, in Proceedings of International Conference on Primary Health Care, Geneva, Switzerland, 1978. Retrieved from

http://www.who.int/publications/almaata_declaration_en.pdf

World Health Organization. (2011). *Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level*. Retrieved from

http://apps.who.int/gb/ebwha/pdf_files/EB130/B130_9-en.pdf

World Health Organization. (2014). *The mental health atlas 2014*. Retrieved from

http://www.who.int/mental_health/evidence/atlas/profiles-2014/hti.pdf?ua=1

World Health Organization. (2015). *Depression*. Retrieved from

<http://www.who.int/mediacentre/factsheets/fs369/en/>

Contact

bking@health.fau.edu

RSC PST 2 - Research Poster Session 2

Changes in Providers' Viewpoint Eight Years After Implementation of a Neonatal Palliative Care Program

Debra Brandon, PhD, RN, CNS, FAAN, USA

Nancy Dias, PhD, RN, CNE, USA

Margarita Bidegain, MD, USA

Abstract

Purpose: Pediatric palliative care programs are integrated models of care in which curative and palliative interventions coexist (American Academy of Pediatrics Committee on Bioethics and Committee on Hospital Care, 2000). These programs are considered essential care for all infants and children with any life-threatening condition. One third of pediatric deaths occurs in the neonatal period and neonatal deaths occur primarily in critical care hospital settings (Brandon, Docherty, & Thorpe, 2007) and most admissions to the neonatal intensive care unit (NICU) are unexpected. Therefore, decisions to initiate life-sustaining treatments often must be made quickly following birth and sometimes without adequate input from parents (Pinter, 2008). Once life-sustaining interventions are initiated, decisions-making around withdraw of interventions are a source of distress for parents and neonatal providers alike.

Distress for neonatal health care providers is often manifested as moral distress (Brandon, Ryan, Sloane, & Docherty, 2014; Heffernan & Heilig, 1999), defined as conflict between the health care action and a providers' values. Source of moral distress among neonatal health care providers is associated with inappropriate use of aggressive care, providers lack of voice, and delays in transitioning to palliative care (Brandon et al., 2014). Provider moral distress affects the care of patients and palliative care programs may decrease moral distress (Brandon et al., 2014). Therefore, understanding providers' views of palliative care and the factors that impact their agreement with withholding and withdrawing life-sustaining interventions is essential to informing decision making and decreasing provider moral distress.

Therefore, the purpose of this study was to describe changes in neonatal providers' knowledge and comfort with integrated neonatal palliative care eight years after implementation. In addition, typologies of provider palliative and end-of-life decision-making and the relationship between the typologies and providers' moral distress were explored.

Methods: The study design was a cross sectional survey before implementation and 8 years after implementation of neonatal palliative care program. An on-line survey was sent to all neonatal providers in a Level IV neonatal intensive care nursery in the southeastern U.S. The setting was the Intensive Care Nursery of Duke Children's Hospital. The Birthing Center (BC) is a regional referral center with 3300 births per year and the Intensive Care Nursery (ICN) is a 67 bed level IV unit.

The goal of the Neonatal Palliative Care Program is to provide holistic, compassionate, supportive, coordinated, and consistent care to neonates with a life-threatening or terminal condition, and their families. The program is designed to serve families at any point from prenatal diagnosis throughout infancy and is based on four domains of neonatal palliative care: 1) infant and family needs including symptom management, psychosocial distress, spiritual issues, and family support, 2) ongoing reassessment and establishment of the infant's care needs in collaboration with the parents, 3) coordination of infant care across care settings including transition to home and community, and 4) grief and bereavement support for families and providers (AAP, 2000; Carter and Bhatia, 2001). In addition, the program is committed to ongoing education regarding palliative care issues for both neonatal providers and families.

The program developed a number of products to facilitate comprehensive care for the patients and their families. The products developed included a Potential Candidates List, Palliative Care Protocol, a Palliative Care Order Set, a Nursing Palliative Plan of Care, a Medication list, a Family Conference Record, and an Infant Withdrawal of Care Protocol. In addition, a pamphlet was designed that can be provided to families, which gives an easily understood description of palliative care.

Survey measures included: 1) a demographic information; 2) an investigator developed measure of Neonatal Palliative Care (NPC) knowledge attitudes with a Likert scale; and 3) a provider moral distress scale developed by Corley and colleagues (Corley, Elswick, Gorman, & Clor, 2001) and modified by Hamric and colleagues (Hamric & Blackhall, 2007). The modifications were to adjust the questions to specific provider types (physicians, nurses, and others). Further modification to align with the NICU setting was completed with permission of Dr. Hamric.

All primary neonatal providers (RNs, NNPs, Neonatologists, Fellows, Social Work, Developmental Specialists, Unit Clerks) were emailed an invitation to complete an anonymous online Redcap survey. The link to the survey was active for one month, and the sample of providers received weekly emails reminding them to complete the questionnaire.

Results: 124 and 114 respondents completed the survey in 2007 and 2015 respectively for a 54% and 43% response rate. Mantel-Haenszel Chi-Square was used to evaluate provider knowledge and attitude differences before and after program implementation. Most respondents were nurses (79.8%). There were no significant differences in providers' perceptions of their competence in providing NPC before and after program implementation. Providers perceived themselves to be either competent or extremely competent with providing comfort measures, managing pain and other symptoms (anxiety, gasping), recognizing impending death, and understanding the role of palliative care over 90%. However, talking with families about palliative care and dying was lower with about 70% of providers expressing competence. While providers generally felt they were competent at providing NPC the delivery of some aspects of NPC were viewed as more of a problem after program implementation. For example, reluctance of the health care team to discuss palliative and end-of-life care increased from around 50% before implementation to 85% 8 years after program implementation.

Latent class analyses were conducted around withholding or withdrawing 16 life-sustaining interventions. These interventions ranged from withholding or withdrawing nutrition and antibiotics to withholding or withdrawing mechanical ventilation and resuscitation. Three typologies of decision-making were present both before and after program implementation. Providers either *mostly agree*, *mostly disagree*, or had *selective agreement* with limiting or withdrawing life-sustaining interventions. Moral distress scores were moderately high. Nurses had significantly higher total moral distress scores (mean=94.33; SD=52.74) than physicians (mean=59.70; SD=42.07). In ordinary square regression analyses providers' moral distress predicted their decision-making typology ($p < 0.001$). Moral distress was highest among the providers in the *mostly agree typology* (median=116) and lowest in the *mostly disagree* (median=68) typology.

Conclusion: Providers' knowledge and comfort with neonatal palliative care was generally good at both baseline and 8 years following program implementation while problems with implementation of specific interventions were viewed as more problematic. One possible explanation for this finding could be the greater awareness of the importance of NPC and thus more concern or recognition that care was not consistently applied. This finding is consistent with our moderately high levels of provider moral distress. Provider moral distress over the use of certain interventions may impact the delivery of NPC and negatively impact the providers' well-being. Institutional support for both parents and care providers is essential for effective delivery of NPC.

References

Brandon, D., Ryan, D., Sloane, R., & Docherty, S. L. (2014). Impact of a pediatric quality of life program on providers' moral distress. *MCN; American Journal of Maternal Child Nursing*, 39(3), 189-197.

doi:10.1097/NMC.0000000000000025

Younge, N., Smith, P. B., Goldberg, R. N., Brandon, D. H., Simmons, C., Cotten, C. M., & Bidegain, M. (2015). Impact of a palliative care program on end-of-life care in a neonatal intensive care unit. *Journal of Perinatology*, 35(3), 218-222. doi:10.1038/jp.2014.193

Contact

debra.brandon@duke.edu

RSC PST 2 - Research Poster Session 2

Perceptions of Nursing Students of Study Abroad Experiences

Camille Payne, PhD, RN, USA

Genie E. Dorman, PhD, APRN, BC, FNP, USA

Abstract

Purpose: The purpose of this research study was to explore nursing student perceptions of study abroad experiences. The findings of this study may help to guide faculty in developing new opportunities, and increasing the meaningfulness of existing study abroad courses.

Methods: Basic qualitative methods were used to conduct the data collection and analysis for this study. Undergraduate nursing students who had participated in previous study abroad experiences were recruited by email invitation. The researchers scheduled individual, one on one interviews with the nursing student participants. At the beginning of the interview, participants were provided with consent forms, and any questions were addressed. The interviews were guided by pre-set, semi-structured, open-ended questions, and were conducted in quiet areas of the participant's choice. Interviews were audiotaped, transcribed, and checked for accuracy.

Results: Themes and categories of responses emerged through qualitative data analysis. Researchers initially reviewed and categorized data independently. After this, researchers discussed findings and collapsed categories. Data analysis revealed consistent patterns of responses in students. Results were shared with faculty colleagues who participate in the development and direction of study abroad programs.

Conclusion: The data revealed that students found overall that the experience served to help them better understand individuals from different cultures and different health care systems, as well as to explore different health beliefs. Students expressed a new understanding of cultures and geographic areas in which there is reduced access to high level health care and technology, but patient care needs are still met. Expecting to teach, and not to be taught, students were surprised at the ways in which they were themselves educated about other people and different cultures. Participants shared that these experiences have enabled them to create their own new world views, and will further enable them to provide health care that is more culturally sensitive and aware as future nurses. Specific recommendations will be directed for nursing education courses and programs.

References

Kulbox, P.A., Mitchell, E.M., Glick, D.F., & Greiner, D. (2012). International experiences in nursing education: A review of the literature. *International Journal of Nursing Education Scholarship*, 9, 1-21.

Smith, K., & Curry, K. (2011). Is it worth it? Measuring the long-term effects of an international experience for nursing students in Ecuador. *Journal of Community Health Nursing*, 28, 14-22.

Contact

lpayne3@kennesaw.edu

RSC PST 2 - Research Poster Session 2

Incontinence Associated Dermatitis Assessment Scale: Study of Inter-Observer Compliance

Gulsun Ozdemir Aydin, MSc, RN, Turkey

Hatice Kaya, PhD, RN, Turkey

Abstract

Purpose: This research was designed to adapt the Incontinence Associated Dermatitis Assessment Scale (IADAS) to Turkish and to show the usability of the scale in our country.

Methods: The study which was planned in the type of methodological research was carried out in two stages. In the first stage, the language equivalence of the scale was performed using translation-back translation techniques, it was submitted for the opinions of 5 faculty members who are experts in their fields to assess the Content validity, and the expert opinions obtained were assessed by the Content Validity Index. Then, nurses were asked to give points in accordance with the instructions of the scale by showing an image demonstrating the dermatitis development at different levels. This second stage was carried out with 65 nurses working in the neurology, neurosurgery, physical therapy and rehabilitation clinics of two university hospitals. ICC: Intraclass Correlation Coefficient was used in the inter-observer reliability assessment. The significance was assessed at the $p < 0.05$ level.

Results: The content validity index of the scale was determined as 1. It was found that the average of age of the nurses who participated in the research was 32.52 ± 5.80 , 87.7% of them had an occupational experience of 3 years and above, and 86.2% of them did not receive any training for the development of incontinence associated dermatitis. In the assessment made by the nurses using the sample image, the average of the point they get from the scale was 23.94 ± 3.92 . The inter-observer intraclass correlation coefficient (ICC: 0.867, $p = 0.001$) of the scale was found high ($p < 0.01$).

Conclusion: In line with these results, it can be said that the inter-observer compliance of the incontinence associated Dermatitis Assessment Scale (IADAS) is very high, it can be used effectively in determining and assessing the dermatitis in incontinence patients with high dermatitis development in our country. This scale is useful in nursing care.

References

- Beeckman, D., Van Damme, N., Schoonhoven, L., Van Lancker, A., Kottner, J., Beele, H., ... & Van Hecke, A. (2015). Interventions for preventing and treating incontinence-associated dermatitis in adults. *The Cochrane Library*, 1-13. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011627/abstract;jsessionid=ECDA203199C41AF3403ED329C1972441.f01t02> (12.06.2016).
- Black, J. M., Gray, M., Bliss, D. Z., Kennedy-Evans, K. L., Logan, S., Baharestani, M. M., ... & Ratliff, C. R. (2011). MASD part 2: incontinence-associated dermatitis and intertriginous dermatitis: a consensus. *Journal of Wound Ostomy & Continence Nursing*, 38(4), 359-370.
- Borchert, K., Bliss, D. Z., Savik, K., Radosevich, D. M. (2010). The incontinence-associated dermatitis and its severity instrument: development and validation. *J Wound Ostomy Continence Nurs*, 37(5): 527-535.
- Langemo, D., Hanson, D., Hunter, S., Thompson, P., Oh, I. E. (2011). Incontinence and incontinence-associated dermatitis. *Advances in skin & wound care*, 24(3):126-140.
- Payne, D. (2015). Managing and preventing incontinence-associated dermatitis. *British journal of community nursing*, 20(5): 231-232.

Contact

gulsunoz@istanbul.edu.tr

RSC PST 2 - Research Poster Session 2

Selecting Internationally Educated Nurses (IEN) to Participate in a Program of NCLEX-RN® Preparation

Susan T. Sanders, DNP, RN, NEA-BC, USA

Abstract

Purpose: Identifying appropriate IEN applicants to enter a prescriptive program of study to prepare for the NCLEX®-RN. The challenges for IENs to become licensed in the United States through the NCLEX®-RN have been chronicled in multiple publications. Squires (NYU, 2016) noted the decline in IEN pass rates on the NCLEX®-RN declined from 58% in 2004 to 32% in 2015. Language is one of the issues with IENs but cultural differences also create a gap in knowledge and/or ability to answer the NCLEX®-RN items (Richmond, 2013). Boshier and Bowles (2008) identified a 40% disparity in NCLEX®-RN pass rates despite academic performance.

Methods: A validation study will be conducted to determine admission into the prep program. In order to improve success rates for IEN on the NCLEX®-RN, a standardized test will be developed and administered to IENs. A score range will be established to determine recommended score(s) for successful completion of the NCLEX®-RN examination. Upon acceptance into the prep program a structured on-line course will be provided that includes content review, practice and standardized/benchmarked tests, language review, and a NCLEX®-RN review class will be offered to the students with appropriate entrance scores.

Results: The prep program is in use at this time without the use of the screening test. To date, the current students consisted of an initial 4 cohorts of 46 students who have completed the prep and review with a resulting 56.5% pass rate on the NCLEX®-RN. The IENs enrolled in this prep course have been working with mentors and faculty to complete the components of the program while working as nurses in their current country of residence. The goal to become NCLEX®-RN licensed is a strong motivator for these nurses to complete the prep program.

Conclusion: The hypothesis is that the student success rate will increase with the utilization of the screening test prior to admission into the prep program.

References

Boshier, S.D. & Bowles, M. (2008, May-June). The effects of linguistic modification on ESL students' comprehension of nursing course test items. *Nursing Education Perspectives*, 29(3), 165-172.

NYU News Release (2016). Foreign educated nurses seeking work in the U.S. sheds new light on global nurse migration trends. Retrieved

<http://www.nyu.edu/about/news-publications/news/2016/july/new-nyu-study-about-foreign-educated-nurses-seeking-work-in-the-us-sheds-new-light-on-global-nurse-migration-trends.html>

on October 3, 2016.

Richmond, C. (2013). Does the NCLEX®-RN pass the test for cultural sensitivity? *Minority Nurse Magazine*, March 30, 2013. Retrieved from

<http://minoritynurse.com/does-the-nclex-rn-pass-the-test-for-cultural-sensitivity/> on October 3, 2016.

Contact

susan.sanders@kaplan.com

RSC PST 2 - Research Poster Session 2

Leveraging Statistical Simulations to Gain Insights From Data: A New Type of Simulation for Nurses

Alvin D. Jeffery, PhD, RN-BC, CCRN-K, FNP-BC, USA

Abstract

Purpose: Nurses scientists are finding themselves working with increasingly more quantitative data from a variety of sources and do not typically have the same degree of training in theoretical statistics that an epidemiologist or statistician might have. Even if nurse scientists were equipped with such training, they might still be uncertain of the best statistical approach for analyzing data under new or unknown assumptions. Statistical simulations can be beneficial, but do not appear to be frequently used by nurse scientists.

To illustrate the benefits of statistical simulation studies, this presentation will provide both a basic use case and a more complex exemplar. The first case compares basic statistical tests for differences in means and is intended to demonstrate the ability of simulation to illustrate rules and concepts taught in an introductory statistics course. The second case compares more complex statistical approaches to handling missing data in a clinical dataset as a way to demonstrate the ability of simulation to guide analysis approaches in real-life applications.

Methods: The first demonstration will compare the use of the Student's t-test, non-parametric Mann-Whitney U-test, and ordinary least squares regression for samples of varying sizes from populations with differing effect sizes. After creating 2 populations (N = 100,000) with differences in means ranging from 0 to 2 times the mean of the first population, we extracted sample sizes ranging from 6 to 400. For each effect size and sample size, we conducted 1,000 "studies." In each study, we tested for a difference in means using the aforementioned t-test, U-test, and regression approaches.

The second exemplar will illustrate a case study where the presenter used a simulation study to explore the preferred approach for handling missing data in a clinical dataset where some variables had a large amount of missing data. The simulation study comprised the following assumptions: (a) incidence of missing from 1% to 60%, (b) data missing completely-at-random, at-random, and not-at-random, and (c) missing associated with outcome and not with outcome. Imputation procedures included simple median imputation and multiple imputation with chained equations approaches. Analysis approaches included both a logistic regression and a Cox proportional hazards regression, and sample results were pooled and compared to true population values.

Source code for replicating the simulation studies and resources for learning the statistical software R will be provided to interested audience members.

Results: In the first example, graphical results demonstrate that: (a) the percentage of statistically significant findings [$p < 0.05$] increases with larger sample sizes and effect sizes and (b) the percentage of discordance among statistical tests becomes negligible at larger sample sizes and effect sizes. In the second example, graphical results demonstrate that multiple imputation with a model that includes the outcome variable obtained results closer to true values under most assumptions.

Conclusion: Statistical simulations leverage modern computing abilities to explore results of statistical approaches under a variety of assumptions. By creating a large population where true values are known and then analyzing multiple samples taken from the population, one can gain an idea of which analysis method(s) might be preferred based on the assumptions he/she is willing to make.

References

- Demirtas, H., Hedeker, D., & Mermelstein, R. J. (2012). Simulation of massive public health data by power polynomials. *Statistics in Medicine*, 31(27), 3337-3346. doi: 10.1002/sim.5362
- Harrell, F. (2015). *Regression modeling strategies: With applications to linear models, logistic and ordinal regression, and survival analysis* (2nd ed.). New York, NY: Springer.
- Plichta, S. B., Kelvin, E. A., & Munro, B. H. (2013). *Munro's statistical methods for health care research* (6th ed.). Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.). Upper Saddle River, NJ: Pearson Education.

Contact

alvinjeffery@gmail.com

RSC PST 2 - Research Poster Session 2

Assuming Caucasianess in Pressure Injury Research: A Literature Review

Neesha Oozageer Gunowa, MSc, DN, RN, QN, SPT, HEA Fellow, United Kingdom

Marie Hutchinson, PhD, RN, RM, Australia

Joanne Brooke, MSc, BSc, RN, CPsychol, United Kingdom

Debra Jackson, PhD, RN, FACN, United Kingdom

Abstract

Purpose: Systematically examine research literature about people with darkly pigmented skin in relation to pressure injuries.

A pressure injury, previously known as a pressure ulcer, is an injury to an area of skin and/or underlying tissue often on a bony prominence which may be caused by pressure, shear or other factors (EPUAP, 2016). Despite best efforts, pressure injuries are a significant cause of harm to patients, and in addition to the human suffering, which may include pain and psychological distress they cost the United Kingdom National Health Service billions of pounds a year (Dealey et al., 2012) The importance of effective skin assessment and early recognition of skin damage is an essential step in reducing the burden of harm to patients (NPUAP and EPUAP, 2009). Yet all current skin assessment strategies assume that a patient is Caucasian (NICE, 2014).

Methods: After establishing inclusion and exclusion criteria a comprehensive electronic database search was undertaken of PubMed, Cumulative Index for Nursing and Allied Health Literature, Cochrane and British Nursing Index between 1990 – May 2016. Variations of the following terms: 'pressure injury', 'pressure ulcer', 'deep tissue injury' 'bed sore', 'decubitus', 'ethnicity', 'race', 'skin tone' and 'skin colour' were used after being audited by a healthcare librarian.

Results: It was identified that there is a dearth of literature exploring pressure injury risk amongst people with darkly pigmented skin, as 12 relevant articles were identified through the criteria set. All the articles were quantitative studies mostly based on secondary analysis of data in the United States of America, using set categories of skin colour such as black or white. The studies incorporated a large number of subjects, one of which analysed data from 2,936,146 residents (Ahn et al, 2016)

Employing a component ratings assessment (National Collaborating Centre for methods and Tools, 2008) the studies were assessed as weak or moderate due to issues of reliability, tool validity and methodology. The focus of the research was statistical rather than acknowledging and exploring overall skin tone variances and individual experiences.

Conclusion: Most of the studies reviewed excluded early stage pressure injuries as the assumption of identification was seen to be difficult and often unreliable, particularly in people with darkly pigmented skin. A recurrent theme in the findings of these studies confirmed that people with darkly pigmented skin were more likely more likely to develop severe pressure injuries as they are seen to be difficult to identify. The literature review also revealed that there is very little empirical research to guide and support health professionals, patients and carers to reduce pressure injury in black and ethnic minority communities resulting in significant health inequalities and implications for nursing practice.

References

Ahn H, Cowan L, Garvan C, Lyon D and Stechmiller J (2016) Risk Factors for Pressure Ulcers Including Suspected Deep Tissue Injury in Nursing Home Facility Residents: Analysis of National Minimum Data Set 3.0. *Advances in Skin Wound Care*. 29, 178-190.

Dealey C, Posnett J, Walker A, (2012) The cost of pressure ulcers in the UK. *Journal of Wound Care*. 21(6), 261-266.

National Collaborating Centre for Methods and Tools (2008) *Quality Assessment Tool for Quantitative Studies*. Hamilton, ON: McMaster University. Available at: <http://www.nccmt.ca/resources/search/14> (Downloaded: 21 May 2016).

National Institute for Health and Care Excellence (2014) *Pressure ulcer: prevention and management*. Available from:

https://www.nice.org.uk/guidance/cg179/chapter/ftn.footnote_2

(Accessed 23rd October 2016)

National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel (2009) *Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline*. Washington DC: National Pressure Ulcer Advisory Panel.

Contact

15129387@brookes.ac.uk

RSC PST 2 - Research Poster Session 2

International Clinical Experiences for Required Clinical Contact Hours in U.S. Schools of Nursing

Tamara H. McKinnon, DNP, RN, APHN, USA

Joyce J. Fitzpatrick, PhD, RN, FAAN, USA

Anglea McNelis, PhD, RN, FAAN, ANEF, CNE, USA

Kathleen de Leon, MS, RN, USA

Abstract

Purpose: Background

Over the past decade, there has been an increase in interest and participation in international experiences and programs in United States Schools of Nursing as faculty are concerned with preparing future nurses as global citizens. In fact many schools of nursing have an explicitly stated commitment to international experiences and/or global citizenship as a component of their mission and vision. And the subject of international health may be integrated into the nursing curricula. Further, the ever-increasing multicultural population in the US poses a significant challenge to nurses for providing culturally appropriate and holistic care to their patients as many are unprepared or underprepared to care for diverse citizens. Nurses are required to be knowledgeable and understand cultural differences in healthcare values, beliefs, and customs. International clinical experiences provide an environment for developing knowledge, skills, and attitudes that promote culturally competent care. Despite increasing interest and strong philosophical and evidentiary support for international learning experiences, a recent national survey by the National League for Nursing (NLN) revealed that fewer than 50% of US schools of nursing have such programs, and faculty respondents identified significant obstacles to program development (McKinnon & McNelis, 2011).

Study Aims

Specific Aim 1: Describe the nature of international clinical experiences for required clinical nursing courses in RN pre-licensure programs in US schools of nursing.

Specific Aim 2: Obtain information about understanding of their state BON regulations regarding international clinical experiences from the program director/program administrator of RN pre-licensure programs in US schools of nursing.

Methods: This National Council of State Boards of Nursing funded study will include a national survey of all Registered Nurse pre-licensure programs in the United States including Associate Degree, Bachelor's Degree, Diploma, and Master's Entry programs. We will assess the use of international clinical experiences to meet required clinical content across all clinical content areas and clinical nursing specialties, determine facilitators and barriers to using international clinical experiences, and identify the basic understanding of State Board of Nursing requirements. While this national survey is limited to United States based schools of nursing, it is our intent to expand this work to address similar issues in other countries.

Results: Preliminary survey results will be presented.

Conclusion: Preliminary survey results and conclusions will be presented.

References

McKinnon & J. Fitzpatrick (Eds.), *Global service-learning in nursing* (131-144). New York, NY: National League for Nursing.

McKinnon, T.H., & McNelis, A.M. (2011). International service-learning in United States schools of nursing. In T. McKinnon & J. Fitzpatrick (Eds.), *Global service-learning in nursing* (131-144). New York, NY: National League for Nursing.

McKinnon, T. H., & McNelis, A. M. (2013). International programs in United States schools of nursing: Driving forces, obstacles, and opportunities. *Nursing Education Perspectives*, 34(5), 323-328.

Contact

thm4@cruzio.com

RSC PST 2 - Research Poster Session 2

Enriching the PhD Experience Through International Doctoral Student Seminars

Rebecca Elizabeth Salomon, MSN, BA, RN, PMHNP-BC, USA

Martha A. Abshire, PhD, RN, USA

Matthew Alders, BA, BSc, RN, United Kingdom

Sabianca Delva, BSN, RN, USA

Rita Forde, MSc, RGN, RM, RANP, RNP, United Kingdom

Mavis Machirori, MSc, BSc, RM, United Kingdom

Hanna Marketta Repo, MNSc, RN, Finland

Tamar U. Rodney, MSN, RN, PMHNP-BC, USA

Camilla Strandell-Laine, MNSc, RN, Finland

Ruth-Alma N. Turkson-Ocran, MPH, MSN, RN, FNP-BC, USA

Joanne Fitzpatrick, PhD, RN, United Kingdom

Anne Jones, MSc, PhD, PGCert, RGN, FHEA, United Kingdom

Abstract

Background: Nursing doctoral programs exist in varying models around the world. While there are many measures of success for these programs, one way is through the collaborative opportunities a program provides and the success of the students in maximizing these collaborative efforts (Edwards, Rayman, Diffenderfer, & Stidham, 2016). Doctorally prepared nurses value opportunities to learn from each other and form professional contacts as they prepare for their future careers (Jairam & Kahl, 2012). Seeking international peers through a web-based platform can be used to increase collaboration and peer support.

Purpose: The purpose of this presentation is to describe an international doctoral student seminar and the lessons learned in the first year in order to support the development of other international collaborative partnerships by 1) describing the establishment of the group and 2) identifying benefits and barriers to the process.

Methods: The International Doctoral Student Collaboration was initiated by two faculty members from King's College London (United Kingdom) following a meeting of The International Scientific Advisory Board (ISAB). After establishing an internal interest in the project, invitations were extended to Johns Hopkins University (USA) and University of Turku (Finland). These collaborators were initially chosen on the basis of their established links between the faculties at these institutions. A steering group comprised of doctoral students from the faculties of Nursing from each University was established to lead on this initiative. The inaugural seminar was held in September 2015 and hosted by King's College London with further seminars hosted in turn by University of Turku and Johns Hopkins University. Due to the success of these seminars, the collaboration has been extended to include doctoral students from University of North Carolina at Chapel Hill (USA). Meetings continue to be held in rotation, with topics of the seminars jointly determined by the participating Universities. The host University then identifies a suitable expert on the chosen subject to facilitate the seminar. Each seminar is conducted via videoconferencing. Between seminars, students continue to network and communicate via other multi-media platforms.

Results: Twenty-three students and faculty across the four universities participate in the seminar. Presentations in the first year have focused on how to build an international research profile, how to be involved with the peer review process in academic journals, and how to effectively engage in social media as a researcher. Benefits to the students have included being visiting scholars at each other's university, building a professional network, and utilizing peer support. Students have taken opportunities to meet each other through mutual attendance at conferences and trainings, further strengthening the collaborations. Additionally, the group is currently collaborating on a manuscript for submission. Some of the challenges encountered in the first year have included navigating international time zones and different academic schedules. Also, a lack of shared web-based conference platforms meant that as each institution hosted a seminar, a new system had to be accessed.

Discussion:

International student collaboration presents a unique opportunity by allowing the student to create a community of support, develop leadership skills, and form an international professional network (Rautenbach & Black-Hughes, 2012). Shared team leadership, with each university taking rotating responsibility for content, has been linked with higher success of virtual teams (Hoch & Kozlowski, 2014). Additionally, researchers have suggested a framework for the enhancement of international scholarship by collaborative learning through a web-based initiative (Wihlbord & Friberg, 2016). This collaboration

provides a unique opportunity for doctoral students to form an international professional network and a community of support among peers.

Conclusion: In the first year of this international doctoral student collaboration, key benefits to members have been the development of a professional network, leadership skills and peer support. Participation in the seminar encourages early engagement in career building with a focus on supporting international research.

References

Edwards, J., Rayman, K., Diffenderfer, S., & Stidham, A. (2016). Strategic innovation between PhD and DNP programs: Collaboration, collegiality, and shared resources. *Nursing Outlook*, 64(4), 312–320. <http://doi.org/10.1016/j.outlook.2016.02.007>

Hoch, J. E., & Kozlowski, S. W. J. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, 99(3), 390–403. <http://doi.org/10.1037/a0030264>

Jairam, D., & Kahl, D. H. (2012). Navigating the doctoral experience: The role of social support in successful degree completion. *International Journal of Doctoral Studies*, 7, 311–329.

Rautenbach, J. V., & Black-Hughes, C. (2012). Bridging the Hemispheres through the Use of Technology: International Collaboration in Social Work Training. *Journal of Social Work Education*, 48(4), 797–815. <http://doi.org/10.5175/JSWE.2012.201100114>

Wihlborg, M., & Friberg, E. (2016). Framework for a virtual nursing faculty and student learning collaboration between universities in Sweden and the United States: A theoretical paper. *Nurse Education Today*, 41, 50–53. <http://doi.org/10.1016/j.nedt.2016.03.012>

Contact

rsalomon@email.unc.edu

RSC PST 2 - Research Poster Session 2

Disaster Response Preparedness and Training: A Capabilities Assessment of Asia Pacific Partners

Mary Catherine Goetter, PhD, RN, NEA-BC, USA

Susan F. Dukes, PhD, RN, CCNS, USA

Abstract

Purpose: The purpose of this study is to address a knowledge gap in understanding how military personnel involved in casualty transport would be able to function with their military and civilian counterparts in the event of a disaster involving multinational response. United States Air Force (USAF) personnel have accrued robust experience in patient evacuation employing en route care (ERC) systems and critical care air transport teams (CCATT) that were established, designed, and studied in wartime. In the event of a multinational disaster, this resource will likely be tapped; however, ERC and CCATT have not focused on scenarios outside of wartime. USAF personnel will need to work with host and volunteer nations to evacuate casualties, yet little is known about how military personnel of other nations train for disaster response. The need to seamlessly integrate with these military and civilian counterparts is a given, but there is a lack of knowledge and understanding on how that would operationalize. Disaster response preparedness is a critical issue for military and healthcare leaders. Major disasters have captured world attention: earthquake, tsunami, and resultant nuclear event [Japan 2012], Typhoon Hagupit [Philippines 2014], and most recently the earthquake in Nepal [2015]. Disasters on this scale require more than one nation's resources and response. The Asia Pacific Military Health Exchange (APMHE) is an annual military medicine event that combines the features of three previously separate medical, nursing, and leadership information exchanges into a single event. APMHE was developed to foster information and knowledge sharing between U.S. Department of Defense (DoD) and non-DoD entities to further shared aims. Disaster preparedness and response is a key commonality between U.S. and Asian military members, as well as civilians and non-governmental organizations (NGO) providing response and relief. Despite language or cultural differences, the need to rescue and evacuate casualties is a shared priority in disaster preparedness and response. This study will add knowledge to our understanding of how other nations train for disaster response preparedness, as well as assess disaster response preparedness training capabilities.

Methods: Program evaluation is a method that informs decision-making for a specific program, in this case, disaster response preparedness training and capabilities of member nations of APMHE. This method of inquiry and assessment aims to meet the evaluation needs of the various stakeholders. The capabilities assessment was a basic inquiry using survey method to gather demographic and factual information to determine how our military counterparts train for disaster response. The ultimate aim was to assess capabilities in the current system and inform future decisions related to the ability to work together with other nations to transport casualties in nontraditional ERC platforms.

A basic survey questionnaire using Survey Monkey® was distributed to all APMHE participants (members of medical, nursing, medical service corps) who actually attended the 2016 meeting, as well as those who were not selected to attend, but expressed interest and visited the APMHE webpage. Attendance to APMHE is limited due to fiscal and logistical constraints; many countries were limited in the number of attendees they could send, but military unit colleagues of the attendees would still have valuable input to be solicited. A link to the survey questionnaire was posted on the APMHE website and Facebook page, as well as emailed to the attendees on the distribution list of the meeting. Participants were asked to fill out a questionnaire gathering simple demographic information and facts about disaster response preparedness and training.

Results: Data collection is in progress and is expected to be completed by mid-2017. Descriptive statistics will be used to illustrate the sample and trends. Chi square analysis will be performed for subgroup analysis as appropriate. Results will be disseminated at future meetings of the APMHE.

Conclusion: This program evaluation of disaster response preparedness training and capabilities assessment will increase knowledge and understanding of this critical issue among military and civilian colleagues in the Asia Pacific region. Knowing the status quo of disaster response preparedness training will enable USAF leaders to narrow the knowledge gap of understanding of how evacuation and casualty movement could occur in a real world disaster in the Asia Pacific region. Knowing how our counterparts train, identifying common areas of disaster response training needs, and formulating concrete plans to close gaps will build international collaboration and improve the likelihood of saving lives. The

researchers plan to take the lessons learned from this study and further expand collaborations with African and European partners.

References

Madaus, G. F., Scriven, M., & Stufflebeam, D. L. (Eds.). (2012). *Evaluation models: Viewpoints on educational and human services evaluation* (Vol. 6). Springer Science & Business Media.

Tillman, P. (2011). Disaster preparedness for nurses: A teaching guide. *The Journal for Continuing Education in Nursing*. 42(9).p.404-8.

Vietnam Military Medical Department and HQ US Pacific Command Surgeon. (2015). Asia Pacific Military Health Exchange Global Health Cooperation. *APMHE* (pp. 1-11). Danang: APMHE.

Contact

marykay.goetter@gmail.com

RSC PST 2 - Research Poster Session 2

Safety Culture: Medication Adverse Event Tracking at a Pediatric Oncology Hospital in Guatemala

Liliana Zelaya, BSN, RN, USA

Emily Dray, MSN, RN, CCRN, CPNP, USA

Abstract

Purpose: The ECHO Project: Educacion de Cuidados Intensivos en un Hospital de Oncologia is a multidisciplinary educational collaborative between the Medical-Surgical Intensive Care Unit at Boston Children's Hospital and Unidad Nacional de Oncologia Pediatric (UNOP). The initial goal of the partnership was to facilitate the development of an acute care nursing orientation and continuing education curriculum for the hospital and has grown to encompass other strategic goals. In January of 2016 the ECHO Project team, consisting of two Boston Children's Staff Nurses and two Boston Children's Clinical Pharmacists, traveled to Guatemala for a quarterly site visit. The goals for this visit were to perform an assessment of pharmacy systems and evaluate processes already in place to ensure medication safety. The assessment uncovered the need for a comprehensive medication adverse event tracking system in the context of unknown error frequency or classification.

The Harvard Medical Practice Study demonstrates that medication errors are the most frequent type of medical adverse event; it is for this reason that we chose to focus on medication event tracking (Kaushal et al., 2004). It is well delineated in the literature that adverse drug events are preventable. Pediatric patients are a high risk group when it comes to medication adverse events for several reasons, including, but not limited to: weight-based dosing, dilutions to stock medications are needed to create appropriate dosing, and wide variations in organ function (Kaushal et al., 2004). Pediatric cancer patients are at especially high risk due to the potential for both toxicity and treatment failure with medication errors (Oberoi, Trehan, & Marwaha, 2014). There is a paucity of literature with regard to medication error rates among pediatric oncology patients, especially in low resources settings. This quality improvement project will contribute to the knowledge base while at the same time directly impacting the quality of patient care. The creation of safer systems has the potential to improve patient outcomes and decrease morbidity and mortality.

Methods: Using the Plan-Do-Study-Act method for quality improvement we will implement a hospital-wide medication adverse event tracking system in collaboration with a multidisciplinary team of Boston Children's Hospital experts and UNOP leaders.

- Identify key stakeholders at UNOP and at BCH to define the project team and leaders. Engagement of hospital leadership at UNOP.
- Perform a literature review to determine existing evidence on medication error frequency and tracking systems in low resource hospital settings.
- Design a reporting form that is easily accessible to all staff and user friendly.
- Design and implement Medication Adverse Event Tracking training for all levels of hospital staff.
- Tracking of medication adverse events to identify system strengths and weaknesses.
- Multidisciplinary root cause analysis to assess findings and implement changes based on institutional needs, resources, and limitations.

Results: Project continues to be ongoing.

Conclusion: Medication errors are a global health care issue and in low-resource settings there is a lack of infrastructure to support non-punitive identification and correction of systems errors that contribute to medication adverse events. This quality improvement project takes a systems approach to medication adverse events to identify medication error frequency, define systems strengths and weaknesses, and promote solutions to increase patient safety and reduce nursing and/or pharmacy workload. Collaboration with our colleagues at UNOP is essential to design a successful and sustainable system that meets institutional standards and needs.

References

Kaushal, R., Jaggi, T., Walsh, K., Fortescue, E.B., and Bates, D.W. (2004). Pediatric medication errors: What do we know? What gaps remain? *Ambulatory Pediatrics*, 4. (73-81).

Mrayyan, M.T. Shishani, K., and Al-Faouri, I. (2007). Rates, causes and reporting of medication errors in Jordan: Nurses' perspectives. *Journal of Nursing Management*, 15. (659-670).

Oberoi, S., Trehan, A., and Marwaha, R.K. (2014). Medication errors on oral chemotherapy in children with acute lymphoblastic leukemia in a developing country. *Pediatric Blood Cancer*, 61. (2218-2222).

Contact

liliana.zelaya@childrens.harvard.edu

RSC PST 2 - Research Poster Session 2

Capacity Building: Writing Abstracts and Disseminating Research Through Video Conferencing From Different Countries

Anita Collins, PhD, RN, RM, Rwanda

Philomene Uwimana, MSN, BN (Hons), RN, Rwanda

Abstract

Purpose: An abstract is an essential part of a research article and the three areas of importance in it are the language, or the readability, the sequence of information, or the structure, and the typography, or the presentation. (Hartley J. 2000). One specific goal of student researchers is learning to write an accurate abstract. Writing accurate abstracts is a learned skill. Students need to learn to write an abstract which has one or more paragraphs that are unified, coherent, concise and able to stand alone. (Jester P. 2014). Technology can be used to increase the collaborative nature of training, but to build capacity and increase training effectiveness, technology must be implemented in a way to meet specific goals or used to deploy a learning element. (Askanase D, Berry A, Martone K and Swink R. 2016). Learning to write accurate abstract is a specific goal for novice nurse researchers that can use the implementation of technology such as video conferencing. They can be connected to experienced researchers presenting their abstracts with the help of Video conferencing.

Technology such as Online video sharing technologies is also a new and easier way for disseminating latest research findings and making it more accessible to a larger audience than the traditional academic journals. (Rokka J. 2016).

The purpose was to show case the use of technology for capacity building in research and in dissemination of research and collaborative training of MSN students

Methods: To achieve these two goals the postgraduate research student virtual scholarly event "Nursing and midwifery research across Europe" which was hosted by the STTI Upsilon XI at Large Chapter was used as a platform for capacity building of eighteen Rwandan students of the MSN program Medical Surgical track, and one Rwandan PhD aspirant at the University of Rwanda, East Africa.

Rwandan students benefited as they joined the post graduate nurse researchers from Edinburgh Napier University, United Kingdom, University of Gothenburg, Institute of Health and Care Sciences, Sweden, University of Primorska, Slovenia, and Bournemouth University, United Kingdom as presented their abstracts in a video conference. One researcher from Jordan was not able to join in due to problem with net connectivity. However she had sent her abstract by email which could be read by the students.

This was followed a short talk by Prof. Joy Merrell of Swansea University and President of the Chapter on the benefits of being in STTI.

Results: The Rwandan MSN students joining in, in this technological platform was to help these novice researchers to structure and present their own Master's dissertation abstract. It has helped them to broaden their minds and see for themselves that video conferencing involving several countries to disseminate their own Master's research findings, is a possibility in the near future.

Conclusion: Connecting MSN students from resource poor country to experienced nurse researchers across two continents, three countries and four universities to improve their abstract writing skills optimizes technology in nursing education

References

Askanase D, Berry A, Martone K and Swink R. (2016). The future of capacity building is collaborative. Nonprofit technology network. <https://www.nten.org/article/future-capacity-building-collaborative/>

Hartley. J. (2000). Clarifying the abstracts of systematic literature reviews. *Bulletin of Medical Library Association*. 88(4): 332–337. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC35254/>

Jester P. (2014). Writing a conference abstract: tips for success. An educational presentation reviewed and endorsed by The International Association of Clinical Research Nurses. Retrieved on 7 Dec 2016. http://iacrn.org/Resources/Documents/Abstract_Devel_Handout_2perpage.pdf

Rokka. J. (2016). Use video not journals to disseminate research. *The Financial Times Limited*. <https://www.ft.com/content/61d5a18a-9aab-11e1-83bf-00144feabdc0>

Contact

collins.anita@gmail.com

RSC PST 2 - Research Poster Session 2

Children of War: Implementation of Non-Specialist Mental Health Interventions

Adria Spinelli, BSN, RN, USA

Jennifer Leeman, DrPH, MDIV, USA

Gillian Litynski, BSN, RN, USA

Abstract

Purpose: Over one billion children live in countries or territories affected by armed conflict or war. Of these, 88.9% of those events occur within Low and Middle Income Countries (UNHCR, 2015; Uppsala Conflict Data Program, 2015). A growing number of mental health interventions exist that reduce children's trauma symptoms with varied levels of effectiveness (Betancourt, Meyers-Phki, Charrow, & Tol, 2013; Barry, Clarke, Jenkins, & Patel, 2013). Frequently, nurses and other health care professionals who are not specialized in mental health are providing these interventions (Jordans, Pigott, & Tol, 2016). A possible reason for interventions' varied effectiveness is inconsistent implementation. The purpose of this review is to determine the extent to which implementation findings are reported, according to Fixsen's Core Components for Implementation, among interventions provided to children affected by armed conflict.

Methods: A search was performed using PubMed, CINAHL, and PsycINFO to identify empirical studies testing mental health interventions for children in conflict who experienced a traumatic event. The search combined key words and MeSH terms related to "conflict" or "war" or "refugee" with those for "mental health" or "psychosocial" "interventions". The date range for articles was October 2011 – November 2016. Studies were examined if they occurred in a Low or Middle Income Country and the study sample was children. Data were extracted on intervention type, study design, sample demographics, information on the intervention and outcome data. To describe implementation, data was extracted on implementation strategies (based on Fixsen's implementation components; e.g., training, coaching, staff performance evaluation); implementation outcomes (based on Proctor's taxonomy; e.g., fidelity, feasibility); and on contextual factors that influenced implementation (Fixsen, Blase, Naoom, & Wallace, 2009; Proctor et al., 2011).

Results: The initial search produced 450 studies of which 54 underwent full text review and 20 met inclusion criteria. The interventions occurred in Palestine, Sudan, Nepal, Rwanda, Democratic Republic of the Congo, Uganda, Burundi, Indonesia, Sri Lanka and Bosnia and Herzegovina. Countries included those in armed conflict and post conflict. The interventions included Cognitive Behavioral Therapy (CBT), Trauma-Focused CBT, Classroom-Based CBT, Writing Therapy and Child-Friendly Spaces. Authors provided only limited information on the strategies used to implement interventions, intervention outcomes, and contextual factors that influenced implementation. Less than half of the interventions reported activities that fall within Fixsen's Core Components for Implementation.

Conclusion: Few studies reported implementation strategies and none of the studies mentioned implementation theories or frameworks that guided the research. This is problematic because effectiveness of these interventions could increase if implementation strategies were used. For instance, effectiveness of mental health interventions in the U.S. has increased by using implementation techniques (Kilbourne et al., 2014). Prior to conducting research using implementation techniques, research is needed to understand which of those techniques are best suited for nurses and other non-specialized health workers. Ultimately, by using implementation techniques, intervention effectiveness will increase and could improve the well-being of children affected by armed conflict in Low and Middle Income Countries.

References

Barry, M. M., Clarke, A. A., Jenkins, R., & Patel, V. (2013). A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. *BMC Public Health, 13*(835). doi: 10.1186/1471-2458-13-835

Betancourt, T. S., Meyers-Phki, S. E., Charrow, A. P., & Tol, W. A. (2013). Interventions for children affected by war: An ecological perspective on psychosocial support and mental health care. *Harvard Review of Psychiatry, 21*(2), 70-91. doi: 10.1097/HRP.0b013e318283bf8f

Fixsen, D. L., Blase, K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on social work practice, 19*(5), 531-540. doi: 10.1177/1049731509335549

Jordans, M. J. D., Pigott, H., & Tol, W. A. (2016). Interventions for children affected by armed conflict: A systematic review of mental health and psychosocial support in low- and middle-income countries. *Current Psychiatry Report, 18*(9). doi: 10.1007/s11920-015-0648-z

Kilbourne, A. M., Almirall, D., Eisenberg, D., Waxmonsky, J., Goodrich, D. E., Fortney, J. C., ... Thomas, M. R. (2014). Protocol: Adaptive Implementation of Effective Programs Trial (ADEPT): cluster randomized SMART trial comparing a standard versus enhanced implementation strategy to improve outcomes of a mood disorders program. *Implementation Science, 9*(132). doi: 10.1186/s13012-014-0132-x

Kilbourne, A. M., Nord, K. M., Kyle, J., Van Poppelen, C., Goodrich, D. E., Kim, H. M., ... Bauer, M. S. (2014). Randomized controlled trial of a health plan-level mood disorders psychosocial intervention for solo or small practices. *BMC Psychology, 2*(1), 48. doi: 10.1186/s40359-014-0048-x

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., ... & Hensley, M. (2011). Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research, 38*(2), 65-76. doi: 10.1007/s10488-010-0319-7

UNHCR. (2015). *World at war: Global trends: Forced displacement in 2014*. Retrieved from <http://unhcr.org/556725e69.html>

Uppsala Conflict Data Program. (2015). *UCDP/PRIO Armed Conflict Dataset* [Data file]. Retrieved from http://www.pcr.uu.se/research/ucdp/datasets/ucdp_prio_armed_conflict_dataset/

Contact

aspinell@email.unc.edu

RSC PST 2 - Research Poster Session 2

Identification of Barriers, Facilitators, and Recommendations for Chiropractic Health Systems Change for Tobacco Cessation Activities

Kelly P. Buettner-Schmidt, PhD, RN, FAAN, USA

Mary F. Larson, PhD, MPH, LRD, CDE, CHES, USA

Brody Maack, PharmD, CTTS, USA

Megan Orr, PhD, USA

Becky McDaniel, MSN, RN, USA

Donald R. Miller, PharmD, FASHP, USA

Katelyn R. Mills, MPH, USA

Abstract

Purpose: The purpose of the focus group was to ascertain the barriers and facilitators related to adopting evidenced-based health system changes to address patient tobacco use and cessation, the clinical quality measures related to tobacco use, and to identify key factors for researchers to consider when developing and piloting a health systems intervention for chiropractors to address tobacco use by their patients.

Methods: Using a participatory research method (Israel, Eng, Schulz, Parker, 2013), specifically, a grounded theory (Cho, 2014) qualitative study using a focus group (Carver, 2014) with chiropractors (n = 4). The chiropractors were purposively selected to participate due to their leadership positions in the chiropractic community. One focus group session, lasting 45 minutes, was held on a university campus. Participants were provided informed consent prior to the start of the focus group. The focus group participants were asked four questions about the barriers and facilitators related to adopting evidenced-based systems change to address patient tobacco use and cessation, clinical quality measures related to tobacco use, and to identify key factors for researchers to consider when developing the intervention for the pilot study. The focus group was audio-recorded and transcribed verbatim. During the initial analysis three researchers read and analyzed the transcript separately. The researchers independently identified key content using a matrix method (Averill, 2002). The researchers then collaboratively reviewed the matrices to develop codes and themes through constant comparison and discussion. Using an inductive consensus-based analytic approach (Cho, 2014; Graneheim & Lundman, 2004), the authors agreed upon the results.

Results: The focus group participants identified facilitators, barriers, clinical quality measures, and identification of the most important factors to consider for development of this pilot study. The factors that facilitate evidence-based tobacco control strategies within chiropractic clinics included trusting relationships developed between chiropractors and their patients, accessibility of chiropractors due to their presence in multiple geographical locations, potential expansion of typical scope of practice and related potential reimbursement, wellness focus of chiropractic care is consistent with addressing tobacco use, knowledge of the connection between tobacco use and pain and healing, a responsibility or desire to help their patients, and the frequency of patient visits. Barriers included concerns of “confronting” patients regarding tobacco use may result in loss of positive relationships with patients, and subsequent loss of business, the chiropractor’s lack of knowledge, confidence, and skills to address tobacco cessation with patients in a positive manner, and lack of reimbursement. Clinical quality measures and benchmarks that were discussed by the chiropractors included Medicare, meaningful use of electronic health records, lack of the medical necessity of addressing tobacco use for musculoskeletal conditions, as well as being future-focused for how reimbursement is evolving, and the cost-benefit analysis of all quality measures. The economic business model is an important framework for chiropractor assessment of selecting quality improvement changes. Factors considered most important to the development of the intervention included ease of process, methods for engaging with patients free of confrontation, recognition of conflicting philosophies of chiropractors in relationship to pharmaceutical interventions.

Conclusion: These findings clarified the concerns that chiropractors practicing in a rural state in the USA have about incorporating evidenced-based health systems change to address their patients’ tobacco use within their clinics. The importance of making this economically neutral, that is, not cost a small business income, were also stressed by the participants. The findings from this study are being used to implement a collaborative, interdisciplinary tobacco systems change education program for chiropractors in a rural state in the USA. Results from this study emphasize the importance of addressing the unique needs of health care practitioners when implementing health systems changes to address tobacco use (CDC,

2014; CDC, 2016). As public health nurses often provide outreach and education of healthcare professionals on tobacco cessation, it is important to consider inclusion of chiropractors while being sensitive to their distinctive concerns. In addition, this study demonstrates the importance of interdisciplinary research, practice, and education to improve population health.

References

Averill, J. B. (2002). Matrix analysis as a complementary analytic strategy in qualitative inquiry. *Qualitative Health Research*, 12, 855-866. doi: 10.1177/104973230201200611

Centers for Disease Control and Prevention (CDC). (2016). *Protocol for Identifying and Treating Patients Who Use Tobacco*. Retrieved from <https://millionhearts.hhs.gov/files/Tobacco-Cessation-Protocol.pdf>.

Centers for Disease Control and Prevention (CDC). (2014). *Best Practices for Comprehensive Tobacco Control Programs - 2014*. Atlanta, GA: U.S.

Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

Cho, J. Y. (2014). Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *The Qualitative Report*, 19(32), 1-20. Retrieved from <http://nsuworks.nova.edu/tqr/vol19/iss32/2>.

Craver, G. A. (2014). Not just for beginners-a review of successful qualitative research: A practical guide for beginners. *The Qualitative Report*, 19(48), 1-4. Retrieved from <http://nsuworks.nova.edu/tqr/vol19/iss48/3>

Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112.

doi:10.1016/j.nedt.2003.10.001.

Israel, B. A., Eng, E., Schulz, A. J., Parker, E. A. (2013). *Methods for community-based participatory research for health*. San Francisco, CA: Jossey-Bass.

Contact

kelly.buettner-schmidt@ndsu.edu

RSC PST 2 - Research Poster Session 2

Structural Violence in Elderly With Functional Dependence

Anahi Ruiz-Lara, RN, Mexico

Jesus Acevedo-Alemán, PhD, Mexico

María de los Angeles Villarreal-Reyna, PhD, RN, Mexico

Ana Laura Carrillo-Cervantes, MSN, RN, Mexico

Abstract

Purpose: To determinate the effect of the intervention in nursing to prevent structural violence in dependent elderly families, . Neuman's System Model will serve as the theoretical background for this research.

Methods: Quasi-experimental design with repeated measurements and two groups: experimental group and control group; the experimental will participate in a psychoeducational program which consist in 8 sessions of two hours per session, the study population will consist of dependent elderly families from the city of Saltillo, Coahuila, Mexico. The central hypothesis of this project is that the families of elderly adults in functional situation participating in the experimental group will be sensitized to the problematic of structural violence and it consequences. Sampling will be for convenience. The outcome variables to be measured before, during, after and follow-up at of the experimental condition using validated instruments will be structural violence and functional dependency. The sample size will be calculated using ANOVA for repeated measurements with three levels (level of trustfulness 95%, potency =0.90) for the interaction time per group, and a size of the large effect. We will use the nQuery Advisor 7.0 software. The data collected will be analyzed with Statistical Package for Social Sciences 24.

Results: The outcome variables will be analyzed using repeated measures ANOVA and post hoc analysis to determine differences between groups and effect size; also will be describe the relationship between the study variables: structural violence and elderly dependent.

Conclusion: We will discuss the importance of the development of nursing interventions based on scientific evidence for the development of a nursing care plan to reduce and / or prevent, or both, elderly violence in organizational, institutional and community contexts, also we will discuss the importance of the nursing role as the spokesperson for recognizing that structural violence is a social and health problem and its effects are factors that affect the quality of life and the well-being of elderly population.

References

- Lee, B. X. (2016). Causes and cures VII: Structural violence. *Aggression and Violent Behavior, 28*, 109-114.
- Choo, W. Y., Hairi, N. N., Othman, S., Francis, D. P., & Baker, P. R. (2013). Interventions for preventing abuse in the elderly (Protocol). *Cochrane Database of Systematic Reviews*, (1).
- Farmer, P. E., Nizeye, B., Stulac, S., & Keshavjee, S. (2006). Structural violence and clinical medicine. *PLoS Med, 3*(10), e449.
- Galtung J (1969) Violence, peace and peace research. *J Peace Res 6*:167–191.
- World Health Organisation (WHO). *The Toronto declaration on the global prevention of elder abuse*. Geneva: WHO, 2002.

Contact

anahiruiz_19@hotmail.com

RSC PST 2 - Research Poster Session 2

The Role of Religion and Spirituality in Parent Decision-Making for Critically Ill Young Children

Melissa J. Kurtz, MSN, MA, RN, USA

Marie T. Nolan, PhD, RN, FAAN, USA

Jill Hamilton, PhD, RN, FAAN, USA

Abstract

Purpose: Approximately 85% of African Americans and 58% of Caucasians say religion is very important in their lives (Grossoehme et al., 2012). More specifically, significant literature cites parents' use of religious coping in pediatric decision making. However, what is still unknown is how parents of young children utilize religion and spirituality during the decision making process. A more in-depth exploration of the existing research that has explored religion and spirituality and parent decision making will inform the development of decision support interventions that promote parent engagement in complex pediatric decision making. Therefore, the purpose of this presentation is to systematically review the literature describing the role of religion and/or spirituality in critical care decision making for parents of children under 2 years of age.

Methods: Keyword searches of peer-reviewed literature investigating the relationship between spirituality or religion and parents' medical decision making for a critically ill child under 2 years of age were conducted using relevant databases, including PubMed, CINAHL plus, PsychInfo, and Embase. The review was limited to studies published between January 2004 and September 2016. Titles and abstracts for 141 nonduplicate records were screened. Thirty three of these full-text articles were reviewed and 20 published studies were included. Resulting quantitative and qualitative studies were summarized using thematic analysis.

Results: Twenty articles met final inclusion criteria examining the relationships among religion/spirituality and shared decision making. Resulting thematic categories included: 1) Finding meaning in the experience of caring for a critically ill young child; 2) Using spirituality and religion for guidance in medical decision making for a critically ill young child; 3) Using spirituality and religion as a coping strategy during the illness or after the death of a critically ill young child.

Conclusion: The review revealed that religion/spirituality is an important and primarily positive influence on shared medical decision making among parents of a critically ill child. Future research should explore how to facilitate health care providers' understanding of these religious/spiritual beliefs and to incorporate these beliefs into medical decision making for their critically ill child..

References

- Allen, K., A. (2014). Parental decision-making for medically complex infants and children: An integrated literature review. *International Journal of Nursing Studies*, 51(9), 1289-1304.
- Bingen, K., Kupst, M. J., & Himelstein, B. (2011). Development of the palliative care parental self-efficacy measure. *Journal of Palliative Medicine*, 14(9), 1009-1016.
- Hexem, K. R., Mollen, C. J., Carroll, K., Lancot, D. A., & Feudtner, C. (2011). How parents of children receiving pediatric palliative care use religion, spirituality, or life philosophy in tough times. *Journal of Palliative Medicine*, 14(1), 39-44.
- Hileli, I., Weyl Ben Arush, M., Hakim, F., & Postovsky, S. (2014). Association between religious and socio-economic background of parents of children with solid tumors and DNR orders. *Pediatric Blood & Cancer*, 61(2), 265-268.
- Hill, D. L., Miller, V., Walter, J. K., Carroll, K. W., Morrison, W. E., Munson, D. A., . . . Feudtner, C. (2014). Regoaling: A conceptual model of how parents of children with serious illness change medical care goals. *BMC Palliative Care*, 13(1), 9-684X-13-9.
- Kearney, J. A., & Byrne, M. W. (2011). Planning with parents for seriously ill children: Preliminary results on the development of the parental engagement scale. *Palliative & Supportive Care*, 9(4), 367-376.
- Peng, N. H., Liu, H. L., Chen, C. H., & Bachman, J. (2012). Cultural practices and end-of-life decision making in the neonatal intensive care unit in taiwan. *Journal of Transcultural Nursing : Official Journal of the Transcultural Nursing Society / Transcultural Nursing Society*, 23(3), 320-326.
- Pepper, D., Rempel, G., Austin, W., Ceci, C., & Hendson, L. (2012). A qualitative study of parents' perspectives on neonatal intensive care at the extremes of prematurity. *Advances in Neonatal Care*, 12(5), 303-309.

Sutan, R., & Miskam, H. M. (2012). Psychosocial impact of perinatal loss among muslim women. *BMC Women's Health*, 12, 15-6874-12-15. doi:10.1186/1472-6874-12-15 [doi]

Tamburro, R. F., Shaffer, M. L., Hahnen, N. C., Felker, P., & Ceneviva, G. D. (2011). Care goals and decisions for children referred to a pediatric palliative care program. *Journal of Palliative Medicine*, 14(5), 607-613.

Contact

mkurtz4@jhu.edu

RSC PST 2 - Research Poster Session 2

Exploration of Lesbian, Gay, Bisexual, Transgender, and Questioning Adolescents Experiences in Healthcare: A Cultural Examination

Stephanie C. Evans, PhD, RN, APRN, CPNP-PC, USA

Abstract

Purpose: Lesbian, gay, bisexual, transgender, and questioning (LGBTQ) youth are a new cultural group in healthcare settings that has unique physical, social, and psychological needs as compared to the typical adolescent or the LGBTQ adult population. A majority of the literature in medicine and nursing focuses on the LGBTQ adult, demonstrating a gap in literature on the needs and desires of the LGBTQ adolescent. In order to better understand the needs of LGBTQ adolescents in healthcare settings, descriptive studies are needed. The purpose of this study was to explore the healthcare experiences of lesbian, gay, bisexual, transgender, and questioning (LGBTQ) adolescents, with a focus on their perceived cultural disparities in the healthcare setting.

Methods: The study was approved by a university IRB board, and all participants signed consent and media release for audio recordings. This qualitative study was conducted using focus groups on a private university campus. Participants were recruited across campus with dissemination of flyers seeking voluntary participants. The principal investigator conducted focus groups of three to five participants. Each focus group met for one session lasting one to one and half hours. Each session was audio recorded and then transcribed with digital transcription software. The principle investigator completed a read back for accuracy of transcription. The principal investigator conducted the focus groups and conducted a short debrief session with participants after data collection was complete. Data analysis will be completed with NVivo software for themes identification.

Results: This study is currently in the data analysis phase and is not complete. Preliminary data analysis has revealed themes of education for providers related to LGBTQ lifestyle, heteronormative environments in healthcare settings, assumption of lifestyle by healthcare providers, and lack of privacy and confidentiality provided. Results are to be explored further and in-depth analysis in the next month.

Conclusion: Preliminary findings indicate that LGBTQ adolescents recognize their healthcare providers have inconsistent education about LGBTQ culture and how it impacts health. The participants verbalized a need for standardized preparation of healthcare providers to better equip them for personalized healthcare with LGBTQ adolescents. IN addition, the participants verbalized a concern for the assumption of heteronormative status. Assumption of heteronormativity decreased the participants desire to disclose and seek information from their providers. Further analysis will be completed.

References

Allen, L. B., Glicklen, A. D., Beach, R. K., & Maylor, K. E. (1998). Adolescent health care experinec of gay, lesbian, and bisexual young adults. *Journal of Adolescent Health, 23* , 212-220.

Ginsburg, K. R., Winn, R. J., Rudy, B. J., Crawford, J., Zhao, H., & Schwarz, D. F. (2002). How to reach sexual minority youth in the health care setting: the teens offer guidance. *The Journal Of Adolescent Health: Official Publication Of The Society For Adolescent Medicine, 31*(5), 407-416.

East, J. A. & Rayess, F. E. (1998). Pediatricians' approach to the health care of lesbian, gay, and bisexual youth. *Journal of Adolescent Health, 23*, 191-193.

Kreiss, J. L., & Patterson, D. L. (1997). Psychosocial issues in primary care of lesbian, gay, bisexual, and transgender youth. *Journal Of Pediatric Health Care: Official Publication Of National Association Of Pediatric Nurse Associates & Practitioners, 11*(6), 266-274.

The American Academy of Pediatrics. Office-based care for lesbian, gay, bisexual, transgender, and questioning youth. (2013). *Pediatrics, 132*(1), 198-203.

Contact

s.c.evans@tcu.edu

RSC PST 2 - Research Poster Session 2

Culturally Based Stressors and Depressive Symptoms for Latino/a Adolescents

Allison L. McCord, BSN, RN, USA

Abstract

Purpose: U.S. Latino/a adolescents suffer from significantly higher levels of depressive symptoms than Caucasian and African-American adolescents. In 2016, 35% of US Latino/a adolescents reported feeling so sad or hopeless on a daily basis that they were unable to participate in some daily activities (Centers for Disease Control and Prevention [CDC], 2016). When left untreated, these depressive symptoms can lead to a variety of other negative health consequences such as suicidal ideation and attempt (CDC, 2016) and substance use (Cano et al., 2015). In the U.S., Latino/a adolescents experience culturally-based stressors, which are threatening events uniquely experienced by members of a specific ethnic group. These stressors are above and beyond those universal stressors that all U.S. adolescents experience. Many studies have demonstrated that experiencing culturally-based stressors has contributed to the high levels of depressive symptoms in this group, but no study has integrated all of these findings into a cohesive picture of the specific culturally-based stressors that contribute to the development of depressive symptoms for Latino/a adolescents. Bronfenbrenner's (1994) Ecological Systems Model was used to frame the review by suggesting that the culturally-based stressors that Latino/a adolescents experience may occur on different sociocultural levels within the individual's environment. The purpose of this review was to identify the specific culturally-based stressors that are associated with the development of depressive symptoms in Latino/a adolescents.

Methods: Ganong's (1987) Integrative Review Method was followed in conducting this review. Twenty-nine articles meeting the inclusion criteria were retrieved from CINAHL, PsychINFO, PubMed, and SocINDEX databases from the years 2010-2016. Articles were included in the review if the authors (1) included Latino/a adolescent participants in the sample, (2) measured depressive symptoms, (3) measured a culturally-based stressor, and (4) determined the relationship between the culturally-based stressor and depressive symptoms. Articles were excluded from the analysis if (1) the focus of the study was on pregnant or parenting adolescents or (2) the study was conducted outside the U.S.

Results: The review revealed that discrimination, family culture conflict, context of reception, immigration stress, intragroup conflict, and acculturative and bicultural stress were culturally-based stressors that were associated with depressive symptoms for Latino/a adolescents. Discrimination was measured in twenty studies (69%) and was defined as unfair, differential treatment based on ethnicity, including negative behaviors such as derogatory remarks, prejudicial treatment, and violence. Family culture conflict was examined in eleven articles (38%) and was defined as disagreement with a family member related to a discrepancy between the cultural values of the family member and adolescent. Three studies (10%) discussed context of reception, which was defined as the perceived degree of openness and opportunity structure in the local community. Three studies (10%) examined immigration stressors, which were measured as the reported difficulties faced when leaving the home country, separation from a primary caregiver, and satisfaction with the decision to move to the U.S. Intragroup conflict occurs when an individual becomes the recipient of negative behaviors or remarks from another person within the same ethnic group and was associated with depressive symptoms in two studies (7%). The concepts of acculturative stress and bicultural were used interchangeably and refer to the stress that results from changing values as a result of coming into contact with another culture and navigating between the heritage culture and the host culture. Acculturative and bicultural stress were associated with depressive symptoms in six studies (21%). These findings should be interpreted in the context of the limitations of the body of literature reviewed, including a lack of consistent conceptual and operational definitions of culturally-based stressors and sampling from a limited number of U.S. states.

Conclusion: The findings suggest that culturally tailored strategies to treat depressive symptoms in this population need to occur on multiple levels. On a federal and state level, immigration policy changes will affect how Latino/a adolescents experience immigration stressors. These policy changes may also affect the perceived context of reception and discrimination that the adolescent experiences. Strategies to promote unity and racial/ethnic integration in schools may also decrease perceived discrimination and intragroup conflict. Since family culture conflict is a stressor strongly associated with depressive symptoms for Latino/a youth, mental health providers and those individuals working with adolescents should address the adolescents' experiences of family conflict related to cultural values and involve the family in mental health treatment. Individuals working with U.S. Latino/a adolescents at any level, in

healthcare, community, or advocacy settings, should recognize the complexities that Latino/a adolescents face in managing the stressors they experience in family, school, and community settings.

References

Cano, M. A., Schwartz, S. J., Castillo, L. G., Romero, A. J., Huang, S., Lorenzo-Blanco, E. I., . . . Szapocznik, J. (2015). Depressive symptoms and externalizing behaviors among Hispanic immigrant adolescents: Examining longitudinal effects of cultural stress. *Journal of Adolescence*, *42*, 31-39. doi:10.1016/j.adolescence.2015.03.017
Centers for Disease Control and Prevention. (2016). Youth Risk Behavior Surveillance —United States, 2015. Retrieved from http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506_updated.pdf

Contact

almccord@iupui.edu

RSC PST 2 - Research Poster Session 2

Educating Healthcare Providers to Identify and Heal Victims of Sex Trafficking

Kupiri Ackerman-Barger, PhD, MSN, RN, TNAC, USA

Jann L. Murray-García, MD, MPH, USA

Ellen E. Goldstein, PhD, MFT, USA

Jerry John Nutor, MSN, BSN, RN, USA

Abstract

Purpose: Human trafficking is recognized as a gross violation of human rights that victimizes tens of millions of vulnerable women, men and children worldwide (Ahn et al., 2013). A United States Congressional Research Service report estimated the number of victims who are trafficked at any one time worldwide may reach as high as 27 million (Siskin & Wyler, 2013). Millions of trafficked victims are unaccounted for and remain invisible to law enforcement, medical providers and other professionals. A lack of awareness of this invisible population has meant missed opportunities to improve both the health of individuals, including minors, and population health. Sex trafficking, a specific type of human trafficking, is a priority health issue because of the physical and mental health risks and outcomes faced by the victims. Sex trafficking occurs when "...a commercial sex act is induced by force, fraud or coercion, or when the person induced to perform such an act has not attained 18 years of age (U.S Department of State, 2014, p. 29). Research suggests that sex trafficking victims, in many instances, have had contact with a health care provider. However, most health care professionals have difficulty recognizing and have limited education and training to appropriately respond to victims of sex trafficking.

Aims: This study aimed to 1) assess and increase knowledge, ability and confidence of healthcare providers to identify and heal victims of sex trafficking; 2) assess and build institutional capacity to appropriately and constructively serve victims of sex trafficking.

Methods: IRB approval was obtained prior to the workshop. A four-hour workshop was provided that featured the lived experience from a sex trafficking survivor; statistics and referrals from local nonprofit community organizations; trauma-informed primary care; and law enforcement actively working on mitigating and ameliorating the impact that sex trafficking has had on the lives of individuals. The structure of the workshop was intended to provide specific information to healthcare providers, but intentionally recruited community members, advocates and healthcare consumers to brainstorm and develop a collective effort to create structures, practices and resources to help and heal victims of sex trafficking. Paper pre- and post-event surveys with a 4-point Likert scale were administered to participants who identified as health professionals or health professional students to assess their perceived levels of knowledge, ability, and confidence during clinical encounters with patients who are victims of sex trafficking. Pre- and post- surveys with open-ended questions were administered to both health care professionals and non-health care professional participants to assess perceptions of institutional capacity. A brainstorming session was conducted to gather data regarding perceptions of potential solutions to better serve the needs of sex trafficking victims and survivors.

Results: Of the 67 participants who completed the questionnaire, 52 were healthcare providers and 15 were staff, administrators or community members. Pre-event distributions indicated that 47.8% (22) healthcare providers had heard that sex trafficking may be a problem, but did not know more than that. Results from the study indicated that the workshop increased knowledge, ability and confidence and promoted a desire to advocate on behalf of sex trafficking victims. The results of a thematic analysis of qualitative participant responses resulted in five prominent themes that included: training, community and institutional capacity, awareness and advocacy, knowledge of local resources, and coordination of care.

Conclusion: Although equipping individual healthcare providers with knowledge, awareness and confidence is critical, workshops like this will yield little without institutional support, resource availability, and community partnerships. The findings from this study add to the existing literature by demonstrating that building institutional capacity and collective efficacy are critical to provide and sustain optimal care for sex trafficking victims and to make critical change in the harm created by sex-trafficking

References

Ahn, R., Alpert, E. J., Purcell, G., Konstantopoulos, W. M., McGahan, A., Cafferty, E., Burke, T. F. (2013). Human Trafficking: Review of Educational Resources for Health Professionals. *American Journal of Preventive Medicine*, 44(3), 283-289.

Siskun, A., & Wyler, L. S. (2013). Trafficking in persons: U.S. policy and issues for congress: *Congressional Research Service*.

U.S. Department of State. (2014). Trafficking in persons report 2014. Retrieved Jan 15, 2015, from <http://www.state.gov/g/tip/rls/tiprpt/2012>

Contact

packerman@ucdavis.edu

RSC PST 2 - Research Poster Session 2

Low-Income Pregnant Women's Experiences With Prenatal Care Education

Amy McKeever, PhD, RN, CRNP, WHNP-BC, USA

Abstract

Purpose: The purpose of this presentation is to discuss the findings of a qualitative descriptive study exploring the perinatal experiences of low-income urban women with regarding their experience with prenatal care and prenatal education in the United States.

Methods: A qualitative descriptive study using focus groups was employed. Thirty women who gave birth within the last 10 years who were eighteen years of age or older were recruited and agreed to participate in the study. Participants were asked about their healthcare and health education experiences during their pregnancy, during childbirth, and during the postpartum period, and their recommendations for healthcare providers to improve the current state of prenatal care and education for childbearing women in the United States. Content analysis was used to analyze the transcribed interviews. Themes that emerged were identified and coded.

Results: Seven themes emerged from the analyses of the transcribed data. Trust, Respect, cultural perceptions, disparity in access to education, desire and readiness to learn, privacy, and models of care. Women provided recommendations that are critical implications for healthcare providers caring for childbearing women that are practice-based issues, healthcare provider issues, and larger healthcare systems issues.

The themes found in this study confirm what older seminal and more current qualitative studies found. Low-income women who seek prenatal care and education consistently have the same experience: they experience barriers with insurance access, barriers in accessing care at the point of prenatal care, they have poor interactions with healthcare providers and staff, the care they do receive is fragmented with long wait times which require missed time from work, and childcare interruptions, as well as issues with accessing transportation to receive care. In addition, the women perceived the relationship with their healthcare provider as not trustworthy, that their healthcare providers fail to understand specific cultural beliefs, fail to respect some level of knowledge that women possess, and fail to respect that women do have an interest in learning about prenatal education and caring for themselves and their baby even though they are low-income and minority.

Conclusion: Participants experienced widespread barriers to care, poor interactions with healthcare providers, and poor care coordination as well as limited to no prenatal education. However, consistent among the literature is that the model of prenatal care and education in the United States is antiquated, not women-centered, nor family-centered; is healthcare provider and health system centered, creates great barriers for women- particularly low-income minority women. Whether health systems, government, or healthcare providers want to take a serious look at the model warrants attention in the future health of the American childbearing woman. Given, that 90% of nurses are women, the authors suggest that nursing take a leadership role in champion change of this failing model of prenatal care and education care. As the United States maternal mortality ranking continues to worsen nursing is in a critical role to lead efforts for change at the point of care.

References

Edmonds, B. T., Mogul, M. & Shea, J. A. (2015). Understanding low-income African American women's expectations, preferences, and priorities in prenatal care. *Family and Community Health, 38*(2), 149-157. Doi:10.1097/FCH.0000000000000066.

Handler, A. Rankin, K., Rosenberg, D. & Sinha, K (2012). Extent of documented adherence to recommended prenatal care content: provider site differences and effect on outcomes among low-income women. *Journal of Maternal Child Health, 16*, 393-405, Doi: 10.1007/s10995-011-0763-3.

Contact

amy.mckeever@villanova.edu

RSC PST 2 - Research Poster Session 2

The Traditional Chinese Medical Body Constitution Status and the Related Factors of Coronary Artery Patients

Jun-Dai Lin, PhD, MSN, RN, Taiwan

Li-Li Chen, PhD, RN, Taiwan

Tung-Mei Chen, MS, RN, Taiwan

Abstract

Purpose: The purpose of this study is to understand the Traditional Chinese Medical body constitution (TCMBC) status and the related factor of coronary artery patients. On the expectation of achieving disease prevention through improving health condition and adjusting lifestyle by researching the difference and relevance of body constitution of Chinese medicine to identify personal health condition and further to serve as basis to improving health condition.

Methods: This is a cross-sectional correlation study with purposive sampling. Participants came from cardiovascular Intensive Care Unit (CCU) and general cardiovascular ward, in a medical center in central Taiwan, and was conducted with structured Body Constitution Questionnaire (BCQ) with 250 coronary artery patients. The BCQ has three parts, "yang-qi-Xu", "ying-blood-Xu", and "phlegm and stasis", and the Cronbach's α is 0.85, 0.88, 0.88, respective. The data were analyzed by *SPSS 22.0 Statistics Chinese Version*, descriptive statistics described the distribution of all of the important variables, and chi-square, binary logistic regression formula (LR) performed univariate and multivariate analysis.

Results: The study shows that the body constitution among coronary artery patients, 75.2% belong to the category of "yang-qi-Xu"; further examine with multivariate analysis and univariate analysis of variance indicate that: "Recurrence of coronary artery disease" is aggravating factor of yang-qi-Xu. "Kidney disease" is aggravating factor of ying-blood-Xu. "duty Shifting" and "Stress" are aggravating factor of phlegm and stasis. "No habit of exercise" is aggravating factor of yang-qi-Xu and phlegm and stasis. "Female" is aggravating factor of yang-qi-Xu, ying-blood-Xu and phlegm and stasis.

Conclusion: This study shows that coronary artery disease patients tend to have weak constitution, and the demography, lifestyle and disease factors will influence the physical performance. We recommendation that different body constitution could performed through diet, exercise guidance, daily living care and emotional care, to maintain the yin and yang balance of body, so that all parts of the body have encountered the normal operation.

References

Jun-Dai Lin, Jui-Shan Lin, Li-Li Chen, Chih-Hung Chang, Yi-Chia Huang, Yi-Chang Su. (2012). BCQs: A Body Constitution Questionnaire to Assess Stasis in Traditional Chinese Medicine. *European Journal of Integrative Medicine*, 4 (4), pg. e379-e391.

Jun-Dai Lin, Li-Li Chen, Jui-Shan Lin, Chih-Hung Chang, Yi-Chia Huang, Yi-Chang Su. (2012). BCQ-: A Body Constitution Questionnaire to Assess Yin-Xu. Part I: Establishment of a Provisional Version through a Delphi Process. *Forschende Komplementärmedizin und Klassische Naturheilkunde*, 19(5):234-41.

Jui-Shan Lin, Li-Li Chen, Jun-Dai Lin, Chih-Hung Chang, Chien-Hsun Huang, Peter Karl Mayer, Yi-Chang Su. (2012). BCQ-: A Body Constitution Questionnaire to Assess Yin-Xu. Part II: Evaluation of Reliability and Validity. *Forschende Komplementärmedizin und Klassische Naturheilkunde*, 19(6):285-92.

Contact

mandy710124@gmail.com

RSC PST 2 - Research Poster Session 2

A Multivariate Testing of Illness Perception, Self-Management, and Quality of Life of Taiwanese Cancer Patients

Fang-yu Chou, PhD, RN, USA

Abstract

Purpose: Cancer has been the leading cause of death in ethnic Chinese. Different cultural backgrounds can influence how patients perceive the disease, how they self-manage their health and disease process, and how these factors can influence their quality of life. Effective self-management is imperative to reduce possible complications and maintain treatment completion, control symptoms, and collaborate effectively with health care professionals. This paper tests a multivariate model to determine the associations among self-management, illness perception, and quality of life among a sample of Taiwanese cancer patients.

Methods: A sample of ethnic Chinese cancer patients (N = 159) were included in the multivariate model analysis. The data were from an international collaboration project conducted in 2011-2012 at northern Taiwan region. The sample included breast cancer and colon cancer patients. After consent, each participant completed a questionnaire booklet in which questions were included for demographics, illness perception, self-management practice, and quality of life. Illness perception was measured by Chinese version of the revised Illness Perception Questionnaire. Self-management practice was measured in the aspects of self-care efficacy, symptom self-care activity, and health maintenance resources. Quality of life was measured by the Quality of Life Scale. All questionnaires were available in bilingual versions. Data were analyzed in SPSS 23.0 and statistical significance was preset as Alpha = 0.05.

Results: The mean age of the sample was 55.55 years old, and 83% of the sample was female. The mean Karnofsky's Score was 78.43 (SD = 13.19). Seventy-two percent of the sample reported the religion preference was as Buddhism or Taoism. Thirty-three percent identified themselves as the primary caregivers. The overall sample reported moderate level of quality of life and self-care efficacy. On average, about five symptoms were reported from each participant. Stress and overwork were the common perceived causes of cancer reported in the sample. Walking and exercise were the commonly used daily health maintenance activities. The four-stage hierarchical multiple regression revealed that at stage one, demographic characteristics contributed significantly to the regression model ($F_{(9,12)} = 4.48, p < .001$) and accounted for 24% of the variation in quality of life. In step two, adding the illness perception subscale dimension variables explained an additional 18% of the variation in quality of life and this change in R^2 was significant ($F_{\text{Change}}(8,119) = 4.46, p < .001$). In step 3, adding self-care efficacy to the regression model only explained an additional 1% of the variation in quality of life and this change in R^2 was not significant. However, the overall model was statistically significant ($F_{(18,118)} = 4.85, p < .001$). The final model explained a total 43% of variance in quality of life ($F_{(19,117)} = 4.56, p < .001$). Among all variables, the dimensions of consequence and personal control from the Illness Perception Questionnaire, and Karnofsky's Score were the significant predictors in the model.

Conclusion: The overall results from this study showed that enhancing cancer patients' self-care efficacy and empowering patients to have positive personal control and attitude toward cancer and its treatment can significantly contribute to their quality of life. While the sample was focused on Taiwanese patients in this study, the proposed predicted model can be applied in other population. The emphasis of self-management in cancer patients' long-term quality of life has also been well established in the literature. Illness perception has also been supported to be the main covariate to quality of life in cancer patients can be employed to facilitate cancer patients for empowering their efficacy in self-management and active participation and planning for their adjustment with living with cancer. Further research can explore culturally-appropriate interventions to assist cancer patients to support their self-management. Variation in illness perceptions of cancer by different types of cancer should be considered in cancer survivorship planning and patient education.

References

- Eller, L.S., Lev, E. L., Yuan, C., & Watkins, A.V. (2016). Describing Self-care self-efficacy: Definition, measurement, outcomes, and implications. *International Journal of Nursing Knowledge*, May 31. doi: 10.1111/2047-3095.12143.
- Chou, F.Y., Lee, J., Yoo, G., Kuang, L. Y. & Fung, L.C. (2016). Challenges in Cancer Self-Management of Patients with limited English Proficiency. *Asia-Pacific Journal of Oncology Nursing*, 3(3): 259-265. doi: 10.4103/2347-5625.189815.

Contact

fchou@sfsu.edu

RSC PST 2 - Research Poster Session 2

Facilitators and Barriers Faced By Student Veteran Population Upon Transitioning From Military to Academic Life

Brittany M. Gannoe, BSN, RN, USA

Heeyoung Lee, PhD, APRN- BC, USA

Abstract

Purpose: As a result of the Post-9/11/2001 Veterans Education Assistance Act of 2008 and the benefits and financial assistance it offered to those who served in Afghanistan and Iraq, approximately half a million Veterans, National Guardsmen, active-duty personnel, and reservists used military education benefits to attend college and have difficulty in reintegrating their life to academic settings due to multiple deployments, a constant risk of injury and death, and repeated challenging homecoming transition. The present study explored the experiences of the student service member and student Veteran population upon transitioning from military life to academic life.

Methods: Recruitment was achieved through the dissemination of a flyer by a university's Office of Veterans Services on their website, their Facebook page, and emailed through their listserv. Additionally a Facebook boosted post advertising campaign was ran which reached approximately 1,600 targeted Facebook profiles containing the key terms "Veteran" and the name of the university. Word of mouth was also utilized, as well as an in person recruitment event at a Veterans meeting. This study made use of a qualitative interview with a structured interview guideline. Audio recordings of interviews were transcribed verbatim though the use of software (i.e., Soundflower 2.0b2 and Audacity 2.1.0) and then proofread line by line by the primary investigator for accuracy. The interview data was coded using thematic content analysis as outlined by Graneheim and Lundman. Meaning units were extracted and categorized into condensed meaning units, subthemes, and themes. Any discrepancy about code and themes were discussed and refined in order for mutual agreement.

Results: Six participants were recruited. All six participants were white males. They were between the ages of 25 and 40. Branches of service represented included Air Force (n=1), Army (n=2), Coast Guard (n=1), Marine Corps (n=1), and Navy (n=1). Years of service included 1-4 years (n=2), 4-8 years (n=2), and 12-16 years (n=2). College majors represented were Nursing (n=2), Public Service (n=1), Informational Science (n=1), Natural Science (n=1), and Administrator of Justice (n=1). 79 meaningful text units were described by the participants. Five major themes of facilitators were identified. Themes included social relations, competence, cultural accommodation, communication, and opportunity for personal growth. Four major themes of barriers included cultural differences, academic challenges, isolation, and juggling school and life.

Conclusion: The findings of this study provide insight into unique experiences beyond what would otherwise have been ignored. In particular, cultural differences need to be acknowledged and addressed in order to encourage student service members and veterans to adjust to academic life. Participants' military-related experience such as Posttraumatic Stress Disorder or Traumatic Brain Injury impacts their ability to balance their life and academic work. Therefore, student service members and Veterans may benefit from specialized academic and institutional services and supports to address aforementioned barriers. The need is presented for larger and longer studies in order to better inform policy regarding the challenges faced by the student service member and Veteran population.

References

Ahern, J., Worthen, M., Masters, J., Lippman, S.A., Ozer, E.J., & Moos, R. (2015). The

challenges of Afghanistan and Iraq Veterans' transition from military to civilian life and approaches to reconnection. *PLOS One*, 10 (7), 1-13.

Atakro, C.A., Ninnoni, J.P., Adatara, P., Gross, J., & Agbavor, M. (2016). Qualitative inquirt

into challenges experiences by registered general nurses in the emergency department: a study of selected hospitals in the Volta region of Ghana.

Emergency Medicine International, 2016, 1-7.

Beehler, S. , Clark, J. A. , & Eisen, S. V. (2014). Participant experiences in peer- and clinician-facilitated mental health recovery groups for Veterans. *Psychiatric Rehabilitation Journal*, 37(1), 43-50.

Ellison, M.L., Mueller, L., Smelson, D., Corrigan, P.W., & Torres Stone, R.A. (2012). Supporting the education goals of post-9/11 Veterans with self-reported PTSD symptoms: A needs assessment. *Psychiatric Rehabilitation Journal*, 35(3), 209-217.

Norman, S.B., Rosen, J., Himmerich, M.A., Davis, B., Browne, K.C., & Neill, P. (2015). Student Veteran perceptions of facilitators and barriers to achieving academic goals. *Journal of Rehabilitation Research and Development*, 52(6), 701-712.

Nyaronga, D. , & Toma, R. (2015). Student service members/ Veterans' mental health: Who is at a greater risk for posttraumatic stress symptoms on college campuses? *Military Psychology*, 27(4), 223-231.

Romero, D.H., Riggs, S.A., & Ruggero, C. (2015). Coping, family social support, and psychological symptoms among student Veterans. *Journal of Counseling Psychology*, 62(2), 242-252.

Rudd, M.D., Goulding, J., & Bryan, C.J. (2011). Student Veterans: A national survey exploring psychological symptoms and suicide risk. *Professional Psychology Research and Practice*, 42(5), 354-360.

Shannon, P.J., Simmelink, J., Im, H., Becher, E., & Crook-Lyon, R.E. (2014). Exploring the experiences of survivor students in a course on trauma treatment. *Psychological Trauma: Theory, Research, Practice, and Policy*, 6(Suppl 1), S107-S115.

Walker, G., & Bryant, W. (2013). Peer support in adult mental health services: A metasynthesis of qualitative findings. *Psychiatric Rehabilitation Journal*, 36(1), 28-34.

Whiteman, S.D., Barry, A.E., Mroczek, D.K., & Macdermid Wadsworth, S. (2013). The development and implications of peer emotional support for student service members/Veterans and civilian college students. *Journal of Counseling Psychology*, 60(2), 265-278.

BMG56@pitt.edu

RSC PST 2 - Research Poster Session 2

Cultural Competence: Gaps in Knowledge of Navy Healthcare Personnel During Global Health Engagement Missions

Heather Cuniff King, PhD, CRNA, USA

Natalie Todd, BA, JD, USA

Patricia Watts Kelley, PhD, RN, FNP-BC, GNP-BC, FAANP, FAAN, USA

Abstract

Background: Military medical personnel assigned to United States (US) Naval hospital ships perform a wide range of humanitarian assistance (HA), disaster response (DR), and civic assistance (CA) operations worldwide. Collectively, these missions are called “global health engagement” missions and provide rapid coordinated relief to countries affected by natural/man-made disasters and endemic conditions. Global health engagement missions also contribute to strategic US policy aimed at improving political, economic, and international relationships (Chief of Naval Operations, Commandant of the U.S. Marine Corps, & Commandant U.S. Coast Guard, 2015; Joint Chiefs of Staff, 2015; Quinnan, 2016; Secretary of the Navy, 2012). Over the last nine years, fourteen global health engagement missions have occurred aboard US Naval hospital ships. These ships deploy to countries located in Southeast Asia, Central America, Latin American, and the Caribbean. Military healthcare personnel are integral members of the healthcare team on these missions and possess a vast amount of mission specific knowledge. However, capturing this knowledge to transfer to future deployed healthcare personnel has remained challenging.

Purpose: The purpose of this on-going study is to examine and capture first person accounts of experiential learning of military nurses, physicians, and corpsmen that have deployed on hospital ship based global health engagement missions. Although the overall study has identified over 22 codes, the need to possess culturally relevant knowledge to optimize the delivery of care is a prominent code identified by the research team. Many military healthcare participants in this study describe a lack of culturally relevant knowledge and competence to care for and interact with patients encountered during these missions. Further, many participants discussed the lack of cultural knowledge as a significant barrier to successfully accomplish the goals of the mission.

Cultural competence within healthcare systems has been defined as the ability to provide care for patients with diverse values, beliefs, and behaviors, including tailoring delivery to meet patients’ social, cultural, and linguistic needs (Betancourt, Green, Carrillo, & Park, 2005). Previous research reports that providing culturally competent care improves provider-client communication (Kelly & Papadopoulos, 2009), increases patient satisfaction with care (Alfred, Ubogaya, Chen, Wint, & Worrall, 2016; Stoneking et al., 2016), and improves patient adherence to lifestyle recommendations (Stoneking et al., 2016). Given the importance of enhanced international collaboration that can occur during global health engagement missions, the need for providing cultural competent patient care is paramount. This study highlights the need for targeted in depth cultural education to enhance cultural competence of future military nurses, physicians, corpsmen, and leaders who participate in global health engagement missions. The knowledge gained from this study will expand the understanding of care provided during global health engagement missions and will promote informed competent care for future military nurses, physicians, corpsmen, and leaders to function optimally on future global health engagement missions.

Methods: An interpretive, ethnographic method was used as described by Benner (Benner, 1994). Consistent with Dr. Patricia Benner’s approach to interpretive ethnography (Benner, 1994), our approach to gain meaning from narratives were guided by three central strategies: 1) identify paradigm cases, 2) identify themes within and across participant narratives of meaningful patterns, and 3) exemplars were used to represent common patterns of meaning, and common situations. Data collection consisted of face-to-face, and telephone semi-structured interviews with individuals or small groups aimed at eliciting detailed, narrative examples of experiences from military healthcare personnel who participated in previous global health engagement missions aboard US Naval Hospital Ships.

Sample: Data were collected between 2015 – 2016. The sample consisted of 141 participants (50 physicians, 50 nurses, and 41 corpsmen) recently deployed on US Naval hospital ships in support of a global health engagement missions.

Analysis: Descriptive statistics were conducted on demographic data. Codes and themes were identified inductively. After discussion and consensus by team members, a codebook was developed by selecting

interview excerpts that illustrated each code. Any ambiguities were discussed by the research team until a consensus was obtained.

Results: Demographic data by specialty is as follows: mean age in years for physicians, nurses, and corpsman was 39.7, $SD = 7.0$, 36.0, $SD = 8.0$, 28.8, $SD = 6.6$, respectively. Gender by specialty: physicians 75% male, 25% female, nurses 45.5% male, 54.5% were females, and hospital corpsmen 64.1% male, 35.9% female. Length of service in years for physicians, nurses, and hospital corpsmen was 12.5, $SD = 7.1$, 12.8, $SD = 8.3$, 8.3, $SD = 6.0$, respectively. The educational preparation of the sample was as follows: high school diploma, 2.4%, some college, 15.3% Associate's Degree, 6.9%, Bachelor's Degree, 26.7%, Master's Degree, 11.5%, and Doctoral Degree, 37.4%.

From the cultural competence code: Three sub codes describing culturally relevant gaps in knowledge emerged from the data: 1) cultural belief systems and practices which impact the delivery of healthcare, 2) cultural customs which effect patient evaluation for surgical procedures, and 3) military healthcare providers awareness of cultural practices in social situations.

Conclusion: Despite the accumulation of experiential knowledge among Navy physicians, nurses, and corpsmen to provide care during these missions; gaps in culturally relevant knowledge remain. This study highlights the need for targeted in depth cultural education to enhance cultural competence of future military nurses, physicians, corpsmen, and leaders who participate in global health engagement missions. Relevance to Nursing: As part of a multidisciplinary healthcare team, military nurses are integral in the success of these complex missions. It is critical that clinical and deployment knowledge is captured from these unique missions to insure the education and training of healthcare providers are culturally competent in the care they provide.

References

- Alfred, M., Ubogaya, K., Chen, X., Wint, D., & Worrall, P. S. (2016). Effectiveness of culturally focused interventions in increasing the satisfaction of hospitalized Asian patients: a systematic review. *The Joanna Briggs Institute Database of Systematic Reviews and Implementation Reports*, 14(8), 219-256. doi:10.11124/jbisrir-2016-003048
- Benner, P. (1994). *Interpretive phenomenology: Embodiment, caring and ethics in health and illness*. Thousand Oaks, CA: Sage Publishers.
- Betancourt, J. R., Green, A. R., Carrillo, J. E., & Park, E. R. (2005). Cultural competence and health care disparities: key perspectives and trends. *Health Aff (Millwood)*, 24(2), 499-505. doi:10.1377/hlthaff.24.2.499
- Chief of Naval Operations, Commandant of the U.S. Marine Corps, & Commandant U.S. Coast Guard. (2015). *A cooperative strategy for 21st century seapower*. Washington, D.C.
- Joint Chiefs of Staff. (2015). *National Military Strategy*. Retrieved from http://www.jcs.mil/Portals/36/Documents/Publications/2015_National_Military_Strategy.pdf.
- Kelly, F., & Papadopoulos, I. (2009). Enhancing the cultural competence of healthcare professionals through an online course. *Diversity in Health and Social Care*, 6(2), 77.
- Quinnan, G. (2016). *The future of Department of Defense global health engagement*. Joint Forces Quarterly.
- Secretary of the Navy. (2012). *SECNAV INSTRUCTION 6000.6*. Washington, DC.

Stoneking, L. R., Waterbrook, A. L., Garst Orozco, J., Johnston, D., Bellafiore, A., Davies, C., . . . Adamas-Rappaport, W. (2016). Does Spanish instruction for emergency medicine resident physicians improve patient satisfaction in the emergency department and adherence to medical recommendations?

Advanced Medical Education Practice, 7, 467-473.

doi:10.2147/amep.s110177

Contact

heather.c.king.mil@mail.mil

RSC PST 2 - Research Poster Session 2

How Does Obesity and Intentional Weight Loss Impact Health Related Quality of Life in Adults?

Holly Kirkland-Kyhn, PhD, MSN, BSN, RN, FNP, USA

Abstract

Purpose: Over the past 30 years, the percentage of older adults who are obese has doubled; the most recent CDC data indicates that adults age 60 and over were more likely to be obese than were younger adults. The number of chronic health conditions associated with obesity increases with increasing body mass index (BMI) and in association with aging. Obesity-related chronic health conditions and their associated physical function–mobility limitations are the leading cause of diminished personal independence and diminished health related quality of life (HRQOL) for older adults. The aim of this study was to identify associations of BMI, gender, age and HRQOL with mental component summary (MCS) scores and physical component summary (PCS) scores, among adults with obesity who were enrolled in an intensive weight loss program, and at Week 17, after the intensive weight loss.

Methods: Six hundred and forty five participants (age: 18–79 years) completed the demographic data and HRQOL surveys at their first visit (baseline) and at Week 17 of an intensive weight loss program. The short form (SF–36) was used to measure the HRQOL for physical component summary (PCS), mental component summary (MCS), BMI, weight loss, systolic blood pressure (SBP), and diastolic blood pressure (DBP) were measured for between-group and between-gender comparisons. Further analysis was performed to evaluate Week 1–Week 17 outcomes and differences.

Results: From Week 1 to Week 17, all of the study participants lost weight. Average weight loss was approximately 47 pounds (21.36 kg) per person, or an average weight loss of 17% from baseline weight. BMI and the week in the program were statistically significant contributors to the PCS score. Participation in the program for 17 weeks was associated with an increase in the PCS score by 0.34% ($p = .000$) [$s^2 = .0724$, $p = .000$], and lowering the SBP increases the PCS score by 0.087% ($p = .000$) [$s^2 = .0166$, $p = .000$], and as SBP increases, the PCS score decreases. In other words, the SBP and the PCS score during linear regression or were inversely related.

Conclusion: Obesity and in turn weight loss are associated with HRQOL. This study is one of the few to explore the gender and age differences (to include patients with multiple chronic health conditions) in the HRQOL of individuals with obesity. The SF–36 is a self-rated measure of health; the instrument's scores are influenced by the respondent's perceptions, expectations, and interpretations regarding their health. This study provides comprehensive data that elucidate how obesity and intentional weight loss affect self-rated physical and mental health in younger and older adults; this information is pertinent to people who may or may not have chronic health conditions. The study found that, as an individual became older, their MCS scores tended to improve. In this study, females with obesity tended to have a lower MCS score than did males with obesity, and that PCS scores increase as weight and BMI decrease.

References

Rejeski, W. J., Ip, E. H., Bertoni, A. G., Bray, G. A., Evans, G., Gregg, E. W., & Zhang, Q. (2012). Lifestyle change and mobility in obese adults with type 2 diabetes. *New England Journal of Medicine*, 366(13), 1209–1217.

doi:10.1056/NEJMoa1110294

Savoy, S. M., & Penckofer, S. (2014). Depressive symptoms impact health-promoting lifestyle behaviors and quality of life in healthy women. *Journal of Cardiovascular Nursing*. doi:10.1097/jcn.0000000000000158

Reuser, M., Bonneux, L., & Willekens, F. (2008). The burden of mortality of obesity at middle and old age is small. A life table analysis of the US Health and Retirement Survey. *European Journal of Epidemiology*, 23(9), 601–607.

doi:10.1007/s10654-008-9269-8

Contact

holly.kirkland-walsh@ucdmc.ucdavis.edu

RSC PST 2 - Research Poster Session 2

Balance Self-Efficacy: Does It Affect Psychosocial Well-Being in Older Adults?

Mercy N. Mumba, PhD, RN, CMSRN, USA

Ignacio Godinez, MBA, USA

Abstract

Purpose: The purpose of this study was to examine the effects of exercise on balance self-efficacy and to determine if there is an association between balance self-efficacy and performance on psychosocial outcomes.

There are 40.3 million people in the United States aged 65 and older. This is a drastic change from two decades ago when only 3.1 million Americans were older than 65 years of age. In 2010, over 38% of individuals over the age of 65 reported one or more disabilities including difficulties with walking, climbing stairs, and an inability to do regular errands alone. The older adults' bodies may not always respond in a manner they expect, making them more susceptible to falls and injury. The result is a decrease in balance self-efficacy, which then affects their willingness to participate in exercise and social gatherings. Social isolation subsequently leads to depression and decreased quality of life.

Methods: One-group pretest-posttest design. Approved by the IRB at University of Texas at Arlington. Convenience sample was used, recruited from the community. Power analysis required sample size = 64, total of 78 participants were recruited for the study. Participants engaged in 15-week exercise program that incorporated balance, strength, endurance, and flexibility training. Instruments used: Balance Self-efficacy Scale, EquiTest® computerized system (neurocom), Comprehensive Fall Risk Screening Instrument, and the Promis 29.

Results: Preliminary results: 78 total participants in the study. Ages ranged from 60 years to 89 years. 74% were female, over 60% had at least a bachelor's degree. 89% were caucasian. Comorbid medical diagnoses such as Arthritis (62%), diabetes (9%), hypertension (14%), thyroid problems (15%), cardiovascular problems (11%), and cancers (21%). 90% of participants use assistive devices, and 50% report falling within last 3 years. 46% use more than 4 prescription medications daily. Balance self-efficacy did not differ based on age, gender, ethnicity, pain interference, physical function, low back pain, or educational level. However, depression ($p = 0.044$) and anxiety/fear ($p = 0.025$) significantly predicted balance self-efficacy.

Conclusion: Depression and anxiety often go untreated in older adults. However, from this study, they are significantly related to balance self-efficacy. Finding ways to treat depression and anxiety in this population is imperative in order to foster social and community engagement in this population.

References

Brovold, T., Skelton, D. A., & Bergland, A. (2013). Older adults recently discharged from the hospital: Effect of aerobic interval exercise on health-related quality of life, physical fitness, and physical activity. *Journal of the American Geriatrics Society*, 61, 1580-1585. doi:10.1111/jgs.12400

Buford, T. W., Anton, S. D., Clark, D. J., Higgins, T. J., & Cooke, M. B. (2014). Optimizing the benefits of exercise on physical function in older adults. *Journal of the American Academy of Physical Medicine and Rehabilitation*, 6, 528-543. doi:10.1016/j.pmrj.2013.11.009

Contact

mercy.mumba@mavs.uta.edu

RSC PST 2 - Research Poster Session 2

Developing a New Cognitive Impairment Measure for Korean Cancer Patients

Hee-Ju Kim, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: The purpose of the present study was to evaluate the reliability (internal consistency reliability) and validity (concurrent, convergent, factorial, and known-group validity) of the Brief Perceived Cognitive-Impairment Scale in Korean cancer patients.

Methods: A total of 249 cancer patients from a university hospital (both outpatients and inpatients) in South Korea participated in the data collection from July 2012 to January 2014. The 3 clinical experts and 3 research experts evaluated content validity and the content-validity index was calculated. For internal-consistency reliability, Cronbach's alpha and item-total correlations were evaluated. For convergent validity, Pearson's correlations were tested with another validated cognitive impairment scale (The Functional Assessment of Cancer Therapy–Cognitive Function). For concurrent validity, Pearson's correlations were tested with Functional Assessment of Chronic Illness Therapy–Fatigue. For known-group validity, *t*-test was performed to evaluate whether the measured cognitive impairment differed the in treatment experience groups. For factorial validity, factor analysis was performed.

Results: The newly developed measure, the Brief Perceived Cognitive-Impairment Scale, showed high internal consistency, with a Cronbach's alpha of .92. Item-total correlations ranged from .76 to .81. In the content-validity index, all items were scored at higher than .80 and the scale was scored at higher than .92. The new measure was highly associated with another validated cognitive impairment measure (i.e., $r = .93$). The new measure showed moderate significant correlations with fatigue, a theoretically associated concept with the cognitive impairment ($r = .54, p < .001$). Factor analysis confirmed that the scale is unidimensional. The subjects undergoing treatment and the subjects expecting treatment statistically differed in the score of the Brief Perceived Cognitive-Impairment Scale ($p < .05$).

Conclusion: The findings indicate that the new instrument is valid and reliable, for assessing cancer patients' perceived cognitive dysfunction, particularly in concentration, memory, and executive functions. This instrument will be particularly useful in busy clinical settings and research studies examining multiple symptoms, because of its brevity.

References

1. Von Ah, D., Habermann, B., Carpenter, J. S., & Schneider, B. L. (2013). Impact of perceived cognitive impairment in breast cancer survivors. *European Journal of Oncology Nursing, 17*(2), 236-242
2. Wagner, L. I., Sweet, J., Butt, Z., Lai, J. S., & Cella, D. (2009). Measuring patient self-reported cognitive function: development of the functional assessment of cancer therapy-cognitive function instrument. *Journal of Supportive Oncology, 7*(6), W32-W39.
3. Munir, F., Burrows, J., Yarker, J., Kalawsky, K., & Bains, M. (2010). Women's perceptions of chemotherapy-induced cognitive side affects on work ability: a focus group study. *Journal of clinical nursing, 19*(9-10), 1362-1370.

Contact

heeju0906@gmail.com

RSC PST 2 - Research Poster Session 2

Adolescent Success Promotion: Can Timelines Help?

Josie Weiss, PhD, MSN, BSN, FNP-BC, FAANP, USA

Abstract

Purpose: Career development is an important task that occurs during high school and is associated with positive post-graduation adjustment. Many adolescents have hopes of completing high school and college, living independently and having satisfying careers. However, adolescents often do not plan effectively in order to achieve these goals, hopes and dreams. A GPS (Getting Plans Started) Tool was developed to help adolescents think about their plans to achieve their goals for future success. The purpose of this presentation is to discuss a study that was conducted to determine the feasibility of using the GPS Tool in the future, in particular the ease of use and engagement of participants in completing the GPS Tool. The perceptions of the participants regarding the effectiveness of the Tool in helping them think about and plan for their future success was also assessed.

Methods: Thirty-one adolescents participated in this research. Each wrote the goals they hoped to accomplish within the next four years. Then they each completed GPS Tools which involved constructing personal timelines using labels, preprinted with tasks they hoped to achieve during the next four years. After completing their Tools, participants evaluated the effectiveness of constructing their timelines in helping them think about being successful in the future. They also evaluated their perceived likelihood of accomplishing the tasks they planned. Likert scales were used for both of these evaluations. The participants' written responses and labeled timelines were analyzed using both qualitative and quantitative measures.

Results: The participants found the GPS Tools effective in helping them think about their future success and they were confident they would accomplish their plans. The most significant goals written by the participants and labels used most often on the GPS Tools indicated strong desires and plans for graduating from college and becoming independent through satisfying employment and moving to apartments or homes of their own. However, analysis of written goals and labels used on the GPS Tools indicated that many of the envisioned plans would be difficult to achieve within the designated timeframes. The amount of time anticipated to achieve the goals planned was frequently unrealistic.

Conclusion: The GPS Tool is feasible to use. The participants were engaged in the process and found constructing their timelines to be effective in helping them think about and plan for their own future success. The GPS Tools were also helpful in identifying ineffective and unrealistic planning. These findings indicate that the GPS Tool could be used to promote more effective planning during career preparation. When combined with other measures, the GPS Tool could help decrease distractions such as risky behaviors that often derail plans for success.

References

Bradley, B.J., & Greene, A.C. (2013). Do health and education agencies in the United States share responsibility for academic achievement and health? A review of 25 years of evidence about the relationship of adolescents' academic achievement and health behaviors. *Journal of Adolescent Health, 52*, 523-532.

Hale, D.R., Fitzgerald-Yau, N., & Russell, M.V. (2014). A systematic review of effective interventions for reducing multiple health risk behaviors in adolescence. *American Journal of Public Health, 104*, e19-e41. Doi:10.2105/AJPH.2014.301874

Hensel, D.J. & Sorge, B.H. (2014). Adolescent women's daily academic behaviors, sexual behaviors, and sexually related emotions. *Journal of Adolescent Health, 55*, 845-847.

Contact

Josie.Weiss@ucf.edu

RSC PST 2 - Research Poster Session 2

An Investigation of the Personality Traits, Emotional Intelligence, Coping Behavior, and Job Stress Among Preceptors

Chiu Yen Lee, MS, RN, Taiwan

Abstract

Purpose: Preceptors play a critical role in onboarding new nurses. They build a bridge for new nurses to adapt to the working environment and play an important role in education, inspiration, and consultation. Moreover, they are heavily burdened with teaching responsibilities and are responsible for quality of care. Preceptors who are under such great stress are likely to experience burnout, leading to poor work performance and teaching quality, and job satisfaction. The purpose of this study was to investigate the correlations among personality traits, emotional intelligence, coping behavior, and job stress of preceptors.

Methods: A descriptive correlational design was used, and a purposive sample of 200 preceptors from a medical center, a regional hospital, and a district hospital located in Tainan City was recruited for this study. The instruments included the Personality Trait Scale, Emotional Intelligence Scale, Coping Behavior Inventory, and Job Stress Scale. Descriptive statistics, chi-square test, and stepwise multiple regression analysis were conducted to analyze the data using SPSS for Windows 19.0.

Results: There were significant differences in job stress in terms of the personality traits of neuroticism and conscientiousness, the emotional intelligences of use of emotion to facilitate performance and regulation of emotion in the self, and the coping behavior of emotion-focused coping. The demographic variables including education level and precepting experience, emotional intelligences of regulation of emotion in the self and use of emotion to facilitate performance, personality traits of neuroticism, openness, and agreeableness, and coping behavior of emotion-focused coping were important predictors of the job stress among preceptors.

Conclusion: The results of this study could serve as a reference for healthcare managers in cultivating talent. We expect that the results will make a significant contribution to the improvement of talent retention, thereby facilitating the retention of preceptors and improving the quality of nursing care and teaching quality, as well as Increase job satisfaction

References

- Boyer, S. A. (2008). Competence and innovation in preceptor development: updating our program. *Journal for Nurses in Staff Development*, 24(2), 1-6.
- Cooper, B. A., & Lemonde, M. (2011). Team preceptorship model: A solution for students' clinical. *ISRN Nursing*, 5, 1-7.
- Hautala, K. T., Saylor, C. R., & O'Leary-Kelley, C. (2007). Nurses' perceptions of stress and support in the preceptor role. *Journal for Nurses in Staff Development*, 23(2), 64-72.

Contact

candyen98@yahoo.com.tw

RSC PST 2 - Research Poster Session 2

Influencing Factors of Cultural Competence Among South Korean Clinical Nurses

Yunhee Park, PhD, RN, Korea, Republic of (South)

Duckhee Chae, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: As Korean society has rapidly become multicultural in the last few decades, health professionals and healthcare organization are needed to deliver care to culturally and linguistically diverse population groups. This study was to investigate individual and organizational levels of predictors associated with cultural competence among Korean clinical nurses.

Methods: This cross-sectional study included 401 clinical nurses from 21 hospitals in South Korea. Multilevel modeling was used to estimate effects of predictors at the individual and the organizational level. Individual-level variables included sociodemographic factors (age, gender, education, experience of staying abroad, foreign language speaking, and cultural competence training), job related factors (career length, job position, clinical unit, and caring experience of foreign patients), and professionalism. Organizational-level variables included the number of hospital beds, work environment, and organizational cultural competence. The data were analyzed with STATA software version 13.0 using multilevel analysis.

Results: Most participants were female (97.5%) and the mean age was 31.16 (SD=7.54) years. While majority (88.8%) had experience of caring foreign patients, only few participants (7.3%) received education for caring foreign patients. Mean number of hospital beds was 467.67 (SD=291.16). Multilevel regression analysis showed that professionalism ($p<.001$) and previous experience of staying abroad ($p=.001$) were significant factors at the individual level. When organizational-level variables were added as predictors, organizational cultural competence ($p<.001$) was significant while the significance of professionalism ($p<.001$) and previous experience of staying abroad ($p=.001$) were maintained. And the estimated interclass correlation coefficient (ICC) was 11.13% of the total variance in cultural competence of nurses.

Conclusion: By application of multilevel modeling, this study sought to identify individual and organizational level factors associated with cultural competence among Korean nurses. The results of this study indicate that differences in nurses' cultural competence were related to individual and organizational factors. In order to provide effective nursing care to culturally and linguistically diverse patients, efforts should be made to improve not only individual competence but also organizational cultural competence.

References

1. Chae, D.-H., & Lee, C.-Y. (2014). Development and psychometric evaluation of the Korean version of the cultural competence scale for clinical nurses. *Asian nursing research*, 8(4), 305-312.
2. Denier Y, Gastmans C. Realizing good care within a context of cross-cultural diversity; An ethical guideline for healthcare organizations in Flanders. Belgium. *Social Science & Medicine*. 2013;93:38-46.
3. Numminen, O., Ruoppa, E., Leino-Kilpi, H., Isoaho, H., Hupli, M., & Meretoja, R. (2016). Practice environment and its association with professional competence and work-related factors: perception of newly graduated nurses. *Journal of nursing management*, 24(1), E1-E11.

Contact

yhpark118@gmail.com

RSC PST 2 - Research Poster Session 2

Healthcare Provider Attitudes and Beliefs Toward Family-Witnessed Resuscitation in Saudi Arabia

Tara R. Belcher, MPA, RN, NEA-BC, Saudi Arabia

Arlene M. Minnock, MBA, RN, Saudi Arabia

Abstract

Purpose: Healthcare provider attitudes and beliefs towards family witnessed resuscitation (FWR) have been studied extensively in Western cultures¹⁻⁶. However, the literature shows little evidence of similar studies being conducted in Middle Eastern cultures⁷⁻⁸. The study was undertaken at a medium sized community hospital setting in Saudi Arabia. The authors hypothesize that overall attitudes and beliefs will not be in favor of family witnessed resuscitation as an option. However, there may be significant differences by nationality, unit, length of service, profession, age, gender, years qualified, and previous encounter with family witnessed resuscitation. The researchers sought to determine if healthcare providers in Saudi Arabia had similar attitudes and beliefs to those previously reported in the literature and to guide the healthcare system in developing an institutional FWR policy.

Methods: The research design is a quantitative cross sectional descriptive study using a survey method. A convenience sample of nurses, doctors, paramedics, and respiratory therapists working in emergency departments, intensive care units, operating rooms, day surgery areas, and general and pediatric wards were recruited. Recruitment was via blast e-mail with instructions on how to obtain a hard copy of the survey. Paper copies of the survey were provided in each clinical area. A reminder was sent via e-mail at week two. Extra hard copies of the survey were provided in each clinical area. Envelopes were left in pre-designated areas for collection and were collected periodically. Inclusion criteria included all doctors, nurses, paramedics and respiratory therapists working in general and pediatric wards, intensive care units, operating rooms, day surgery units, and emergency departments in all five facilities. Exclusion criteria included all allied healthcare personnel not employed in the aforementioned units. The Emergency Nurses Association's (ENA) Health Care Provider Attitudes and Beliefs Toward Family Presence Assessment Survey⁹ was used to address the study aims. The latest version of SPSS (23) was utilized for data analysis. Variables included age, gender, nationality, unit, profession, length of qualification, and duration of employment within the hospital system. The survey tool was utilized with permission granted by the ENA. There were 19 questions on the survey. Questions (Q) 1-10 were scored on a 5 point Likert scale with "1 = strongly agree" to "5 = strongly disagree." Q's 8 and 9 were reverse coded such that "1 = strongly disagree" and "5 = strongly agree". This was done to compensate for the somewhat negative terminology in the questions. Thus analysis and comparisons could be made with the other questions. Q's 11-16 were yes/no answers and Q's 13-19 had free text options although it was not analyzed for this paper. In addition to the ENA tool, seven demographic questions were included before the survey questions. The survey consisted of questions related to feelings and beliefs of healthcare providers in relation to FWR during invasive procedures and resuscitation. This study will focus on only those questions relating to resuscitation, therefore there was no analysis performed on questions relating to invasive procedures (Q3, 5, 12a, 14a and 15a). Four main themes were identified for analysis. Identified themes were feelings (Q1, 2, 4), beliefs (Q6-8), stress (Q9) and fear of litigation (Q10). Dependent variables analyzed were feelings, beliefs, stress, and fear of litigation. Independent variables analyzed were age, gender, nationality, profession, unit, and years qualified.

Results: Of the 799 surveys distributed, 393 were returned representing a response rate of 49%. The majority of respondents were female (70.9%), over 40 years of age (69.9%), of Middle Eastern descent (29.1%), and were from emergency rooms and intensive care units (53.2%). The profession which had the most respondents was nursing (82.1%). Most participants were qualified in their professions more than 6 years (87.7%) and had been working in the healthcare organization for 0-15 years (84%). Seventy-eight percent of respondents were in support of family having the option to be present if accompanied by a facilitator. The majority of respondents were Middle Eastern (29%) followed by European (19%), Filipino (15%), Indian (13%) and Sub-Saharan African (11%) with the remaining five nationalities making up slightly more than 12%. Gender was significant across all four themes ($p < 0.05$). Results of the analysis indicated a statistically significant difference between unit worked on and nationality and beliefs ($p < 0.05$) and stress ($p < 0.05$). Profession had a significant association with feeling comfortable providing psycho-social-spiritual support during FWR ($p < 0.05$). Years qualified and age had no significant association with beliefs, feelings, fear, or stress.

Conclusion: This study explored the views of nurses, doctors, paramedics, and respiratory therapists providing resuscitative care. Results of the study may be used to develop institutional policy regarding family witnessed resuscitation. Implementation of an FWR policy would enable staff to make informed decisions based on evidence-based practice. Additionally, policy implementation would prevent individual healthcare provider beliefs from impacting patient care decision-making. The organization in question does not currently have an FWR policy. One intention of this study was to provide evidence that a policy was required regardless of the outcome of the study. Policy development would also help reduce fears and tensions among healthcare providers during resuscitation. Implementing a structured policy would ensure healthcare providers were informed and aware of their role in assisting family members as well as the patient in order to improve outcomes.

References

Al-Mutair, A. S., Plummer, V., & Copnell, B. (2012). Family presence during resuscitation: a descriptive study of nurses' attitudes from two Saudi hospitals. *Nursing in Critical Care*, 17(2), 90-98.

de Beer, J. & Moleki, M. M. (2012). Critical care nurses perceptions of family witnessed resuscitation in the kingdom of Saudi Arabia. *Africa Journal of Nursing & Midwifery*, 14(1), 105-115.

Porter, J. E., Cooper, S. J., & Sellick, K. (2014). Family presence during resuscitation (FPDR): Perceived benefits, barriers and enablers to implementation and practice. *International Emergency Nursing*, 22(2), 69-74.

Tudor, K., Berger, J., Polivka, B. J., & Thomas, B. (2014). Nurses' perceptions of family presence during resuscitation. *American Journal of Critical Care*, 23(6), e88-e96.

Wendover, N. (2012). Changing staff attitudes towards family-witnessed resuscitation. *Emergency Nurse*, 20(7), 21-24.

Contact

tara.belcher@jhah.com

RSC PST 2 - Research Poster Session 2

Family Situations and Sleep Disturbance of Chinese Elderly in Taiwan

Jong-Ni Lin, PhD, RN, Taiwan

Abstract

Purpose: This qualitative study aimed to describe sleep patterns and sleep quality from the perspectives of Chinese elderly, as well as gain insight into how family situations affect sleep appraisals by Chinese elderly.

Methods: Naturalistic Inquiry served as a philosophical framework to guide in-depth interviews of 50 Chinese elderly in Taiwan. Naturalistic inquiry, a special form of inquiry, emphasizes that the phenomenon needs to be studied in its natural ongoing circumstances. The interviews primarily were guided by a script and were initiated with a "grand tour" question. Probing and follow-up questions were asked to expand upon specific topics. **Convenient sampling and snowball sampling were used in recruiting the participants.** The strategies of content analysis were adopted to sort the interview texts. Four techniques were utilized to assess the trustworthiness of the interview data: peer debriefing, member checking, inter-coder agreement, and audit trail.

Results: Twenty-three Chinese men and 27 Chinese women aged 60 to 104 years were recruited. The mean age was 76.3 ± 11 . "Toss and turn," "difficulty falling asleep," and "poor sleep quality," were commonly used by the participants to describe their sleep complaints. The key themes represent family situations that influenced the sleep of Chinese elderly including family household size and configuration, living arrangements, filial piety, family roles and responsibilities, and family relationships. The most common family household in this study (46%) was the extended family, a unit including at least three different generations. From the viewpoints of 23 participants, the extended family household was a function of a traditional cultural norm. Twenty-six percent of the participants who lived with offspring in the same building, but on a different floor reported that such a living arrangement resulted in a less disturbing influence on sleep, compared to those who lived with their descendants on the same floor. They enjoyed living with their family members in such a household. Approximately 1/3 of all participants perceived that filial piety is associated with sleep disturbance because the failure to perform filial behavior causes negative moods, such as worry and unhappiness for the parents, who don't receive them, but the obligations of filial behavior cause stress for the children, who have to perform them. The participants living alone were more likely to report feelings of loneliness, poor sleep quality, and long sleep duration. The participants involved in a strained or demanding family relationship tended to report poor sleep quality and difficulty falling asleep. Interestingly, the majority of the participants in this study were reluctant to "air their dirty laundry" in public because disclosing negative family information to an "outsider" is thought to be shameful in Chinese society.

Conclusion: Family situations, including family household size and configuration, living arrangements, family roles/responsibilities, filial piety, and family relationships, may play roles in affecting the sleep quality of older adults. The influences of family situations on sleep are complex because family roles along with responsibilities, living arrangements, and family relationships naturally change over time when family events or crises occur. Thus, it is crucial for health care providers to take the multiple aspects of family situations into consideration in evaluating and treating sleep problems. The influences of family situations on sleep need to be studied ethnographically by including participants and family members in the research at different time points.

References

- Knutson, K. L. (2013). Sociodemographic and cultural determinants of sleep deficiency: implications for cardiometabolic disease risk. *Social Science and Medicine*, 79(0), 7-15. doi: <http://dx.doi.org/10.1016/j.socscimed.2012.05.002>.
- Li, J., Yao, Y. S., Dong, Q., Dong, Y. H., Liu, J. J., Yang, L. S., & Huang, F. (2013). Characterization and factors associated with sleep quality among rural elderly in China. *Archives of Gerontology and Geriatrics*, 56(1), 237-243. doi: 10.1016/j.archger. 2012.08.002.

Contact

t648546@mail.dyu.edu.tw

RSC PST 2 - Research Poster Session 2

Do New Nurse Practitioners Support a Post-Graduate Residency for the Transition to Practice?

Julie C. Stuckey, DNP, MSN, RN, ANP, AANP, USA

Abstract

Purpose: The purpose of this DNP project was to describe the Nurse Practitioners (NP) perceptions of the Nurse Practitioner Residency (NPR) Programs effectiveness and impact on their transition to practice. The project was designed to determine the following questions related to the post-graduate Nurse Practitioner Resident (NPR); what were their perceptions of the residency program, determining the effectiveness of the program, and what impact the program provided towards the transition into primary care practice. The project also included the opportunity to identify any additional themes that could assist in further development of the NPs transition to primary care practice through the residency experience.

Methods: This was a pilot study that utilized a quantitative descriptive survey, with a nonprobability purposeful sample of Nurse Practitioner post-residency graduates from Community Health Clinics Inc. A Qualtrics survey was sent to fifty-six possible survey participants via email. Fifty-four emails were successfully delivered to the sample subjects. Nineteen completed the Qualtrics survey, with ten partially completing the survey. Twelve surveys were deemed valid. The participants answered a total of 145 questions on their perceived preparation for practice and the importance of that preparation in five different clinical areas: the specialty area of practice, specific disorders seen in practice, procedural skills, clinical skills preparation, and other elements of NP Residency training.

Results: The Pearson Correlation (2-tailed) and the Nonparametric Correlations using the Spearman's rho measured perceived preparation for practice and the importance of that preparation ($n = 12$, $r = 0.245$), showed that there was no relationship between the perceived preparation for practice and the importance of that preparation. The Nonparametric Correlations measuring skill preparation and the importance of the skills the Kendall's tau b ($\text{Tau-b} = 0.453$; 0.238) and Spearman's rho ($r_s = 0.393$; 0.383) show a possible low relationship but data still supports non-relationship. The survey reliability showed a Cronbach's Alpha of ($N = 81$, 0.990), ANOVA with Friedman's Test with a mean of (3.21), and Kendall Coefficient of ($W = 0.362$) providing a reliable and valid survey instrument for this pilot study.

Conclusion: The DNP project determined that NP Residences do not perceive a relationship between preparation for practice and the importance of that training post residency in the five areas surveyed. The sample was from a single residency program. From the potential sample size of 54 and the actual sample size ($N=12$) the survey participants may be exhibiting survey fatigue. This study did not compare post-graduate NP's who did not attend the additional year of residency to those who did. This study does not support the literature review.

New graduate NP's describe themselves as "ill-prepared for the expectations of their new role and lack of support to assume responsibilities in the high-acuity setting of primary-care" (Sargent & Olmedo, 2013, p. 604). They lacked the confidence, competence and mastery of the provider role to adequately fulfill the expectations of the primary care provider in a Federally Qualified Health Center (FQHC) (Flinter, 2005). Compounding this "only about one-quarter of frontline nurse leaders are fully satisfied with the new graduates' performance" (Advisory Board, p.3). Confident experienced primary care providers are difficult to find and expensive to replace, turnover in health care settings also disrupts continuity of care (De Milt, Fitzpatrick, & McNulty, 2009).

With the implementation of the Affordable Health Care Act (AHCA) (AHCA, 2010), the 2025 predicted physician primary care shortages are greater than 130,000 (Iglehart, 2014). Nurse Practitioners are slotted to fill these gaps in primary care (Green et al., 2013). In the Institute of Medicine report, "State boards of nursing, accrediting bodies, the federal government, and health care organizations should take actions to support nurses' completion of a transition-to-practice program (nurse residency) after they have completed a prelicensure or advanced practice degree program or when they are transitioning into new clinical practice areas" (IOM, 2003, Joint Commission [JC], 2010). The ACA includes grants for nurse-managed clinics and significant financial support for NP training (Iglehart, 2014). The National League of Nursing reported on March the 1st that the 2017 Federal budget proposes 229.472 million for nursing workforce development programs through Health Resources and services Administration (HRSA).

New healthcare environments demand "safe, timely, efficient, equitable, and patient-centered care in complex environments, with healthcare professionals functioning as highly collaborative teams" (AACN, 2004; IOM, 2010; Iglehart, 2014). Bush (2014) states, "nurse executives have the opportunity to

champion postgraduate NP training programs. Designing programs for recent NP graduates and experienced NPs transitioning to new practice settings can help ensure adequate retention and job satisfaction of a rapidly growing and important segment of the clinical workforce.”

Nurse Practitioner Residency programs continue to grow and further research of the NPR and the residency programs will need to be conducted. Longitudinal studies of the NPR who attend accredited residency programs will need to be assessed through the National Nurse Practitioner Residency and Fellowship Training Consortium (NNPRFTC).

References

Bush, C. T. (2014, December). Postgraduate nurse practitioner training: what nurse executives need to know [Journal]. *Journal of Nursing Administration*, 44(12), 625-627.

Flinter, M. (2012). From new nurse practitioner to primary care provider: Bridging the transition through FQHC-based residency training. *Online Journal of Issues in Nursing*, 17(1), 1-11.

Iglehart, (2014). *Meeting the demand for primary care: Nurse Practitioners answer the call*. National Institute of Health Care Management: Expert Voices in Health Care Policy, Retrieved from www.nihcm.org

Institute of Medicine, (2011). *The future of nursing: Leading the change, advancing health*. Washington, DC: National Academies Press.

Sargent, L., & Olmedo, M. (2013, November). Meeting the Needs of New-Graduate Nurse Practitioners: A Model to Support Transition. *The Journal of Nursing Administration*, 43, 603-610.

Contact

jstuckey@ollusa.edu

RSC PST 2 - Research Poster Session 2

Educational Strategies Applied to Facilitate Cultural Confidence to Care for a Refugee Population

Judith Ann Young, DNP, RN CNE, USA

Abstract

Purpose: The Institute of Medicine (2011) report entitled “The Future of Nursing: Leading Health, Advancing Change,” challenged academic settings to make curricular change to facilitate student preparation with the provision of culturally sensitive care. Professional nursing practice requires nurse graduates be culturally competent to care for and educate diverse patient populations, and work within multicultural interdisciplinary teams. Patient centered holistic care requires the nurse view care needs through the patient’s perspective, and adapt care delivery according to patient expectation (Campinha-Bacote, 2015). Cultural competence is also key to patient safety due to the potential for misperceptions and misunderstanding of patients, families of diverse cultures (Hamre, 2012). Being knowledgeable of the cultural and social attributes of culturally diverse patient population including values and needs also supports social justice and ethical practice. A nurse makes a moral commitment to care for all patients. Specifically the Code of Ethics for Nurses, Provision one states, “nurses practice with compassion and respect for the inherent dignity, worth and unique attributes of every person” and Provision three, “promotes, advocates for and protects the rights, health and safety of the patient” (ANA, 2015). The Office of Minority Health (2005) defines culture as “thoughts, communication, actions, and customs” that impact healthcare delivery and management. According to Jeffrey’s (2006) “Culture is a factor that can make the greatest difference in promoting wellness, preventing illness, restoring health and enhancing quality of life for all individuals” (p.xiii).

One program outcome for a Leadership course is to develop a “*culturally sensitive individual who provides holistic individual, family, community, and population-entered nursing care that will improve patient health outcomes.*” Educational activities must facilitate the integration of knowledge, skills, and attitudes to achieve program outcomes. The challenge for facilitating student achievement of cultural competency without the international travel and study abroad experiences is real as many cannot afford to “study abroad” and travel to third world countries is risky. It is therefore imperative that culturally sensitive learning opportunities be integrated within course content in the classroom setting. Course internationalization is “a process by which international elements are infused into course content, and international resources are used in course readings and assignments” (Schuerholz-Lehr et al., 2007, p. 70).

Methods: The pursuit of meaningful learning activities to facilitate student competency is an important focus. According to Jeffrey’s (2005) “Self-efficacy and skill development can be facilitated through education” (p. 24). An educational strategy such as a case study or problem-based assignment could facilitate experiential learning (Pfeiffer et al., 2013) as well as collaboration and innovative problem-solving skills.

The gap in needed resources challenges nursing faculty to facilitate student achievement of the desired program outcome of cultural sensitivity. Following a literature review, educational strategies were identified and utilized. One educational included an in class activity to facilitate self-awareness of bias and judgment. A caring manner is a fundamental component of the nurse-patient relationship. To build this trusting, caring relationship, the nurse must be self-aware of any judgmental feelings that could impair the development of a therapeutic relationship. Cultural sensitivity supports a non-judgmental viewpoint. A video and guest speakers also presented the refugee story prior to arrival in the United States and the challenges post arrival associated with transitioning into their new home. The unfolding case study facilitated synthesis of knowledge, skills and attitudes needed to provide care to members of a refugee patient population by raising awareness of health beliefs, values and practices of the Burmese culture and how culture affects patient-centered care planning. .

Results: Student confidence to care for a patient from a diverse culture would be evaluated at two time points, the start and end of the semester utilizing Jeffrey’s Cultural Competence Clinical Evaluation Tool – Student Version (CCCET-SV) and the Transcultural Self-Efficacy Tool. The tools, based on Bandura’s research, evaluate change in an individual’s perceived confidence associated with the cognitive, behavioral and affective domains of cultural competence upon completion of the leadership didactic and clinical courses.

Conclusion: Professional nursing practice requires culturally competence. Culture impacts healthcare delivery and management and awareness of cultural attributes supports social justice and ethical practice. Multiple evidence based educational strategies applied in the didactic and clinical settings effectively enhanced students' perceived confidence to care for a diverse patient population.

References

American Nurses Organization. (2015). *Code of Ethics for Nurses with Interpretive Statements*. Retrieved from <http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses/Code-of-Ethics-For-Nurses.html>

Campinha-Bacote, J. (2011). Delivering Patient-Centered Care in the Midst of a Cultural Conflict: The Role of Cultural Competence. *The Online Journal of Issues in Nursing*, 16(2), 1-9.

Institute of Medicine. (2011). *The Future of Nursing: Leading change, advancing health*. The National Academies Press: Washington, DC.

Leon, J. Winskell, K., McFarland, D. & Rio, C. (2015). A case based problem based learning approach to prepare master of public Health Candidates for the Complexities of Global Health. *American Journal of Public Health*, 105(51). pp. 592 – 6.

Pfeiffer J, Beschta J, Hohl S, Gloyd S, Hagopian A, Wasserheit J. Competency based curricula to transform global health redesign with end in mind. *Acad Med*. 2013; 88(1):131---136.

Contact

juayoung@iu.edu

RSC PST 2 - Research Poster Session 2

Promoting Mental Health in a Refugee Community Using the RHS-15 and Pathways to Wellness

Rebekah J. Salt, PhD, MN, RN, USA

Margaret E. Costantino, MA, LPC, USA

Emma L. Dotson, BSN, RN, USA

Abstract

Purpose: The purpose of this study was to pilot the Refugee Health Screener (RHS-15) and the Pathways to Wellness (PW) intervention program with refugees at the Center for Refugee Services (CRS) in San Antonio, Texas. The specific aims were: 1) To compare the pre and post RHS-15 survey and PW intervention scores, and 2) To identify internal and structural barriers affecting resettlement with a refugee woman's sewing group at the CRS.

Background: Refugees often suffer life-threatening circumstances prior to flight from their countries. During the resettlement process, they face internal and structural barriers that can affect transition to life in the United States. Studies have reported a higher prevalence of depression and post-traumatic stress disorder (PTSD) in this population. The CRS is an independent 501(c)3 nonprofit agency whose mission is to promote self-sufficiency and successful resettlement for refugees. The organization hosts a sewing group every week for women to create and sell their wares at an on-site market. These income-generating activities (IGA) are often referred to as cottage industries.

Methods: The RHS-15 consists of 15 questions, screens for common mental conditions in refugees, takes about 4 to 12 minutes to complete, and has been translated into eleven languages. Pathways to Wellness is an intervention that incorporates a support group model and consists of eight 90-minute sessions. The program is designed to help refugees recognize symptoms and understand stigma associated with mental health conditions in the United States. All participants were recruited in person from the woman's sewing group at the CRS. The purpose of the study was framed around greater good as it was important for the women to know that their input could help other refugees.

Results: Twelve women from six different countries regularly attended the PW sessions. Several of the women were proficient in English. Over seventy percent of the participants who took the surveys scored above threshold on the RHS-15 and required referrals. There were no significant differences in pre-post surveys results; however, the stories that emerged during the PW sessions were powerful. The women discussed the challenges of resettlement related to safe housing, cultural and social norms, stigma, and isolation. Finally, the social cohesion observed in the sessions suggests that participation in a cottage industry could be a protective factor against social isolation and depression.

Conclusion: The resettlement process can be difficult for refugees. Good mental health is important for their successful transition into life in the United States. Using culturally sensitive screening tools and interventions may decrease some of the stigma associated with mental health conditions and lead to improved health outcomes for refugees. Community organizations that provide resources such as income-generating opportunities, has the potential to decrease the multiple internal and structural barriers that refugees experience during the resettlement process.

References

Szjana, A., & Ward, J. (2014). Access to health care by refugees: A dimensional analysis. *Nursing Forum* doi: 10.1111/nuf.12051

Texas Department of State Health Services. (2014). Refugee program arrivals to state and counties. Retrieved from

https://www.dshs.state.tx.us/idcu/health/refugee_health/statistics

U.S. Department of State (2016). FY15 Refugee admissions statistics. Retrieved

September 30, 2016 from <http://www.state.gov/j/prm/releases/statistics/251285.htm>

Contact

salt@uthscsa.edu

RSC PST 2 - Research Poster Session 2

Low Acuity Emergency Department Visits: Comparing Demographics and Patient Profiles for an Accountable Care Organization

Vicki Lynn Wagner, MSN, RN, FNP-BC, USA

Abstract

Frequent non-urgent emergency department (ED) visits have escalated despite legislation to enact routine affordable care for all Americans. It is already known that ED overcrowding often limits hospital functional capacity and can affect patient outcomes. Much of the ED crowding is due to unnecessary visits from patients who could have been evaluated in the primary care setting by their physician. The lower acuity patients often will wait longer for care depending on department census. Emergency departments domestic and international continue to investigate non-urgent emergency department visits seeking to understand the dynamics of this patient population. A large Midwestern Accountable Care Organization (ACO) has mimicked national trends with escalating non-urgent visits during weekdays when clinics are open. Policymakers concentrate on rising ED utilization as a direct reflection of community health and is regarded as a potential avoidable source of health care dollars. Our participating ACO has enrolled in a new care delivery model and payment structure of care through Centers for Medicare and Medicaid (CMS) that concentrates on aggressive patient care coordination. This model will be evaluated according to its ability to deliver better care to individuals, care coordination, better health for populations, and lower growth in expenditures.

Purpose: The purpose of my study was to characterize the non-urgent ED patients who have a physician assignment within the ACO and those who do not. Patients evaluated were treated and released from the ED during clinic hours Monday through Friday 8-4:30. Patient profiles provided an initial step into demand strategies of this group of patients and how to mitigate unnecessary visits.

Methods: My study was a twelve-month, retrospective review utilizing a descriptive comparative design. Information was collected from one inner city Level II trauma center. Yearly census averages 50-55,000 patients a year. Frequency and percentages of patient demographics including, gender, race, age, insurance status, and Zip Code were collected. Emergency Severity Index (ESI), marital status and discharge diagnoses were obtained to add richness to the data and further characterize the patient. A Chi-square analysis compared differences between the two variables, ACO vs. no ACO with a significance level set at 0.05.

Results: in process

Conclusion: in process

References

- Dahrouge, S., Hogg, W., Younger, J., Muggah, E. G., & Glazier, R. H. (2016). Primary care physician panel size and quality of care: a population based study in Ontario, Canada. *Annals of Family Medicine*, 14(1), 26-33. doi: 10.1370/afm.1864
- Kellerman, A. L., Hsia, R. Y., Yeh, C. & Morganti, K. G. (2013). Emergency care: Then, now, and next. *Health Affairs*, 32(12), 2069-74. doi: 10.1377/hlthaff.2013.0683
- Pukurdpol, P., Wilder, J. L., Hsia, R. Y. & Ginde, A. A. (2014). Association of Medicare and Medicaid insurance with increasing primary care-treatable emergency department visits in the United States. *Academic Emergency Medicine: Official Journal Of The Society For Academic Emergency Medicine*, 21(10), 1135-1142. doi: 10.1111/acem.12490

Contact

wagsone47@gmail.com

RSC PST 2 - Research Poster Session 2

Nursing as a Manifestation of Love

Marlienne Goldin, DCSc, MPA, BSN, AAS, RN, CCEP, CNML, USA

Abstract

Purpose: Over the past 35 years I have watched daily what I believe to be a demonstration of love of humanity in its' highest form. Watson, (1990) and Leininger, (1991), both describe caring as the essence of nursing. Nursing is directly related to caring for people, and it provides a perfect opportunity to practice the art of loving. What is it that drives nurses? I believe it is a love of humanity. Compassion, duty to act, caring, tenderness, and love, are all qualities associated with loving care that nurses provide. How do nurses describe what they offer their patients? If we believe that love is an essential ingredient in human existence, then demonstration of love in nursing practice is of critical importance. The relationship between the nurse and patient has many components, but the main one appears to be Agape, wanting what is best for the patient, for the patient's sake, not for the nurses' sake. The agape ethic transforms both the nurse and the patient being cared for. As the nurse finds out more about the patient he/she finds more about him/herself. Loving care is firmly rooted in relationship between the patient and the nurse. Nurses serve humanity, and the way they serve seems to me to be more than just caring.

Methods: This qualitative study used a hermeneutic phenomenological research design to attempt to understand and interpret the essence of how love is manifested in the day to day practice of nursing. The main data source was in depth conversations with the researcher and the participant. Using Moustakas' (1994) hermeneutic phenomenological model, Registered Nurses were interviewed until saturation was reached. The volunteer participants were obtained from two different critical care units, in a 500 bed hospital located in a southern city. All participants had been in practice a minimum of 2 years. The data is what both the study participants reported, and subsequently what the researcher reflected upon. The interpretive paradigm allows the researcher to look at the world through the perceptions and experiences of the study participants. In looking for the answers, the researcher who uses the interpretive paradigm uses the participants' experiences to build and translate her understanding from the collected data. The reflections on the experience helped all to understand the deeper meaning of the participants' experience. The researcher went back to the interviewee and asked more specific questions, to go deeper into the meaning of the experiences. The goal of this research study was to understand a human phenomenon, love in nursing, and the meaning this phenomenon had on experienced nurses in practice.

Results: After intense reflection the researcher interpreted the participants responses. Six themes appeared in the responses to the research question "How do you experience love in your day to day practice?" Spirituality, Unity of Being, Knowing, Touch as Communication, and Diversity were the main themes. Love was evident in all responses. Every nurse expressed gratitude to have chosen the profession of nursing.

Conclusion: This study reinforces the connection between love and nursing practice. The results of this study add to nursing's body of knowledge. Nurses experienced their profession as more than a job. Every nurse gave numerous examples of experiencing love in their day to day practice. This research study provides new information and insight about the existence of love of humanity in nursing practice. Not only does this study reinforce Caring Science, it surpasses it and takes it to a deeper level. It becomes more than a theory. It is a dynamic human motion, that touches soul and spirit of both the patient and the nurse. It needs to be included in all nursing curriculum.

References

- Reiners GM (2012) Understanding the Differences between Husserl's (Descriptive) and Heidegger's (Interpretive) Phenomenological Research. *J Nurs Care* 1:119. doi:10.4172/2167-1168.1000119
- Simmonds, A. 2013. Cultivating compassion in nursing practice.. College of Registered Nurses of Nova Scotia; *Nursing in Focus*, Winter 2013
- Thorkildsen, K.M. and Eriksson, K., 2012. The substance of love when encountering suffering : an interpretative research synthesis with an abductive approach. *Nordic College of Caring Science* 2012. 449

Contact

marlgold@aol.com

RSC PST 2 - Research Poster Session 2

Factors That Influence the Development of Cultural Competence in Undergraduate Nursing Students

Hsiu-chin Chen, PhD, EdD, RN, USA

Francine B. Jensen, MSN, ADN, BS (Zoology), RN, USA

Gary Measom, PhD, RN, USA

Sean Bennett, MS, RN, USA

Nyree Dawn Nichols, MS, RN, CEN, USA

Linda Wiggins, BSN, RN, USA

Adam Anderton, BSN, RN, USA

Abstract

Purpose: With increasing immigration and expanding globalization in the US, by 2050 minorities will represent half of the total population according to the United States Census Bureau 2010 data. As the US demographic patterns have shifted toward increasing diversity, it is imperative that health care providers be well prepared to provide culturally competent care to the patients. In recognition of the increasing diversity in consumers of health care, cultural competence in the delivery of nursing care provided by nursing education to effectively prepare nursing graduates to become more aware of culture-related nursing care throughout the nursing curricula is an expectation of accrediting bodies, such as the Accreditation Commission for Education in Nursing (ACEN). However, a considerable knowledge gap regarding how nursing students enact the concept of culturally competent care and the ability to envision effective ways of tailoring nursing education to integrate culture learning into curriculum still remain a challenge.

The purposes of this study were to assess the cultural competence level and to identify the essential factors that influence the development of cultural competence in undergraduate nursing students. The significance of this study is to provide evidence regarding student learning outcomes of cultural competence through curriculum across an academic semester and to map out the essential components influencing the development of cultural competence for nursing faculty members to develop cultural material for enhancing their teaching.

Methods: This correlational and predictive quantitative study recruited 169 undergraduate nursing students from a university by sending 200 email invitation letters to all nursing students for participation. Before collecting data, approval was granted by the university institutional review boards. Each student was fully aware of the objective of the study and participated voluntarily in this study. The IAPCC-SV[®] tool developed in 2007 by Campinha-Bacote based on *the Process of Cultural Competence in the Delivery of Healthcare Services Model* was used to collect the data of the level of cultural competence including the five subscales of cultural awareness, cultural desire, cultural knowledge, cultural skill, and cultural encounters among undergraduate nursing students. The participating students completed the demographic survey and the self-administered evaluation of cultural competence via the IAPCC-SV in a selected nursing course at the end of fall semester 2015. The IAPCC-SV[®] tool has 20 items and is a 4-point Likert type scale scoring from 4 = *strongly agree* to 1 = *strongly disagree*. All data using double entry were analyzed with the Statistical Package for the Social Science (SPSS) for Windows, version 22. Summary statistics were used to identify the demographic data and the level of cultural competence. Multiple regression was employed to determine what significant factors influencing the development of cultural competence in undergraduate nursing students. The significance level was set at .05.

Results: The 169 respondents consisted of 133 (80.1%) females and 33 (19.9%) males with three missing demographic data. The majority of students were White, non-Hispanic ($n = 151$, 91%), and had a healthcare related job ($n = 123$, 74.1%). About 59% ($n = 98$) of the students reported having continuing education or previous course work relevant to cultural competence, and 55.4% ($n = 92$) received education in cultural competence. The level of cultural competence among the participating students was 62.24 ($SD = 5.63$), which indicated a culturally competence level based on the Campinha-Bacote's (2007) definition. According to item means of each subscale of the IAPCC-SV, the participating students had lowest item mean score on the cultural knowledge ($M = 2.77$, $SD = .40$) and the highest item mean score on the cultural desire ($M = 3.46$, $SD = .40$). Seven variables were found to significantly correlate with the level of cultural competence, including experience interacting with who have different ethnic backgrounds, having continuing education relevant to cultural competence, and the five subscales. Multiple regression was used to analyze the seven variables using the stepwise solution for predicting the level of cultural

competence. The five subscales explained 98% of the variance in the level of cultural competence but the strongest influencing factor was the cultural encounters among participating undergraduate students (67.2% of the variance; Adjusted $R^2=.672$, $F=338.92$, $p<.001$).

Conclusion: Cultural encounter is demonstrated when the healthcare providers directly interact with patients from diverse backgrounds. It is suggested that educational interventions to facilitate the development of student cultural competence should engage students in caring for patients from diverse cultures and immerse students in lived experiences to increase cultural knowledge. In turn, improving culturally competent care among nursing students will lead to improved patient outcomes. Further research should focus on identifying cost-effective teaching and learning strategies to increase students' exposures to persons from other cultures.

References

Jeffreys, M. R. & Dogan, E. (2013). Evaluating cultural competence in the clinical practicum. *Nursing Education Perspectives*, 34(2), 88-94.

Long, T. B. (2012). Overview of teaching strategies for cultural competence in nursing students. *Journal of Cultural Diversity*, 19(3), 102-108.

Contact

chenhs@uvu.edu

RSC PST 2 - Research Poster Session 2

Identifying Teaching Strategies to Increase Cultural Competence Among Undergraduate Nursing Students

Hsiu-chin Chen, PhD, EdD, RN, USA

Abstract

Purpose: More identified racial and ethnic minorities have enriched cultural complexity in the US. The accreditation of nursing education has urged researchers to conduct evidence-based research to recognize factors such as societal biases and stereotyping or limited cultural sensitivity and competence contribute to health care inequities in order to develop strategies for increasing workforce diversity in health care providers. Given the need for decreasing the health disparity and preparing the nursing students with cultural competence, nursing faculty have focused on exploring the strategies to implement cultural diversity activities for the curriculum. While providing culturally competent nursing care starts with the preparedness of effective learning activities for students, faculty have struggled with what approaches can produce desired learning outcomes of multicultural activities within the education process. The purposes of this study were to identify the essential factors that can influence the development of cultural competence in undergraduate nursing students in order to develop effective teaching strategies. The significance of this study is to provide evidence regarding student learning outcomes of cultural competence through curriculum across an academic semester and to identify the essential components influencing student cultural competence for nursing faculty members to consider designing effective learning activities.

Methods: This comparative and predictive quantitative study was conducted in a university by sending 200 email invitation letters to all nursing students including ASN and BSN students for participation. Before collecting data, approval was granted by the university institutional review boards. Each student was fully aware of the objective of the study and participated voluntarily in this study. The IAPCC-SV[®] tool developed in 2007 by Campinha-Bacote consisting of five subscales of cultural awareness, cultural desire, cultural knowledge, cultural skill, and cultural encounters was used to collect data from undergraduate nursing students. In order to prevent "test bias," all nursing students were randomly assigned into either an experimental group or a comparison group. The experimental group completed the IAPCC-SV[®] at the beginning and the end of the semester, respectively; and the comparison group completed the self-administered evaluation of cultural competence via the IAPCC[®] only at the end of the semester in a selected nursing course in 2015. The IAPCC-SV[®] tool has 20 items and is a 4-point Likert type scale scoring from 4 = *strongly agree* to 1 = *strongly disagree*. All data using double entry were analyzed using the Statistical Package for the Social Science (SPSS) for Windows, version 22. Summary statistics were used to describe the demographic data and the level of cultural competence. Pearson *r* correlation and independent *t*-test were used to examine the associations between cultural competence and the variables relevant to students' cultural learning experience and the differences in cultural competence between pretest and posttest as well as between the experimental and comparison groups. Hierarchical multiple regression was employed to determine what significant factors influence the development of cultural competence in undergraduate nursing students. The *p* level was set at .05 for statistical testing.

Results: In total, 106 nursing students participating at the beginning of the semester consisted of 85 (80.2%) females and 21 (19.8%) males and 166 participants including 133 (80.1%) females and 33 (19.9%) males voluntarily participated in this study at the end of the semester. The majority of students were White, non-Hispanic, had a healthcare related job, had continuing education or previous course work relevant to cultural competence. The level of cultural competence among the participating students was 61.70 (*SD* = 5.80) at the beginning of the semester and 62.24 (*SD* = 5.63) for the end of the semester, which both indicated a culturally competence level based on the Campinha-Bacote's (2007) definition. The cultural competence level was increased from the beginning of the semester compared to the end of semester but was no statistically significant difference. The results also indicated no significant differences in cultural competence between the experimental and the comparison groups at the end of semester for all nursing students. Hierarchical multiple regression using the stepwise and enter solutions was computed to identify six significant predictors for cultural competence including experience interacting to people who have different ethnic backgrounds, having continuing education relevant to cultural competence, and the four subscales of cultural desire, cultural knowledge, cultural skill, and cultural encounters (Adjusted $R^2=.98$, $F=1353.05$, $p<.001$). The four subscales explained 78% of the

variance in the level of cultural competence and the strongest influencing factor was the cultural desire among participating undergraduate students (50.1% of the variance).

Conclusion: Cultural desire is the healthcare providers' aspiration and motivation to engage in the process of becoming culturally competent. Cultural encounter is demonstrated when the healthcare providers directly interact with patients from diverse backgrounds. It is suggested that faculty need to search opportunities to engage students in caring for patients with diverse cultures in clinical practice and to immerse students in the lived experiences to reflect their culturally competent care. In turn, students' desire to obtain cultural knowledge and skills may be triggered in a learning environment that is full of culturally diverse context. Future research may focus on testing learning strategies that can increase students' desire and exposures to persons with other cultures and identify what factors causing students' discomfort with people from diverse cultural background.

References

Garriott, P. O., Reiter, S., & Brownfield, J. (2016). Testing the efficacy of brief multicultural education interventions in White college students. *Journal of Diversity in Higher Education*, 9(2), 158-169.

Garneau, A. B. & Pepin, J. (2015). Cultural competence: A constructivist definition. *Journal of Transcultural Nursing*, 26(1), 9-15.

Jeffreys, M. R. & Dogan, E. (2013). Evaluating cultural competence in the clinical practicum. *Nursing Education Perspectives*, 34(2), 88-94.

Contact

chenhs@uvu.edu

RSC PST 2 - Research Poster Session 2

Rapid Response Team Sustainability Factors: Leadership, Funding, and Demonstrating Program Results

Deonni P. Stollendorf, PhD, RN, USA

Purpose

The purpose of this presentation is to describe differences in the organizational context between hospitals with high versus low RRT sustainability. Contextual differences that will be examined include leadership, funding, and demonstrating program effectiveness.

Target Audience

Hospital leaders, quality improvement personnel, and supervisors who are responsible for overseeing and evaluating RRT programs and associated outcomes in their local hospitals or nationally.

Abstract

Purpose:

The purpose of the study was to describe differences in the organizational context between hospitals with high versus low RRT. Contextual differences that were examined include leadership, funding, and demonstrating program effectiveness.

Methods: Study design and Measurement: A cross-sectional design using a survey methodology. Sustainability factors were measured using three sub-scales of the Program Sustainability Index (PSI) (Mancini & Marek, 2004). Thirteen items from the PSI were used to measure leadership competence ($\alpha = .81$, 5 items), demonstrating program results ($\alpha = .85$, 4 items), and strategic funding ($\alpha = .76$, 3 items). Item response options ranged from 1 = strongly disagree to 7 = strongly agree. Both individual item scores and composite sub-scale scores were evaluated for differences. RRT sustainability was measured using the Measurement Instrument for Sustainability of changed Work Practices (MISWP) (Slaghuis et al., 2011). Items were scored on a five point Likert scale (1=I don't agree at all to 5=I agree very much). A dichotomous dummy variable was generated to reflect high versus low sustainability. Two additional questions, "To what extent does the RRT project meet the needs of patients?" and, "How confident are you that the RRT project will be active in five years?" were included to examine for middle-range RRT program results. Response options were measured on a 4-point Likert scale (not at all, somewhat, moderately, and fully). Sample: All the hospitals in a southeastern state in the U.S. that participated in a 9-month statewide collaborative conducted in 2006 and 2007 with the goal to successfully establish, implement, measure, evaluate, and sustain RRTs in acute care hospitals in the state. Nurse leaders of possible participating hospitals received an initial email between July 2014 and November 2014 asking them to complete the on-line survey, administered via REDCap. Non-responder hospital leaders received a follow-up reminder in one week and a

Results:

Twenty-six hospitals participated in the study (Response Rate=46%). All hospitals offered 24/7 RRT coverage (n=26, 100%), had pre-determined RRT calling criteria (21, 81%), had an RRT order set (18, 69%), and had

Conclusion:

The study findings indicate that leadership and demonstrating program results are important factors to consider for RRT program sustainability. Sustaining interventions, like RRTs, requires a thoughtful process of having a clear program vision and mission, planning for sustainability and strategies for program survival, and have program evaluation plans in place. Surprisingly, in contrast to other studies, no statistically significant differences were observed for the variable "Funding". One of the possible reasons for this finding is that, unlike many other healthcare innovations/interventions, external funding was not available to adopt and implement these teams. Sustainability is important because of the investment cost surrounding the adoption and implementation of not only RRTs but many other healthcare innovations (e.g., electronic health records and TeamSTEPPS). Investment losses and opportunity costs result when hospitals fail to sustain innovations such as RRTs. Additional costs are also incurred when new processes must be adopted or a new innovation must be implemented when the previous one failed (Manfredi, Crittenden, Cho, Engler, & Warnecke, 2001; Young, 2006). This study adds to the body of literature on sustainability (Ament et al., 2012; Duckers, Wagner, Vos, & Groenewegen, 2011; King et al., 2013; Tricco et al., 2013) by demonstrating that leaders in healthcare settings play an important role in the sustainability of RRTs and likely other innovations/interventions. Similarly, developing evaluation plans prior to program implementation likely

increases an organizations potential for demonstrating results of RRT implementation. Leaders are likely the ones who initiates the development of evaluation plans to support their decision to adopt and implement these teams. Having evaluation plans in place increases the potential for program feedback to stakeholders and RRT users, thereby increasing the likelihood for program sustainability.

References

Arashin, K.A.(2010). Using the synergy model to guide the practice of rapid response teams. *Dimensions of Critical Care Nursing*, 29(3), 120-124

Barnett, J., Vasileiou, K., Djemil, F., Brooks, L., & Young, T. (2011). Understanding innovators' experiences of barriers and facilitators in implementation and diffusion of healthcare service innovations: a qualitative study. *Health Services Research*, 11 (342), 1-12.

Benin, A.L., Borgstrom, C.P., Jenq, G.Y., Roumanis, S.A., & Horwitz, L.I. (2012). Defining impact of a rapid response team: qualitative study with nurses, physicians, and hospital administrators. *Postgrad Medical Journal*, 88, 575-582. doi: 10.1136/postgradmedj-2012-000390rep.

Chan P.S., Jain, R., Nallmothu, B.K., Berg, R.A., and Sasson, C. (2010). Rapid response teams. A systematic review and meta-analysis. *Archives of Internal Medicine*, 170(1), 18 – 26. Downloaded from www.archinternmed.com at the University of North Carolina- Chapel Hill on February 22, 2010

Crossan, M.M. & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: a systematic review of the literature. *Journal of Management Studies*, 47(7), 1154-1191. doi: 10.1111/j.1467-6486.2009.00880.x

Jones, D.A. & Bellomo, R. (2011). *New England Journal of Medicine*, 365(2), 139–46.

Stirman, S.W., Kimberly, J., Cook, N., Calloway, A., Castro, F, & Charns, M. (2012). The sustainability of new programs and innovations: a review of the empirical literature and recommendations for future research. *Implementation Science*, 7 (17), 1-19.

Contact

deonni.stollendorf@vanderbilt.edu

RSC PST 2 - Research Poster Session 2

Complementary Medicine and Spirituality: Practices to Attain and Maintain Health Among Indian Immigrants

Rachel Abraham Joseph, PhD, RN, CCRN, USA

Samantha Anne Fernandes, MA, USA

Sarah Derstine, SN, USA

Micaela McSpadden, SN, BSN, USA

Abstract

Purpose: About five percent of immigrants to the United States are from India (Zong, Jie & Batalova, 2015). The use of complementary and alternative medicine (CAM) are quite common among Indians and upon migration to the U.S, they may continue to use CAM therapy for routine care, and access modern health care services for emergencies only (Rao, 2006). This can result in a lack of screening for certain diseases which may then delay diagnosis and treatment of that disease. The health seeking behaviors of Indian immigrants and their frequency of accessing preventative screening were not found in literature.

Methods: This cross-sectional descriptive study was initiated after obtaining the West Chester University (WCU) Institutional Review Board (IRB) approval. Participants are being recruited using snowball method (word of mouth). Twenty in person interviews are planned and data collection is near completion. Data on demographics, current health and lifestyle, prevalence of chronic illness, factors that affect access to health care as well as health beliefs and attitudes are collected.

Results: The findings from this pilot study will guide evidenced based practice for Indian immigrants. Knowledge about the patient/family preference will help nurse clinicians to provide optimum care to clientele of Indian origin. Prevalence of CAM therapy may alert nurses to verify drug interactions and resources can be provided to meet their spiritual need. It is also important to identify the role that spirituality has health care behaviors so that health care professionals are able to create effective therapeutic regimes when caring for these individuals. This will enhance patient experience, promote excellence in nursing, and increase patient/family satisfaction.

Conclusion: Insurance plays a major role in the kind of healthcare that the family access. Many Indian immigrant families may prefer natural and Ayurveda treatment options as compared to pharmaceuticals and are more likely to turn to CAM first before seeking medical treatment. The role of faith and spirituality plays a major role in the overall health and healing of an individual.

References

- Asanin, J., & Wilson, K. (2008). "I spent nine years looking for a doctor": exploring access to health care among immigrants in Mississauga, Ontario, Canada. *Social science & medicine*, 66(6), 1271-1283.
- Maneze, D., DiGiacomo, M., Salamonson, Y., Descallar, J., & Davidson, P. M. (2015). Facilitators and barriers to health-seeking behaviours among filipino migrants: inductive analysis to inform health promotion. *BioMed research international*, 2015.
- Rao, D. (2006). Choice of medicine and hierarchy of resort to different health alternatives among Asian Indian migrants in a metropolitan city in the USA. *Ethnicity and Health*, 11(02), 153-167.
- Zong, J., & Batalova, J. (2015). Indian Immigrants in the United States. *Washington, DC: Migration Policy Institute*. Accessed September 9, 2015.

Contact

rjoseph@wcupa.edu

RSC PST 2 - Research Poster Session 2

Clinical Decision-Making in Last Semester Senior Baccalaureate Nursing Students

Beth Phillips, PhD, RN, CNE, USA

Abstract

Purpose: Clinical decision making (CDM) is an integral part of what nurses do. Yet, nursing literature reveals concerns about the lack of preparation of new graduates to engage in effective clinical decision making (Benner, Sutphen, Leonard & Day, 2010). How students make clinical decisions has been of interest for many years (Baxter & Rideout, 2006). One of the challenges plaguing nursing education today regarding CDM is the interchangeable use of terms that gives rise to lack of conceptual clarity. It is not uncommon to encounter terms such as critical thinking, clinical reasoning, clinical judgment, and clinical decision making (Tanner, 2006; Benner, Sutphen, Leonard & Day, 2010) when describing how students make clinical decisions. These terms are interconnected but are not the same thing. How students are taught to make decisions may be a critical factor contributing to their inability to meet clinician expectations. What remains unclear is the way in which nursing students perceive they learn to make clinical decisions. The nature of the decisions they make, whether analytical or intuitive, remains unknown but such information is critical to guide development and implementation of educational interventions that enhance student clinical decision-making. This study was conducted to better understand 1) how senior nursing students learn to make clinical decisions and 2) the nature of students' decision making based on Hammond's (1996) Cognitive Continuum Theory (CCT), the conceptual underpinnings for this study. Relationships between clinical decision making and age, program type, previous degree/s, previous healthcare experience, or minority status were examined.

Methods: Nursing students in their final semester participated in this embedded mixed methods study. Following a pilot study, quantitative data were collected from 168 students at 11 schools in 4 states in the United States. Twenty-eight of these students also participated in focus groups (qualitative data). Two instruments were used: a demographic data form, and the Nurse Decision Making Instrument-Revised 2014 (NDMI). The NDMI, based on Hammond's (1996) CCT, is comprised of 24 items, and has 4 subscales reflective of decision making (Lauri & Salanter, 2002). Overall NDMI internal consistency for this study was 0.90.

Results: Six themes emerged from the focus group data: Partners in Learning, Finding One's Voice, Becoming Confident, Multiple Sources of Learning, Patient-Centered Care, and The Turning Point. These six themes were interrelated, leading to a core concept of Coalescing for Action. Nature of the decisions made: Three quarters of the participants scored in the quasi-rational range, indicating they were flexible making decisions. There were no statistically significant relationships between clinical decision making and the predictor variables.

Conclusion: Based on Hammond's CCT, the process of growing as a nursing student, through practice and experience requires time and systematic cognitive processing. As students recognized more cues, they were better positioned to make quicker decisions. Decision making is dependent on cognition, the cues recognized, and the task at hand. Curricular development and planning clinical experiences for students in regards to skills and complex patient care situations may greatly enhance decision making abilities. Limitations include a small sample size, homogeneous focus groups, and the inadvertent omission of gender on the demographic instrument. Longitudinal studies throughout nursing school and into practice may better inform clinical decision making abilities.

References

Mannino, J. & Cotter, E. (2016). Educating nursing students for practice in the 21st century. *International Archives of Nursing and Health Care*. 2(1), ISSN: 2469-5823.

Phillips, B. C. (2015). Clinical decision making in last semester senior baccalaureate nursing students. *Theses and Dissertations*. Paper 1072.

<http://dc.uwm.edu/etd/1072>

Contact

beth.phillips@duke.edu

RSC PST 2 - Research Poster Session 2

Bibliographic Review of Maternal Eating Practices and Their Relationship with the Weight of the Child

Diana Laura Hernández Briones, SN, SN, Mexico

Corina M. Alba-Alba, PhD, RN, Mexico

Abstract

Purpose: It is known that the mother is in charge of the feeding of the children in the families, but there are different Maternal Eating Practices which determine the quantity and quality of what the children eats so that could influence the weight of the child. The objective of this bibliographic review was to know the state of art related to Maternal Eating Practices and their relationship with the weight of the child, and also to know the Maternal Beliefs in relation with Eating Practices.

Methods: A bibliographic review was made in the databases: EBSCO host, Scielo & Redalyc with the MeSH keywords: Maternal Eating Practices, Child, Mothers and the boolean operators: "AND" & "NOT [Adolescents]" the research was made in Spanish and English, the year of articles was established between 2011-2016. Two hundred thirty-eight of articles was retrieved, then the lecture of titles allows to identify the most accurate articles for the topic of interest so 200 articles was chosen, after that, the abstracts of articles was read electing 150 articles. Finally the full text of 100 articles was read and analyzed to obtain the conclusions of this review.

Results: The bibliographic review included articles from Cuba, México, U.S.A. España, Perú & Argentina. It was found four Maternal Eating Practices Styles: Permissive, Authoritarian, Authoritative and Neglecting. The articles shown a relationship between Maternal Eating Practices and the weight of the child. Specifically the Eating Practices Styles Permissive and Authoritarian of the Mother shown a positive relationship with the weight of the child, in the other hand the Authoritative style it was related with a healthy weight of the child. Therefore it was found that factors: control are related with overweight, in the other hand the factors of discipline and limits can influence positive or negative in the weight of the child according in the strength of them. Related to Maternal Beliefs of Eating Practices it was found that these may influence either favorable or unfavorable in the decision on the food provided to the child and affect your weight.

Conclusion: The Authoritative Maternal Eating Practice Style and the factors: Adequate Limits and Discipline are related with a Healthy Weight of the Child. In the other hand, Maternal Beliefs like "the child has to finish the hole dish" could influence overweight in the Child.

References

- Flores-Peña, Y., Ortiz-Félix, R. E., Cárdenas-Villarreal, V. M., Ávila-Alpírez, H., Alba-Alba, C. M., & Hernández-Carranco, R. G. (2014). Maternal Eating and Physical Activity Strategies and their Relation with Children's Nutritional Status. *Revista Latino-Americana De Enfermagem (RLAE)*, 22(2), 286-282. doi:10.1590/0104-1169.3415.2414
- Pantoja-Mendoza, I. Y., Meléndez, G., Guevara-Cruz, M., & Serralde-Zúñiga, A. E. (2015). Review of complementary feeding practices in Mexican children. *Nutricion Hospitalaria*, 31(2), 552-558. doi:10.3305/nh.2015.31.2.766
- Dolores-Maldonado, G., Delgado-Pérez, D., & Creed-Kanashiro, H. (2015). Estrategias empleadas por las madres durante el proceso de alimentación en niños de 6 a 24 meses de dos comunidades rurales de lima, Perú. *Revista Peruana De Medicina Experimental Y Salud Pública*, 32(3), 440-448. DOI: <http://dx.doi.org/10.17843/rpmesp.2015.323.1672>

Contact

diana.hernandezbs@udlap.mx

RSC PST 2 - Research Poster Session 2

Understanding the Role of Family Management in Ethnically Diverse Children With ADHD

Cynthia P. Paidipati, MSN, CRNP, PMH-NP/CNS-BC, USA

Bridgette Brawner, PhD, APRN, USA

Ricardo Eiraldi, PhD, USA

Connie M. Ulrich, PhD, RN, FAAN, USA

Jamil M. Lane, BSc, USA

Janet A. Deatrick, PhD, RN, FAAN, USA

Abstract

Purpose: Attention Deficit Hyperactivity Disorder (ADHD) is the most common neurodevelopmental condition of childhood with a prevalence rate of 5 to 11% in the United States (Centers for Disease Control and Prevention [CDC], 2015). Family, especially caregivers, are considered an important and integral aspect to the care, management, and well-being of children with ADHD (Bussing & Lall, 2010; Cunningham, 2007; Davis, Claudiu, Palinkas, Wong, & Leslie, 2012; DeMarle, Denk, & Ernsthausen, 2003; Dishion & Stormshak, 2007). The literature suggests that the behavioral management by families is a key determinant in treatment outcomes (Bussing & Gary, 2001). In fact, prior research has shown greater improvement in childhood ADHD outcomes with active family engagement and participatory collaboration between health care providers and family caregivers as compared to children without strong family involvement (Power, Soffer, Cassano, Tresco, & Mautone, 2011). In American societies, however, major health disparities exist in ADHD symptom recognition, diagnostic rates, treatment acceptability, and service use as a result of a myriad of socioecological influences, especially for children from diverse racial and ethnic backgrounds (Eiraldi, Mazzuca, Clarke, & Power, 2006). Despite this knowledge, there is a paucity of research on: 1.) how caregivers from ethnically diverse families view ADHD, and 2.) how their views influence the behavioral management of childhood ADHD and subsequent outcomes, including children's level of functional impairment. Using socio-ecological theory to underscore child, family, school, healthcare, and community level factors, the purpose of this study is to understand how ethnically diverse caregivers manage childhood ADHD in their everyday lives and how family management factors influence children's level of functional impairment.

Methods: Using an embedded concurrent nested design, the proposed research is a mixed methods study independently analyzing and then, integrating cross-sectional qualitative (n=50) and quantitative (n=50) data from ethnically diverse caregivers of children with ADHD. Participants are caregivers of children ages 5 to 12 years old with ADHD who live at least 50% of the time in the same household as their child. An eligible caregiver for this study is a biological or adoptive parent, legal guardian, grandparent, or family member, who views him or herself as assuming major responsibility for their child's care and lives in a primary residence within the city of interest. In this study, adequate representation of caregiver participants from different racial and ethnic backgrounds is ensured by using a stratified sampling plan using U.S. census data. Eligible and enrolled caregivers participate in a 60-90 minute in-person interview to complete surveys, including a demographic questionnaire, NICHQ Vanderbilt ADHD Assessment Scale, Family Management Measure (FaMM), and Impairment Rating Scale (IRS), and participate in a semi-structured interview with the lead investigator of the study. Guided by the Family Management Framework, caregiver interviews focus on key family management factors, such as the child's daily life, condition management ability, condition management effort, and view of condition impact, and the barriers and facilitators for each family management factor. This research is approved by the Institutional Review Board within the academic and health care institution in which the study takes place. Caregivers who complete the study receive a \$40 Visa gift card, binder of ADHD information and resources, and thank you card for their participation.

Results: After data collection and analysis is complete, the study findings will answer the following specific aims: 1) *Qualitative*: to explore how ethnically diverse caregivers manage ADHD in their everyday lives and understand the barriers and facilitators of family management; 2) *Quantitative*: to examine how child characteristics, family management factors, and caregiver and environmental characteristics influence children's level of functional impairment; and 3) *Mixed-Methods*: to integrate findings to explicate complementary themes and family management factors that influence the functional impairment of children with ADHD. Measurements are empirically validated and reliable instruments used in pediatric

research. Proposed analytic techniques are described including content analysis, descriptive and inferential statistics, and data integration.

Conclusion: By identifying the most salient family management factors that influence higher and lower levels of children's functional impairment, this study extends previous research on family management and ADHD in diverse populations and builds upon existing knowledge about cultural and family perspectives of children with ADHD. Within the conference theme of culturally-diverse health practices, this research provides transformative knowledge about how families understand and manage childhood ADHD within different cultural contexts and provides a launching point for future nursing research and implications for practice and policy. The knowledge gained from the study may lead into a program of research that aims to develop or adapt family-based interventions for culturally and ethnically diverse children with ADHD. Pediatric and mental health registered nurses and advanced practice nurses are at the forefront of implementing changes within nursing practice and nursing education regarding family and cultural perspectives, which may improve patient care outcomes for children with ADHD. Additionally, nurses are strong advocates for their patients, families, and communities, which can influence local, national, and international policy and decision-makers regarding the access, care, and services for childhood ADHD. Study limitations, methodological considerations, and final thoughts are addressed at the conclusion of this presentation.

References

- Centers for Disease Control and Prevention [CDC]. (2015). *Attention Deficit Hyperactivity Disorder*. Retrieved from <http://www.cdc.gov/ncbddd/adhd/>
- Davis, C.C., Claudiu, M., Palinkas, L.A., Wong, J.B., & Leslie, L.K. (2012). Putting families in the center: family perspectives on decision making and ADHD and implications for ADHD care. *Journal of Attention Disorders, 16*(8), 675–684. doi:10.1177/1087054711413077
- Fiks, A. G., Mayne, S., DeBartolo, E., Power, T. J., & Guevara, J. P. (2013). Parental preferences and goals regarding ADHD treatment. *Pediatrics, 132*(4), 692-702.
- Hogue, A., Dauber, S., Lichvar, E., & Spiewak, G. (2014). Adolescent and caregiver reports of ADHD symptoms among inner-city youth: Agreement, perceived need for treatment, and behavioral correlates. *Journal of Attention Disorders, 18*(3), 212-225 doi:10.1177/1087054712443160
- Knafl, K. A., Deatrick, J. A., Knafl, G. J., Gallo, A. M., Grey, M., & Dixon, J. (2013). Patterns of family management of childhood chronic conditions and their relationship to child and family functioning. *Journal of Pediatric Nursing, 28*(6), 523-535.
- Larson, J. J., Yoon, Y., Stewart, M., & DosReis, S. (2011). Influence of caregivers' experiences on service use among children with attention-deficit hyperactivity disorder. *Psychiatric Services, 62*(7), 734-739. doi:10.1176/appi.ps.62.7.734
- Morgan, P. L., Staff, J., Hillemeier, M. M., Farkas, G., & Maczuga, S. (2013). Racial and ethnic disparities in ADHD diagnosis from kindergarten to eighth grade. *Pediatrics, 132*(1), 85-93. doi:10.1542/peds.2012-2390

Contact

cpaid@nursing.upenn.edu

RSC PST 2 - Research Poster Session 2

Factors Influencing Retention Rates for RN to BSN Students

Audrey C. Tolouian, EdD, MSN, RN, USA

Melissa Wholeben, PhD, RN, USA

Abstract

Purpose: To coordinate existing data with data obtained from our study results to form a recommendation for change in areas of recruitment, maintenance and retention of students

Methods: A descriptive qualitative study using survey sent out via Qualtrics to online RN to BSN students who were graduating with less than 10 semester hours left to their degree completion.

Results: **Conscientiousness** has been consistently associated with academic success, (Conrad, 2006, Furnham, et al 2003).

Openness to Experience has also shown a positive relationship with post-secondary success (Rothstien, et al 1994). This trait has also been shown to be a factor in intelligence measures.

Extraversion has shown little if any factor toward academic success in the literature.

Neuroticism was found to be a negative factor in the study by (Furman and Chamorro-Premuzie (2003), showing possible negative effects of anxiety and stress.

Agreeableness has been shown in multiple studies that scientifically it has shown both positive and negative relationships toward post-secondary performance.

Conclusion: Career enhancement is ranked number one (1) for students in this study. This factor clearly indicates that opportunities for the nursing program to use this as a motivator and retention factor abound. Simple items like positive notes to key persons at the students place of employment (with the students approval) that may be placed in the students personnel file: notice of enrollment in the program; enthusiasm toward personal growth and study; health related projects worked on by the student; courses completed; significant achievement(s) by the student; progress toward completion of the program. Creating and 'Advisory Council' of local employer CEO's and/or CNO's to the on-line nursing program to bring greater awareness of the program and opportunities to students, as well as possible research opportunities for faculty.

Family involvement is a key factor in student retention. Some options to enhance this factor are; including key family members when possible in a portion of the interview process, to reinforce their importance and the importance of 'time and space' for the student and brief notes from faculty members or School Administration to the key family member(s) about the students' positive progress in the program.

Further research into the type of **gamer** personality will greatly assist in the understanding of the type student that will most readily adapt to on-line course work for an RN program.

References

Burghers, C., Eden, A., van Englenburg, M., Buningh, S. "How feedback boosts motivation and play in a brain training game". Computers in Human Behavior. Vol 48, July 2015, pp. 94-103

Leeds, E., Campbell, S., Baker, H., Ali, R., and Crup, J. (2013) The impact of student retention strategies: An empirical study. International Journal of Management in Education. 7(1/2), 22-43

Contact

mwholeben@utep.edu

RSC PST 2 - Research Poster Session 2

Can Incident Report Learning Predict Incident Reporting Attitude and Satisfaction Among Nursing Home Staff?

Shu-Yuan Lin, PhD, RN, Taiwan

Abstract

Purpose: The purpose of this study is to evaluate the prediction of incident reporting learning to incident reporting attitude and incident reporting satisfaction among nursing staff and administrators in nursing homes.

Methods: This study was a cross-sectional survey conducted in nursing homes located in south Taiwan. Questionnaires were distributed to 146 full-time working nurses, nursing assistants and administrators, who had voluntarily participated and worked in 11 nursing homes. Data were collected by the scales of incident reporting attitude, incident reporting learning, and incident reporting satisfaction with 5-point Likert scale. Three scales of incident reporting attitude, incident reporting learning, and incident reporting satisfaction composed 9 questions, 25 questions and 10 questions in their order. All scales were newly developed for pursuing the study aim and tested for the content validity and reliability in this study. Content validity indexes of the scales of incident reporting attitude, incident reporting learning, and incident reporting satisfaction were 1.0, 0.96 and 0.92 separately. Coefficients of Cronbach's alpha of the scales of incident reporting attitude, incident reporting learning, and incident reporting satisfaction were .93, .93, and .91 in their order. The SPSS 19.0 version software was used for statistical analysis, and descriptive and inferential statistics such as mean, standard deviation, percentage, Pearson correlations and stepwise regression were adopted.

Results: The mean age was 40.7 (± 10.9) years old for all participants. The average year for current employment among participants was 5.2 (± 5.1) years. Nurses accounted for 45.2%, nursing assistants accounted for 43.2% and administrators accounted for 11.6% of all participants. The mean score of incident reporting attitude was 35.6 (± 4.9). Mean score for incident reporting learning was 98.2 (± 11.0), and mean score for incident reporting satisfaction was 36.9 (± 5.4). Pearson correlation results showed that moderate associations existed between incident reporting attitude, incident reporting learning, and incident reporting satisfaction ($r=0.43-0.65$). Results of stepwise regression showed incident reporting learning is the significant predictor for both incident reporting attitude and satisfaction. It explained 38.9% and 31.3% of total variance to incident reporting attitude and satisfaction.

Conclusion: This preliminary study results could be a reference for championing incident reporting learning. Developing a continuing education program in nursing homes for nursing staff to enhance their motivations to learn from reporting incidents is strongly suggested. Furthermore, safety culture of nursing homes could transform from punishment to learn through improving peer learning from reporting incidents.

References

- Prang, I. W., Jelsness-Jørgensen, L. P. (2014). Should I report? A qualitative study of barriers to incident reporting among nurses working in nursing homes. *Geriatric Nursing*, 35, 441-447.
- Wagner, L. M., Castle, N.G., Handler, S. M. (2013). Use of HIT for adverse event reporting in nursing homes: Barriers and facilitator. *Geriatric Nursing*, 34, 112-115.

Contact

m845008@kmu.edu.tw

RSC PST 2 - Research Poster Session 2

Do Double Gloves Reduce the Risk of Intraoperative Blood Borne Infection?

Chia-Wen Chuang, MSN, RN, Taiwan

Abstract

Purpose: Surgical teams rely on surgical gloves as a barrier to protect themselves against blood-borne pathogenic infections during surgery, but the perforation of gloves increases the risk of exposure to blood borne pathogens for the surgical team during surgery. However, the practice of wearing double gloves varies according to surgical specialties. The study aimed to prove that double-gloving, comparing to single-gloving, determine the reduction of incidence of blood borne infection.

Methods: Data collected from June 1 to August 31 in 2016. A total of six operation rooms and 400 pairs of gloves were collected from the Colon and Rectum Surgery and Orthopedics. There were twenty participants included in the study, and they are first surgeon, second or assistant surgeon, and scrub staff. All the gloves used in the study were Ansell latex powdered sterile surgical gloves. Fluorescent testing was used to observe visible blood on the hands of surgical team members, and air-inflation testing was used to detect the number of perforation of innermost gloves.

Results: Glove perforations were detected in 11 of 141 single-gloving sets (7.8%), and 9 of 259 in the innermost gloves of double-gloving sets (3.47%). The most common site of perforation was in the left hand with 5 of 20 (25%). Single-gloving was used more prevalently to against blood borne infection of Colon and Rectum Surgery than the use of double-gloving of Orthopedics (16.9% vs. 2.7%). The perforations of innermost gloves were lowered after the intervention of double-gloving in Colon and Rectum Surgery (0.8%). We used fluorescent testing to check whether the hands of surgical team members contaminated with blood after remove gloves (0%).

Conclusion: This study proved that double-gloving, comparing to single-gloving, decreases effectively the risk of blood borne infection and the risk of exposure to blood borne pathogens. Until now, double-gloving has not been a common practice among the surgical team members. The results of the study can be extended in parallel to improve the quality of operation room. The use of double-gloving should be introduced as a routine practice.

References

Childs, T. (2013). Use of double gloving to reduce surgical personnel's risk of exposure to bloodborne pathogens: an integrative review. *AORN Journal*, 98(6), 585-596 e586. doi: 10.1016/j.aorn.2013.10.004
Korniewicz, D., & El-Masri, M. (2012). Exploring the benefits of double gloving during surgery. *AORN Journal*, 95(3), 328-336. doi: 10.1016/j.aorn.2011.04.027

Contact

mavis20023@hotmail.com

RSC PST 2 - Research Poster Session 2

Improving the Health of Populations Through an Academic-Community Partnership

Susan Grinslade, PhD, RN, PHN-CS, BC, USA
Loralee Sessanna, DNS, RN, AHN-BC, USA
Priti Bangia, MBA, MSc, USA
Penelope W. McDonald, PhD, MSN, BSN, RN, FNP-BC, USA
Alexander Salinas, USA
Jada Douglas, USA

Abstract

Purpose: According to the American Heart Association (AHA) (2016) heart disease is the leading cause of death among men and women. Major modifiable risk factors for cardiovascular disease include high blood pressure, high LDL cholesterol, stress, obesity, and smoking. In Buffalo and Western New York (WNY) region, a community assessment identified an existing and significant disparity in cardiovascular disease and stroke in the African-American (AA) population. The University at Buffalo School of Nursing (UB SON) initiated a community based interprofessional screening activity guided by the Million Hearts® curriculum developed by the Ohio State University. To facilitate implementation, an academic-community health coalition was formed with members included the UB SON, Millennium Collaborative Care (MCC), Greater Buffalo United Ministries (GRUM), as well as two student representatives from the Multicultural Student Nurse Association (MNSA). The initial aim of the academic-community health coalition was to improve health behaviors and outcomes of a targeted underserved, and disparate population in the Greater Buffalo and WNY region. The current goal of the Health Coalition is to “empower the community to achieve the highest level of health and wellness through engagement with the community, healthcare professionals and community service organizations.” Inherent in the goal is the underlying intent to ensure that community-based health promotion interventions were evidence-based, spiritually and culturally appropriate, focus on improving the health of vulnerable populations, and eliminating health disparities.

Methods: The Million Hearts® curriculum was integrated into two junior level health promotion courses in the SON. The community-based Million Hearts® Screenings were completed as partial fulfillment of requisite service-learning hours for the SON. An invitation was extended to the University at Buffalo Schools of Exercise and Nutrition Science, Pharmacy and Medicine. Students from these schools completed the Million Hearts® curriculum and participated in the interprofessional health screening events as a course requirement or as volunteers.

Prior to beginning the community screenings, representatives from the SON and MCC met with the governing board of GRUM to develop the foundation for an engaged and trusting academic-community partnership. In spring 2016, Million Hearts® interventions were implemented in seven community churches with permission of the pastor and/or representatives of the health ministry. Churches were responsible for providing a place for the screening to take place, distributed information about the planned screening through community leaflets, and publicizing the upcoming event at church activities, including the Sunday service before the screening. Additionally, the church’s health ministry agreed to provide ongoing follow-up if a parishioner’s screening results warranted it. MCC was responsible for coordinating activities through the local American Heart Association Chapter, obtaining health resources for smoking cessation, providing individuals to screen participants for health activation measures, signing individuals (and families) up for health insurance, and securing appointments with primary care physicians if needed.

Students were provided with an in-depth lecture on cultural sensitivity provided by a community representative of the New York Area Health Education System (AHEC). A pre and post cultural competency assessment was completed before lecture and at the end of the semester after community based screenings. Health screenings for cardiovascular disease risk factors including high blood pressure, smoking, and weight as BMI were conducted by health science students. Nutrition science students provided comprehensive, individualized nutrition and diet information aimed at promoting heart

health. Medical students targeted activities for children and young adults and provided health education on the heart using animal models of the heart and interactive on-line education for young children. Exercise science students assisted with screening activities, answered questions about exercise, and recommended strategies to increase exercise in daily living activities. Pharmacy students provided guidance and education on currently prescribed medications.

Results: Through November 2016, the academic-community health coalition provided 11 community-based Million Heart Screenings at eight churches, two community events including one sponsored by the American Diabetes Association, and one inner-city charter school.

Data from the screening events demonstrate that participants are predominantly female, African-American, and between 51-80 years of age. One-quarter report smoking, and over 65% had a BMI between 25 – 39.9. 25% were identified as having Stage 1 hypertension while 8% were identified as having Stage II hypertension. On three occasions, screening results required an immediate intervention such as securing a primary care evaluation within 24 hours or follow-up with a church's health ministry.

After six months, Pastor Douglas, Director of the GRUM stated, "We are making progress. But we need to keep going. We need to eliminate health disparities, we need doctors and hospitals to treat people equally and inspire them to value their health and make better choices."

Conclusion: A program evaluation is being conducted. Focus groups comprised of participating faculty and students participated in guided discussions to determine how effective this activity was in promoting their understanding of population health, health promotion, culture awareness, and health disparities. Audio transcripts will be transcribed and a qualitative content analysis will be conducted. The results will be used for quality improvement.

Through MCC, the academic-community partnership was honored with the P2 Collaborative of Western New York's "Spotlight on Population Health (SOPHi) Award for Chronic Disease Prevention. Receipt of this award provides further evidence that when academia and community organizations work together, health can be improved and health disparities reduced.

References

- Angela, G., & MacLellan, M. (2013). Critical service learning in community health nursing: Enhancing access to cardiac health screening. *International Journal of Nursing Education Scholarship*, 10(1), 63-71. <https://doi.org/10.1515/ijnes-2012-0031>
- De Los Santos, M. (2014). Interprofessional education and service learning: a model for the future of health professions education. *Journal of Interprofessional Care*, 28(4), 374-375. <http://dx.doi.org/10.3109/13561820.2014.889102>
- Gawlik, K., & Melnyk, B. (2015). Integrating million hearts into nursing and interprofessional education curricula and community settings: A key strategy for improving population health across the United States. *Journal of Professional Nursing*, 31(2), 112- 118. Retrieved from <http://dx.doi.org/10.1016/j.profnurs.2014.07.002>
- Matsumoto, D. & Hwang, H. (2013). Assessing cross-cultural competence: A review of available tests. *Journal of Cross-Cultural Psychology*, XX(X), 1 – 25. DOI: 10.1177/0022022113492891
- Noble, A., Nuszen, E., Rom, M., & Noble, L. (2014). The effect of a cultural competence educational intervention for first-year nursing students in Israel. *Journal of Transcultural Nursing*, 25(1), 87-94. DOI: 10.1177/1043659613503881

Contact

msgrinsl@buffalo.edu

RSC PST 2 - Research Poster Session 2

Do Educational Experiences With Culture Diversity Make a Difference in Patient Care?

Alicia Huckstadt, PhD, APRN, FNP-BC, FAANP, USA

A

bstract

Purpose: The purpose of this abstract is to share development and preliminary results of an educational project designed to explore if tailored didactic education and clinical experiences in underserved areas would result in positive nurse practitioner learner outcomes.

Methods: The background literature provides the framework for this project.

Improving the quality of care to diverse populations is an important national and international concern for nursing and the total health care system. Numerous reports reveal that health care disparities and inequalities continue to persist globally. In the United States, health disparities have significant economic impacts estimated in trillions of dollars. Schoeni, Dow, Miller, and Pamuk (2011) suggest eliminating health disparities for people with less than a college education in the US would have a \$1.02 trillion economic value. Beyond the financial considerations, eliminating health disparities builds health equity to allow all people access to better health care and healthier lives.

Nurses have historically been providers of care to all people. However, nursing students are often ill prepared to provide care to diverse patients. Arielli (2013) described how culturally diverse settings challenge students in emotional ways including frustration, conflict, and others. McClimens (2014) also found that nursing students expressed difficulties and challenges in meeting patient needs and concluded that students would benefit from preparatory education and training in culturally diverse settings. Recognizing how patients' cultural diversity impacts patients' health are important learning opportunities for advanced practice nurses.

Determining the best method to deliver cultural diversity education to health care workers has yet to be determined. Cultural diversity is extremely complex with numerous underlying facets. Thornton et al. (2016) stressed that social determinants, the conditions in which people live, work, play, worship, learn, are part of cultural diversity and are paramount in decreasing health disparities. Poverty; lack of access to health care facilities, education, employment; neighborhood conditions; exposure to violence; and other determinants are increasingly recognized to impact healthcare. Dankwa-Mullan and Perez-Stable (2016) emphasize that health disparities are a "place-based issue" where changing the conditions could make differences in health outcomes. Stone et al. (2013) described the development and testing of two training modules on cultural diversity for health care workers in England and Wales. Following testing, the researchers concluded the use of such modules was feasible and an effective way to improve participants' knowledge and understanding of cultural diversity. However, the best way in translating knowledge and understanding into practice remains unknown. It is reported that service learning, typically an experiential education opportunity that places health professional students in communities to learn social, economic, political contexts of health can be a positive vehicle for reducing health disparities (Sabo et al., 2015). In a service learning study, Rasmor, Kooienga, Brown, and Probst (2014) found in a small sample of nurse practitioner students who participated in an immersion experience with clinical practice settings such as free clinics with uninsured and non-documented immigrant patients, revealed that students challenged their own beliefs and attitudes regarding vulnerable populations, gained insight into care of these patients, and expressed intent to volunteer at these settings. These authors recommended further study beyond focus groups used in their small sample size study. It is not known if this learning experience extended beyond students' expressing intent to volunteer at these settings.

This study includes thirty-two advanced practice nursing students who are participating in the project. Interventions included an online learning module designed to increase cultural competent patient-centered care, working with interpreters, assessing populations, and planning services; a three-hour credit course analyzing major social determinants that affect health and their consequences; and two

semesters of clinical experiences in selected underserved areas. Outcomes that are being measured include students' knowledge of culturally diverse populations, faculty evaluations of students' performance, students' commitment to work in underserved areas, and employment in underserved areas after graduation.

Results: Preliminary qualitative data have revealed students' awareness of different cultures, knowledge that health has many different meanings to different individuals, importance of taking an extra few minutes to listen to patient's stories provides a much better picture of their health and concerns and helps patients and their families engage in the best possible treatment and outcomes. Both qualitative and quantitative data are being analyzed and results will be presented.

Conclusion: The findings of this study is important to advanced nurse practitioners and their culturally diverse patients.

References

- Arieli, D. (2013). Emotional work and diversity in clinical placements of nursing students. *Journal of Nursing Scholarship, 45*(2), 192-201.
- Dankwa-Mullan, I., & Perez-Stable, E. J. (2016). Addressing health disparities is a place-based issue. *American Journal of Public Health, 106*(4), 637-639.
- McClimens, A., Brewster, J., & Lewis, R. (2014). Recognising and respecting patients' cultural diversity. *Nursing Standard, 28*(28), 45-52.
- Rasmor, M., Sooienga, S., Brown, C., & Probst, T. M. (2014). United States nurse practitioner students' attitudes, perceptions, and beliefs working with the uninsured. *Nurse Education in Practice, 14*, 591-597.
- Sabo, S., Zapien, J. D., Teufel-Shone, N., Rosales, C., Bergsma, L., Taren, D. (2015). Service learning: A vehicle for building health equity and eliminating health disparities. *American Journal of Public Health, 105*(S1), S38-S43.
- Schoeni, R. F., Dow, W. H., Miller, W. D., & Pamuk, E. R. (2011). The economic value of improving the health of disadvantaged Americans. *American Journal of Preventive Medicine, 40*(S1), S67-72.
- Stone, M. A., Patel, N., Amin, S., Daly, H., Carey, M. E., Khunti, K., Davies, M. J., & Dogra, N. (2013). Developing and initially evaluating two training modules for healthcare providers, designed to enhance cultural diversity awareness and cultural competence in diabetes. *Diversity and Equality in Health and Care, 10*, 177-184.
- Thornton, R. L., Glover, C. M., Cene, C. W., Glik, D. C., Henderson, J. A., & Williams, D. R. (2016). Evaluating strategies for reducing health disparities by addressing the social determinants of health. *Health Affairs, 35*(8), 1416-1423.

Contact

alicia.huckstadt@wichita.edu

RSC PST 2 - Research Poster Session 2

Deliberate Practice: An Online Method to Develop Students' Interprofessional Critical Incident Reporting Skill

Jen-Huei (Vicky) Yeh, BSN, RN, USA
Gwen Sherwood, PhD, RN, FAAN, ANEF, USA

Abstract

Ineffective interprofessional communication contributes to treatment delays and can result in serious patient harms (The Joint Commission, 2015). Communication skills are a part of every nursing curriculum; however, opportunities for students to practice communication with providers of another profession to achieve proficiency are limited (Bartges, 2012; Guhde, 2014). Practice opportunities are compounded by competing priorities and time constraints in teaching essential hands-on nursing skills. Students are rarely provided opportunities to engage in critical conversations with providers in their clinical learning experiences even though evidence indicates ineffective communication increases safety risks, particularly for new graduates transitioning into the workforce. The theoretical framework of deliberate practice (DP) has been used to effectively provide health affairs students intentional, repetitive practice to develop psychomotor skills (McGaghie, Issenberg, Cohen, Barsuk, & Wayne, 2011; Oermann, et al., 2011). This study used an innovative approach in applying DP online to help students develop proficiency in reporting a patient critical incident to a provider.

Purpose: As a part of a pilot experimental study, the purposes of this study were to 1) design the online DP sessions based on the theoretical framework of deliberate practice and 2) explore the feasibility of using these sessions to develop pre-licensure nursing students' communication proficiency in giving a verbal report on a patient critical incident to a provider.

Methods: The online DP sessions used audio recorded clinical stories produced by StoryCare®, Eefform, LLC to simulate clinical encounters. Five stories that included a patient critical incident which required the primary nurse (the student) to report to a provider were selected and developed into five stand-alone practice sessions. Based on the four key components of DP, each practice session was composed of four sequential steps to be completed by students: 1) perform initial practice: record a verbal report to a provider using SBAR (Situation, Background, Assessment, Recommendation), a standardized communication tool (Kaiser Permanente), 2) receive immediate feedback: compare own performance with a standard SBAR checklist (Foronda et al., 2015), 3) self-reflect on the performance: appraise own performance by answering four self-reflection questions, and 4) repeat practice: record a refined SBAR report. Each session had a 45-minute time limit and were offered through an online educational platform used by the University to support its academic programs.

To explore the feasibility of using online DP sessions to develop pre-licensure nursing students' interprofessional critical incident reporting proficiency, following IRB approval, senior pre-licensure nursing students from one University were recruited by email to participate in this study. Over a two-week period, each student completed two online DP sessions. At the end of the second week, students were invited to participate in a one-hour focus group to provide feedback on the acceptability, clarity, and potential burden of completing the practice sessions. Ways to improve the DP sessions were also discussed in the focus group.

Results: Seven senior pre-licensure nursing students participated in the testing of the online DP sessions and five attended the focus group discussion. Students described the sessions to be well-formatted and beneficial in improving their critical incident reporting skill. They further identified the sessions as valuable practice opportunities that were time efficient and convenient; and they recommended offering them to all BSN students. To improve the DP sessions, the students recommended making the online experience more realistic, such as to provide an electronic chart-like patient profile. Although no technical difficulty was reported during the two-week study period, one student's verbal reports did not record. To address this issue, students recommended offering a recording tutorial prior to completing the first DP session.

Four major themes were identified in the focus group discussion: 1) Lack of opportunity to practice interprofessional critical communication: students collectively expressed having limited opportunity to practice interprofessional communication and that they had never reported a critical incident. 2) Difference between knowing and being able to do: by having to give a verbal report, students realized giving a focused report was more difficult than they had anticipated. One student stated part of the learning experience will be lost if they did not need to verbalize the report. 3) Wanting to practice interprofessional communication early in the program: students described feeling apprehensive about reporting to a provider as a shortcoming for most new graduates and that students would really benefit from start practicing this skill before their first clinical rotation. 4) Realness of the experience was important: students thought the audio recorded stories provided valuable reality, but real-world experience was most valued.

Conclusion: Student feedback indicated that the online DP session provided a well accepted approach for pre-licensure nursing students to practice reporting a patient critical incident in a safe environment without jeopardizing current class time. While the sample size was small, participating students affirmed the need to create deliberate practice opportunities and that pre-licensure students were motivated to improve their interprofessional communication skills. The DP sessions were then modified accordingly to use in future studies. Results from these studies provide guidelines for developing an education methodology to enable pre-licensure nursing students develop critical communication reporting skills that can have a direct impact on patient outcomes.

References

- Bartges, M. (2012). Pairing students in clinical assignments to develop collaboration and communication skills. *Nurse Educator*, 37(1), 17-22.
- Ericsson, K. A. (2008). Deliberate practice and acquisition of expert performance: A general overview. *Academic Emergency Medicine*, 15(11), 988-994. doi: 10.1111/j.1553-2712.2008.00227.x
- Foronda, C. L., Alhusen, J., Budhathoki, C., Lamb, M., Tinsley, K., MacWilliams, B., Daniels, J., Baptiste, D. L., Reese, K. K., & Bauman, E. (2015). A mixed-methods, international, multisite study to develop and validate a measure of nurse-to-physician communication in simulation. *Nursing Education Perspectives*, 36(6), 383-388. doi: 10.5480/15-1644
- Guhde, J. A. (2014). An Evaluation Tool to Measure Interdisciplinary Critical Incident Verbal Reports. *Nursing Education Perspectives*, 35(3), 180-184. doi: 10.5480/12-957.1
- Kaiser Permanente. SBAR Worksheet. Retrieved from Institute for Healthcare Improvement Website: <http://www.ihl.org/resources/pages/tools/sbarttechniqueforcommunicationasituationalbriefingmodel.aspx>
- McGaghie, W. C., Issenberg, S. B., Cohen, E. R., Barsuk, J. H., & Wayne, D. B. (2011). Does simulation-based medical education with deliberate practice yield better results than traditional clinical education? A meta-analytic comparative review of the evidence. *Academic Medicine*, 86(6), 706-711. doi: 10.1097/ACM.0b013e318217e119
- Oermann, M. H., Kardong-Edgren, S., Odom-Maryon, T., Hallmark, B. F., Hurd, D., Rogers, N., . . . Smart, D. A. (2011b). Deliberate practice of motor skills in nursing education: CPR as exemplar. *Nursing Education Perspectives*, 32(5), 311-315.
- The Joint Commission. *Sentinel event data root causes by event type 2004 - 3Q 2015* [PDF document]. Retrieved from The Joint Commission web site: http://www.jointcommission.org/assets/1/18/Root_Causes_Event_Type_2004-3Q_2015.pdf

Contact

vickyeh@email.unc.edu

RSC PST 2 - Research Poster Session 2

"Hope" for People With Motor Neurone Disease in Japan

Masako Nagase, PhD, RN, PHN, Japan

Abstract

Purpose: In this study, we present materials to examine the "hope" harbored by patients with intractable neurological diseases. This study is part of research on the nature of the care system focused on end-of-life care for patients with intractable neurological diseases in Japan.

Methods: We conducted an interdisciplinary study using academic papers from various fields including nursing, psychology, and philosophy.

Results: Since the 1950s, "hope" has mainly been defined in the context of social science and there have been various attempts at measuring it. However, exploring a unified view of the concept of "hope" is a difficult task. Nekolaichuk writes in her discussion on the nature of "hope" that hope is categorized into seven themes on which it is based: universality, dimensionality, certainty, temporality, predictability, value, and reality.

In the discussion of universality, Nekolaichuk writes how differences can be seen in philosophical standpoints, such as how we perceive "hope" as an ultimate, universal concept, and how we perceive "hope" as a socially constructed concept. The positivism of the former standpoint explores the objective reality and develops a detailed description and unified framework for the concept, whereas the social constructionism of the latter standpoint attempts to understand the various significances formed by multiple people.

The discussion of dimensionality explores whether "hope" is perceived as a one-dimensional or multi-dimensional concept. If the conceptual framework is reliable (certainty), measurement, i.e. observation, should be possible. Snyder and Herth each developed hope indices, but from completely different standpoints. Snyder expands on the one-dimensional theory of Stotland who emphasized goal achievement, and defines "hope" as being composed of cognitive components that recognize pathways and agency. Herth, on the other hand, conceptualizes "hope" in a multi-dimensional framework composed of temporality and future, positive readiness and expectancy, and interconnectedness. However, the experience of "hope" is composed of both visible and invisible elements, which means that while both measuring tools are capable of measuring reliable elements, they do not succeed in understanding the internal, uncertain experience of "hope."

Studies of "hope" have been conducted in various subjects including elderly people, terminal patients, suicidal patients, caregivers and patients with chronic diseases. These studies have revealed that relationships with significant others and a strong connection with transcendental beings such as God and Buddha influence "hope." Existential problems also have a deep connection with "hope." Affirming one's value, feeling happy about one's own existence, sensing the significance and development of life, and other ways of thinking all strengthen "hope." Meanwhile, events that reduce "hope" include threatening perceptions, distress, conflict, sense of loss, and sense of despair.

From the standpoint of the Cognitive Metaphor Theory of linguistics, "hope" is a concept understood through expressions rich in temporal and spatial changes and signifies "a current feeling of happiness towards the good future." Meanwhile, the similar concept of "desire" signifies "the possibility that a good future will occur" and encapsulates prospects and expectations for the future. Both words are based on the assumption of "a good future." However, in terms of prognoses for intractable neurological diseases, it is difficult for patients to have "a good future" or "bright prospects." The "hope" held by patients with intractable neurological diseases is therefore thought to include context-dependent elements.

Conclusion: Some argue that "hope" is defined in two ways: one that is synonymous with expectation and another that is separate from expectation. "Hope" does not merely signify optimism for the future, but

is also based on concepts such as vitality and unconditional love. "Hope" is therefore not limited to clear achievement of goals for the future; it is based on the assumption of trust in an undetermined future.

Meanwhile, in exploring the concept of "hope" in end-of-life care based, the concept of "hope" in cancer and nursing literature is internal and therefore invisible in situations based on the premise of death, and is perceived as having a so-called metaphysical nature. This involves seeking healing and survival, or seeking something separate from healing, while expecting healing to be difficult and anticipating death.

So, what is "hope" to patients with intractable neurological diseases? What are the consequences of supporting patients in finding and maintaining "hope"? To answer these questions, we need to clarify the "hope" held by patients with different conditions including motor neuron disease, multiple sclerosis and Parkinson's disease.

References

Masako Nagase (2012). Does a Multi-Dimensional Concept of Health Include Spirituality? Analysis of Japan Health Science Council's Discussions on WHO's 'Definition of Health' (1998). *International Journal of Applied Sociology*, 2(6), pp.71-pp.77.

Masako Nagase (2014). The Lack of Spirituality in End of Life Care in Japan. *Sociology and Anthropology*, 2(6), pp.219-pp.226, DOI: 10.13189/ sa.2014.020602.

Masako Nagase, Kiyoko Aoki, Mayumi Takaya, et al (2014). Caring for Patients with Intractable Neurological Diseases. *SAGE OPEN*, pp.1-pp.7, DOI:10.1177/2158244014547695.

Contact

mnagase@juntendo.ac.jp

RSC PST 2 - Research Poster Session 2

Prescription Drug Spending and Medication Adherence in a National Heart Failure Sample

Blake Tyler McGee, MPH, BSN, BSFS, RN, USA

Abstract

Purpose: Nurse scientists can and should contribute more to health policy analysis. Many nurses have experience caring for persons with heart failure (HF), which is the most common cause of hospitalization among older adults in the U.S. and accounts for \$32 billion in health care expenditures annually in this country (Heidenreich et al., 2011). Survival depends on adherence to a complex daily regimen of prescription medications and dietary restrictions in the context of declining physical and cognitive function. When HF patients do not adhere to prescribed regimens, they frequently require costly acute care for complications such as fluid overload and impaired gas exchange.

A primary reason for non-adherence to chronic disease treatment in the U.S. is the cost of prescription drugs, even when part of the cost is borne by third-party payers. Numerous studies have shown that persons with higher point-of-care cost-sharing requirements (e.g. copayments and deductibles) are less likely to fill the prescriptions they need to manage their illness. Emerging evidence also links medication cost-sharing to increased downstream health care utilization and costs. However, only one published study in the past 11 years has investigated this issue in persons with HF, and results from nationally representative samples are lacking.

The current study, therefore, uses data from the national Medicare Current Beneficiary Survey (MCBS) to examine the relationship between medication cost-sharing and adherence in HF. The principal study aim is to examine the association between average out-of-pocket spending on common HF medications in Medicare "Part D" prescription drug plans and the adequacy of drug supply obtained by Part D enrollees with HF. Ethics approval for this study was obtained from the Emory University Institutional Review Board with a waiver of additional informed consent documentation.

Methods: This study consists of secondary analysis of 2010-12 cost and use data from the MCBS, a rotating panel survey of a nationally representative sample of beneficiaries of Medicare, the federal U.S. health insurance program for adults over age 65 or with a qualifying disability. The MCBS comprises in-depth questionnaires of personal health and financial information, administered three times yearly for four years and supplemented with medical bills, receipts and other personal records. Questionnaire responses are linked to administrative and claims data from the Centers for Medicare & Medicaid Services, the government agency that administers the Medicare program.

Since there are over 700 types of Part D plans and the MCBS does not include data on cost-sharing requirements for specific plans or drugs, the mean 30-day out-of-pocket payment by the beneficiary for each HF drug served as a proxy for cost-sharing. Adherence was approximated by the medication possession ratio (MPR), which is computed by dividing the total days supplied for all but the last refill by the number of days between the first and last refills. The result can range from 0 (perfectly non-adherent) to 1 (perfectly adherent). Excess days supplied were discarded, and the MPR was truncated at 1.0, consistent with the literature.

For this study, only two drug classes were considered: beta-blockers and angiotensin antagonists, the latter comprising angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs). This is because most patients with clinically diagnosed HF should be prescribed an agent from each of these two classes (Caboral-Stevens, 2014), and it is unlikely that a prescriber would discontinue a class altogether after initiation. Therefore, a low MPR for the entire class is a reasonable reflection of poor patient adherence rather than prescriber discontinuation. Because some patients do switch from an ACE inhibitor to an ARB, and these two types of agents are rarely prescribed together, the angiotensin antagonist class combines them.

Results: The study sample comprises 912 MCBS participants who were continuously enrolled in Part D coverage and met the case definition for heart failure, i.e. at least one inpatient or two outpatient/practitioner Medicare claims were filed with a principal or secondary diagnosis corresponding to HF, during the reference year (DiMartino, Shea, Hernandez, & Curtis, 2010). Of these, 58.9% are female, 13.5% are African-American or black, and 7.05% are of Hispanic or Latino background.

Preliminary results consist of univariate and bivariate analysis of key study variables. Non-parametric correlation analysis is indicated due to the skewed distribution of cost data. The mean out-of-pocket payment for a 30-day supply of a beta-blocker in this population was \$3.68 (SD = 7.06). The MPR for beta-blockers was significantly and inversely correlated with mean out-of-pocket expenditure ($r_s = -.075$, $p = .045$). The mean out-of-pocket payment for a 30-day supply of angiotensin antagonists was \$7.21 (SD = 15.11). The MPR for angiotensin antagonists was also significantly and inversely correlated with out-of-pocket spending on those drugs ($r_s = -.101$, $p = .010$).

Results of multivariate analysis are forthcoming. Covariates such as race and ethnicity, gender, age, education, income, marital status and self-reported health status will be examined for potential confounding effects. Similarly, a sub-analysis will examine these relationships separately among respondents who are co-eligible for the Medicaid program (primarily for low-income persons) or receive the Part D low-income subsidy versus those who do not.

Conclusion: The preliminary results of this study suggest an inverse correlation between out-of-pocket spending on prescription drugs and treatment adherence for heart failure among Medicare Part D enrollees. Despite participation in plans that provide some prescription drug coverage, this nationally representative sample may have faced financial barriers that inhibit optimal therapy to prevent heart failure complications. This finding is all the more notable given the burden that heart failure imposes on the U.S. health care system in terms of resource use.

Upon completion of multivariate analysis, this study will provide policymakers, insurers and consumers with nationally valid evidence about the potential of targeted cost-sharing relief to improve adherence for the nation's most expensive cardiovascular disorder. The findings may inform ongoing discussions about the design of health care benefits for other costly chronic disorders, as well. They also can support nurses from the boardroom to the bedside in providing optimal patient education and advocacy.

References

- Caboral-Stevens, M. F. (2014). A snapshot of the latest heart failure guidelines. *Nurse Pract*, 39(7), 49-54. doi:10.1097/01.NPR.0000450744.47604.d4
- DiMartino, L. D., Shea, A. M., Hernandez, A. F., & Curtis, L. H. (2010). Use of guideline-recommended therapies for heart failure in the Medicare population. *Clin Cardiol*, 33(7), 400-405. doi:10.1002/clc.20760
- Heidenreich, P. A., Trogon, J. G., Khavjou, O. A., Butler, J., Dracup, K., Ezekowitz, M. D., . . . Woo, Y. J. (2011). Forecasting the future of cardiovascular disease in the United States: A policy statement from the American Heart Association. *Circulation*, 123(8), 933-944. doi:10.1161/CIR.0b013e31820a55f5

Contact

btmcgee@emory.edu

RSC PST 2 - Research Poster Session 2

The Effects of Tai Chi Exercise on Cardiovascular Functions: A Meta-Analysis

Hsiao-Ping Shih, MSN, RN, Taiwan
Yueh-Yen Fang, PhD, RN, Taiwan

Abstract

Purpose: According to the World Health Organization (WHO), the prevalence of cardiovascular diseases (CVDs) continues to rise, and will be accounted for 23.6 million global deaths by 2030. Physical activity plays an important role on cardiac rehabilitation. Prior studies had suggested that exercise-based cardiac rehabilitation had contributed to a reduction of 20% mortality in patients with coronary artery disease. Tai Chi, a traditional Chinese conditioning exercise, is well recognized by its effect on relaxation. Many studies had investigated its effect on cardiovascular functions, however, there was a lack of direct measure on heart functions and the study results were inconsistent across studies. To validate the effect of Tai Chi on cardiovascular functions, we reviewed current literature related to Tai Chi and its effect on direct measures of cardiac functions.

Methods: We searched two Chinese databases (CEPS, and the Chinese Thesis/Dissertation database) and four English databases (CINAHL, Medline, PubMed, and the Cochrane Central Register of Controlled Trials). The search was up to August, 2016. Only studies that investigated the effect of Tai Chi on stroke volume and cardiac output were included. Evaluations of study quality were conducted by the 2011 Oxford Centre for Evidence Based Medicine Levels of Evidence, and the Cochrane Collaboration's tool for assessing risk of bias. Meta-analyses were performed by the random effect model.

Results: 719 citations were reviewed. Most related studies only measured heart rate and blood pressure, only 4 studies measured stroke volume and cardiac output. These studies all encountered high risk of bias in allocation concealment, blinding of participants and personnel, and blinding of outcome assessment. The results of meta-analyses showed Tai Chi did not bring positive effect to systolic and diastolic blood pressure, heart rate, stroke Volume, and cardiac output.

Conclusion: Unlike other reviews, this study evaluate cardiac output and stroke volume to measure cardiac function more accurately. Findings of this study did not support Tai Chi as an effective method for improving cardiac functions. This result might indicate higher quality study to be conducted in the future.

References

- Hang, M.-Y., Yeh, S.-C. J., Chu, M.-C., Wu, T.-M., & Huang, T.-H. (2013). Associations between Tai Chi Chung program, anxiety, and cardiovascular risk factors. *American Journal of Health Promotion, 28*(1), 16-22. doi: 10.4278/ajhp.120720-QUAN-356
- HoYoung, K., You Lim, K., & Suk Min, L. (2015). Effects of therapeutic Tai Chi on balance, gait, and quality of life in chronic stroke patients. *International Journal of Rehabilitation Research, 38*(2), 156-161. doi: 10.1097/MRR.000000000000103
- HoYoung, K., You Lim, K., & Suk Min, L. (2015). Effects of therapeutic Tai Chi on balance, gait, and quality of life in chronic stroke patients. *International Journal of Rehabilitation Research, 38*(2), 156-161. doi: 10.1097/MRR.000000000000103

Contact

shopping0606@gmail.com

RSC PST 2 - Research Poster Session 2

Cultural Competence Among Nursing Students in Three Countries: A Cross-Sectional Study

Jonas Preposi Cruz, PhD, MAN, BSN, RN, Saudi Arabia

Paolo C. Colet, PhD, MAN, BSN, RN, RM, Saudi Arabia

Joel Casuga Estacio, MAN, BSN, RN, RM, Philippines

Helen Shaji John Cecily, PhD, MSN, MA (Psych), BSN, RN, RM, Saudi Arabia

Abstract

Purpose: The entire world is experiencing the highest human mobility recorded in history as indicated by the steady rise of global migration. Globalization and emigration increases cultural diversity and multiethnicity, which also enriches the cultural diversity in healthcare facilities (Perng & Watson, 2012). Moreover, migrants are often subjected to discrimination, violence and exploitation, which have a great impact to their physical and mental health. Because of this, nurses should be properly trained to provide culturally competent care that is current and responsive to the increasing challenges in the healthcare settings associated with the complexity, volume, speed, diversity and disparity among patients, in order to ensure the realization of every patient's fundamental right to health, regardless of their cultural and religious backgrounds (Cruz, Estacio, Bagtang & Colet, 2016). Thus, this study investigated the cultural competence of nursing students in three countries. It also compared the cultural competence of the students from the three countries and examined the significant predictors of their cultural competence.

Methods: A convenience sample of 723 Bachelor of Science in nursing students from India ($n=265$), Philippines ($n=258$) and Saudi Arabia ($n=200$) was surveyed in this descriptive, cross-sectional study. India and the Philippines have become the leading exporters of nurses to different parts of the globe. Saudi Arabia, on the other hand, has high numbers of migrants and has health care workforce that depends heavily on expatriates. Participants were recruited from nursing schools from each country where the authors have access. Data collection was conducted from January to March 2016. The Cultural Capacity Scale English (Perng & Watson, 2012) and Arabic (Cruz, Colet, Bashtawi, Mesde & Cruz, 2016) versions were used to gather data. A demographic and cultural-related variables information sheet was attached in the questionnaire. Descriptive statistics were used to fully describe the demographic characteristics and cultural-related experiences of the students. Mean (M) and standard deviation (SD) were calculated for cultural competence. ANOVA was used for comparison of cultural competence between countries, with Tukey HSD test for post hoc analyses. Pearson product moment correlation, ANOVA (with Tukey HSD test) and t -test for two independent samples were used to examine the relationship between the demographic and cultural-related variables and the cultural competence, as appropriate. Multiple regression analysis was conducted to identify the significant predictors of cultural competence. 95% confidence intervals were also calculated and reported. All statistical analyses were performed at 0.05 level of significance.

Results: The mean age of the respondents was 20.05 ± 2.19 years. Majority were females (75.8%), had not participated in diversity training (62.2%), had not taken care of culturally diverse patients (59.5%) and were not living in culturally diverse environment (68.2%). Contrarily, majority had experienced taking care of patients with special needs (68.0%).

The overall cultural competence mean score was 66.07 ($SD = 15.19$). Individually, Indian students had a cultural competence mean score of 64.68 ($SD = 17.28$), while Filipino and Saudi students had 68.63 ($SD = 12.18$) and 64.62 ($SD = 15.37$), respectively. Indian students reported highest competence in teaching and guiding others about planning nursing interventions for diverse clients ($M = 3.46$, $SD = 1.11$), while Filipino and Saudi students reported highest competence in understanding the beliefs of different cultural groups ($M = 3.61$, $SD = 0.88$) and in using examples to illustrate communication skills with diverse clients ($M = 3.45$, $SD = 1.08$), respectively. On the other hand, familiarity in health- or illness-related cultural knowledge or theory received the lowest mean from the Indian ($M = 2.86$, $SD = 1.17$) and Saudi ($M = 3.01$, $SD = 0.99$) students, while competence in comparing the health or illness beliefs ($M = 3.31$, $SD = 0.79$) and identifying the care needs of clients with diverse cultural backgrounds ($M = 3.31$, $SD = 0.77$)

received the lowest score from the Filipino students. Overall, Filipino students reported higher cultural competence than students from India and KSA ($F(2, 720) = 5.75, p = 0.003$). Significant differences were also identified in the individual scale-items when students were grouped by country of residence.

Bivariate analyses revealed significant relationship between the demographic characteristics and the cultural competence of the respondents. There was a weak positive correlation between the age and the cultural competence of the students ($r = 0.18, p < 0.001$). Furthermore, the cultural competence significantly vary between academic year level of the students ($F(2, 720) = 37.31, p < .001$). Tukey HSD test revealed students in the fourth year ($M = 72.23, SD = 12.20$) of the BSN program had significantly higher cultural competence than students in the third year ($M = 62.97, SD = 16.68, p < 0.001$) and second year ($M = 62.17, SD = 14.46, p < .001$). On the other hand, analyses have shown that cultural-related variables were significantly associated with the cultural competence of the respondents. Specifically, students who had attended diversity training in the last 12 months ($M = 71.50, SD = 16.86$) had significantly higher cultural competence than those who had not attended ($M = 62.78, SD = 13.04, t = -7.32, p < .001$). Students who had experienced providing care to patients from other race or ethnic group in the past 12 months ($M = 75.06, SD = 11.17$) had likewise higher cultural competence than students who did not have similar experience ($M = 59.95, SD = 14.51, t = -15.80, p < .001$). Moreover, students living in an environment with people with diverse race/ ethnicity ($M = 74.77, SD = 12.74$) were culturally more competent than students who were not living in a culturally diverse environment ($M = 62.02, SD = 14.53, t = -11.97, p < .001$). Finally, those students who had taken care of patients belonging to special population groups in the past 12 months ($M = 68.01, SD = 15.23$) reported higher cultural competence than those without similar experience ($M = 61.94, SD = 14.278, t = -5.10, p < .001$).

A multiple regression analysis was conducted to identify the significant predictors of cultural competence among the students in this study. The multiple regression analysis revealed country of residence, gender, academic level, experience of taking care of diverse patients and living in culturally diverse environment as significant predictors of the students' cultural competence ($F(10, 712) = 41.36, p < .001$), accounting for approximately 35.9% of the total variance of cultural competence ($R^2 = 0.367$; Adjusted $R^2 = 0.359$). Specifically, being a student from the Philippines and India increased the cultural competence by 6.84 (95% CI = 4.23-9.45, $p < .001$) and 5.88 (95% CI = 2.97-8.79, $p < .001$), respectively, than being students from Saudi Arabia. Being male student increased the cultural competence by 2.33 (95% CI = 0.04-4.63, $p = .046$) than being female students. Furthermore, being in the fourth year of the BSN program increased the cultural competence by 5.23 (95% CI = 2.43-8.02, $p < .001$) than being in the second year. Lastly, having experienced providing care for a patient from other race or ethnic group in the past 12 months and living in an environment with people with diverse race/ ethnicity increased the cultural competence by 13.61 (95% CI = 11.39-15.84, $p < .001$) and 6.25 (95% CI = 3.95-8.56, $p < .001$), respectively, than those students who did not have similar experiences.

Conclusion: The findings suggest that the cultural competence of the nursing students from the three countries had varying levels. This implies that appropriate interventions must be planned and implemented to address the specific needs of students from each country. The significant factors that were identified in this study should also be taken into consideration in planning educational intervention to ensure the development of cultural competence among the students. Moreover, assessment of cultural competence development among students should also be done regularly to monitor their progress. Lastly, cultural diversity and cultural competence should be incorporated in both classroom and clinical courses of the students throughout the nursing program to ensure a continuous development of their cultural competence.

References

- Cruz, J. P., Estacio, J. C., Bagtang, C. E., & Colet, P. C. (2016). Predictors of cultural competence among nursing students in the Philippines: a cross-sectional study. *Nurse Education Today*. doi: 10.1016/j.nedt.2016.09.001.
- Cruz, J. P., Colet, P. C., Bashtawi, M. A., Mesde, J. H., & Cruz, C. P. (2016). Psychometric evaluation of the Cultural Capacity Scale Arabic version in nursing students. *Contemporary Nurse*.
- Perng, S. J., & Watson, R. (2012). Construct validation of the Nurse Cultural Competence Scale: a hierarchy of abilities. *Journal of Clinical Nursing*, 21(11-12), 1678-1684.

Contact

cruzjpn@gmail.com

RSC PST 2 - Research Poster Session 2

Understanding School Nurses' Diabetes Education and Transitional Care for Students With Type 1 Diabetes

Mee Kyung Lee, MSN, BSN, RN, PNP, USA

Abstract

Purpose: The purpose of this study was to gain a better understanding of school nurses' current practice and their perspectives about diabetes education and transitional care for students with type 1 diabetes in K-12 school settings. *Transitional care* is defined as "the purposeful, planned movement of adolescents and young adults with chronic physical and medical conditions from child-centered to adult-oriented health-care systems (Blum et al., 1993, p. 570)". This concept has been applied for youth with type 1 diabetes to emphasize successful transitions from childhood to adulthood in terms of care continuity related to changing healthcare systems. Since there are differences between pediatric care and adult care, having independent diabetes self-management responsibilities is an important element of successful transitions in youth with type 1 diabetes. Similarly, the term *transition planning*, which refers to "a coordinated set of activities to assist students with chronic health conditions" (Baszler et al., 2015, p. 125), has been used to discuss nurses' roles in providing care for children with special health needs. These roles include being knowledgeable about applicable laws; maintaining care competence; communicating with healthcare providers, school staff, and families; and being involved in policy development for managing children with chronic health diseases. In the context of school nursing, transitions can refer to changes in children's locations in school systems, such as transferring from one school to another, and entering a new school system. Providing care during any transitional events of students with type 1 diabetes can be time-consuming work for school nurses who coordinate and support diabetes management and education in collaboration with stakeholders, such as parents, teachers, and school staff. However, students with type 1 diabetes may benefit from school nurses' support in any of the forms of transition they face. There is little information about transitional care provided by school nurses for students with type 1 diabetes.

Methods: A convenience sample of 115 school nurses who have taken care of students with type 1 diabetes in public school districts in the State of Washington, U.S. were recruited for a study that was designed to explore the roles of school nurses in diabetes education. A subset of 20 individuals was selected to participate in follow-up interviews. Measures included online surveys. Demographic information was collected, and the Diabetes Education and Transitional Care Questions (Cronbach alpha = .72) were two measures employed. Data was collected by using the REDCap system. Descriptive statistics, and Pearson correlations were used for data analysis.

Results: Participants were highly homogeneous: predominantly female (97 %), non-Hispanic (95 %), White (90 %) RNs (94 %). The majority of participants (79%) were between ages 35 and 64 years. Commonly provided diabetes education in school were carbohydrate counting, hypoglycemia management, nutrition guidance (e.g. healthy eating, snacks, and food choices), and hyperglycemia management. The three educational content topics prioritized by school nurses were hypoglycemia management, carbohydrate counting, and emergency protocols. Sixty-one percent of school nurses did not use any standardized forms to evaluate the effectiveness of their diabetes education for students. Thirty-two percent of participants used the individualized health plan as an evaluation form for diabetes education. Sixty-eight percent of school nurses have provided transitional care. This transitional care focused on transferring students between schools (36 %), communicating with next school nurses (31 %), and supporting independence (23 %). There was no significant relationship between diabetes education and provision of transitional care ($p > .05$).

Conclusion: School nurses provided diabetes education to students with type 1 to cope with hypoglycemic or hyperglycemic situations and to manage insulin related to food intake, but diabetes education provided by school nurses was not related to transitional care provided by them. This indicates that school nurses may be taking care of students with type 1 diabetes in episodic situations, rather than supporting long-term education related to transition. Although some school nurses provided care for

transitions of students with diabetes, this care was more closely related to exchange of information between school nurses, rather than developing students' capabilities for diabetes self-management. Communication is essential between school nurses to know the current needs and abilities of students in diabetes management. However, ideally transitional care in schools does not only mean transferring students' information but also involves preparing students to be independent. School nurses can facilitate the improvement of students' diabetes self-management behaviors using a long-term educational plan to prepare for transitions as an additional part of an individualized health plan for daily diabetes management. This would be beneficial because the four most commonly provided educational topics in schools are ultimately aimed towards students gaining autonomy in diabetes management. Therefore, providing appropriate transitional care in school settings can help students with type 1 diabetes have successful transitions from one school to another, as well as to become independent in diabetes management.

References

- Baszler, R., Rochkes, L., Dolatowski, R., Mendes, I., Yow, B., Butler, S., & Fekaris, N. (2015). Transition Planning for Students with Chronic Health Conditions. *NASN School Nurse, 30*(2), 125–127. doi:10.1177/1942602X14560339
- Blum, R. W., Garell, D., Hodgman, C. H., Jorissen, T. W., Okinow, N. a., Orr, D. P., & Slap, G. B. (1993). Transition from child-centered to adult health-care systems for adolescents with chronic conditions. *Journal of Adolescent Health, 14*, 570–576. doi:10.1016/1054-139X(93)90143-D
- Findley, M. K., Cha, E., Wong, E., & Faulkner, M. S. (2015). A Systematic Review of Transitional Care for Emerging Adults with Diabetes. *Journal of Pediatric Nursing, 30*(5), e47–e62. doi:10.1016/j.pedn.2015.05.019

Contact

mkl9@uw.edu

RSC PST 2 - Research Poster Session 2

Experience of Dutch Post-Doctoral Nurses of Leadership and Career Development: A Qualitative Explorative Study

Wedela de Lange, MSc, RN, Netherlands

Anne Mien Regelink, MSc, RN, Netherlands

Irina Uitewaal-Poslawsky, PhD, RN, Netherlands

Thóra Hafsteinsdóttir, PhD, MSc, BSc, RN, Netherlands

Abstract

Purpose: Currently challenges in health care call for leadership to rebuild the nursing workforce and implement new models of care. Therefore, it is highly important to strengthen the research capacity of nursing faculties by investing in leadership and career development of post-doctoral nurses (1,2). However, research on the experiences of post-doctoral nurses is lacking (3). The purpose of this study is to explore Dutch post-doctoral nurses' experiences with their leadership and career development in research functions.

Methods: A general qualitative design was used, in which the experiences of post-doctoral nurses were explored by conducting open, in-depth interviews (4). The data were analyzed with a thematic analysis approach containing six steps familiarizing with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report (5).

Results: Twelve interviews were conducted with postdoctoral nurses working in research. Participants, eight women and four men, ranging in age from 30 to 65 years, worked in different research functions in the Netherlands. The thematic analysis of the interviews led to five themes: Scientific World; Professional Identity; Balance in Life; Appreciation, Collaboration, and Support; and Career Development and Leadership. Post-doctoral nurses have multiple functions, sometimes with conflicting demands between research and patient care or education. Support, collaboration, appreciation, identifying as a nurse, maintaining balance and leadership behavior are important preconditions for post-doctoral nurses to develop a successful career. On the other hand, the absence of these conditions was hindering post-doctoral nurses in the development of their career.

Conclusion: Post-doctoral nurses experience successful and challenging aspects as described in their career development. They use leadership behavior to balance these aspects in their own way. Leadership behavior was found to be highly important in their career development, in order to become a successful postdoctoral researcher. This study demonstrates that the scientific world can be a tough environment where leadership behavior, support, collaboration, nursing professional identity, and good balance in life is needed. Future research is recommended to gain insight into the actual academic development of nursing science in the Netherlands. The creation and development of more advanced academic functions for postdoctoral nurses in all arenas of nursing, including clinical practice, education and research is strongly recommended.

References

1. Richards D., Coulthard V., & Borglin G. (2014) The state of European nursing research: dead, alive, or chronically diseased? A systematic literature review. *Worldviews on Evidence Based Nursing* 11, 3, 147-55.
2. Hamers J.P.H. (2012) Editorial: Societal impact—an important performance indicator of nursing research. *Journal of Clinical Nursing* 21, 21-22.
3. Al-Nawafleh A. (2013) After the Doctorate: A qualitative study investigating nursing research career development in Jordan. *Nursing and health sciences*. 15, 4, 423.
4. Holloway, I. & Wheeler, S. (2013) Chapter 9. Sampling and Site Selection. *Qualitative Research in nursing and healthcare*. 3rd ed. Oxford: Willey- Blackwell, p. 146.
5. Braun V. Using thematic analysis in psychology. *Qualitative research in psychology* 2006;3(2):77.

Contact

I.E.Uitewaal@umcutrecht.nl

RSC PST 2 - Research Poster Session 2

Correlation Between Presence of Biomarkers Associated With Sarcopenia and Quality of Life in the Elderly

Sandra Cecilia Esparza-Gonzalez, PhD, RN, Mexico
María de los Angeles Villarreal-Reyna, PhD, RN, Mexico
Maria Magdalena Delabra-Salinas, MSN, RN, Mexico
Pedro Enrique Trujillo-Hernandez, MSN, RN, Mexico
Deysi Hernandez, MSN, Mexico

Abstract

Background: Sarcopenia is the loss of mass and function of age-related skeletal muscle. It is now recognized as a clinical problem for the elderly and research in the area is expanding exponentially. (Sayer et al., 2013). Sarcopenia in elderly is often correlated with physical impairment and disability – with potentially severe clinical consequences including loss of mobility, osteoporosis, increased fracture risk, dyslipidemia, insulin resistance modifying quality of life (Cruz-Jentoft et al., 2010; Coin et al., 2013)

Studies have shown that the ACTN3 R577X polymorphism is the only structural gene for which a clear effect of genotype on muscle phenotypes has been demonstrated, especially for athletic women, there is controversy as to which allele (R or X) plays a potential role "Favorable "in the elderly. The variation of MSTN K153R is arguably the strongest candidate to explain the variance among muscle phenotypes in the elderly, but further research with large cohorts is still needed because of the very low population frequently of the 'unfavorable' 153R allele. (Garatachea & Lucía, 2011).

Recent studies show that a genetic approach, such as genotyping of codon 72 p53 polymorphism, associated with assessment of body composition is highly desirable, to prevent and control the risk of loss of muscle mass or reduction of ASMMI (skeletal muscle mass index Appendicular) in the female population. (Di Renzo et al., 2016).

Also genetic, serum markers have also been associated with sarcopenia including IL-6, TNF and vitamin D. Recent data indicate a pivotal role of this protein in the processes of muscle repair and hypertrophy following exercise-induced damage. Also vitamin D deficiency can cause myopathy of varying severity, and clinical studies have indicated that vitamin D status is positively associated with muscle strength and physical.

Purpose: Correlate the presence of serum and genetic markers associated with sarcopenia with quality of life in the elderly

Methods: In this study the population evaluated will be over 65 years of the city of Saltillo, Coahuila, during the months of January to December of 2017, the population will be chosen in a random manner. The study design is descriptive correlational. Participants will be fully informed about the nature, purpose, procedures, and risks of the study to obtain their consent.

The variables used will be biomarkers associate with sarcopenia and quality of life.

Blood samples will be taken from each participant to assess vitamin D deficiency and adequacy, as well as existing polymorphisms and their association with the diagnosis of sarcopenia, as well as anthropometric measurements, physical performance assessment (SPPB) tests, activities (Barthel and Lawton), body bio-impedancemetry, double indirect method because it is calculated by formula from water and total body fat, the muscular strength will be measured with a hand dynamometer (hand Grip), as well as DNA of nutritional risk and the MNA (Mini Nutritional Assessment) for the evaluation of nutritional status.

Results: A description of the results and findings will be made in comparison to studies performed.

Conclusion: Although there are certain complications associated with aging, among which Sarcopenia is found, besides being the result of multiple variables, which makes complex its pathophysiology, diagnosis, prevention and treatment complex. For this reason, it is important to investigate new options to contribute to diagnostic and prevention purposes that may help improve the quality of life of the elderly.

The association between the polymorphisms found and the use of biomarkers in the diagnosis of sarcopenia in the adult population of the city of Saltillo, Coahuila, Mexico will be discussed based on available scientific evidence and its implications for improving the quality of life in the elderly.

References

- Sayer, A., Robinson, S., Patel, H., Shavlakadze, T., Cooper, C., & Grounds, M. (2013). New horizons in the pathogenesis, diagnosis and management of sarcopenia. *Age And Ageing*, 42(2), 145-150. <http://dx.doi.org/10.1093/ageing/afs191>
- Cruz-Jentoft, A., Baeyens, J., Bauer, J., Boirie, Y., Cederholm, T., & Landi, F. et al. (2010). Sarcopenia: European consensus on definition and diagnosis: Report of the European Working Group on Sarcopenia in Older People. *Age And Ageing*, 39(4), 412-423. <http://dx.doi.org/10.1093/ageing/afq034>
- Di Renzo, L., Gratteri, S., Sarlo, F., Cabibbo, A., Colica, C., & De Lorenzo, A. (2016). *Individually Tailored Screening of Susceptibility to Sarcopenia Using p53 Codon 72 Polymorphism, Phenotypes, and Conventional Risk Factors*. Retrieved 4 December 2016

Contact

sceciliaesparza@gmail.com

RSC PST 2 - Research Poster Session 2

Creating a Culture of Health With a Clinical Trial to Promote Physical Activity

Leanne L. Lefler, PhD, APRN-BC, ACNS, FAHA, USA
Sara Jones, PhD, APRN, RN, PMHNP-BC, USA

Abstract

Purpose: The *Culture of Health* initiative endorsed throughout the United States (U.S.) by the *Future of Nursing: Campaign for Action* proposes that health is greatly influenced by complex social factors, such as individual and community perceptions and values, physical environments, socio-economic status, opportunities, access, and equity. Yet, few health promoting interventions consider these key contributors to health. Rates of participation in physical activity (PA) remain low in the U.S., especially in older and marginalized population groups, although evidence is undisputed that death and disability could be drastically reduced by PA. Strategies to change behaviors and attitudes to increase regular PA as an action to improve and promote health in our nation remain elusive.

The purpose of this research was to identify strategies that older and diverse women used while changing their behaviors to incorporate regular PA into their daily lives.

Methods: We performed a process evaluation of the Lifestyle Physical Activity for Older Women (LPAW) clinical trial using a descriptive, phenomenological qualitative design. We used the Culture of Health framework to consider the breadth of factors that may influence participation in regular physical activity. Using maximum variation sampling, we interviewed 20 older women about their experiences while participating in the LPAW clinical trial. Data were analyzed using narrative content analysis with constant comparison technique. Techniques to improve rigor were employed.

Results: Eight African American, 11 white women with 1 Native American from the control and intervention arms of the trial were interviewed. Participants had a mean age of 68 years (range 60-94), 40% had a history of cardiovascular disease, 85% were hypertensive, and 35% suffered from diabetes type II. Socio-economic status was low as 45% had annual incomes of less than \$30K and 50% had only a high school education.

Five central themes described how the older women changed their mindset, behavior and attitude about PA, which resulted in regular PA continuing even after trial completion. Results indicated that: 1) Sensed Benefits, 2) Motivation, and 3) Self-efficacy were central to success, while a reduction in 4) Barriers to PA were essential before regular participation in PA could occur. The last theme was described as a "life-changing awareness" of the significance of PA to health. This theme indicated that PA had become a shared value among these older women, an outcome directly related to the Culture of Health framework. An explanatory model, grounded and developed from the data, describes salient factors that these women used to engage in PA.

Conclusion: This study suggests key strategies to include in interventions to promote regular PA as a shared value among older and diverse women. Making regular PA a shared value of health is an action promoted by the Culture of Health initiative that will improve population health and well-being.

References

Bardach, S. H., & Schoenberg, N. E. (2014). The content of diet and physical activity consultations with older adults in primary care. *Patient Education and Counseling*, 95(3), 319-324. doi: 10.1016/j.pec.2014.03.020
Bethancourt, H. J., Rosenberg, D. E., Beatty, T., & Arterburn, D. E. (2014). Barriers to and facilitators of physical activity program use among older adults. *Clinical Medicine & Research*, 12(1-2), 10-20. doi: 10.3121/cmr.2013.1171
Robert Wood Johnson Foundation. (2016). *Building a Culture of Health*. Retrieved from <http://www.rwjf.org/en/how-we-work/building-a-culture-of-health.html>

Contact

L.Lefler@uams.edu

RSC PST 2 - Research Poster Session 2

Nursing Leadership: Influence in Moral Courage

Georgia A. Dinndorf-Hogenson, PhD, RN, CNOR, USA

Abstract

Purpose: The purpose of this descriptive study is to understand how and which factors influence the perioperative nurses' moral courage in the operating room.

Methods: A mail questionnaire was randomly distributed to western United States perioperative registered nurses yielding a 30 % response rate ($N = 146$).

Results: Fear of reprisal and retaliation were positively correlated with moral distress ($p = .000$). Significant negative correlations occurred between fear of reprisal and retaliation and (a) peer support ($p = .000$), (b) the institutions response to ethical concerns ($p = .003$), (c) institution punishment of reporters ($p = .015$), (d) level of moral courage exhibited when not in the best interest of the patient ($p = .037$), and (e) level of moral courage in speaking up when risks are known ($p = .038$). The level of moral courage needed to overcome being silent showed positive correlations with (a) frequency of immediate reporting of ethical issues to administration ($p = .000$), (b) questioning a provider when not in the best interest of the patient ($p = .000$), and (c) frequency of speaking up regarding ethical issues ($p = .000$). Sufficient performance of the MCQN Likert-type scale showed contrast of scale scores to reflect variance; Cronbach's alpha measured 0.86.

Conclusion: Findings indicate the moral courage model performance was robust. Perioperative nurses reported high moral courage in situational threats to patient safety. Significant findings clustered influencing factors of fear, previous experience, peer support, and institutional culture. Supportive nursing management and administration promote perioperative nurses' exhibition of moral courage. Themes emerged in qualitative data: (a) nurse leaders who exhibited moral courage and supportive of moral courage increased staff nurses' speaking up with moral courage; (b) Nurses reported non-supportive nurse leaders created moral distress, job dissatisfaction, nurses leaving the job or profession, and fear of reprisal and retaliation. Future research is indicated for supportive nursing management and policy creation promoting moral courage. Nurse educators should support moral courage throughout the curriculum building a sturdy foundation for the novice nurse.

References

- Bickhoff, L., Levett-Jones, T., & Sinclair, P. M. (2016). Rocking the boat – nursing students' stories of moral courage: A qualitative descriptive study. *Nurse Education Today*, 4235-40. doi:10.1016/j.nedt.2016.03.030
- Brown, G. (2015). Ethical and moral courage is distress among professional nurses: A workplace issue. *ABNF Journal*, 26(3), 63-64.
- Dinndorf-Hogenson, G. (2015). Moral courage in practice: Implications for patient safety. *Journal of Nursing Regulation*, 6(2), 10-16. DOI: [http://dx.doi.org/10.1016/S2155-8256\(15\)30381-1](http://dx.doi.org/10.1016/S2155-8256(15)30381-1)
- Edmondson, C. (2015). Strengthening Moral Courage Among Nurse Leaders. *Online Journal of Issues in Nursing*, 20(2), 9. doi:10.3912/OJIN.Vol20No02PPT01
- Gallagher, A. (2011). Moral Distress and Moral Courage in Everyday Nursing Practice. *Online Journal of Issues in Nursing*, 16(2), 1. doi:10.3912/OJIN.Vol16No02PPT03
- MacRae, R., Rooney, K. D., Taylor, A., Ritters, K., Sansoni, J., Lillo Crespo, M., & ...O'Donnell, B. (2016). Making it easy to do the right thing in healthcare: Advancing improvement science education through accredited pan European higher education modules. *Nurse Education Today*, 42 pp. 41-46. doi:10.1016/j.nedt.2016.03.023
- Savel, R. H., & Munro, C. L. (2015). Moral distress, moral courage. *American Journal of Critical Care*, 24(4), 276-278. doi: 10.4037/ajcc2015738

Contact

ghogenson@csbsju.edu

RSC PST 2 - Research Poster Session 2

Use of Biomarkers for the Evaluation of a Psychoeducational Program in Mexican Informal Caregivers

Nadía Jasso, RN, Mexico

María de los Angeles Villarreal-Reyna, PhD, RN, Mexico

Jesus Acevedo-Alemán, PhD, Mexico

Maria Magdalena Delabra-Salinas, MSN, RN, Mexico

Abstract

Purpose: Evaluate, through biomarkers the effect of a psychoeducational program addressed for nursing guide to improve the emotional health in mexicans informal caregivers of older adults with dementia.

Methods: Quasi-experimental design with repeated measurements and two different groups: the experimental group will participate in a psychoeducational program which consist in 12 sessions of two hours per session in which will develop abilities for the solution of problems for care and self-care in the informal caregivers participants; the control group will receive conferences about chronic illness and healthy life style. The central hypothesis in this project is that the informal caregivers participants in the experimental group will reduce significantly his level of stress, anxiety and depression in comparison to the participants of a control group, rated through the use of biomarkers.

The sample size will be calculated using ANOVA for repeated measurements with three levels (level of trustfulness 95%, potency =0.90) for the interaction time per group, and a size of the large effect. We will use the nQuery Advisor 7.0 software. The variables result that will be measured before, during, after and folow-up about the experimental condition through validated instruments will be associated to the profiles of genetic expression in cortisol levels in saliva and serotonin in blood. Additionally will be identify the presence of polymorphism associated at this study variables. The data will be processed on the SPSS V24 database. The study will be through the semester August - September 2017.

Results: The variables result will be analyzed using ANOVA of repeated measurements and the post-hoc analysis to determine the differences between the groups and the effect size.

Conclusion: Will be discussed the use of biomarkers in the evaluation about the effect of the interventions in nursing in relations with the health condition that affect the quality of life of the mexican informal caregivers of older adults with dementia. In addition how nursing could be benefit with the use of biomarkers like an objective tool that promote the information about the mechanism that could promote the emotional health in informal caregivers.

References

- Clarkson P., Giebel, C.M., Larbey, M., Roe, B., Challis, D., Hughes, J., Jolley, D., Poland, F. & Russell, I. (2016). A protocol for a systematic review of effective home support to people with dementia and their carers: components and impacts. *Journal of Advanced Nursing*, 72(1):186-96.
- Granger, D.A., Johnson, S.B., Szanton, S.L., Out, D. & Schumann, L.L. (2012). Incorporating salivary biomarkers into nursing research: an overview and review of best practices. *Biological Research for Nursing*, 14(4):347-56.
- Lauritzen J., Pedersen, P.U., Sørensen, E.E. & Bjerrum, M.B. (2015). The meaningfulness of participating in support groups for informal caregivers of older adults with dementia: a systematic review. *The Joanna Briggs Institute Library Database System Rev Implement Rep*. 373-433.
- McCabe, M., You, E. & Tatangelo, G. (2016) Hearing their Voice: a systematic review of dementia family caregivers' needs. *Gerontologist*, 56 (5): 70-88.
- Sánchez Martínez, P.M. (2013). La saliva como fluido diagnóstico. *Educación Continuada en el Laboratorio Clínico*, 16: 93-108.

Contact

nadiauresty@hotmail.com

RSC PST 2 - Research Poster Session 2

Cognitive Concepts Predicting Medication Adherence and Asthma Control in Inner-City Adolescents

Hyekyun Rhee, PhD, RN, FAAN, USA

Annette Grape, PhD, LCSW, USA

Donald Harrington, MS, MBA, USA

Laurene Tumiel-Berhalter, PhD, USA

Elizabeth Sloand, PhD, RN, PNP-BC, FAAN, USA

Mona Wicks, PhD, RN, FAAN, USA

Abstract

Purpose: Asthma is the most common chronic health condition in adolescents. Poor adherence to treatment is often attributable to high asthma-related morbidity in inner-city adolescents. According to Social Cognitive Theory (SCT), individuals' behavior (e.g., medication adherence) is influenced by cognitive factors such as outcome expectancy, self-efficacy and the perceptions of personal/environmental impediments. Adolescents with higher self-efficacy are more likely to adhere to their asthma treatment.¹⁻⁵ Outcome expectancy is also associated with adherence to desired behaviors, resulting in better health outcomes.⁶⁻⁸ Yet, little is known about the extent to which outcome expectancy and perceptions of impediments affect medication adherence and asthma control in adolescents with asthma. Furthermore, the relationships among the three cognitive concepts of SCT remain to be examined. The aims of this study were: (1) to examine the relationships between the three cognitive factors; and (2) to determine the extent to which three cognitive factors (self-efficacy, outcome expectancy and impediment perception) predict medication adherence and asthma control in inner-city adolescents.

Methods: Subject eligibility criteria included (1) age between 12-20 years; (2) diagnosed asthma that has required health service use (preventive or acute) within 12 months prior to enrollment; (3) persistent asthma; (4) no other chronic medical conditions requiring daily medication; (5) primary residence located in inner cities; and (6) ability to understand spoken and written English. Participants were recruited from Buffalo NY (n=123), Baltimore MD (n=100), and Memphis TN (n=66). Modified asthma expectancy scale measures the cognitive constructs of SCT.⁹ The scale consists of three subscales, outcome expectancy ($\alpha=.76$), self-efficacy ($\alpha=.69$) and impediment perception ($\alpha=.70$). For medication adherence, Horne's Medication adherence report scale (MARS, $\alpha=.76$),¹⁰ was used in combination with the self-reported number of days preventive medication were used in the past 4 weeks. To assess asthma control, four impairment-based criteria (symptoms, nocturnal awakening, activity limitations and rescue inhaler use) were measured on a 4-point scale. Pearson correlations were computed to examine the relationships among the three cognitive concepts. Multiple regression analyses were conducted to examine the extent to which the cognitive factors predicted adolescents' medication adherence and asthma control. The regression models included sociodemographic factors (gender, age and household income) and age at the first asthma diagnosis as covariates.

Results: Of 289 inner-city adolescents (mean age=14.591.92) who participated in the study, 51% were female, most (>83%) were black, and 71% had public health insurance. The majority reported either not well controlled (51%) or very poorly controlled asthma (35%), and 71% (n=204) were on at least one preventive medication. The most common reason for not taking preventive medication was forgetfulness (42%) followed by "don't need it" (36%). Self-efficacy was positively associated with outcome expectancy ($r=0.52$, $p<.001$) and negatively with impediment perception ($r=-0.18$, $p=.002$). No significant relationship was found between outcome expectancy and impediment perception. In regression models where each cognitive factor was considered separately, after controlling for covariates, medication adherence scale was predicted by impediment perception ($B=-0.427$, $p=.004$), and actual number of adherence days in the past month was predicted by outcome expectancy ($B=0.185$, $p=.027$) and self-efficacy ($B=0.178$, $p=.03$). Symptom control was also predicted by self-efficacy ($B=-0.031$, $p=.017$) and impediment perception ($B=-0.024$, $p=.022$). In a full model where all three cognitive factors were considered simultaneously along with the covariates, self-efficacy and outcome expectancy were no longer significant predictors of

medication adherence or asthma control. However, impediment perception remained a significant predictor of medication adherence ($B=0.08$, $p=.006$), suggesting that as impediments increase adherence decreases. Medication adherence was higher in males ($B=1.32$, $p=.013$), and the number of preventive medication uses in the past month was greater in those from higher household income ($B=0.13$, $p=.042$) and lower in those whose asthma was diagnosed later in life ($B=-0.08$, $p=.003$). Symptom control was greater in those who were older ($B=-0.02$, $p=.04$), who were from higher income families ($B=-0.03$, $p=.004$), and whose asthma was diagnosed later in life ($B=-0.01$, $p=.021$).

Conclusion: Three cognitive factors including outcome expectancy, self-efficacy and impediment perceptions are associated with each other and influence medication adherence and/or symptom control in adolescents with asthma. The relationships, to some extent, appear to be accounted for by sociodemographic factors and age at diagnosis, suggesting the importance of understanding cognitive factors in the context of the circumstantial factors. These findings support the SCT's major assertion that individuals' behaviors are influenced by cognitive factors and their complex interplay with other inter- and intra-personnel factors. This study underscores the need for tailored interventions taking into account individuals' gender, age and SES as well as chronicity of asthma, which can modify cognitive factors to promote medication adherence and asthma outcomes in inner-city adolescents.

References

1. Williams LK, Joseph CL, Peterson EL, et al. Patients with asthma who do not fill their inhaled corticosteroids: A study of primary nonadherence. *J Allergy Clin Immunol*. 2007;120(5):1153-1159.
2. Rhee H, Belyea MJ, Cirzynski S, Brasch J. Barriers to asthma self-management in adolescents: Relationships to psychosocial factors. *Pediatr Pulmonol*. 2009;44(2):183-191.
3. Holley S, Morris R, Knibb R, et al. Barriers and facilitators to asthma self-management in adolescents: A systematic review of qualitative and quantitative studies. *Pediatr Pulmonol*. 2016.
4. Mosnaim GS, Pappalardo AA, Resnick SE, et al. Behavioral interventions to improve asthma outcomes for Adolescents: A systematic review. *The Journal of Allergy and Clinical Immunology: In Practice*. 2016;4(1):130-141.
5. Knight D. Beliefs and self-care practices of adolescents with asthma. *Issues in Comprehensive Pediatric Nursing*. 2005;28(2):71-81.
6. Marszalek J, Price LL, Harvey WF, Driban JB, Wang C. Outcome expectations and osteoarthritis: Perceived benefits of exercise are associated with self-efficacy and depression. *Arthritis Care Res (Hoboken)*. 2016.
7. O'Brien J, Finlayson K, Kerr G, Shortridge-Baggett L, Edwards H. Using a theoretical approach to identify factors influencing adherence to an exercise programme for adults with venous leg ulcers. *J Health Psychol*. 2016.
8. Stetler C. Adherence, expectations and the placebo response: Why is good adherence to an inert treatment beneficial? *Psychol Health*. 2014;29(2):127-140.
9. Holden G, Wade SL, Mitchell H, Ewart C, Islam S. Caretaker expectations and the management of pediatric asthma in the inner city: A scale development study. *Soc Work Res*. 1998;22(1):51-59.
10. Horne R, Weinman J. Patients' beliefs about prescribed medicines and their role in adherence to treatment in chronic physical illness. *J Psychosom Res*. 1999;47(6):555-567.

Contact

hyekyun_rhee@urmc.rochester.edu

RSC PST 2 - Research Poster Session 2

Partner Communication for HIV Prevention Among Refugee Hispanic Women in South Florida

Rosina Cianelli, PhD, MPH, RN, FAAN, IBCLC, USA

Natalia Villegas, PhD, MSN, RN, IBCLC, USA

Brian E. McCabe, PhD, USA

Lila de Tantillo, BSN, RN, PhDc, USA

Nilda (Nena) Peragallo Montano, DrPH, RN, FAAN, USA

Abstract

Purpose: The number of refugees increased in recent years due to factors worldwide, including violence, wars, political strife, and natural disasters. Refugees who are Hispanic women (RHW) in South Florida are a vulnerable population at risk of acquiring HIV infection. Although studies have shown a relationship between partner communication for HIV prevention and behavior changes, none have studied RHW. **The purpose** of this study was to assess whether predictors suggested by the literature (age, years living in the US, having insurance, self-esteem, number of partners, having a stable relationship with a male partner) are related to partner communication for HIV prevention among RHW in Florida.

Methods: The study is a secondary analysis that uses baseline data from a randomized controlled experimental study, SEPA. A total of 99 refugees Hispanic women from South Florida, 18-50 years of age, participated in the study. Adapted from Catania, a 10 item scale was used to elicit information about the women's main or primary partner. Items assessed were conversations with male partners about condoms and HIV/AIDS, health, negotiating efforts, and HIV/AIDS concerns during the past 3 months. The scale has an internal consistency of $\alpha = .82$.

Results: The mean age of participants was 33.79 (SD = 8.93), with a mean number of years of education of 15.12 (SD = 3.59). The majority of the participants (69 %) reported living with their partners, and the average of lifetime sexual partners was $M = 4.21$ (SD = 5.51). The mean score for communication with partner about HIV 3.31 (SD = 3.25, range 0–10). The largest group of women (32 %) reported no communication with their partners about HIV, more than half of the participants scored 2 points or higher on this scale, and only 25 % scored at 6 or above (on a 10-point scale). We used logistic regression analysis in SPSS 21 with communication with the partner about HIV as the outcome. As predictors we included age, years living in the US, having insurance, self-esteem, number of partners, having a stable relationship with a male partner. Having more than one partner was positively related to partner communication $B = 1.523$, $SE = .684$, $p = .026$, OR 4.585 and having a formal relationship with a male partner was negative related to partner communication. $B = -1.262$, $SE = .0443$, $p = .004$, OR.283

Conclusion: This study contributed to the expansion of knowledge about Hispanic refugee women in the U.S. The perspectives of women who have undergone the refugee experience can provide valuable insight regarding the role of partner communication for HIV prevention among a unique segment of the Hispanic immigrant population. It is also noteworthy that women in this study had very low communication with partners about HIV. It should be considered that the cultural context in which Hispanic women live may underscore the importance of promoting communication strategies for HIV prevention. Culturally competent sexual health education interventions in this population may impact self-efficacy for HIV prevention.

References

1. Centers for Disease Control and Prevention. Statistics Overview. 2015. <http://www.cdc.gov/hiv/statistics/overview/> (2016). Accessed 2 Oct 2015.
2. UNAIDS. Fact sheet 2014. http://www.unaids.org/sites/default/files/en/media/unaids/contentassets/documents/factsheet/2014/20140716_FactSheet_en.pdf (2014). Accessed 24 January 2016.
3. UNAIDS. Global report: UNAIDS report on the global AIDS epidemic 2013. http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Global_Report_2013_en_1.pdf (2013). Accessed 24 January 2016.

4. Centers for Disease Control and Prevention. HIV/AIDS: Basic statistics. <http://www.cdc.gov/hiv/statistics/basics.html> (2015). Accessed 4 Nov 2015.
5. Centers for Disease Control and Prevention. HIV among Latinos. <http://www.cdc.gov/hiv/group/raciaethnic/hispaniclatinos/index.html> (2016). Accessed 24 Sept 2015.
6. AIDS Healthcare Foundation. New South Florida HIV cases skyrocket. <http://www.aidshealth.org/#/archives/21298> (2015). Accessed 10 Nov 2015.
7. The White House Office of National AIDS Policy. National HIV/AIDS Strategy for the United States. <https://www.whitehouse.gov/sites/default/files/uploads/NHAS.pdf> (2010). Accessed 5 August 2015.
8. U.S. Department of Health and Human Services. Human immunodeficiency virus (HIV) fact sheet. <http://www.hhs.gov/opa/pdfs/hiv-fact-sheet.pdf> (2012). Accessed 4 Oct 2015.
9. Florida Department of Health. HIV among Hispanics. http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/_documents/fact-sheet/2014/2014-hispanic-fact-sheetb.pdf (2014). Accessed 24 January 2015.
10. Florida Department of Health. HIV among women. http://www.floridahealth.gov/diseases-and-conditions/aids/surveillance/_documents/fact-sheet/2014/2014-women-fact-sheet1.pdf (2014). Accessed 7 January 2016.
11. Carrier J. Sexual behavior and spread of AIDS in Mexico. *Med Anthropol* 1989; 10(2):129-142.
12. Cianelli, R., Ferrer, L., McElmurry, B. HIV prevention and low-income Chilean women: machismo, marianismo and HIV misconceptions. *Culture, Health & Sexuality* 2008;10(3):297-306.
13. Cianelli, R., Ferrer, L., Norr, K., Miner, S., Irrarrazabal, L., Bernales, M., Peragallo, N., Levy, J., Norr, J., McElmurry, B. Mano a Mano-Mujer: An Effective HIV Prevention Intervention for Chilean Women. *Health Care Women Int* 2012;33(4):321-341.
14. Peragallo, N., DeForge, B., O'Campo, P., Lee, Sun Mi, Kim YJ, Cianelli, R., Ferrer, L. A Randomized Clinical Trial of an HIV-Risk-Reduction Intervention Among Low Income Latina Women. *Nurs Res* 2005;54(2):108-118.
15. Peragallo N, Gonzalez-Guarda, R., McCabe, B., Cianelli, R. The Efficacy of an HIV Risk Reduction Intervention for Hispanic Women. *AIDS and Behavior* 2012;16(5):1316-1326.
16. Villegas, N., Cianelli, R., Gonzalez-Guarda, R., Kaelber, L., Ferrer, L., Peragallo, N. Predictors of Self-Efficacy for HIV Prevention Among Hispanic Women in South Florida. *Journal of the Association of Nurses in AIDS Care* 2013;24(1):27-37.

Contact

rcianelli@miami.edu

RSC PST 2 - Research Poster Session 2

Time Perspectives and Health Behaviors of Adults With Hypertension: A Feasibility Study

Stephanie E. Kitch, BSN, RN, USA

Abstract

Purpose: Hypertension is a considerable population health problem. Nearly a third of American adults have hypertension; the prevalence of hypertension is also growing among young adults (Mozaffarian et al., 2015). Furthermore, almost half of adults with hypertension do not have the condition well-controlled (Nwankwo, Yoon, Burt, & Gu, 2013). Uncontrolled hypertension can lead to serious future health events, such as heart attack, stroke, organ damage, and even death (American Heart Association, 2016). Yet, hypertension is often preventable or manageable with the adoption of healthy behaviors (Centers for Disease Control and Prevention, 2015; James et al., 2014). Despite the importance of a healthy lifestyle, people often resist making necessary lifestyle changes, especially young adults (Carter & Kelly, 2013). One potentially important factor in health behavior is time perspective, or how people incorporate the past, present, and future into daily life (Zimbardo & Boyd, 1999). Past, present, and future time perspectives may influence health behaviors in varying ways, and time perspectives may be different for individuals of different ages (Guthrie, Lessl, & Ward, 2013; Sansbury, Dasgupta, Guthrie, & Ward, 2014). However, additional research is needed to examine time perspectives and health behaviors within the context of hypertension. Therefore, the purpose of this study was to examine time perspectives and health behaviors in adults with hypertension, and explore feasibility of selected recruitment methods for a larger study.

Methods: This study implemented a cross-sectional, descriptive correlational design. Time perspectives were measured using the Zimbardo Time Perspective Inventory (ZTPI), which captures past (negative and positive), present (fatalistic and hedonistic) and future perspective subscales (Zimbardo & Boyd, 1999). Hypertension-specific time perspectives were measured using the Hypertension Temporal Orientation (HTO) scale (Brown & Segal, 1997). Health-promoting behaviors (health responsibility, physical activity, nutrition, spiritual growth, interpersonal relations, and stress management subscales) were measured with the Health-Promoting Lifestyle Profile II (HPLP-II; Walker, Sechrist, & Pender, 1995). Each of these measurements uses a Likert scale format, and each subscale is reported as a mean. Recruitment efforts incorporated the use of flyers at local high traffic public spaces, businesses, and clinics, a display table at a local community event, and the use of a referral system. Participants who completed the survey were given the option to refer a young hypertensive adult (18-35 years old) using a referral card with a unique ID. If the referral card was returned, the original participant was entered in a gift card raffle. Participants completed a paper survey. To address missing data, mean substitution was used if a participant was missing only one item from any subscale. Data were analyzed using descriptive statistics. Additionally, correlations were used to examine the association among age, each mean time perspective subscale scores, and mean health-promoting behavior subscale scores.

Results: Fifty surveys were administered. Only four participants opted to take a referral card; two were returned. The local community event yielded the largest number of participants (n = 29). Three surveys were missing multiple data points in one or more subscales; thus, the final sample consisted of 47. Of these, 34 (72.3%) were women, 26 (55.3%) were Caucasian, 15 (31.9%) African American, and 6 (12.7%) Hispanic, Asian or other races. Ages ranged between 22 and 72 years. Categorized by generation, twelve (25.5%) were between 18 and 35; 16 (34%) between 36 and 51, 17 (36.2%) between 52-70, and the remainder were 71+ (n = 2, 4.3%) A total of 25 (0.4%) data points were calculated using mean substitution. Ranging from 1-5, mean (SD) ZTPI scores were 2.652 (0.712) for past negative, 3.865 (0.573) for past positive, 2.214 (0.623) present fatalistic, 3.227 (0.587) present hedonistic, and 3.834 (0.497) for future. Preliminary data analyses revealed several significant correlations. Negative correlations were found between a past negative perspective and nutrition ($r = -.357, p = .014$), interpersonal relations ($r = -.314, p = .031$), and total health-promoting lifestyle ($r = -.309, p = .034$). Past positive perspective significantly positively correlated with spiritual growth ($r = .343, p = .018$). Present hedonistic was positively correlated to spiritual growth ($r = .319, p = .029$), stress management ($r = .321,$

p = .028), and total health-promoting lifestyle (r = .288, p = .05). Higher present fatalistic perspectives negatively correlated with health responsibility (r = -.332, p = .022), spiritual growth (r = -.401, p = .005), interpersonal relations (r = -.391, p = .007), and total health-promoting lifestyle (r = -.356, p = .014). Higher future perspectives correlated with spiritual growth and interpersonal relations (r = .403, p = .005; r = .353, p = .015, respectively). However, neither present nor future time perspective correlated with physical activity or nutrition, which was an unexpected finding. The HTO measure did not significantly correlate to any health-promoting behaviors. Age did not significantly correlate to any time perspective. Additional data analysis is ongoing.

Conclusion: Recruitment at events within the local community appeared to be the most successful approach, although the referral process yielded very few prospective participants. Recruitment strategies yielded adults of all ages. However, there was no significant correlation between age and mean time perspective scores with preliminary data analysis. In this sample, mean past positive and future time perspective scores were the highest. A number of significant relationships between various time perspectives and health-promoting behaviors emerged. However, unexpected nonsignificant relationships were also identified. A future study may require a larger sample size to detect additional significant relationships among age, time perspectives, and/or health-promoting behaviors while controlling for other variables. As indicated in preliminary analyses, individual time perspectives influence different health-promoting behaviors, and in differing directions. Thus, incorporating an individual's past, present, and future perspective may provide a well-rounded approach to identifying underlying behavioral influences. Gaining a better understanding of the relationship between time perspectives and health-promoting behaviors will guide nurse researchers in the design of tailored, individualized interventional strategies to encourage health-promoting behaviors. Individual interventional strategies can be implemented to better prevent or manage hypertension, and to reduce the long-term negative health outcomes associated with uncontrolled hypertension.

References

- American Heart Association. (2016). *The facts about high blood pressure*. Retrieved from http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/AboutHighBloodPressure/The-Facts-About-High-Blood-Pressure_UCM_002050_Article.jsp#.WEhNw00zUdU
- Brown, C., & Segal, R. (1997). The development and evaluation of the hypertension temporal orientation (HTO) scale. *Ethnicity & Disease, 7*(1), 51-54.
- Carter, M. R., & Kelly, R. K. (2013). Self-reported health status, body mass index, and healthy lifestyle behaviors: Differences between baby boomer and generation X employees at a southeastern university. *Workplace Health & Safety, 61*(9), 409-18. doi:10.3928/21650799-20130827-67
- Centers for Disease Control and Prevention, Division of Heart Disease and Stroke Prevention. (2015). *High blood pressure fact sheet*. Retrieved from http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_bloodpressure.htm
- Guthrie, L. C., Lessl, K., Ochi, O., & Ward, M. M. (2013). Time perspective and smoking, obesity, and exercise in a community sample. *American Journal of Health Behavior, 37*(2), 171-180. doi:10.5993/AJHB.37.2.4
- James, P. A., Oparil, S., Carter, B. L., Cushman, W. C., Dennison-Himmelfarb, C., Handler, J., ... Ortiz, E. (2014). 2014 evidence-based guideline for the management of high blood pressure in adults: Report from the panel members appointed to the eighth joint national committee (JNC 8). *JAMA: The Journal of the American Medical Association, 311*(5), 507-520. doi:10.1001/jama.2013.284427
- Mozaffarian, D., Benjamin, E., Go, A., Arnett, D., Blaha, M., Cushman, M., ... Turner, M. (2015). Heart disease and stroke statistics—2015 update: A report from the American heart association. *Circulation, 131*, e29-e322. doi: 10.1161/CIR.000000000000152
- Nwankwo, T., Yoon, S. S., Burt, V., & Gu, Q. (2013). Hypertension among adults in the United States: National health and nutrition examination survey, 2011-2012. *NCHS Data Brief, 133*, 1-8.
- Sansbury, B., Dasgupta, A., Guthrie, L., & Ward, M. (2014). Time perspective and medication adherence among individuals with hypertension or diabetes mellitus. *Patient Education and Counseling, 95*(1), 104-110. doi: 10.1016/j.pec.2013.12.016
- Walker, S., Sechrist, K., & Pender, N. (1995). Health promotion model: Instruments to measure health promoting lifestyle: Health-promoting lifestyle profile [HPLP-II] (adult version). *University of Michigan: Deep Blue*. Retrieved from <http://deepblue.lib.umich.edu/handle/2027.42/85349>
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology, 77*(6), 1271-1288. doi:10.1037/0022-3514.77.6.1271

Contact

skitch@uams.edu

RSC PST 2 - Research Poster Session 2

1991-2015 Trends of Adolescent Smoked First Whole Cigarette Before Age 13 in the U.S.

Yu-ku Chen, BSN, RN, USA

Yu-han Zheng, BSN, RN, USA

Jiunn-Jye Sheu, PhD, MSPH, MCHES, USA

Abstract

Background: The Youth Risk Behavior Survey (YRBS) has been established to monitor tobacco use trends among adolescents. Most reports had reported adolescent's current smoking prevalence trends by either sex, race/ethnicity, or grade separately. This study took a more holistic view and identified the disparity by sex-grade-race/ethnicity specific rate trends of a first whole cigarette smoked before age 13.

Problem: The longitudinal prevalence trends of a first whole cigarette smoked before age 13 stratified by more than 2 demographic variables have not been extensively investigated. The published studies are either of lack of national sampling representation, small in sample size, cross-sectional design, or reported prevalence trends by only one or two demographic variables from participant's grade, gender, or race/ethnicity.

Purpose: This study described the 24 years longitudinal prevalence trends of a first whole cigarette smoked before age 13, compared them in the specific grades, genders, and major races/ethnicities, and suggested nursing intervention.

Methods: The Centers for Disease Control and Prevention (CDC) established this biennial Youth Risk Behavior Surveillance System (YRBSS) in 1991 to display health-risk behaviors amongst youth at national, state, and local levels. The YRBSS surveys adolescents in grades levels 9-12 from sampled schools across the United States. Therefore this offers the maximum representative data for youth health risk behaviors. The CDC designed YRBSS to see the health-risk behaviors among high school students. This assesses whether these behaviors increase, decrease, or stay the same over time. YRBSS focuses only on youth health-risk behaviors.

Results: The trends in adolescent's smoking a whole cigarette before the age of 13 changed by each grade progression. Across 24 years, males of Hispanic in grades 9th and 12th and African Americans in the 9th grade had higher proportions of smoking a whole cigarette before the age of 13. There was not a clear distinction among male and female White 9th-12th graders, Hispanics grades 10th and 11th, and African Americans 10th, 11th and 12th.

Conclusion: Resources that are distributed and policies established should be made based on scientific evidence with sufficient stratification. Especially when public health budgets and resources are limited, priorities should be given to the higher risk groups identified by such analysis.

References

Centers for Disease Control and Prevention. (1999). Cigarette smoking among high school students--11 states, 1991-1997. *Morbidity & Mortality Weekly Report*, 48(31), 686-692.

Everett, S. A., Husten, C. G., Warren, C. W., Crossett, L., & Sharp, D. (1998). Trends in tobacco use among high school students in the United States, 1991-1995. *Journal of School Health*, 68(4), 137-140.

Gao, Kenneth, Wiederhold, Mark D., Kong, Lingjun, & Wiederhold, Brenda K. (2013). Clinical experiment to assess effectiveness of virtual reality teen smoking cessation program. *Studies in Health Technology and Informatics*, 191, 58-62.

Hockenberry, J. M., Timmons, E. J., & Vander Weg, M. (2010). Smoking, parent smoking, depressed mood, and suicidal ideation in teens. *Nicotine & Tobacco Research*, 12(3), 235-242 doi: ntr/ntp199

Kann, Laura, Kinchen, Steve, Shanklin, Shari L., Flint, Katherine H., Hawkins, Joseph, Harris, William A., . . . Zaza, Stephanie. (2014). Youth Risk Behavior Surveillance — United States, 2013. *Mortality & Morbidity Weekly Report*, 63(4), 1-170.

Neff, Linda J., Arrazola, René A., Caraballo, Ralph S., Corey, Catherine G., Cox, Shanna, King, Brian A., . . . Husten, Corinne G. (2015). Frequency of tobacco use among middle and high school students -- United States, 2014. *Mortality & Morbidity Weekly Report*, 64(8), 1061-1065.

Prevention, Centers for Disease Control and. (2014, December 11, 2015). Smoking and Tobacco Use: Fast facts. from http://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/

Contact

yuku.chen@rockets.utoledo.edu

RSC PST 2 - Research Poster Session 2

Characteristics of Nurse Directors That Contribute to High Registered Nurse Satisfaction Scores

Debra A. Burke, DNP, MBA, RN, NEA-BC, USA

Abstract

Purpose: Attracting and retaining Registered Nurses (RN) is essential to ensure excellence in patient care delivery. Research studies have identified many factors that contribute to job satisfaction and impact RN retention. A supportive practice environment, strong nurse manager support, and an emphasis on quality all impact nurse satisfaction (Kelly, McHugh & Aiken, 2011; Smith, Hood, Waldman & Smith, 2005). Additionally, good communication, respect and feeling cared for have been identified as positive attributes of Nurse Directors (NDs) that RNs value (Feather, Ebright, Bakas, 2015).

Many satisfaction surveys are quantitative and provide clinical areas with scores, but the details behind those scores are missing. Despite what is known about RN satisfaction, there is a lack of research exploring perspectives of both the RNs and the NDs in settings where job satisfaction is reportedly positive.

The purpose of this study was to explore Registered Nurse and Nurse Director perceptions of positive ND characteristics that contribute to high work environment satisfaction scores.

Of note, at the study hospital, nurse director is synonymous with the term nurse manager.

Methods: This was a qualitative study, utilizing one-on-one interviews with NDs (n=9) and RNs (n=9). Interview questions utilized an appreciative inquiry framework intended to identify strengths, best practices and successes of NDs.

Thirty three units were invited to participate from a variety of clinical areas, all of which scored higher than benchmark on the Practice Environment Scale of the Nursing Work Index (PES-NWI) quantitative survey in the component of "Nurse Manager ability, leadership and support of nurses" in an acute care hospital (Lake, 2002).

Qualitative content analysis of transcribed audiotapes was conducted. Two reviewers identified themes within each ND and RN group. Across case analysis was also conducted to identify congruency between groups.

Results: Four themes describing leadership were identified within the Registered Nurse sample; empowerment, visibility, role modeling, and passion for excellence. Within the Nurse Director group, four themes were also identified; empowerment, visibility, role modeling and authentic presence.

Characteristics identified describe transformational leadership styles of Nurse Directors. Characteristics identified support previous studies about qualities of exemplary leaders; however there is strong correlation between the views of the RNs and NDs in this study; which is different from other studies.

Conclusion: Although leadership characteristics may vary by Nurse Director, RN and ND participants in this study cohort identified similar themes representative of leadership attributes and behaviors that contribute to RN satisfaction.

This study enhances our understanding of the quantitative scores on the PES-NWI survey and is critically important to our need to understand what contributes to RN satisfaction. Findings suggest ways NDs may effectively influence RN satisfaction. The consensus between RNs and NDs in this study suggests strong alignment.

Findings have the potential to guide nurse executives in hiring prospective ND candidates by ensuring they identify characteristics important to RNs. These results may help inform leadership development programs for existing and future NDs.

References

- Anonson, J., Walker, M.E., Arries, E., Maposa, S., Telford, P., & Berry, L. (2014). Qualities of exemplary nurse leaders: perspectives of frontline nurses. *Journal of Nursing Management*, 22(1), 127-136.
- Feather, R.A., Ebright, P., & Bakas, T. (2015). Nurse manager behaviors that RNs perceive to affect their job satisfaction. *Nursing Forum*, 50(2), 125-136.
- Gormley, D.K. (2011) Are we on the same page? Staff nurse and manager perceptions of work environment, quality of care and anticipated nurse turnover. *Journal of Nursing Management*, 19(1), 33-40.

Contact

dburke@partners.org

RSC PST 2 - Research Poster Session 2

Barriers and Facilitators to Timely Epinephrine Administration for Anaphylaxis in Schools: A Systematic Review

Emily Christensen, BA, RN, USA

Susi Miller, MLIS, AHIP, USA

Victoria von Sadovszky, PhD, RN, FAAN, USA

Abstract

Purpose: Anaphylaxis affects 2% of the United States population and the incidence is increasing the US, UK, and Australia (Koplin, Marcin, & Allen, 2011; Lieberman et al, 2006). Rates of anaphylaxis are highest in children between the ages of 0 and 19 years, with between 10%-18% cases of all pediatric anaphylaxis occurring in schools (Song, Worm, & Lieberman, 2014). In children not previously diagnosed with anaphylaxis, 24% of first time anaphylaxis occurred at school (Dinakar, 2012). In 32 cases of fatal anaphylaxis in the school setting, 28% of those were due do a delay in the administration of epinephrine (Sicherer & Mahr, 2010). At present there is some research examining issues with availability and use of epinephrine in the United States population (Song, 2014) and no research examining systems that expedite administration. The purpose of this systematic review is to examine the scientific literature for research on epinephrine administration in the American school system.

Methods: Following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, 2015), two reviewers performed independent literature searches in PubMed, CINAHL, Psychinfo, OVID and ERIC. The Keywords searched were “anaphylaxis”, “school” and “epinephrine” with additional searches on “barriers” and “facilitators”. Limits for the search included: 1) peer-reviewed publications, systematic reviews and meta-analyses; 2) published within the past 10 years; 3) pediatric population. Seventy-eight abstracts were selected and two researchers are evaluating the associated articles for inclusion in the systematic review and agreement on abstracts will provide interrater reliability. Articles will then be reviewed by the study authors. Articles will be analyzed for epidemiology, demographics, and epinephrine use in schools.

Results: This review is currently in progress and we anticipate the findings to be completed by March 2017.

Conclusion: Anaphylaxis is a severe and unpredictable life-threatening allergic reaction that is fairly common in developed nations (Koplin, 2011; Lieberman, 2006). Anaphylaxis frequently occurs in the school setting, however there is scant research regarding facilitators and barriers of rapid epinephrine administration. A systematic review is needed to direct future research as well as current practice regarding epinephrine administration at school.

References

1. Dinakar, C. (2012). Anaphylaxis in children: current understanding and key issues in diagnosis and treatment. *Current allergy and asthma reports*, 12(6), 641-649.
2. Koplin, J. J., Martin, P. E., & Allen, K. J. (2011). An update on epidemiology of anaphylaxis in children and adults. *Current opinion in allergy and clinical immunology*, 11(5), 492-496.
3. Lieberman, P., Camargo, C. A., Bohlke, K., Jick, H., Miller, R. L., Sheikh, A., & Simons, F. E. R. (2006). Epidemiology of anaphylaxis: findings of the American college of allergy, asthma and immunology epidemiology of anaphylaxis working group. *Annals of Allergy, Asthma & Immunology*, 97(5), 596-602.
4. PRISMA (2015). PRISMA: Transparent reporting of systematic reviews and meta-analyses. Available: <http://www.prisma-statement.org>. Retrieved: October 22, 2016.
5. Sicherer, S. H., & Mahr, T. (2010). Management of food allergy in the school setting. *Pediatrics*, 126(6), 1232-1239.
6. Song, T. T., Worm, M., & Lieberman, P. (2014). Anaphylaxis treatment: current barriers to adrenaline auto-injector use. *Allergy*, 69(8), 983-991.

Contact

emily.christensen@nationwidechildrens.org

RSC PST 2 - Research Poster Session 2

1991-2015 Longitudinal Prevalence Trends of Suicide Ideation Among High School Students in the U.S.

Yu-han Zheng, BSN, RN, USA

Yu-ku Chen, BSN, RN, USA

Jiunn-Jye Sheu, PhD, MSPH, MCHES, USA

Abstract

Purpose: This study is aimed to describe the trends of suicide ideation during a 24-year time span from 1991-2015 among nationally representative high school students and to stratify those high school students by gender, grade, and ethnicity/race.

Methods: The Centers for Disease Control and Prevention has a Division of Adolescent and School Health, and they created a Youth Risk Behavior Surveillance System. The Youth Risk Behavior System has a survey that is published once every two years, and the surveys have been conducted since 1991. These surveys are used to watch health risk behaviors in young people, and they are at the state, local, and national levels. YRBSS scientifically samples high schools in the United States in order to collect data. This is said to be among the most representative data for young people. YRBSS is used to see what the prevalence of health risk behaviors is in young people. It helps to see whether the rates increase, decrease, or stay the same. In addition to that, YRBSS can be used to see if certain health-risk behaviors occur at the same time. YRBSS does not look at what causes health risk behaviors. In addition to providing state, local, and national data, YRBSS can be used to look at and provide data for subpopulations of young people. Furthermore, YRBSS helps with monitoring the progress in reaching national objects for the years 2000, 2010, and 2020.

The Youth Risk Behavior Surveillance System produces a Youth Risk Behavior Survey. Youth Risk Behavior Surveys are used to look at six different categories of behaviors that can cause problems such as disabilities and death. The categories of behaviors are measured in the United States. The behaviors that are measured are: 1) behaviors that increase the risk of violence and unintentional injuries; 2) using tobacco; 3) using alcohol and other drugs; 4) being sexually active and getting STD's or getting pregnant; 5) eating unhealthy foods; and 6) level of physical activity, which shows the amount of overweight/obese people and the amount of people who have asthma.

Results: All three figures have the same trends in regard to gender; however, there are no generalizable trends when looking at the suicidal ideation rates between grade and race/ethnicity. White females had a declining amount of suicidal thoughts across grade level between the years 1991-1993. During those same years, there was a peak for White females for all of the grades except for twelfth grade where it declined from 1991-1997 for twelfth grade. Another trend is that for White females, there was a decreasing trend from 2001-2003. Each one of the grade levels for Hispanic or Latino have different peaks in different years. Furthermore, there is an inconsistent decrease in the prevalence of suicidal ideation for females within the African American race/ethnicity for all of the high school grade levels between the years 1991-1993.

Conclusion: In conclusion, the current literature reported insufficient about adolescent longitudinal trends in suicide ideation with limited stratification by grade over the year, and did not find much information from CDC either. Such understanding help to know each groups results.

References

- Bae, S., Ye, R., Chen, S., Rivers, P. A., & Singh, K. P. (2005). Risky behaviors and factors associated with suicide attempt in adolescents. *Archives of Suicide Research*, 9(2), 193-202. doi:10.1080/13811110590904034
- Brener, N. D., Kann, L., Kinchen, S. A., Grunbaum, J. A., Whalen, L., Eaton, D., . . . Ross, J. G. (2004). Methodology of the youth risk behavior surveillance system. *Morbidity & Mortality Weekly Report*, 53(RR-12), 1-13.
- Brener, N. D., Krug, E. G., & Simon, T. R. (2000). Trends in suicide ideation and suicidal behavior among high school students in the United States, 1991-1997. *Suicide and Life-Threatening Behavior*, 30(4), 304-311.

Centers for Disease Control and Prevention. (2010). *Youth risk behavior survey (YRBS) standard 2011 high school questionnaire item rationale*. Retrieved from http://www.cdc.gov/HealthyYouth/yrbs/pdf/questionnaire/2011_standard_itemrationale.pdf

Centers for Disease Control and Prevention. (2015). Web-based Injury Statistics Query and Reporting System (WISQARS) (Online Database). Web-based Injury Statistics Query and Reporting System (WISQARS) Retrieved 2/21/16, from Centers for Disease Control <http://www.cdc.gov/injury/wisqars/index.html>

Eaton, D. K., Kann, L., Kinchen, S., Shanklin, S., Flint, K. H. Hawkins, J., Harris, W. A., Lowry, R., McManus, T., Chyen D., Whittle, L., Lim, C., Wechsler, H. (2012). Youth Risk Behavior Surveillance-United States, 2011. *Morbidity and Mortality Weekly Report, Vol. 61*(No. 4), 11-12.

Contact

Yu-han.zheng@rockets.utoledo.edu

RSC PST 2 - Research Poster Session 2

Parental Perceived Barriers and Facilitators to HPV Vaccination: A Literature Review

Lisa N. Mansfield, MSN, BSN, RN, USA

Abstract

Purpose: The human papillomavirus (HPV) is the most common sexually transmitted infection among men and women in the United States (U.S.), and is associated with 90% of cervical and anal cancers and 70% of vaginal, vulvar, penile and oral cancers. Nearly 38,800 new cases of HPV-associated cancers emerge each year in the U.S. Individuals aged 15-24 comprise roughly 50% of these newly diagnosed cases. The Advisory Committee on Immunization Practices (ACIP) recommends the three-dose vaccine, Gardasil, for administration in adolescent beginning at ages 11 and 12 to prevent infection from HPV. While HPV vaccine initiation rates (i.e., receive 1 dose) have steadily increased within the last seven years to 60% among adolescent girls and 42% among adolescent boys, completion rates (i.e., receive 3 doses) remain significantly low at 39.7% and 21.6% among adolescent girls and boys respectively. Therefore, the purpose of this literature review is to examine parental barriers and facilitators that contribute to low rates of HPV vaccination initiation and completion among adolescents in the United States.

Methods: To identify relevant literature on parental barriers and facilitators to HPV vaccination, several databases (PubMed, CINAHL, ProQuest Central, and PsychINFO) were searched in September and October of 2016 using the following keywords: "HPV vaccination," "adolescents," "facilitators," and "barriers." Inclusion criteria were: English language; participants that were parents of adolescents ages 9-17 who had received at least one dose of the vaccine, completed vaccination requirements, or were unvaccinated, and; publication since 2006, as the HPV vaccine was approved for administration in 2006. Studies conducted outside the United States were excluded. Additionally, intervention-based studies were excluded to insure focus on understanding the barriers and facilitators to vaccination rather than increasing vaccination.

Results: The initial search returned 1365 articles and 38 were retained for this review. Most of the studies used quantitative methodology using cross-sectional, survey designs (n = 27). Convenience, purposive, and probability sampling methods were used across all studies. Parents' ages ranged from 30 to ≥ 50 years and the average adolescent's age ranged from 11 to 17 years. Three major themes emerged for parental perceived barriers: vaccine concerns, age of vaccine administration, and adolescent sexual activity. Four themes emerged for parent perceived facilitators: provider recommendation, attitudes towards HPV and vaccination, HPV knowledge, and awareness and perceived risk for HPV.

Conclusion: Many of the studies in this review were limited by design and/or instrumentation choice. For example, cross-sectional designs preclude understanding of how parental perceptions may change over time, and how perceptions ultimately affect vaccination rates. Longitudinal designs would be well-suited to understanding how and whether perceptions are related to outcomes. Additionally, since parents' perceived barriers and facilitators to HPV vaccination varied between different racial and ethnic groups, future work should focus on the unique experiences of groups traditionally underrepresented in research, with the recognition that variation exists within these groups that also warrants investigation. Finally, only three studies noted that parents included their children in the decision-making process for HPV vaccination. Future work may consider exploring whether family members' experiences and vaccination rates differ based on whether or not children were participants in their health care decision making.

References

Centers for Disease Control and Prevention (CDC). (2015). *Epidemiology and prevention of vaccine-preventable diseases*. Retrieved from <http://www.cdc.gov/vaccines/pubs/pinkbook/hpv.html>

Reagan-Steiner, S., Yankey, D., Jeyarajah, J., Elam-Evans, L. D. Curtis, R., MacNeil, J., ... Singleton, J. A. (2016). National, regional, state, and selected local area vaccination coverage among adolescents aged 13–17 years: United States, 2015. *MMWR*, 65(33), 850-858.

Petrosky, E., Bocchini, J. A., Hariri, S., Chesson, H., Curtis, C. R., Saraiya, M., ... Markowitz, L. E. (2015). Use of 9-valent human papillomavirus (HPV) vaccine: Updated HPV vaccination recommendations of the Advisory Committee on Immunization Practices. *MMWR*, 64(11), 300-304.

Contact

lmansfield_90@yahoo.com

RSC PST 2 - Research Poster Session 2

Strategies to Engage Lower-SES, Working-Age Adults in Health Research: Results From the SMART Life Study

Lindsey N. Horrell, BSN, RN, USA

Shawn M. Kneipp, PhD, MS, BSN, ANP-BC, APHN-BC, FAANP, USA

Cecilia M. Gonzales, BA, USA

Mary Grace Flaherty, PhD, MS, MLS, USA

Laura A. Linnan, ScD, MEd, USA

Matthew Lee Smith, PhD, MPH, CHES, FAAHB, USA

Ziya Gizlice, PhD, MS, USA

Abstract

Purpose: The Chronic Disease Self-management Program (CDSMP) is a six-week, community-based education intervention that has been associated with positive health outcomes, improved healthcare utilization, and decreased healthcare costs among participants managing at least one chronic condition (Ory et al., 2015; Lorig et al., 1999). While these results have been observed among a wide age-range of adult participants (Ory et al., 2014), this course has been primarily implemented among older, white, female populations of higher socioeconomic status (SES). As a result, marketing materials for this program often display messages and images that overwhelmingly reflect the motivations and characteristics of this aging population. This presents considerable challenges to researchers currently trying to engage younger, lower-SES adults, who face rapidly rising rates and disproportionate adverse outcomes related to chronic conditions, in the CDSMP. The purpose of this presentation is to discuss the development, dissemination, and evaluation of recruitment materials utilized by the SMART Life Study, which is an ongoing RCT at the University of North Carolina at Chapel Hill that studies the effect of the CDSMP on work productivity, health, and healthcare utilization among working-aged, lower-wage earning adults.

Methods: To develop recruitment materials for the SMART Life Study, the project team convened an advisory panel of community members that reflected the study's target population according to key demographic and socioeconomic characteristics. This panel informed the development of all recruitment materials and methods through an approximately 6-month iterative process.

Results: Following the suggestions of the advisory panel members, SMART Life recruitment materials largely incorporate messages reflecting themes of enhanced financial and employment stability and increased ability to spend time with and provide for family members. The materials also contain hopeful messages of "better health" and "decreased stress" rather than loss-framed messages. While recruitment is ongoing, these advertisements have engaged the interest of approximately 1,055 adults who have completed the study registration form. Among those engaged, approximately 85% are female, 43% identify with a minority racial status, and 5% identify as Hispanic. Additionally, the mean age of respondents is currently 48.2 years old, and 49% report living in homes in which the annual household income is less than \$60,000.

Conclusion: The results of this process indicate that developing targeted recruitment materials is an effective approach to engaging the interest of working-age, lower-SES adults in studies of the CDSMP. Incorporating the advertisement cue and strategy preferences discussed during this presentation could enable future nurse leaders to further engage this group in similar health promotion/disease prevention programs. In doing so, we may finally begin to curb the disparities in health outcomes that continually plague this population across the globe.

References

Lorig, K. R., Sobel, D. S., Stewart, A. L., Brown Jr, B. W., Bandura, A., Ritter, P., ... Holman, H. R. (1999). Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. *Medical care*, 37(1), 5-14. doi: 10.1097/00005650-199901000-00003

Ory, M. G., Ahn, S., Jiang, L., Smith, M. L., Ritter, P. L., Whitelaw, N., & Lorig, K. (2013). Successes of a national study of the chronic disease self-management program: meeting the triple aim of health care reform. *Medical care*, 51(11), 992-998. doi:10.1097/MLR.0b013e3182a95dd1

Ory, M. G., Smith, M. L., Ahn, S., Jiang, L., Lorig, K., & Whitelaw, N. (2014). National Study of Chronic Disease Self-Management Age Comparison of Outcome Findings. *Health Education & Behavior*, 41(1 suppl), 34S-42S. doi: 10.1177/1090198114543008

Contact

horrell@email.unc.edu

RSC PST 2 - Research Poster Session 2

Process Evaluation of the Implementation of Cancer Treatment Summaries for Cancer Survivors in England

Desiree Tait, DNSc, RN, NMC, United Kingdom

Sharon Waight, MSc, RN, NMC, United Kingdom

Janet M. E. Scammell, DNSci, MSc (Nsg), BA (SocSci), DipNEd, RGN, SCM, RNT, England

Abstract

Purpose: The purpose of this study is to examine the factors that influence the implementation of cancer treatment summaries and cancer survivors' experiences of receiving them. The percentage of people living beyond cancer continues to increase due to improved prevention strategies and early treatment interventions (Independent Cancer Task Force, 2015; American Cancer Society, 2014). The use of an integrated package of care including care plans, treatment summaries and follow up care has been proposed to support a reduction in side effects following treatment and early detection of returning disease (National Cancer Survivorship Initiative Recovery Package, 2014).

Methods: Six hospitals took part in the study during 2015 and 2016. A mixed method approach was used and included a survey of lead cancer nurses in the sample hospitals to determine the progress made towards the implementation of treatment summaries and factors that influenced their progress. The second approach included the use of interviews and focus groups to describe cancer survivors' experiences of receiving a treatment summary. Ethical approval was obtained from the participating university and permission to gain access for data collection was collected from all participating sites. Data were analysed using SPSS and qualitative data analysed using thematic analysis. **Results** have been presented to the participating hospitals and strategic boards

Results: Data were collected in the first six months of project implementation. Results indicated that in the sample group 49% of colorectal patients and 62% of breast cancer patients received a treatment summary after completing a treatment episode. Factors that affected the implementation process included human resources, availability and accessibility of information technology, information about patient selection and documentation, education, multidisciplinary involvement, leadership champions, and feedback from staff and patients. For cancer survivors, not all could remember having a treatment summary, they felt overwhelmed by the amount of information received. Those who did remember found them helpful and provided them with information that they could share with their family and friends. The participants interviewed did not experience any integration between secondary and primary care services following their treatment.

Conclusion: The percentage of patients receiving treatment summaries compares favourably with implementation data published internationally from USA and UK (Jabson, 2015; Rechis et al, 2014). The factors identified as influencing the implementation of treatment summaries were similar to those experienced by nurses implementing service improvement plans (Jun et al, 2016; Rajasekhar et al, 2016). For the cancer survivors, the experience of receiving a treatment summary felt like receiving a piece of a puzzle that would eventually help them to understand the picture. The individuality of each survivor and their coping strategies emerged as the interviews and focus groups progressed and highlighted that some survivors will be willing to engage in follow up services while other will not, preferring to develop their own coping strategies.

References

American Cancer Society (2014) *Cancer Treatment and Survivorship Facts and Figures 2014-15*. American Cancer Society, Atlanta

Independent cancer Task Force (2015) *Achieving World Class Cancer Outcomes: A Strategy for England 2015-2020* accessed at: http://www.cancerresearchuk.org/sites/default/files/achieving_world-class_cancer_outcomes_-_a_strategy_for_england_2015-2020.pdf

Jabson, J. (2015) Follow-up care instructions, treatment summaries, and cancer survivors' receipt of follow-up health care and late/long term effects *Support Care Cancer* 23: 1851-1856

Jun, J., Kovner, C. and Witkoski Stimpfel, A. (2016) Barriers and facilitators of nurses use of clinical practice guidelines: an integrative review *International Journal of Nursing Studies* 60, 54-68
National Cancer Survivorship Initiative Recovery Package. (2014) *The recovery package* accessed at: <http://www.ncsi.org.uk/what-we-are-doing/the-recovery-package/>
Rajasekhar, P., Rees, C., Nixon, C., East, J. and Brown, S. (2016) Factors influencing change in clinical practice *International Journal of Health Care Quality Assurance* 29 (1), 5-15
Rechis, R., Beckjord, E. and Nutt, S. (2014) Potential benefits of treatment summaries for survivors' health and information needs: results from a LIVESTRONG survey *Journal of oncology Practice* 10 (1): 75-78

Contact

dtait@bournemouth.ac.uk

RSC PST 2 - Research Poster Session 2

Does Oral Health Predict Cognitive Decline Among Older Adults? The Health and Retirement Study

Shaoqing Ge, MPH, BSN, RN, USA

Hanzhang Xu, BSN, RN, USA

Wei Zhang, PhD, MS, USA

Bei Wu, PhD, FGSA, USA

Abstract

Purpose: Oral health is an important component of health. Poor oral health has been shown to be an indicator of lower quality of life (Thomson, 2014), and has also been shown to be associated with multiple health conditions, such as diabetes (Leite, Marlow, & Fernandes, 2013), heart disease (Vos et al., 2013), and depression (Hybels et al., 2016). Increasing evidence from longitudinal studies have shown some level of associations between oral health and the cognitive outcomes, although the evidence is still weak (Wu, Fillenbaum, Plassman, & Guo, 2016). Previous studies were limited in that (1) most of them used binary measures of cognitive function by “with/without dementia”, instead of examining the change of cognitive function over time; (2) previous studies often examined one oral health indicator, such as periodontitis, or tooth loss; (3) there is racial disparities in oral health (Wu, Liang, Plassman, Remle, & Luo, 2012), and the rate of decline in cognitive function may differ across different groups (Gupta et al., 2016; Schwartz et al., 2004). However, there is a lack of understanding of the potential differences in the associations between oral health and cognitive decline over time across racial groups.

The aims of this study are to (1) examine the associations between oral health and cognitive decline over time among non-hispanic white older adults; (2) examine the associations between oral health and cognitive decline over time among the African American older adults; and (3) compare the racial difference in the associations between oral health and cognitive decline over time.

Methods: The sample included 781 non-Hispanic white, and 110 African American community-dwelling older adults 65 years and above who (1) enrolled in the 2008 wave, and (2) were followed up in 2010 and 2012 from the Health and Retirement Study, and (3) completed both cognitive measure and the 2008 oral health module. We constructed three indicators of oral health: edentulism (yes/no), overall mouth conditions (range: 1-5), and self-rated oral health (range: 1-5). Cognitive function was measured by the HRS/AHEAD cognitive battery in each wave (Ofstedal et al., 2002). Weighted descriptive and growth curve analyses were performed. Controlled variables included sociodemographic (gender, marital status), socioeconomics (education, household income), and health factors (depression, number of medical conditions, number of physical difficulties).

Results: All the results presented below are based on the fully adjusted models. The results on edentulism showed that there were no significant difference in level of cognitive function at baseline between edentulous and non-edentulous older adults from either non-Hispanic White or African American. African American older adults who were edentulous in 2008 had a faster rate of cognitive decline as they grew older ($\beta = -0.337, p < .05$), compared to those who were not edentulous in 2008. However, this faster decline rate was not seen in their white counterparts ($\beta = -0.024, p > .05$). For overall mouth condition, non-Hispanic whites who had worse overall mouth condition in 2008 had significantly worse cognitive function at baseline ($\beta = -0.889, p < .05$) compared to those who had better overall mouth condition. However, this difference was not found among African American older adults ($\beta = 0.522, p > .05$). For self-rated oral health, there were no significant differences in neither level of baseline cognitive function nor the rate in cognitive decline, regardless of race ($p > .05$).

Conclusion: This study suggests that community-dwelling African American older adults with worse oral health have faster deterioration of cognitive function over time. Non-Hispanic white and African American older adults showed different patterns in the associations between oral health and cognitive function. This study provides a preliminary knowledge base that oral health can be a modifiable risk factor for cognitive

decline. This study highlights the importance of developing early intervention strategies to protect and promote oral health as for the purpose of decelerate cognitive decline.

References

- Gupta, V. K., Winter, M., Cabral, H., Henault, L., Waite, K., Hanchate, A., . . . Paasche-Orlow, M. K. (2016). Disparities in Age-Associated Cognitive Decline Between African-American and Caucasian Populations: The Roles of Health Literacy and Education. *Journal of the American Geriatrics Society, 64*(8), 1716-1723.
- Hybels, C. F., Bennett, J. M., Landerman, L. R., Liang, J., Plassman, B. L., & Wu, B. (2016). Trajectories of depressive symptoms and oral health outcomes in a community sample of older adults. *International journal of geriatric psychiatry, 31*(1), 83-91.
- Leite, R. S., Marlow, N. M., & Fernandes, J. K. (2013). Oral health and type 2 diabetes. *The American journal of the medical sciences, 345*(4), 271.
- Ofstedal, M. B., McAuley, G.F., & Herzog, A. R. (2002, July). Documentation of cognitive functioning measures in the Health and Retirement Study. HRS/AHEAD documentation report DR-006
- Schwartz, B. S., Glass, T. A., Bolla, K. I., Stewart, W. F., Glass, G., Rasmussen, M., . . . Bandeen-Roche, K. (2004). Disparities in cognitive functioning by race/ethnicity in the Baltimore Memory Study. *Environmental Health Perspectives, 112*(3), 314.
- Thomson, W. M. (2014). Epidemiology of oral health conditions in older people. *Gerodontology, 31*(s1), 9-16.
- Vos, T., Flaxman, A. D., Naghavi, M., Lozano, R., Michaud, C., Ezzati, M., . . . Aboyans, V. (2013). Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. *The Lancet, 380*(9859), 2163-2196
- Wu, B., Fillenbaum, G. G., Plassman, B. L., & Guo, L. (2016). Association Between Oral Health and Cognitive Status: A Systematic Review. *Journal of the American Geriatrics Society, 64*(4), 739-751.
- Wu, B., Liang, J., Plassman, B. L., Remle, C., & Luo, X. (2012). Edentulism trends among middle-aged and older adults in the United States: comparison of five racial/ethnic groups. *Community dentistry and oral epidemiology, 40*(2), 145-153.

Contact

shaoqing.ge@duke.edu

RSC PST 2 - Research Poster Session 2

"Smoke Another One": The Experiences of South African Family Members Caring for Cancer Patients

Lize Maree, DCur, RN, ANSA, South Africa

Dineo Moshima, South Africa

Modiehi Ngubeni, South Africa

Lethukuthula Zondi, South Africa

Abstract

Purpose: The purpose of our study was to provide a descriptive summary of the experiences of the family care givers of cancer patients using the public health care system in South Africa.

Methods: We used a qualitative descriptive design and conducted unstructured interviews with 20 purposive selected participants, 10 men and 10 women, who were between the ages 20 and 65 (average 42.1; SD±12.3), identified as primary family care giver by cancer patients treated at the specific hospital. One opening question "Please tell me what it is like for you to live with a family member with cancer?" was asked. Probes and prompting questions were used to clarify issues and enhance an in-depth description of the participants' experiences. Field notes were also taken. Data gathering and analysis occurred concurrently until data saturation was achieved. The interviews were transcribed verbatim immediately after the interview and the field notes were inserted at relevant points. Qualitative content analyses analysed the data.

Results: Three themes arose from the data: responses towards a cancer diagnosis; taking the role of the care giver and living a changed life with a changed person. Learning their loved one was diagnosed with cancer was a shock to most of the participants. However, there were those for whom cancer was yet another diagnosis as their family member was sick for as long as they could remember. Not all the participants knew what cancer was and some waited for it to go away. Most participants wanted to be strong when learning about the cancer diagnosis, but some experienced anger and stress about the situation they found themselves in. Participants were overwhelmed with the care responsibilities which had a negative influence on their work and family life. The additional responsibilities resulted in unplanned financial expenditure and merely getting and accompanying the sick person to hospital was a major challenge. Some participants felt emotionally broken and alone in this journey and experienced the rest of their family as uncaring. Not only had the lives the participants knew changed, but the person in their care also changed. Participants had to put their own lives on hold and make sacrifices involving their children, work, possible relationships and their normal activities to care for the sick person who in many instances became a person they did not know. Most of the participants used religious practices to cope with their situation, however, some used other coping mechanisms like recreation and even smoking.

Conclusion: Caring for a family member with cancer was not easy. Cancer was not known to all and created fear and uncertainty about the present and future. Participants had to sacrifice their normal lives and had to live with person changed by the cancer and its treatment. The burden of care had a negative influence on the emotional well-being of the care givers and those with a small or no income could not cope with the additional financial burden.

References

- Baas, L. S. (2012). Patient-and family-centered care. *Heart & Lung: The Journal of acute and critical care*, 41(6), 534-535.
- LeSeure, P., & Chongkham-ang, S. (2015). The Experience of Caregivers Living with Cancer Patients: A Systematic Review and Meta-Synthesis. *Journal of personalized medicine*, 5(4), 406-439.
- Stenberg, U., Ekstedt, M., Olsson, M., & Ruland, C. M. (2014). Living close to a person with cancer: A review of the international literature and implications for social work practice. *Journal of gerontological social work*, 57(6-7), 531-555.

Contact

lize.maree@wits.ac.za

RSC PST 2 - Research Poster Session 2

Exploring the Experiences of Three Management Strategies in Auditory Hallucinations in Chronic Schizophrenic Patients

Chao-Hsin Chen, MSN, RN, United Kingdom

Abstract

Purpose: The purpose of this study is to clarify the experience of auditory hallucination symptoms in chronic schizophrenia patients who using auditory hallucination management strategies. Therefore, this study uses three management strategies including listening music, concentrating and talking to someone in order to understand the experience of the patients.

Methods: This is a cross-sectional study and using group therapy to understand the experience of employing auditory hallucination management strategies in patients. A total of 13 chronic schizophrenia patients who with auditory hallucination from a psychiatric hospital in the Northern Taiwan were included in the study. In addition, the group of 8 to 12 patients who met once a week, each time is 50 to 60 minutes and a total is 12 times.

Results: Content analysis of the interview scripts showed two main themes: (1) the experience of auditory hallucination symptoms from the past to present, including content: vocal and non-vocal voice, timing: stress, isolation, doing nothing and mood, identification: doubtfulness and verification and coping strategies: engagement and extrication; (2) the effect of management strategies, which include prerequisite: medication adherence and fitness, appropriation: involvement, diversification and preoccupation and after auditory hallucination appeared and difficulty factor: limitations. In accordance with the contents and the types of auditory hallucination symptoms, which divided into the small themes to discuss and analysis. More than half of patients believe that the hallucination management strategies used in life can reduce the effect of auditory hallucination symptoms and improve the quality of life.

Conclusion: According to the results, were recommended that chronic schizophrenia patients who have auditory hallucination symptoms can use auditory hallucination management strategies to enhance the skill of symptom management and rehabilitation motivation. Therefore, this study can be used as a reference for clinical nursing programs to increase the knowledge and understanding of patients who have auditory hallucination symptoms. Furthermore, it can assist patients with chronic schizophrenia in reducing the effect of auditory hallucination symptoms and promoting patients' quality of life.

References

Suryani, S., Welch, A., & Cox, L. (2013). The phenomena of auditory hallucination as described by Indonesian people living with schizophrenia. *Archives of Psychiatric Nursing*, 27(6), 312-318. doi: 10.1016/j.apnu.2013.08.001. Buffum, M. D., Buccheri, R., Trygstad, L., Gerlock, A. A., Birmingham, P., Dowling, G. A., & Kuhlman, G. J. (2009). Behavioral management of auditory hallucinations implementation and evaluation of a 10-Week course. *Journal of Psychiatric and Mental Health Nursing*, 47(9), 32-40. doi: 10.3928/02793695-20090730-01.

Contact

betty28aqua@gmail.com

RSC PST 2 - Research Poster Session 2

Augmenting Sickle Cell Anemia/Sickle Cell Disease Genetic Knowledge Through Simulation: A Descriptive Pilot Study

Leighsa Sharoff, EdD, RN, NPP, AHN-BC, USA

Abstract

Purpose: Genetic/genomic knowledge has radically changed the way health care is provided. Augmenting this newly required competency into constrained nursing curricula is a challenge. Simulation provides such an opportunity. This post-test pilot descriptive study explored the genetic component of a simulation scenario addressing sickle cell anemia/sickle cell disease exploring students' and nurse educators' perceived genetic knowledge. The genetic knowledge of Sickle Cell Anemia/Sickle Cell Disease [SCA/SCD] of pre-licensure baccalaureate undergraduate nursing students, and nurse educators, in a diverse urban nursing school was explored. Thirty-one junior (pediatric simulated scenario; 26 females/4 males) and thirty-one senior (adult medical/surgical simulated scenario; 29 females/2 males) nursing students and eight clinical simulation facilitators (1 male/7 females) were randomly selected to receive the simulation experience with the SCD genetic component. A sickle cell anemia/sickle cell disease case scenario (SCA/SCD; aka Mr. Tony Wallace) was developed with the aim of enhancing students' experience with genetic knowledge, patient education and care. Junior grade level students, who were scheduled for a pediatric simulation experience, received the simulated patient case of a 3 year old, including appropriate age-related changes in medications, doses and laboratory data. Senior grade level students, who were scheduled for a medical-surgical simulation experience, received the same simulated patient case but the patient was now 24 years old, and included appropriate age-related changes in medications, doses and laboratory data.

Methods: A descriptive, post-test design was employed to evaluate the self-perceptions of genetic knowledge among nursing students and simulation facilitators following a genetic-based simulation experience. A six question survey examined students' genetic knowledge after their simulation experience, exploring the understanding of the genetic component (SCA/SCD); ability to provide the patient and family with information about SCA/SCD; level of understanding of SCA/SCD appropriate to provide effective and efficient nursing care with appropriate nursing interventions; critical thinking skills about providing genetic information to a patient; clinical judgment about providing genetic information to a patient and asked if this scenario enhanced their overall ability to integrate genetics into their knowledge base of nursing and nursing care. Participants could respond to each question by noting "Strongly agree", "Agree", "Disagree" or "Strongly Disagree". Participants were asked to respond to "How can this simulation integrating genetics be improved to further enhance your overall knowledge?" Data were coded and entered into an SPSS database. Descriptive statistics including frequencies and percentages were utilized for demographic while contingency table analysis was used to summarize the categorical perception data. Per question response rate was 100%. Qualitative data was summarized by the most common themes.

Results: Majority of students (88.6%; mean=1.42) agreed that their understanding of the genetic component of SCA/SCD improved after the simulation; their ability to provide the patient and family with information pertaining to SCA/SCD was satisfactory after the simulation (n=49; mean=1.47); level of understanding of SCA/SCD was appropriate to provide effective and efficient nursing care with appropriate nursing interventions (n=53; mean=1.47); majority agreed that their critical thinking skills (mean=1.42) and clinical judgment (mean=1.45) about providing genetic information improved with this simulation and this scenario enhanced their overall ability to integrate genetics into their knowledge base and nursing care. Comparatively, there was minimal differences noted between junior (pediatric clinical) and senior (adult clinical) to each survey question. All faculty felt that this scenario enhanced their overall ability to integrate genetics into their knowledge base and nursing care.

Conclusions: These pilot findings support integrating a genetic component into simulation to further enhance the genetic knowledge of both students and facilitators. It is imperative that nursing curricula stay abreast of current mandated competencies. Including a genetic component during a simulation

experience enhances students' and nurse educators' perception of their genetic knowledge base. This evaluation revealed that including a genetic aspect to a simulation experience was not only feasible but was viewed positively by both students and educators. All participants agreed that their genetic knowledge improved after the simulation. With millennial nursing students, it is necessary for nurse educators to provide a variety of learning strategies, engaging students intellectually as well as motivationally. Simulation offers a creative and innovative learning strategy to enhance the genetic knowledge of nursing students. With new knowledge come new responsibilities reflected by the new required competencies. Implementing these competencies into a heavily burdened curriculum requires nurse educators to establish new integrative teaching formats. Simulation prepares students for real-world experiences and as we enter the genetic/genomic era, simulation has an obvious role in expanding and developing these competencies, in a safe and friendly learner-centered environment. By integrating genetics into a simulation, the facilitators' genetic literacy knowledge base will improve, thus furthering their confidence and ability to assist students to meet these new competencies.

References

Sharoff, L. (2015). Enhancing Sickle Cell Anemia/Sickle Cell Disease Genetic Understanding through Simulation: A Descriptive Pilot Study. *Journal of Nursing Education and Practice*, 5(9), pXX. DOI: 10.5430/jnep.v5n9p39. <http://www.sciedu.ca/journal/index.php/jnep/article/view/6718/4347>. Sharoff, L. (2015). Genetics and Genomics Integration into Undergraduate Nursing Education. *Journal of Nursing Education and Practice*, 5(4), 13-18. DOI:10.5430/jnep.v5n4p13 <http://www.sciedu.ca/journal/index.php/jnep/article/view/5818/3770>. Lea, D., Skirton, H., Read, C. & Williams, J. (2011). Implications for educating the next generation of nurses on genetics and genomics in the 21st century. *Journal of Nursing Scholarship*, 43(1), 3-12.

Contact

lsharoff@hunter.cuny.edu

RSC PST 2 - Research Poster Session 2

Evaluation of Community-Based Program on Health Indicators in Food Insecure Population

Mark Wilkinson, MSN, RN, USA

Abstract

Purpose: The purpose of this project is to improve the health outcomes of a food insecure population through health interventions of health screenings, health education, dietary education, and increased physical activity.

Methods: The intervention of health screenings of weight, BMI, diastolic/systolic blood pressure, and blood glucose readings in conjunction with health education and increased physical activity will be initiated within a food insecure population.

Results: The research is ongoing.

Conclusion: The research is ongoing

Food insecurity is defined as not having enough quantity or quality of food for all household members to have an active, healthy lifestyle. Food insecurity is a risk factor for diabetes, obesity, and hypertension. 1 in 6 Americans are food insecure. Hispanic and African American poverty stricken adults are at a greater risk than non-Hispanic Whites. Food banks and pantries that were intended to be a temporary resource have become the primary food source for many in poverty. Food from food banks is often high in carbohydrates, salts, and processed foods. There is a need to address the health disparities in food insecure adults. Feeding America is a program initiated for food banks to address the health disparities of the people they serve. The Action family program is a community based effort to meet the need of food bank dependent population. Research has shown Community and faith-based programs aimed at increasing physical activity, screenings for health risks, and health education can have positive results in reducing the health disparities of the food insecure population. Pender's health promotion model (HPM) can be used to empower this population to make healthy lifestyle changes. HPM is rooted in the expectancy value theory that presents the idea that individuals engage or participate in activities to achieve goals they believe to be possible.

References

- Adams, T., Burns, D., Forehand, J. W., & Spurlock, A. (2015). A community-based walking program to promote physical activity among African American women. *Nursing for Women's Health*, 19, 26-35. doi:10.1111/1751-486x.12173
- Baker, P. R., Francis, D. P., Soares, J., Weightman, A. L., & Foster, C. (2015). Community wide interventions for increasing physical activity. *Cochrane Database of Systematic Reviews* 2015, Issue 1. Art. No.: CD008366. doi:10.1002/14651858.cd008366
- Nguyen, B. T., Shuval, K., Bertmann, F., & Yaroch, A. L. (2015). The supplemental nutrition assistance program, food insecurity, dietary quality, and obesity among U.S. adults. *American Journal of Public Health*, 105, 1453-1459. doi:10.2105/ajph.2015.302580
- Pronk, N. P., & Remington, P. L. (2015). Combined diet and physical activity promotion programs for prevention of diabetes: Community Preventive Services Task Force recommendation statement. *Annals of Internal Medicine*, 163, 465-468. doi:10.7326/m15-1029

Contact

mark.wilkinson@lcu.edu

RSC PST 2 - Research Poster Session 2

Measuring High-Fidelity Simulation Instruction: Its Effects to Knowledge, Skills, and Attitudes Toward Patient Safety

Sasha Alexis Rarang, PhD, MSN, RN, CCM, USA

Abstract

Nursing practice requires measures that promote patient safety. Gregory, Guse, Dick, and Russell (2007) stated that in today's healthcare environment, patient safety serves as a crucial factor in determining quality of patient care through decreasing patient care errors. The integration of high-fidelity simulation (HFS) in the undergraduate nursing curriculum had required evidence that supported the acquisition of learning outcomes which includes KSAs towards patient safety (Howard, Ross, Mitchell, & Nelson, 2010). Therefore, a need of validating scenario-based HFS as a learning pedagogy towards patient safety was needed (Robertson, 2011).

Purpose: The purpose of this quasi-experimental non-equivalent control pretest-posttest study was to determine if there was a statistically significant difference in the posttest scores of knowledge, skills, and attitudes towards patient safety among the beginning nursing students in a private accelerated baccalaureate nursing program in the Western United States.

Methods: The study used a quasi-experimental nonequivalent control posttest design using beginning nursing students as samples through convenience sampling method with a the total sample of 156 subjects that were randomly assigned to both control and treatment groups.

Results: The data analyzed were scores from the H-PEPSS survey posttest (Ginsburg, Castel, Tregunno, & Norton, P. G., 2012) questions corresponding to six patient safety categories. Descriptive statistics and independent t-test for analysis of mean difference was used. In all three categories, statistically significant difference was found legitimizing the efficacy of scenario-based HFPS as a teaching pedagogy (Gates et al, 2011). It is recommended that a broader study that utilizes faculty observed performance towards acquisition of KSAs of patient safety be used rather than students' perspective (Blum & Parcels, 2010). Conduct a longitudinal study in determining knowledge and skills retention and transferability in both the simulation and clinical settings as well as using a broader demographic of nursing student population.

Conclusion: It is recommended by this study to conduct a broader study that may include the use of faculty observed performance that focuses more on student's acquisition of KSAs towards patient safety rather than sole students' perspective (Blum & Parcels, 2010). Conduct a longitudinal study determining knowledge and skills retention and transferability combining faculty and student evaluations relevant to patient safety in both the simulation and clinical settings as well as using a broader demographic of nursing student population, including students from traditional baccalaureate and associate degree nursing programs. The results of this study add to the existing literature in providing evidence that scenario-based HFS is an effective teaching methodology towards acquisition of KSAs of patient safety, understanding of its important in the undergraduate nursing curriculum in meeting certain learning objectives and justify its use as an alternative teaching methodology for clinical experience.

References

Blum, C. A., & Parcels, D. (2010). Relationship between high-fidelity simulation and patient safety in prelicensure nursing education: A comprehensive review. *Journal of Nursing Education*, 51(8), 429- 435. doi: 10.3928/01484834-20120523-01
Gregory, D. M., Guse, L. W., Dick, D.D., & Russell, C.K. (2007). Patient safety: Where in nursing education? *Journal of Nursing Education*, 46 (2), 79-82.
Howard, V., Ross, C., Mitchell, A., & Nelson, G. (2010). Human patient simulators and interactive case studies: A comparative analysis of learning outcomes and student perceptions. *Computers, Informatics, Nursing*, 28(1), 42-48.
Robertson, J. (2011). To simulate or not to simulate: Modern day nursing education's compelling question. *Education Research Journals*, 1(4), 53-59. Available at www.Resjournals.com/ERJ

Contact

sasha.rarang@yahoo.com

RSC PST 2 - Research Poster Session 2

The Relationship Between Student Engagement and Outcomes for Online MSN Students

Patricia A. Riccio, PhD, MSN, BSN, RN, USA

Joanne Farley Serembus, EdD, RN, CCRN, CNE, USA

Abstract

Purpose: This study sought to examine the relationship between student engagement and student outcomes for online MSN students.

One of the many challenges with nursing education in the online setting is to obtain a scientific measure of how nursing students optimize their learning. The basis for this research is to evaluate student engagement and subsequent learning outcomes from two core courses in the online Master of Science in Nursing (MSN) program at Drexel University- a **Research Methods and Biostatistics** course and a **Health Policy and Politics** core course. One key essential outcome for graduate students is the ability to integrate new learning experiences with vital critical thinking skills which is a focus of these online courses.

While faculty design these courses to apply critical thinking, students vary in their ability to engage in the online environment. Online learning can be isolating for students leading to attrition. Minimal instructor interaction and lack of course information are some of the most common reasons for attrition (Hannum, Irvin, Lei, & Farmer, 2008). Reducing attrition rates among online education programs is a major concern and impacts the success of higher education institutions. Engagement serves as a foundation to successful student retention initiatives. The more engaged a student is, the more likely he or she will remain enrolled in a particular course or in the institution as a whole (Lundberg & Sheridan, 2015).

Alexander Astin (1975;1985; 1988; 1993) conducted the seminal work in what he termed student involvement. He defined student involvement as the amount of physical or psychological activity or student energy devoted to the academic experience. This construct evolved over time to the term engagement (Kuh, 2003). Student engagement is viewed as the level of interest students show towards the subject matter being taught; their interaction with the content, instructor, and peers along with their motivation to learn and progress through the course. Student engagement pertains to the time and physical energy that students expend on activities in their academic experience. Building community by engaging learners in their learning tasks is one of the first necessary steps toward successful online learning (Cooke, 2016). So in essence, the theory of involvement (engagement), according to Astin (1975; 1985; 1993), described students as highly involved if: 1) they interacted with faculty more, 2) participated actively with fellow students on a more frequent basis, and 3) devoted more time to studying. Likewise, according to Astin (1985) those students who neglected studying, had less frequent interactions with faculty and with fellow students were considered to be on the opposite end of high levels of involvement.

Cochran, Campbell, Baker, & Leeds (2014) found that students make decisions such as withdrawal based on the engagement they feel in the online environment. Students satisfied with their online education named a number of factors: faculty activity in discussion boards, faculty e-mailed announcements and prompt response to their questions, along with overall faculty availability via e-mail and phone, faculty respect for students, Videos and audio recaps of the lessons and assignments helping to improve their understanding of course material. (Price, Whitlatch, Maier, & Bundi, 2016). Faculty need to identify strategies to engage, motivate, and support students in online courses.

Analysis of data related to student engagement can be obtained from the learning management system (LMS). Collecting and analyzing such data is known as the field of learning analytics. Oblinger (2012, p. 11) defines learning analytics as focusing on “students and their learning behaviors, gathering data from course management and student information systems in order to improve student success”. Using learning analytics has the potential to enable faculty to increase their understanding of their students’

learning needs and to influence student learning and progression. This would benefit students as well as, the institution's retention and success rate (de Freitas, 2015; Slade & Prinsloo, 2013).

Methods: A secondary analysis of Blackboard Learn Course Analytics was conducted using quantitative analyses. The sample for this study included 300-geographically diverse online students who completed two online graduate Nursing courses: 1) A **Research Methods and Biostatistics** course and 2) a **Health Policy and Politics** course during the 2015-2016 academic years. To maintain confidentiality of all data from the faculty researchers, an honest broker was used to abstract all data using "course analytics" from files stored in Blackboard Learn. This included all identifiers located in all of the data files in course analytics. Specifically, the variables included in this examination included: course access, total minutes, total interactions and total submissions- all completed identifiers within course analytics in Blackboard Learn. Demographic data were stored in Blackboard Learn but de-identified as well. Abstracted data were managed and organized within Blackboard Learn and once identifiers were excluded from these data, they were downloaded directly into an analysis program.

Results: Using descriptive statistics, demographic data were analyzed using frequency and percentage distributions to describe the sample. Two way AVOVA and multivariant regression analyses were used to examine the relationships between the **input** variables present prior to entering the courses at Drexel University (GPA and Selectivity) with **engagement** (total course access and total minutes, total interactions and total submissions) occurring while students were in the course, with **outcomes** in the course- grades- which were obtained at the end of the course.

Preliminary results from the **Research Methods and Biostatistics** and the **Health Policy and Politics** courses described quite similar results. Those students who received a higher grade in these courses, spent fewer amounts of time in the course, had fewer course accesses and fewer interactions with fellow students and faculty.

Conclusions: These findings are consistent with Astin's seminal work on student involvement (engagement). Given the continued growth in online learning, reports of high attrition, and an overall interest in seeing students succeed, the investigators set forth to better understand student traits and characteristics most successful in the online environment. Faculty play a vital role in student engagement, retention, and long-term program sustainability.

References

Cochran, J. D., Campbell, S. M., Baker, H. M., & Leeds, E. M. (2014). The Role of Student Characteristics in Predicting Retention in Online Courses. *Research in Higher Education*, 55, 27-48. DOI 10.1007/s11162-013-9305-8

Lundberg, C. A., & Sheridan, D. (2015). Benefits of engagement with peers, faculty, and diversity for online learners. *College Teaching*, 63, 8-15. DOI: 10.1080/87567555.2014.972317

Slade, S., & Prinsloo, P. (2013). Learning analytics ethics and dilemmas. *American Behavioral Scientist*, 57(10) 1510-1529. DOI: 10.1177/0002764213479366

Contact

par48@drexel.edu

RSC PST 2 - Research Poster Session 2

KATTS Framework and Kaplan Resources Remain Effective for NCLEX-RN® Success After 2013 Passing Standard Increase

Maria Flores-Harris, DNP, RN, CNE, USA

Abstract

Purpose: The purpose of the study was to identify the predictive value of Kaplan NCLEX-RN® Prep resources on first-time NCLEX-RN® examination test takers after the increase in the passing standard in 2013. Consequently, five independent variables were examined, Diagnostic Exam scores, Readiness Exam Scores, Question Trainer 6 and 7 scores, and QBank scores, to determine their predictive value of the independent variable, NCLEX-RN® examination success. Logistic regression analysis was used to examine predictors of first-time success on the NCLEX-RN® examination after the increase in the passing standard on April 1, 2013.

First-time NCLEX-RN® examination pass rates are considered the key quality indicator of nursing programs. Nursing graduates must pass the NCLEX-RN® licensure examination to practice as registered nurses in the United States. Nurses make up the largest portion of health care providers in the country and are vital to the adequate and proper delivery of healthcare in the United States. In April of 2013 the passing standard for the NCLEX-RN® examination was increased. It was the largest one-time increase on record. In 2014 the lowest national pass rate on record was reported at 81.8 percent.

Nursing programs must deliver quality strategies that assist graduates with passing the licensure examination. This quantitative study examined retrospective student data gathered by a test prep company. The data included the scores on several tests and predictive examinations. The scores for tests named Question Trainer 6, Question Trainer 7, QBank, Diagnostic test, and Readiness test were examined utilizing logistic regression to determine each test scores predictive value on passing the NCLEX-RN® examination.

The Knowledge Base, Anxiety control, Test-Taking Skills (KATTS) framework was the theoretical framework for this study. This framework focuses on three components for NCLEX-RN® examination success – an adequate knowledge base, anxiety control, and effective test-taking strategies. All three components are equally needed for success and are found within the Kaplan resources.

Kaplan has several NCLEX-RN® predictor exams – the Diagnostic examination, the Readiness test, and the Secure Predictor One examination– that provide evaluation of students' strengths and weaknesses based on the NCLEX-RN® test plan. The generated report for these exams identifies students' knowledge deficits according to the NCLEX-RN® examination test plan. Based on this evaluation, students are guided to the Kaplan NCLEX-RN® Content Review Guide and Content Review videos, categorized by the NCLEX-RN® examination test plan, to increase their knowledge base.

Active anxiety control, the second component of the KATTS framework, includes eliminating the fear of the unknown by exposing students to NCLEX®-like conditions before they take the examination. Kaplan's predictor exams provide a similar testing environment to the NCLEX-RN® examination. The Kaplan Strategy video provides information about the NCLEX® process and the exam itself to lessen students' fear of the unknown on test day.

Effective test-taking skills, the final component of the KATTS framework, involves practicing NCLEX®-style questions, understanding rationales for correct and incorrect answers, and question drills. Kaplan provides nearly 2500 NCLEX®-style questions for practice and remediation, including the variables in this study, Question Trainer 6 and 7 and the QBank. Kaplan's four-day prep course consists of one half day of learning critical thinking test taking strategies, two and one-half days of question drills and a final day of practicing the learned strategies. The Kaplan course and resources address all three of the components of the KATTS framework.

Methods: A quantitative, non-experimental, logistic regression design was utilized for this study. The study variable analyzed was NCLEX-RN® examination outcome which is defined as either pass or fail; therefore, it is dichotomous. The variables applied for this study were scores on the Kaplan Q-Bank questions, scores on the Question Trainer Tests, and scores on two predictor exams, the Diagnostic examination and the Readiness test. This study measured the predictive relationship between the scores on the specific Kaplan NCLEX-RN® prep resources and success on the NCLEX-RN® examination. There was no manipulation of subjects or variables. A retrospective review of student data gathered by Kaplan from April 2013 to December 2014 was analyzed for this study. The information was accessed electronically via the Kaplan Integrated Testing system platform and exported to an Excel® spreadsheet.

Data from the retrospective spreadsheet was analyzed using the Statistical Package for the Social Sciences (SPSS), version 22, and included predictions utilizing logistic regression.

Results: Logistic regression analysis showed that the Diagnostic exam, Readiness exam, and QT 7 are predictive of NCLEX-RN® examination success. The QBank and Question Trainer 6 are not as strong predictors when compared to the other resources. The Diagnostic and QT 7 have Significance values of 0.00 and, therefore, are major factors in the passing of NCLEX® examination. The Diagnostic, Readiness and QT 7 all have positive B values indicating that an increase in these scores results in an increase in the probability of passing NCLEX® examination.

The study findings support the use of the Kaplan Diagnostic exam, Readiness exam, and QT 7 as predictive of success on the NCLEX-RN® examination. The QBank and QT 6 were predictive when examined alone but not in conjunction with the other resources. The Diagnostic exam and QT 7 were the most significant predictors of NCLEX® success, followed by the Readiness exam.

Conclusion: The KATTS framework, a test success framework, consists of a sound knowledge base, active anxiety control and test taking strategies. The Kaplan resources map to areas of the KATTS framework. Results of the study show that addressing the areas of the KATTS framework continues to result in NCLEX® success even after the increase in the passing standard of the examination. The results of the study also provide support that the Kaplan resources continue to be predictive of NCLEX® success even after the increase in the passing standard of the examination. Though the creation of many of the Kaplan NCLEX® Prep resources predates the computer-adaptive exam, these results demonstrate that creation of new preparation resources and strategies are not necessary for students to be successful on the computer-adaptive examination. Many of the strategies and resources already in place, the KATTS framework approach and the Kaplan resources, continue to be effective when utilized.

References

- Bicak, B. (2013). Scale for test preparation test taking strategies. *Educational Sciences: Theory & Practice*, 13(1), 279-289. Retrieved from www.edam.com.tr/estp
- Carr, S. M. (2011). NCLEX-RN pass rate peril: One school's journey through curriculum revision, standardized testing, and attitudinal change. *Nursing Education Perspectives*, 32(6), 384-388. Retrieved from <http://www.nln.org/nlnjournal/>
- Carrick, J. (2011). Student achievement and NCLEX-RN success: Problems that persist. *Nursing Education Perspectives*, 32(2), 78-83. Retrieved from <http://www.nln.org/nlnjournal/>
- Damer, D. E., & Melendres, L. T. (2011). Tackling test anxiety: A group for college students. *The Journal for Specialists in Group Work*, 36(3), 163-177. doi: 10.1080/01933922.2011.586016
- Lavin, J., & Rosario-Sim, M. (2013). Understanding the NCLEX: How to increase success on the revised 2013 examination. *Nursing Education Perspectives*, 34(3), 196-198. Retrieved from <http://www.nln.org/nlnjournal/>
- National Council State Boards of Nursing (NCSBN). (2014). 2012 and 2013 Nurse Licensee Volume and NCLEX Examination Statistics. Retrieved from <https://www.ncsbn.org/exam-statistics-and-publications.htm>
- National Council State Boards of Nursing (NCSBN). (2013). NCLEX-RN® Detailed Test Plan. Retrieved from https://www.ncsbn.org/2013_NCLEX_RN_Test_Plan.pdf
- Santo, L., Frander, E., & Hawkins, A. (2013). The use of standardized exit examinations in baccalaureate nursing education. *Nurse Educator*, 38(2), 81-84. Retrieved from <http://journals.lww.com/nurseeducatoronline/pages/default.aspx>
- Schroeder, J. (2013). Improving NCLEX-RN pass rates by implementing a testing policy. *Journal of Professional Nursing*, 29(2S), S43-S47. doi: 10.1016/j.profnurs.2012.07.002

Simon, E. B., McGinniss, S. P., & Krauss, B. J. (2013). Predictor variables for NCLEX-RN readiness exam performance. *Nursing Education Perspectives*, 34(1), 18-24. Retrieved from <http://www.nln.org/nlnjournal/>

Spetzer, J. (2014). How will health reform affect demand for RNs? *Nursing Economic\$,* 32(1), 42-44. Retrieved from <http://www.nursingconomics.net/cgi-bin/WebObjects/NECJournal.woa>

Thomas, M. H., & Baker, S. S. (2011). NCLEX-RN success: Evidence-based strategies. *Nurse Educator*, 36(6), 246-249. Retrieved from <http://journals.lww.com/nurseeducatoronline/pages/default.aspx>

Contact

maria.flores-harris@kaplan.com

RSC PST 2 - Research Poster Session 2

Mothering From the Inside Out: A Mentalization-Based Intervention for Mothers Enrolled in Mental Health Services

Monica Roosa Ordway, PhD, APRN, IBCLC, USA

Lourdes De Las Heras Kuhn, MS, USA

Thomas McMahon, PhD, USA

Nancy E. Suchman, PhD, USA

Abstract

Purpose: A cornerstone of parenting is managing dyadic psychological distress. However, among those struggling with mental illness, the dynamic and fluctuating nature of adult psychopathology complicates the parent-child relationship and challenges mental health clinicians due to the paucity of evidenced based mental health programs focused on parenting. The process of mental health intervention adaptation and implementation with vulnerable populations is not well described in the literature. We worked as a community-partnered team to adapt and pilot an empirically-supported intervention program for mothers of infants and toddlers in an outpatient mental health clinic that primarily serves a low income community. The conceptual frameworks of mentalization theory and parental reflective functioning (RF) provide a foundation for understanding the mental states (thoughts, emotions, intentions) underlying one's own and another's behavior that can help a parent break the viscous cycle of psychological distress and dysregulated relationships. We suggest that there are potential benefits of developing and evaluating interventions for parents with mental illness that target parental RF. To date, however, there have been no reported efforts to pilot such interventions with parents who struggle with mental illness. Considering the demonstrated efficacy in two randomized clinical trials with mothers enrolled in treatment for substance abuse, the aim of this study was to examine the preliminary feasibility, acceptability and efficacy of adapting *Mothering from the Inside Out (MIO)* for use at an urban community mental health clinic. The adapted MIO intervention is delivered by an interdisciplinary group of clinicians (nurses, social workers, psychologists) and involves 12-weekly, 1-hour individual therapy sessions focused on helping mothers make sense of their child's and their own emotional experience within the parent-child relationship. In this study, we were interested in: 1. determining whether community-based clinicians could deliver MIO with sustained fidelity, 2. examining the preliminary feasibility, acceptability and efficacy of MIO when delivered by clinicians in a community mental health center, and 3. replicating prior tests of the proposed treatment mechanisms identified in the two RCTs.

Methods: This trial was conducted on site in a satellite clinic of a large, urban community mental health center that serves children, adolescents, young adults and adults. The clinic is located adjacent to a small northeastern city where many clients are exposed to urban problems (e.g., crime, poverty, minimal affordable housing) typically identified with larger cities. Interested mothers who were enrolled in outpatient services themselves or who had a biological child enrolled in outpatient services at the treatment center were eligible for treatment if they were caring for a child between birth and 84 months of age. All mothers who consented received 12 sessions of a manualized mentalization-based intervention called *Mothering from the Inside Out (MIO)* that was originally designed for mothers enrolled in treatment for drug addiction. Mother-child dyads were eligible to participate if the mother was English speaking and caring for a child between birth and 84 months of age (the target child in the study) and either the mother or target child was enrolled in the outpatient mental health treatment program where the study was conducted. Treatment attendance and alliance served as measures of feasibility and acceptability, respectively. Maternal outcomes included reflective functioning, parenting stress and psychiatric distress. Mother-child interaction outcomes included maternal sensitivity, child involvement and dyadic reciprocity. Seventeen mothers caring for a child between birth and 84 months of age consented to participate and completed an initial intake evaluation and baseline assessments. Treatment fidelity was measured using a scale developed for the randomized trial involving substance using mothers. Treatment attendance and alliance served as measures of feasibility and acceptability, respectively. Treatment outcomes included maternal reflective functioning, psychiatric and parenting stress, and mother-child interaction quality.

Results: Our findings indicated that MIO was feasible and acceptable when delivered in the community-based setting and that all maternal indices improved. As shown in Table 1, mean RF score showed a moderate increase from baseline to post-treatment ($d = .34$). Potential RF also showed a moderate increase from baseline to post-treatment ($d = .35$). Child-focused RF showed a large increase ($d = .64$) whereas self-focused RF showed no increase ($d = .04$) from baseline to post-treatment. At the end of 12 sessions, mothers had also reported their experience of parenting and psychiatric stress had fallen to ranges that were considered within normal limits ($T < 60$ on the Brief Symptom Inventory; $d = -.41$). Similarly, findings for the group mean for depression were also found and the magnitude of this change from baseline to post-treatment corresponded to a medium effect ($d = -.58$). Support was found for the proposed mechanisms of change: Therapist fidelity to the unique MIO treatment components predicted improvement in maternal RF ($r = .53, p = .03$) which, in turn, was associated with improvement in quality of mother-child interactions ($r = .43, p = .08$). With regard to implementation, key lessons from this implementation include: 1. The importance of formative work to build community relationships; 2. The importance of designing plans for training and reflective supervision that fit within the flow of the clinic and can tolerate disruptions; 3. Use of an interdisciplinary approach is feasible with the development of a plan for communication and the support of a trained reflective clinical supervisor.

Table 1. Effect size (d) for treatment outcome differences from baseline to 12 weeks

	Baseline	12 weeks	d
Maternal Reflective Functioning			
Mean RF	2.85 (.58)	3.11 (.60)	.34
Potential RF	4.12 (.86)	4.53 (.80)	.35
Child-focused RF	2.91 (.51)	3.42 (.64)	.64
Self-focused RF	2.81 (.72)	2.85 (.72)	.04
Parenting Stress			
Personal Distress	30.35 (9.73)	26.71 (10.74)	.25
Dysfunctional Interaction	21.06 (5.58)	21.00 (8.09)	.01
Difficult Child	30.59 (8.57)	27.82 (8.12)	.23
Psychiatric Symptoms			
Global Psychiatric Distress (BSI; T Score)	62.35 (10.01)	55.94 (11.9)	-.41
Depression (BDI)	16.88 (9.26)	10.06 (7.39)	-.58
Mother-Child Interaction			
Maternal Sensitivity	3.39 (.75)	3.41 (.72)	.02
Child Involvement	3.28 (.87)	3.34 (.78)	.05
Dyadic Reciprocity	3.28 (1.06)	3.27 (1.06)	-.01

Conclusion: These findings add to a growing body of evidence showing the validity of this treatment model for improving mother-child relationships in high risk dyads where psychoeducational instruction and behavioral coaching have proven insufficient. These findings suggest that a mentalization-based parenting therapy for mothers involved with mental health services may enhance the effects of the mental health services that target their psychiatric symptoms. The key lessons from the implementation advance the scientific knowledge available to healthcare managers and researchers who are looking to adapt mental health clinical interventions for a vulnerable population.

References

- Slade, A. (2005). Parental reflective functioning: An introduction. *Attachment and Human Development, 7*, 269–281.
- Suchman, N., & DeCoste, C. (2012). Parental Psychopathology: A developmental perspective on mechanisms of transmission. In L. Mayes & M. Lewis, (Eds.), *The Cambridge handbook of environment in human development*. pp. 406-444. London, England: Cambridge University Press.
- Suchman, N., DeCoste, C., Ordway, M., & Bers, S. (2013). Mothering from the Inside Out: A mentalization-based individual therapy for mothers with substance use disorders. In N. Suchman, M. Pajulo, & L. Mayes *Parenting and substance addiction: Developmental approaches to intervention*. pp. 407-433. NY: Oxford University Press.
- Suchman, N. E., DeCoste, C., Rosenberger, P., & McMahon, T. J. (2012). Attachment-based intervention for substance using mothers: A preliminary test of the proposed mechanisms of change. *Infant Mental Health Journal, 33*, 360 – 371.

Contact

monica.ordway@yale.edu

RSC PST 2 - Research Poster Session 2

Access to Healthcare for Transgendered People

Hatice Kaya, PhD, RN, Turkey
Yeliz Culha, RN, Turkey
Nuray Turan, PhD, RN, Turkey
Gulsun Ozdemir Aydin, MSc, RN, Turkey
Aysel Ozsaban, MSc, RN, Turkey

Abstract

Purpose: Transgendered people are more vulnerable and at risk in terms of certain diseases. These people are more hesitant on health protection and cannot benefit from health care services for various reasons.

Methods: In this article, the relevant literature and research findings on transgendered people's attitudes to protect their health and the responsibilities of the nurses in this regard were examined and discussed, and application-oriented suggestions were offered.

Results: The concept of transgenderism was firstly addressed in the Diagnostic and Statistical Manual DSM III under the heading of psychosexual disorder. transgenderism is person's rejection of anatomic gender and desire to have the primary and secondary sex characteristics of the opposite sex. The incidence of male and female transsexualism is not completely known in the world and in our country. According to the World Professional Association for Transgender Health (WPATH), the ratio of female transgenders has been stated between 1/30.400 and 1/200.000, and the ratio of male transgenders has been stated between 1/11.900 and 1/45.000. Transgendered people have a transition period to physical appearance or gender expression specific to the gender they perceive. Hormone replacement therapy or surgical operation is widely used in this period. There are risks associated with hormone therapy such as venous thromboembolism, cardiovascular disorders, diabetes mellitus, cancer and osteoporosis. Transgendered people are at increased risk for HIV, sexual violence and mental health problems, depression, anxiety and suicide. In these people, risky health behaviors such as smoking, alcohol and substance abuse also increase the incidence of these diseases. To understand the health risks of transgendered people is important and ensures the effective provision of health care. However, it was seen that there was a strong relationship between access to health care services of these people experiencing stigma and othering in the society and its consequences. In the study carried out by Yılmaz and Göçmen (2015) with lesbian, gay and transgendered people, 7.6 percent of the people who participated in the study stated that they did not receive treatment and delayed their treatment for the fear that they would be exposed to discrimination. Nurses have an important position in the protection and development of the health of this group and in increasing the quality of care they receive.

Conclusion: Nurses should raise these people's awareness on hormone usage, the ways of protection from sexually transmitted diseases, the importance of early diagnosis in the prevention of cancer, the prevention of risky behaviors such as smoking, alcohol and substance use, and the ways of protection from depression by taking part in awareness-raising trainings related to the health of transgendered people. Nurses should help to improve the quality of life of the people by making them feel that they are away from prejudice during the entire care process.

References

- Lim, F. A., Brown, D. V., Jr., & Justin Kim, S. M. (2014). Addressing health care disparities in the lesbian, gay, bisexual, and transgender population: a review of best practices. *AJN Nurs*, 114(6), 24-34.
- Liu, R. T., & Mustanski, B. (2012). Suicidal ideation and self-harm in lesbian, gay, bisexual, and transgender youth. *Am J Prev Med*, 42(3), 221-228.
- Sedlak, C. A., Veney, A. J., & Doheny, M. O. (2016). Caring for the transgender Individual. *Orthop Nurs*, 35(5), 301-306.
- Szots, K., Pedersen, P. U., Hordam, B., Thomsen, T., & Konradsen, H. (2015). Physical health problems experienced in the early postoperative recovery period following total knee replacement. *Int J Orthop Trauma Nurs*, 19(1), 36-44.

Şahin, N.H., Bilgiç, D. (2016). Toplumda eşcinsellere yönelik tutumlar ve lezbiyen kadınlarda sağlık eşitsizliği. *HSP*, 3(3):216-225.

Yakit, E., Coşkun, A. M. (2016). LGBT bireylere yönelik HIV ile ilgili güvenli olmayan cinsel davranışların belirlenmesi. *İnsan ve Toplum Bilimleri Araştırmalar Dergisi*, 5(5); 1400-1416

Yılmaz, V., Göçmen, İ. (Haziran, 2015). Türkiye'de lezbiyen, gey, biseksüel ve trans bireylerin sosyal ve ekonomik sorunları araştırmasının özet sonuçları. *Türkiye Politika ve Araştırma Merkezi (Research Turkey), Londra: Research Turkey*, IV(6); 94-101.

Contact

yeliz.culha@istanbul.edu.tr

RSC PST 2 - Research Poster Session 2

An Evidence-Based Nursing Framework to Improve the Hepatitis C Care Continuum in HIV Co-Infection

Laura E. Starbird, MS, RN, APHN-BC, USA

Jason E. Farley, PhD, MPH, ANP-BC, AACRN, FAAN, USA

Abstract

Purpose: The purpose of this presentation is to a) describe the development of an evidence-based nurse case management intervention to increase uptake of HCV care in an HIV primary care setting using the revised Criteria for Reporting the Development and Evaluation of Complex Interventions in Healthcare (CReDECI 2) (Möhler et al., 2015); and b) illustrate a conceptual framework for a theory-based nurse case management intervention to improve the HCV care continuum among people living with HIV.

Over 185 million people have been infected with hepatitis C virus (HCV) globally (World Health Organization, 2014). HCV is the most common cause of non-AIDS related death among people living with HIV (Centers for Disease Control and Prevention [CDC], 2014). One quarter of people living with HIV are co-infected with HCV, which accelerates the progression to end stage liver disease and hepatocellular carcinoma (CDC, 2014; Lo Re et al., 2014). HCV can be cured with a single daily pill in just 12 weeks (Thomas, 2014); however, in the United States only 1 in 5 people with chronic HCV are linked to HCV care and fewer than 10% have ever initiated treatment (Cachay et al., 2014; Yehia et al., 2014). Barriers to engagement in HCV care include low knowledge and perceived threat of HCV, and HIV-HCV drug-drug interactions, which will exist for up to 88% of people with HIV/HCV co-infection in the setting of new HCV treatments (Patel et al., 2015). In this era of effective all-oral HCV treatment, linking patients to specialty HCV services is essential to maximize the lifesaving potential of available therapies and cure HCV. Evidence-based interventions to increase knowledge about HCV, its perceived threat, and available treatments are needed to improve the HCV care continuum and increase uptake of curative therapies among people co-infected with HIV/HCV.

Methods: We developed a multifaceted intervention comprised of nurse-initiated referral, strengths-based education, patient navigation, and coordinated drug-drug interaction prevention. Andersen's Behavioral Model of Health Services Use (1995) was applied to inform the intervention components. According to Andersen, a person's use of health services is a function of predisposing factors, enabling resources, and perceived and actual need for care. Perceived need can be changed through education; the greater the perceived and actual need, the more likely one is to use services. Andersen also suggests that enabling resources can be influenced by interventions at the system, provider, and patient level. The more enabling resources one has, the greater the likelihood of healthcare utilization. Enabling resources for the uptake of HCV care can include patient navigation, appointment reminders, and support for drug-drug interaction prevention. A literature review guided by the Andersen Model was conducted to examine successful engagement in care intervention components in similar populations. The concepts of the Andersen Model were then used to adapt these evidence-based components into a brief nurse case management intervention specifically for the HIV/HCV co-infected population in an HIV primary care setting.

Results: Examination of the Andersen Model and current literature resulted in three outcomes: 1) A brief nurse case management intervention to improve engagement in HCV care that can be administered in HIV primary care was developed. The intervention components include nurse-initiated referral to HCV care, strengths-based education, patient navigation, appointment reminders, and coordinated drug-drug interaction prevention; 2) The relationships between Andersen's concepts and the intervention components were illustrated in a conceptual framework. This framework indicates the pathway to which the HCV care continuum, specifically linkage to care and treatment initiation, can be improved; and 3) A randomized controlled trial was designed based on the conceptual framework to test the hypothesis that a nurse case management intervention will improve the HCV care continuum for patients co-infected with HIV by increasing perceived need and maximizing enabling resources.

Conclusion: We are at a defining moment for HCV care. All-oral treatments are available that provide us with the opportunity to cure HCV in nearly all patients with few side effects in 12 weeks. While necessary, these exciting new advances are not sufficient to solve the problem of the poor HCV care continuum. Without knowing how to get people to the point of starting HCV treatment, even the best medications can have no impact on HCV-related morbidity and mortality. Interventions that increase perceived need and maximize enabling resources have the potential to improve the HCV care cascade for people co-infected with HIV. This framework describes the first evidence-based, theory-driven nurse case management model to improve the care continuum within this new era of HCV in a real-world HIV primary care setting. The intervention described may ensure that the most effective linkage to care and treatment approach is integrated into care of this population across the care continuum. Studies to test the effect of this intervention in different settings are needed.

References

Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36(1), 1-10. Centers for Disease Control and Prevention. (2014). HIV and viral hepatitis: Fact sheet. Retrieved April 18, 2015, from <http://www.cdc.gov/hepatitis/Populations/PDFs/HIVandHep-FactSheet.pdf>

Cachay, E. R., Hill, L., Wyles, D., Colwell, B., Ballard, C., Torriani, F., & Mathews, W. C. (2014). The hepatitis C cascade of care among HIV infected patients: A call to address ongoing barriers to care. *PloS One*, 9(7), e102883. doi:10.1371/journal.pone.0102883 [doi]

Lo Re, V., Kallan, M. J., Tate, J. P., Localio, A. R., Lim, J. K., Goetz, M. B., . . . Justice, A. C. (2014). Hepatic decompensation in antiretroviral-treated patients co-infected with HIV and hepatitis C virus compared with hepatitis C virus- monoinfected patients. *Annals of Internal Medicine*, 160(6), 369-382.

Möhler, R., Kopke, S., & Meyer, G. (2015). Criteria for reporting the development and evaluation of complex interventions in healthcare: Revised guideline (CReDECI 2). *Trials*, 16, 204-015-0709-y. doi:10.1186/s13063-015-0709-y [doi]

Patel, N., Nasiri, M., Koroglu, A., Amin, R., McGuey, L., McNutt, L. A., Miller, C. (2015). Prevalence of drug-drug interactions upon addition of simeprevir- or sofosbuvir-containing treatment to medication profiles of patients with HIV and hepatitis C coinfection. *AIDS Research and Human Retroviruses*, 31(2), 189-197. doi:10.1089/AID.2014.0215 [doi]

Thomas, D. L. (2014). Cure of hepatitis C virus infection without interferon alfa: Scientific basis and current clinical evidence. *Topics in Antiviral Medicine*, 21(5), 152-156. World Health Organization (2014). Guidelines for the Screening, Care, and Treatment of Persons with Hepatitis C Infection. Geneva, Switzerland. Yehia, B. R., Schranz, A. J., Umscheid, C. A., & Lo Re, V. (2014). The treatment cascade for chronic hepatitis C virus infection in the United States: A systematic review and meta-analysis. *PLoS ONE*, 9(7), e101554.

Contact

Istarbi1@jhu.edu

RSC PST 2 - Research Poster Session 2

Nursing Students' Technological Equipment Usage Status and Individual Innovation Levels

Hatice Kaya, PhD, RN, Turkey

Nuray Turan, PhD, RN, Turkey

Hanife Durgun, MSc, RN, Turkey

Turkinaz Asti, PhD, RN, Turkey

Abstract

Purpose: This research was carried out to determine nursing students' technological equipment-usage status and individual innovation levels, and the relationship between them.

Methods: All nursing students studying in the Nursing Department of a Faculty of Health Sciences in Istanbul in the 2015-2016 academic year constituted the population of the research which was designed in the descriptive-cross-sectional type, and 165 nursing students who agreed to participate in the study constituted the sample group. Informed consent was obtained from the institution and the students before starting the research. The data were collected by interviewing face-to-face using Structured Question Form, Technological Equipment Usage Scale and Individual Innovation Scale. In the evaluation of the data, Student t test, Mann Whitney U test and Pearson Correlation Analysis were used in addition to descriptive statistical methods (mean, standard deviation, frequency).

Results: It was determined that the age average of the students was 20.92 ± 1.63 years, 93.3% of them were female, 98.2% of them were single, 47.3% of them had 2 siblings, the incomes of 87.3% of them covered their expenses, 94.5% of them had health insurance, 92.1% of them did not work in any job, 80% of them lived with their family, and 89.7% of them spent most of their lives in the Marmara Region. It was found that 85.5% of the students were members of at least one social networking site, 83% of them used social networking sites every day, and they spent an average of 2.32 ± 1.89 hours on these sites. When their technological equipment usage statuses were examined, it was determined that 95.8% of the students mostly preferred smart phones among technological equipments, they spent an average of 4.72 ± 2.93 hours per day on smart phone, the number of controlling smart phone was an average of 26.02 ± 23.38 times in a day, 61.2% of them preferred Android system on smart phone operating system, and 80.6% of them preferred WIFI 4.5G connection. In the Technological Equipment Usage Scale, it was determined that the point average of the Technological Equipment Usage sub-dimension was 50.44 ± 14.51 , Social Media sub-dimension was 27.86 ± 10.09 , The Place of Technology in Life sub-dimension was 27.53 ± 7.68 , Educational Use sub-dimension was 29.32 ± 7.19 , and the Communication sub-dimension was 16.01 ± 5.20 . It was found that the total point average of the Technological Equipment Usage Scale was 135.15 ± 27.09 , and the point average of the Individual Innovation Scale was 61.02 ± 8.89 . In the sub-dimensions of the Technological Equipment Usage Scale, a statistically negative relationship was found between the total points of the Technological Equipment Usage sub-dimension and the Individual Innovation Scale ($p < 0.05$), a statistically positive relationship was found between the total points of the Place of Technology in Life sub-dimension and Individual Innovation Scale ($p < 0.05$), a statistically positive relationship was found between the total points of the Educational Use sub-dimension and Individual Innovation Scale ($p < 0.05$), and a statistically significant negative relationship was found between the total points of the Communication sub-dimension and Individual Innovation Scale ($p < 0.05$).

According to individual characteristics, when the points of the Technological Equipment Usage Scale and the Individual Innovation Scale were compared, a statistically significant difference was found in terms of the number of siblings and the Educational Use sub-dimension points ($p < 0.05$). It was determined that the Communication sub-dimension points of the students working in any job were statistically significantly higher compared to nonworking students ($p < 0.05$).

Conclusion: While students' technological equipment usages are at medium-level, their individual innovations are at the level of questioning. It is very important for nursing students to be innovative, to initiate and sustain innovation within the context of the use of technological equipments and their

contemporary roles and responsibilities. In this context, awareness should be created in the process of nursing education.

References

Biçen, H. and Arnavut, A. (2015). Determining the effects of technological tool use habits on social. *Computers in Human Behavior*, 48: 457-462.

Çuhadar, C., Bülbul, T. ve Ilgaz, G. (2013). Öğretmen adaylarının bireysel yenilikçilik özellikleri ile teknopedagojik eğitim yeterlikleri arasındaki ilişkinin incelenmesi. *İlköğretim Online*, 12(3):797-8

Kaya, H., Turan, N., Hasoğlu, Ö., Güre, Ö., Arslanova, E., Elmas, G. (2015). Hemşirelik fakültesi öğrencilerinin sosyal ağ sitelerini kullanma amacı ile iletişim becerileri arasındaki ilişkinin incelenmesi. *İletişim Kuram ve Araştırma Dergisi*, 40: 17-31.

Contact

tasti@bezmialem.edu.tr

RSC PST 2 - Research Poster Session 2

The Experience of Adult Daughters Living With Mother's Breast Cancer

Ting-Chun Chen, BSN, RN, Taiwan

Su-Ying Fang, PhD, RN, Taiwan

Abstract

Background: Breast cancer tends to be genetic and is more likely to be inherited by daughters than sons. When mothers suffer from cancer, daughters are usually the ones who take the role of the caregiver. In addition to their own concern of the risk of getting cancer themselves and worrying about their mother's health, the combination of undertaking the role of the caregiver may be even more threatening the psychological health of adult daughters. Previous studies showed that mothers getting breast cancer will affect the psychological health of their daughters, but does not reveal the impact of adult daughters facing their mothers after cancer therapy, nor the experiences of living in the shadow of the risk of getting cancer themselves. Understanding the aforementioned issues and phenomenon helps in providing more appropriate intervention from a daughter's perspective to meet the needs of women with high risks of breast cancer.

Purpose: To understand the experiences of adult daughters living with mothers' breast cancer.

Methods: This study adopts the phenomenological qualitative research method to understand the experience of adult daughters whose mother suffered with breast cancer in southern Taiwan. Semi-structural interviews are used to conduct in-depth interviews with adult daughters of women with breast cancer. Text data analysis is conducted by using the seven step analysis method proposed by Colaizzi (1978). The number of interviews and amount of data are stopped when data reached saturation.

Results: A total of six adult daughters interviewed in this study. After the interview transcription has been translated for text analysis, 4 themes were emerged: 1) triple fear from self, mother and my daughter, 2) multiple roles on me at the same time, 3) changed communication and relationship with my mothers, and 4) desire for more medical care support.

Conclusion: This study found that adult daughters of women with breast cancer usually undertook the role of the caregiver for their mothers, which corresponds with the psychological stress of daughters shown in previous literatures. These daughters not only perceived threat to their own lives due to their mothers' sickness, but also experienced fear and concern of the high risk of suffering from breast cancer themselves. Additionally, they also concerned how to discuss disease-related information with their next generation under the risk of genetic inheritance etc. This study provide some implications that psychological support, disease-related information and appropriate communication and interaction support with their mother can be provided to improve their physical and psychological health.

References

- Berlin, K. L., Andreotti, C., Yull, F., Grau, A. M., & Compas, B. E. (2013). Mother-daughter communication about breast cancer risk: interpersonal and biological stress processes. *J Behav Med, 36*(3), 328-339. doi:10.1007/s10865-012-9418-0
- Patenaude, A. F., Tung, N., Ryan, P. D., Ellisen, L. W., Hewitt, L., Schneider, K. A., . . . Garber, J. E. (2013). Young adult daughters of BRCA1/2 positive mothers: what do they know about hereditary cancer and how much do they worry? *Psychooncology, 22*(9), 2024-2031. doi:10.1002/pon.3257
- Tunin, R., Uziely, B., & Woloski-Wruble, A. C. (2010). First degree relatives of women with breast cancer: who's providing information and support and who'd they prefer. *Psychooncology, 19*(4), 423-430. doi:10.1002/pon.1596
- Vodermaier, A., & Stanton, A. L. (2012). Familial breast cancer: less emotional distress in adult daughters if they provide emotional support to their affected mother. *Fam Cancer, 11*(4), 645-652. doi:10.1007/s10689-012-9566-y

Contact

momoko.chen122@gmail.com

RSC PST 2 - Research Poster Session 2

Common Care Challenges From Female Spouse of the COPD Patient: Content Analysis

Hsiu-Hui Lei, MS, RN, Taiwan

Tien-Hui He, MS, RN, Taiwan

Abstract

Purpose: Due to the irreversible and progressive development, patients may come across problems such as different disabled body parts with inconsistent progress, as well as recurrent attacks, etc., which lead the female spouse of the patient to overwhelming pressure and torment. The purpose of this study is to offer references to common problems for female spouse of the patient through content analysis.

Methods: 40 female spouses of the patients from the chest out-patient department and the COPD home care unit of a medical center in southern Taiwan were interviewed, based on their care burden. Content analysis was used to set the profile and to analyze.

Results: 40 female spouses of the patients had the average age of 62.3 years old. The average years of caring was 4.6 years. 25% of the subjects had jobs and 92.5% of the subjects had religious beliefs. 65% of them had chronic diseases, and 32.5% had one chronic disease. The perceived health status of most of the subjects (50%) was neither good nor bad, and only 7.5% of them perceived bad health status. The average age of the patients was 72.8 years old and averagely affected with COPD for 7.1 years. 17.5% of the patients used oxygen. 52.5% were not admitted within the past year and 47.5% were admitted within the past year, and among them, 24.5% of them were admitted once. 72.5% has chronic diseases and 35% of them had two chronic diseases.

The COPD burdens that are common to the female spouses in order are listed as the following: 1. They concern about the condition of the patients (70%) 2. They do not know how to cope with emergent conditions (62.5%) 3. They are afraid that they can't afford the medical expense (50%) 4. They feel alone and out of help(25%).

Conclusion: It's crucial for the spouses that nursing staff can find out their torment and evaluate the situation so that the staff can solve the care challenges of the female spouses. Some advice was suggested: emergent service should be offered promptly, and so do the mental and social support. These assistances can relieve the care burden of the female spouse, and help them to get a better quality of life in the meanwhile.

References

Thone, M., F.Schumann, W. Kuhl, K. & Rief, W.(2011). Chronic obstructive pulmonary disease (COPD): Spouses' quality of life and burden during the course of disease. *Psychotherapie, Psychosomatik, Medizinische Psychologie*, 61(2), 70-81.

Chu, T. Y., Lee, S. C., Wang, T. C., Hsieh, J. Y., Lee, C. Y., & Lin, H. L.(2010). A Qualitative Study of Burden among Female Caregivers. *Taipei City Medical Journal*, 7(2), 36-45.

Caress, A-L., Luker, K. A., Chalmers, K. I., & Salmon, M.P. (2009).A review of the information and support of family cares of patients with chronic obstruction pulmonary disease. *Journal Clinical of Nursing*, 18, 479-491.

Contact

laynie7980@pchome.com.tw

RSC PST 2 - Research Poster Session 2

Walking Pre-Heart Transplant Patients With Percutaneously Placed Axillary-Subclavian Intra-Aortic Balloon Pump

Frederick R. Macapagal, BSN, RN, CCRN,, USA

Emma G. McClellan, MSN, RN, CCRN, NEA-BC, USA

Lisa Marie Green, BSN, RN, CCRN, USA

Carolyn Bridges, MPT, CLT, CKTP, USA

Abstract

Purpose: Heart failure is a chronic, debilitating disease that often progresses to end stage quickly when severe left ventricular dysfunction leads to alteration in organ perfusion even at rest. Approximately 500,000 people are diagnosed as having heart failure each year. Heart transplantation is the definitive treatment for patients with end-stage heart failure. The intraaortic balloon pump (IABP) is a treatment for end-stage heart failure patients not responsive to pharmacological therapy while they await heart transplantation. Traditional femoral artery placement of an IABP requires bedrest with its associated complications. An innovative approach for a percutaneously placed axillary-subclavian intraaortic balloon pump (PAIABP) developed by cardiologists in our hospital enables patients to be mobilized while awaiting transplant. We aimed to determine if PAIABP therapy enables pre-heart transplant patients to safely mobilize and create new nursing protocols for safe patient care management.

Methods: This was a retrospective study of pre-heart-transplant PAIABP patients in the Coronary Intensive Care Unit (CICU) from 2007 to 2013 (n=45; 35 men, 10 women). Data are presented as mean (standard deviation) for continuous variables and number (percentage) for categorical variables. All analyses were performed with STATA version 13 (StataCorp, College Station, TX).

Results: Patients were mobilized at 1.39 (\pm 1.41) days after PAIABP insertion. The number of times mobilized per day was 1.79 (\pm 2). PAIABP pre-transplant duration was 21.11 (\pm 25.40) days. Six patients died before receiving a heart transplant, unrelated to the PAIABP. Thirty-seven patients (82%) received a heart transplant. Two deteriorating PAIABP patients had a left ventricular assist device (LVAD) inserted and were later transplanted. PAIABP patients were 100% mobile when medically stable. Complication rates were as follows: bleeding from insertion site, 4%; ischemic complications, 7%; IABP-related infection, 2%.

Conclusion: Pre-heart-transplant patients receiving PAIABP therapy can be safely and effectively mobilized. New nursing care protocols were developed for this procedure to take care of this patient population.

References

Yancy CW, Jessup M, Bozkurt B, et al. 2013 ACCF/AHA guideline for the management of heart failure: executive summary [published online June 5, 2013]. *Circulation*. 2013;128(16):1810-1852. doi: 10.1161/CIR.0b013e31829e8807.

Estep J, Cordero-Reyes AM, Bhimaraj A, et al. Percutaneous placement of an intra-aortic balloon pump in the left axillary/subclavian position provides safe, ambulatory long-term support as bridge to heart transplantation. *JACC Heart Fail*. 2013;1(5):382-388.

Contact

fmacapagal@houstonmethodist.org

RSC PST 2 - Research Poster Session 2

Maternal Peripartum Antibiotic Usage and Depressive Symptoms at One-Month Postpartum

Jordan R. Murphy, BSN, RN, USA

Elizabeth J. Corwin, PhD, RN, FAAN, USA

Abstract

Purpose: The gut-brain-axis is a bidirectional signaling pathway between the gut microbiome and stress response systems of the brain including the hypothalamus, and is increasingly being studied for its role in affecting mood. Antibiotic exposure can contribute to a dysbiotic, or abnormal gut microbiome, by altering the microbial composition, and this is suggested as a mechanism for the increased risk of depressive symptoms in non-pregnant, non-postpartum persons. The immunological, metabolic, and endocrine changes that occur during pregnancy influence the overall functioning of the gut microbiome and represent a potentially robust pathway for exploring the effect of antibiotic-induced gut dysbiosis as a contributing factor in the development of postpartum depression (PPD).

Our lack of knowledge regarding the relationship between gut dysbiosis related to the perinatal use of antibiotics and the subsequent development of depressive symptoms postpartum is especially important given conservative estimates that greater than 40% of women are administered antibiotics during the perinatal period for treatment of a known infection or prophylactically to prevent an infection. While antibiotic use decreases the risk of infection in both mothers and infants, scientists have yet to consider the potentially negative consequences of antibiotic exposure during that time. Thus, we sought to determine the relationship between antibiotic use during the perinatal period and through the first 14 days postpartum and depressive symptoms at 1-month postpartum, the time identified in the DSM-V as diagnostic of PPD.

Methods: A secondary data analysis was conducted on 125 women from a prospective pregnancy cohort. Pregnant women in the third trimester were enrolled into the study and provided demographic characteristics and health history. Each woman completed questionnaires including the Edinburgh Postnatal Depression Scale (EPDS) at that time, and 1- and 2-weeks and 1-, 3-, and 6- months postpartum. Research coordinators completed a chart review to obtain clinical measures including hours in labor, premature rupture of membranes (PROM), perineal tear, and mode of delivery.

Results: A linear regression model was used to explore the relationship between antibiotic use and postpartum depressive symptoms within our cohort. Antibiotic exposure is independently predictive of 1-month postpartum depressive symptoms while controlling for age, depression history, and perineal injury ($p=.038$, $t=2.101$, CI (.080-2.750)), with the overall model explaining 11% of the variance within our cohort ($p=.013$, $F= 3.343$).

Conclusion: We have demonstrated a need for additional studies to investigate more thoroughly the relationship between the gut microbiome, antibiotic usage, and risk for postpartum depressive symptoms. Future work in this area of research will provide new evidence and considerations for modifying clinical practice guidelines for the use of antibiotics during the peripartum period.

References

- Association, A. P. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Blaser, M. J., & Dominguez-Bello, M. G. (2016). The Human Microbiome before Birth. *Cell Host Microbe*, 20(5), 558-560. doi:10.1016/j.chom.2016.10.014
- Corwin, E. J., Pajer, K., Paul, S., Lowe, N., Weber, M., & McCarthy, D. O. (2015). Bidirectional psychoneuroimmune interactions in the early postpartum period influence risk of postpartum depression. *Brain Behav Immun*, 49, 86-93. doi:10.1016/j.bbi.2015.04.012
- Dinan, T. G., & Cryan, J. F. (2015). The impact of gut microbiota on brain and behaviour: implications for psychiatry. *Curr Opin Clin Nutr Metab Care*, 18(6), 552-558. doi:10.1097/MCO.0000000000000221

Ledger, W. J., & Blaser, M. J. (2013). Are we using too many antibiotics during pregnancy? *BJOG*, *120*(12), 1450-1452. doi:10.1111/1471-0528.12371

Lurie, I., Yang, Y. X., Haynes, K., Mamtani, R., & Boursi, B. (2015). Antibiotic exposure and the risk for depression, anxiety, or psychosis: a nested case-control study. *J Clin Psychiatry*, *76*(11), 1522-1528. doi:10.4088/JCP.15m09961

Yu, L. C., Shih, Y. A., Wu, L. L., Lin, Y. D., Kuo, W. T., Peng, W. H., . . . Ni, Y. H. (2014). Enteric dysbiosis promotes antibiotic-resistant bacterial infection: systemic dissemination of resistant and commensal bacteria through epithelial transcytosis. *Am J Physiol Gastrointest Liver Physiol*, *307*(8), G824-835. doi:10.1152/ajpgi.00070.2014

Contact

jrmurph@emory.edu

RSC PST 2 - Research Poster Session 2

Exploring Milieu of Sexual Preference, Sexual Orientation, and Sexual Risk Behavior Among HIV+ Latino Males

Jane Champion, PhD, DNP, MA, MSN, AH-PMH-CNS, FNP, FAAN, FAANP, USA

Abstract

Purpose: Disclosure of HIV status to friends and family was cited as one of the most significant stressors of living with HIV among Latino men. Thus, lack of communication regarding sexual orientation and HIV serostatus may perpetuate stigma and shame regarding same sex relationships among HIV+ Latino men.

The purpose of this presentation is to describe sexual preference, HIV disclosure behavior, sexual risk behavior and substance use among Latino HIV + males to facilitate additional understanding of relationships between these behaviors that perpetuate stigma and shame regarding same sex relationships among HIV+ Latino men.

These findings will be utilized for modification of sexual health promotion interventions in primary care-based settings.

Methods: This presentation includes an analysis of study entry data including individuals, male or female, older than 18 years of age, including all ethnicities, previously diagnosed with HIV/AIDS and enrolled in a HIV interventional trial for persons who were not current receiving medical treatment.

Eligible participants were identified through individual chart reviews of persons who were HIV seropositive and not currently receiving any treatment in a metropolitan health district in the Southwestern United States.

Eligibility criteria for this secondary data analysis included HIV positive serostatus, Latino ethnicity, male and 18 years of age or older.

Institutional Review Board approval was obtained from both the University and Metropolitan Health District settings. Informed consent was obtained prior to study enrollment.

Each participant completed a semi-structured questionnaire following study enrollment. This questionnaire was adapted specifically for this study and contained questions utilized to assess demographics, sexual preference, HIV disclosure behavior, sexual risk behavior and substance use.

The questionnaire was initially developed through extensive ethnographic work for use among individuals experiencing high risk sexual behavior and at risk for STI/HIV.

Descriptive statistical methods: As in all research, the importance of selecting predictors on the basis of a well-justified, theoretical model cannot be overemphasized. This study utilized a process for selection of a set of variables to assess for associations based on a theoretical framework (AIDS Risk Reduction Model).

A diverse number of variables identified through this model were found via bivariate analyses to be associated and are presented in the manuscript. Although there are many benefits in using multivariate procedures, problems are encountered such as increased ambiguity in interpretation of results.

Because this study included a diverse set of theoretically based independent variables intended to provide evidence for the design and modification of cognitive behavioral interventions, multiple regression analysis was not considered an optimal analytic strategy to achieve the study purpose.

Results: 93 HIV+ Latino males who had ever had sex with males or females.

Self-identified sexual preference included straight (heterosexual) (41.9%), gay (43.0%) and bisexual (15.1%) preferences.

Age range was 21-57 years (39.56 mean, SD 8.472). The majority (62.2%) had never been married (gay 97.4%, bisexual 53.8%, straight 28.9%, $p=.000$); 11.1% were currently married with the remainder divorced, widowed or separated; 34.5% were currently living alone.

Most straight men had children (68.4%) compared to bisexual (38.5%) or gay (5.4%) men ($p=.000$). Only 15.6% of men were currently employed full/part-time (gay 25.6%, bisexual 15.4%, straight 5.6%, $p=.048$).

Majority of men (71.6%) reported total combined household income of less than \$750/month; 43.5% reported having being unable to pay bills while 18.5% were homeless and 13% were arrested during past 3 months.

All participants who indicated they were straight reportedly had sex with women in the past while 43.6% of those identifying as gay and 91.7% of those identifying as bisexual reportedly had sex with women in the past ($p=.000$).

All participants who self-identified as gay or bisexual reported sex with men while among straight men, 13.9% reported having sex with men.

Sexual behavior as reported by participants was high.

Sexual behaviors including anal, sex with men, group sex, sex with men and women together, sex for drug, sex in bathhouses, and use of sex toys was reported more often by gay or bisexual men.

Sex with a prostitute and sex with women was reported more often by straight as compared to gay or bisexual men.

Almost all participants had previously used condoms however significantly more bisexual or gay than straight men.

Overall fewer men reported current condom use (33.3%) with no significant differences by sexual preference.

Gay men reported they had "barebacked" and "doubled condoms for protection significantly more often than bisexual or straight men.

Gay and bisexual men reported less disclosure of HIV + status if using condoms.

Most men (56.7%) reported alcohol use the past 3 months with an average weekly intake of 10.03 drinks (19.01 SD).

More straight (44.7%) than bisexual (35.7%) or gay (25.0%) men believed they had a drug or alcohol problem in past 3 months.

High levels of substance use were identified overall: marijuana (87.4%), crack/cocaine (71.9%), IV drugs (40.4%), methadone/heroin (37.1%), downers (27.0%), methamphetamines (21.3%) and ecstasy (16.9%).

Men often reported sharing needles (35.6%) and sex with an IV drug user (44.9%).

Significantly more marijuana, methadone and IV drug use including sharing of needles and sex with partners who use needles was found among straight men.

Significantly more methamphetamine, ecstasy and use of downers were found among gay men.

Gay men reported more HIV testing prior to learning HIV status (35.0%) compared to bisexual (21.4%) or heterosexual (10.5%), ($p=.036$). They also more frequently had HIV testing because they wanted to know for health (17.5%) as compared to straight (5.3%) or bisexual (0%) ($p=.046$). They also reported highest frequency of disclosure of HIV status to family (94.7%) as compared to straight (80.0%) or bisexual (76.9%) men ($p=.197$).

In contrast, men who were straight and never had sex with men compared to MSM/MSMW less frequently had HIV testing prior to learning of their HIV status (6.5% vs.33.9%, $p=.004$) and less frequently had notified family members of their HIV status (75.9% vs. 92.7%, $p=.054$).

Differences were found concerning perceptions about how the men had contracted HIV.

Almost all gay men (91.9%) believed they contracted HIV through sex compared to bisexual (66.7%) or straight (48.3%).

Straight men more often perceived acquisition of HIV via IV drug use (44.8%) as compared to bisexual (16.7%) or gay (2.7%) men.

Bisexual men reported sex and IV drug use as the source of HIV infection more frequently (16.7%) than either straight (6.9%) or gay (5.4%) men ($p=.000$).

Among straight men who had never ever had sex with men versus MSM/MSMW, 50.0% believed they had contracted HIV through IV drug use as compared to 7.8% of MSM/MSMW ($p=.05$).

Gay men more often reported that they got HIV from having sex with a gay partner (17.9%) as compared to straight (2.6%) or bisexual (0%), ($p=.029$). They also reported they got HIV from unprotected sex with a HIV positive partner (28.2%) as compared to straight (10.5%) or bisexual (7.7%)($p=.074$). They also reported more often that they got HIV from unprotected sex with more than one partner (28.2%) as compared to straight (13.2%) or bisexual (23.1%) ($p=.226$).

Straight men reported more often that they got HIV from sharing needles (23.7%) as compared to gay (7.7%) or bisexual (15.4%) ($p=.154$).

Men who never had sex with men reported more frequently than MSM/MSMW that they believed they had gotten HIV from sharing needles (25.8% vs. 10.7%, $p=.067$).

Gay men more frequently reported having sex with only HIV positive partners (35.9%) as compared to straight (8.9%) or bisexual (7.7%)($p=.042$). They also more frequently reported having told a partner that they had HIV (67.5%) versus straight (57.9%) or bisexual (50.0%) men ($p=.435$).

There was agreement that it was important to tell partner you are HIV positive even if you use condoms all of the time (straight 73.9%, gay 79.5%, bisexual 76.9%, $p=.114$)

A current partner was reported by 40% of the men overall however more bisexual (46.2%) or straight (43.2%) than gay (35.0%), ($p=.419$).

Overall, 83.8% were currently having sex with this partner (bisexual 100%, gay 86.7%, straight 76.5%, $p=.421$). 89.2% of partners knew about HIV status of the men (bisexual 100%, gay 93.3%, straight 82.4% $p=.428$).

Of those who had current partners, 52.8% of current partners have HIV; however significantly more gay (73.3%) or bisexual (60.0%) than straight (31.3%) ($p=.055$) men had partners who are HIV positive.

Conclusion: HIV testing, disclosure and sexual behaviors of ethnic minority men suggest that addressing sexual risk behavior and underlying reasons for not receiving HIV testing or disclosing HIV+ status - unique to differing populations - would increase the efficacy of sexual health interventions.

Descriptive behaviors and underlying perspectives reported in this study suggest that public health interventions for HIV+ Latino men who self-identify as heterosexual should explicitly identify substance use, needle sharing, and unprotected sex with current partners as behaviors placing both oneself and partners at high risk for contracting HIV.

The diversity of sexual behavior among gay, straight, and bisexual HIV+ Latino men in this study ultimately suggests clinicians cannot rely on simplistic conceptions of sexual orientation in assessment of their self-care needs. Care in presentation and discussion of self-identified sexual behavior and orientation as sexual behavior is indicated as it does not determine sexual orientation - and vice versa.

References

Champion, J.D., & Szlachta, A. (2016). Self-identified sexual orientation and sexual risk behavior among HIV-infected Latino males, *JANAC*. doi: 10.1016/j.jana.2016.03.004. PMID: 27108242.

Contact

jdchampion@mail.nur.utexas.edu

RSC PST 2 - Research Poster Session 2

Healthy Siblings of Children Living With Chronic Diseases: A Systematic Review

Victoria von Sadovszky, PhD, RN, FAAN, USA

Susi Miller, MLIS, AHIP, USA

Emily Christensen, BA, RN, USA

Bonnie Jennings, PhD, RN, FAAN, USA

Abstract

Purpose: Approximately 26% of children in the United States live with a chronic disease or condition and this number is rising, especially among children experiencing social or economic disparities (Price, Khubchandani, McKinney, & Braun, 2013; Spencer, Blackburn, & Read, 2015). Unpleasant symptoms, lower quality of life, and missed school are a few of the experiences for children living with chronic diseases or conditions (Varni, Limbers, & Burwinkle, 2007). Most models of care delivery and research have centered on the health and welfare of the child with the chronic disease or condition. What is not clear, however, are the physical and psychosocial effects of healthy siblings who are in a family with a sibling who has a chronic disease or condition and what interventions are needed, if any, for this group. Few investigators have examined the healthy siblings in the family unit. To date, most of the research on healthy siblings has been about the perceptions and experiences around end of life and bereavement after a death (Gaab, Owens, & MacLeod, 2014; Wallin, Steineck, Nyberg, & Kreicbergs, 2016). The purpose of this systematic review, therefore, is to examine the scientific literature in regard to these physical and psychosocial effects on the healthy siblings.

Methods: Using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, 2015) guidelines, a literature search was performed in CINAHL, OVID Medline, and PsychInfo. Keywords used were: "sibling burden", "healthy sibling", "sibling survivor", "sibling guilt", "neurotypical sibling", "surviving sibling", and "chronic disease". Limits for the search included: 1) peer-reviewed research reports, systematic review, or meta-analyses; 2) published within the past 10 years; and a 3) pediatric population. To date, a total of 137 abstracts were found. Two researchers are examining the abstracts for inclusion in the review. Interrater reliability will be obtained for level of agreement for inclusion abstracts. Associated articles will be retrieved and reviewed by the study authors. Articles that qualify for this systematic review will be analyzed for demographic information, type of chronic disease/condition of the affected sibling, and associated physical or psychosocial effects/consequences experienced by the healthy sibling(s) within the family unit.

Results: The review is currently in progress. We anticipate the review will be completed by April 2017.

Conclusion: Recommendations will be made for future research and, if applicable, clinical practice to promote healthy outcomes for siblings living with children who have chronic diseases or conditions.

References

- Gaab, E.M., Owens, G.R., & MacLeod, R.D. (2014). Siblings caring for and about pediatric palliative care patients. *Journal of Palliative Medicine*, 17, 62-7.
- Price, J.H., Khubchandani, J., McKinney, M., & Braun, R. (2013). Racial/ethnic disparities in chronic diseases of youths and access to health care in the United States. *BioMed Research International*. DOI: 10.1155/2013/787616.
- PRISMA (2015). PRISMA: Transparent reporting of systematic reviews and meta-analyses. Available: <http://www.prisma-statement.org>. Retrieved: Dec 2, 2016.
- Spencer, N.J., Blackburn, C.M., & Read, J.M. (2015). Disabling chronic conditions in childhood and socioeconomic disadvantage: A systematic review and meta-analyses of observational studies. *BMJ Open*, 5. doi:10.1136/bmjopen-2014-007062. Retrieved: June 16, 2016.
- Varni, J.W., Limbers, C.A., & Burwinkle, T.M. (2007). Impaired health-related quality of life in children and adolescents with chronic conditions: A comparative analysis of 10 disease clusters and 33 disease categories/seerities utilizing the PedsQL 4.0 Generic Core Scales. *Health and Quality of Life Outcomes*. doi: 10.1186/1477-7525-5-43. Retrieved June 16, 2016.
- Wallin, A.E., Steineck, G., Nyberg, T., & Kreicbergs, U. (2016). Insufficient communication and anxiety in cancer-bereaved siblings: A nationwide long-term follow-up. *Palliative and Supportive Care*, 14, 488-94.

Contact

emily.christensen@nationwidechildrens.org

RSC PST 2 - Research Poster Session 2

New Male Contraception: College Students' Attitudes and Perceived Behaviors Related to Non-Hormonal Injectable Gel

Kirstin A. Buck, BA, RN, USA

Jessica L. Stadick, MS, RN, PHN, USA

Abstract

Purpose: At present, people assigned male at birth have extremely limited means by which to control their reproductive health. While medical advancements have yielded numerous modern contraceptives, nurses still have few modalities to recommend for male patients (Kanakis & Goulis, 2015; Davidson, London, & Ladewig, 2016). Hence, men, who represent over half the world's population, experience stunted reproductive autonomy (Campo-Engelstein, 2011), the physical and economic burdens of pregnancy prevention are disproportionately relegated to women (Guttmacher Institute, 2011), and opportunities to expand the valuable individual and societal outcomes of family planning are missed (Waller, Bolick, Lissner, Premanandan, & Gamerman, 2016; Davidson et al., 2016). Although some posit that gender norms around birth control would impede male involvement (Brown, 2015), further investigation is warranted given that international studies have suggested that men are willing to assume increased contraceptive responsibility (Kanakis & Goulis, 2015) and that women would trust male partners to use contraception (Campo-Engelstein, 2013). Concerns have also been raised about the impact alternative male contraception could have on sexually transmitted infection (STI) rates by potentially lowering the usage of protective barrier methods (i.e., condoms, dams, gloves) as seen with female hormonal methods (Smith et al., 2012; Brown, 2015; Milhausen et al., 2013). To date, researchers have primarily tested male hormonal approaches which have been inconsistently effective (Oduwole & Huhtaniemi, 2014), associated with undesirable side effects (Kanakis & Goulis, 2015), and have prompted pharmaceutical companies to prioritize more lucrative investments (Campo-Engelstein, 2011). In response to this global sexual health deficit, development of a promising new form of long-acting and reversible contraception for males has emerged: non-hormonal injectable gel (NHIG). NHIG is bilaterally injected into each vas deferens and different polymer types work to degrade or obstruct the passage of spermatozoa while allowing the ejaculation of other seminal fluid that contains either functionally disabled sperm or no sperm at all (Kanakis & Goulis, 2015; Waller et al., 2016). With a characteristic period of sexual vulnerability accompanying the transition from adolescence to adulthood (Milhausen et al., 2013; Cheney et al., 2014), members of this demographic would be prime recipients of such innovative contraception; yet there is a dearth of research on how the NHIG option will be received within this subgroup.

The purpose of this study was to explore young adults' perceptions regarding NHIG while addressing the following question. In undergraduate college students, is there a difference between attitudes and perceived behaviors related to NHIG contraception amongst potential users (i.e., people with testicles) compared to non-users (i.e., people lacking testicles and/or who do not intend to have partnerships that could lead to pregnancy)?

Methods: A questionnaire for data collection was designed and modelled after relevant sections from the American College Health Association's (2015) National College Health Assessment IIc (ACHA-NCHA IIc). Question generation was informed by a literature review and a theoretical framework that extended the theory of planned behavior (TPB). Focus was given to the constructs of control beliefs, intentions, and moral norms in relation to sexual interactions (Turchik & Gidycz, 2012). Eight variables were measured pertaining to NHIG: (a) eligibility for use, (b) likelihood of use or encouraged use, (c) factors influencing use, (d) behaviors across different sex acts (i.e., vaginal, anal, and oral sex), (e) concurrent use of multiple contraceptives, (f) attitudes toward contraceptive responsibility, (g) attitudes towards contraceptive trust, and (h) previous knowledge of the NHIG method. Demographic information was obtained as well. Logic pathways were set up to direct respondents to appropriate questions based on previous answers. Surveys were distributed via an online platform (SurveyMonkey®) to the student body at a small, Midwestern, liberal arts college. Respondents self-selected to participate and students 18 years or older, of all genders, sexes, and sexual orientations were invited to submit.

Results: The sample ($N = 474$) was 67.6% female, 84.6% heterosexual, and 89.2% white with ages ranging from 18 to 24 years old. There were fewer potential users ($n = 133$, 34.2%) than non-users ($n = 254$, 65.3%). Preliminary results revealed that a greater portion of potential users reported that it would be unlikely ($n = 58$, 43.61%) for them to use NHIG, whereas non-users were more likely ($n = 128$, 51.41%) to encourage its use. Over a quarter of respondents in both user groups replied to the likelihood of use question neutrally. For users and non-users alike, low cost, reversibility, and infrequent administration were the top three options indicated as factors that would increase the likelihood of NHIG use. High cost was the most frequently selected deterrent, uncertainty arising from the newness of the new product was second, and the third diverged respectively between administration route or lack of STI protection for users and non-users. In the context of hypothetical NHIG use, users and non-users at risk for pregnancy were most likely to incorporate protective barrier methods during vaginal intercourse, followed by progressive decreases for anal and oral intercourse. Users were less likely than non-users to intend to utilize protective barrier methods or hormonal methods simultaneously with NHIG. The majority of respondents ($n = 374$, 95.9%) agreed or strongly agreed that all sexual partners should be equally responsible for contraception and that both men and women could be trusted to use contraceptives. However, more trusted women ($n = 303$, 79.4%) than men ($n = 221$, 56.8%). Additional statistical tests are scheduled to be completed to further analyze the results.

Conclusion: As NHIG contraceptives enter the pharmaceutical marketplace, it will be vital for nurses to be knowledgeable about the products and the behavioral implications they may bring. For young adults in the foundational stage of forging lifelong sexual practices, nursing will play a critical role in anticipating patients' needs and providing education that will enable fully informed decisions about NHIG. Nurses must serve as advocates to eliminate financial barriers to contraception and proactively promote the simultaneous use of protective barrier methods with NHIG for STI prevention. Guiding male patients in the safe and effective use of NHIG will have the potential to benefit both men and women, thus advancing the Global Health Initiative's (2012) principle of gender equality in the realm of reproductive health.

References

- American College Health Association. (2016). *American College Health Association National College Health Assessment II* (Version C) [Measurement instrument]. Hanover, MD: American College Health Association.
- Brown, S. (2015). 'They think it's all up to the girls': gender, risk and responsibility for contraception. *Culture, Health & Sexuality*, 17(3), 312-325. doi:10.1080/13691058.2014.950983
- Campo-Engelstein, L. (2011). No more larking around! Why we need male LARCs. *Hastings Center Report*, 41(5), 22-26. doi:10.1002/j.1552-146X.2011.tb00137
- Campo-Engelstein, L. (2013). Raging hormones, domestic incompetence, and contraceptive indifference: Narratives contributing to the perception that women do not trust men to use contraception. *Culture, Health & Sexuality*, 15(3), 283-295. doi:10.1080/13691058.2012.752106
- Cheney, A. M., Ostrach, B., Marcus, R., Frank, C., Ball, C., & Erickson, P. I. (2014). A culture of future planning: Perceptions of sexual risk among educated young adults. *Qualitative Health Research*, 24(10), 1451-1462. doi:10.1177/1049732314548595
- Davidson, M. R., London, M. L. & Ladewig, P. W. (2016). *Olds' maternal-newborn nursing & women's health across the lifespan*. (10th ed.). Upper Saddle River, NJ: Pearson Education.
- Global Health Initiative. (2012). *Global Health Initiative supplemental guidance on women, girls, and gender equality principle* [Supplemental material]. 1-10. Retrieved September 17, 2016, from https://www.ghi.gov/principles/docs/wgge_principle_paper.pdf
- Guttmacher Institute. (2011). *Testimony of Guttmacher Institute: Submitted to the Committee on Preventive Services for Women* [Supplemental material]. 1-20. Retrieved September 17, 2016, from <https://www.guttmacher.org/sites/default/files/pdfs/pubs/CPSW-testimony.pdf>
- Kanakis, G. A., & Goulis, D. G. (2015) Male contraception: A clinically-oriented review. *Hormones*, 14(4), 598-614. doi:10.14310/horm.2002.1623
- Milhausen, R. R., McKay, A., Graham, C. A., Crosby, R. A., Yarber, W. L., & Sanders, S. (2013). Prevalence and predictors of condom use in a national sample of Canadian university students. *Canadian Journal of Human Sexuality*, 22(3), 142-151. doi:10.3138/cjhs.2316
- Oduwole, O. O., Huhtaniemi, I. T. (2014). Feasibility of male hormonal contraception: lessons from clinical trials and animal experiments. *Current Molecular Pharmacology*, 7(2), 109-18. doi: 10.2174/1874467208666150126154732
- Smith, J., Fenwick, J., Skinner, R., Hallet, J., Merriman, G., & Marshall, L. (2012). Sex, condoms and sexually transmissible infections: A qualitative study of sexual health in young Australian men. *Archives of Sexual Behavior*, 41(2), 487-495. doi:10.1007/s10508-010-9664-6

Turchik, J. A., & Gidycz, C. A. (2012). Prediction of sexual risk behaviors in college students using the theory of planned behavior: a prospective analysis. *Journal of Social & Clinical Psychology, 31*(1), 1-27. doi:10.1521/jscp.2012.31.1.1

Waller, D., Bolick, D., Lissner, E., Premanandan, C., & Gamerman, G. (2016). Azoospermia in rabbits following an intravas injection of VasalgeTM. *Basic & Clinical Andrology, 26* (6), 1-8. doi:10.1186/s12610-016-0033-8

Contact

kbuck@gustavus.edu

RSC PST 2 - Research Poster Session 2

Psychometric Evaluation of the Patient Health Questionnaire-9 Depression Scale in the Korean Population

Eun-Hyun Lee, PhD, RN, Korea, Republic of (South)
Seung Hei Moon, MSN, RN, Korea, Republic of (South)
Jung Hee Cheio, MPH, RN, Korea, Republic of (South)
Eun Suk Park, MPH, RN, Korea, Republic of (South)
Myung Sun Cho, MPH, RM, Korea, Republic of (South)
Jin Sil Han, MPH, RN, Korea, Republic of (South)
Soon Young Kim, MPH, RN, Korea, Republic of (South)

Abstract

Purpose: The Patient Health Questionnaire-9 is a short self-administered instrument consisting of nine items asking the presence of depressive symptoms. The purpose of this study was to assess the psychometric properties of the Korean version of the Patient Health Questionnaire-9 (PHQ-9-K).

Methods: The original English version of the instrument was translated into Korean using a forward and backward translation technique. A total of 324 participants were recruited from seven community health centers (n= 275) and two community mental health centers (n= 49) in South Korea. The participants were asked to complete a package of questionnaires: the PHQ-9-K, the Korean version of the Generalized Anxiety Disorder-7 (GAD-7-K), the Korean version of the Perceived Stress Scale-10 (PSS-10-K). The structural validity of the PHQ-9-K was tested using confirmatory factor analysis (CFA). The convergent validity was assessed with the GAD-7-K and PSS-10-K using the Pearson's correlations. The known-groups validity was evaluated by the mean difference between two groups (the group recruited from mental health centers who were diagnosed with depression vs. the group recruited from community health centers without the diagnosis with depression) using a *t*-test. Internal consistency reliability of the PHQ-9-K was assessed using Cronbach's alpha.

Results: One-dimensional structural model of the PHQ-9-K fitted the data well: the ratio of χ^2 to the number of degrees of freedom (CMIN/DF) = 3.52; standardized root mean square residual (SRMR) = .03; goodness-of-fit index (GFI) = .94; normed fit index (NFI) = .96; comparative fit index (CFI) = .97; root mean square error of approximation (RMSEA) = .08. As hypothesized, the PHQ-9-K was highly correlated with the GAD-7-K ($r = .91, p < .001$) and PSS-10-K ($r = .76, p < .001$), implying satisfied convergent validity. The PHQ-9-K was significantly higher for participants with depression disorder than for the non-depression participants ($t = 8.74, p < .001, d = 48.66$). The finding supported the known-groups validity of the PHQ-9-K was satisfied. The Cronbach's alpha of the PHQ-9-K scales was .94, indicating excellent internal consistency reliability.

Conclusion: The study provided the excellent psychometric properties of the K-PHQ-9. Therefore, the K-PHQ-9 appears to be suitable for use in both clinical research and clinical practice. For further study, it is recommended to test the test-retest reliability of the instrument.

References

- PHQ screeners (2016). Patient Health Questionnaire (PHQ) Screener. Free Download. Retrieved from <http://www.phqscreener.com/select-screener>
- Seo, J. G., Cho, Y. W., Lee, S. J., Lee, J. J., Kim, J. E., Moon, H. J., & Park, S. P. (2014). Validation of the generalized anxiety disorder-7 in people with epilepsy: a MEPSY study. *Epilepsy & Behavior, 35*, 59-63.
- Lee, E. H., Chung, B. Y., Suh, C. H., & Jung, J. Y. (2015). Korean versions of the Perceived Stress Scale (PSS-14, 10 and 4): psychometric evaluation in patients with chronic disease. *Scandinavian journal of caring sciences, 29*(1), 183-192.
- Byrne, B. M. (2013). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. NY: Routledge.
- De Vet, H. C., Terwee, C. B., Mokkink, L. B., & Knol, D. L. (2011). *Measurement in medicine: a practical guide*. NY: Cambridge University Press.

Contact
ehlee@ajou.ac.kr

RSC PST 2 - Research Poster Session 2

The Grieving Mr. Mom: Exploring Life After Maternal Death

Donald Johnston, PhD, MHS, RN, RRT, USA

Abstract

Purpose: In 2015, over 300,000 women lost their lives due to pregnancy related complications worldwide. That is over 800 women per day. These deaths are a tragic loss for the surviving child and the father, as well as the extended family. What is currently known about the phenomenon of maternal death is primarily in the form of statistical data. While the problem has been analyzed in quantitatively, no qualitative exploration of the phenomenon currently exists in U.S. literature. Findings from this qualitative case study will provide a valuable window into the lifeworld of fathers and guardians, as well as implications for health care practitioners. This study sought to uncover a previously unexplored aspect of maternal death, the stories of children and families left behind. By replacing numbers with stories, we sought to personalize the problem, raise awareness, and identify needs. The study sought to answer the following questions: What happens to the children left behind after maternal death? What is the impact on the surviving family and on the community as a whole?

Methods: The lead researcher conducted a series of in-depth, semi-structured interviews with fathers and family members following maternal deaths. Interview guides were used only to initiate conversation, with probing, clarifying questions growing out of subsequent dialogue as it emerged, in order to elicit as much detail as possible. All interviews were transcribed verbatim and analyzed using interpretive phenomenological analysis.

Results: Using interpretive phenomenological analysis, we explore in depth fathers' experiences during the weeks and months following the death of the infants' mothers, including infant hospitalization, legal battles, and the struggle to adjust to life as a widowed father. Common themes were identified among participants, including *relentless absence*, *regrets*, *guardianship*, *filling her shoes*, and *seeking support*. This study highlights critical needs for support, as well as how those needs are met, or in some cases left unmet.

Conclusion: It is imperative that health care practitioners treating women during pregnancy make every effort to include fathers throughout the pregnancy, educate fathers as to the mother's high risk health concerns, and be prepared to provide local sources of support in the event of maternal death. Practitioners should also be aware that support needs continue to be high throughout the infant's first year of life. Extended family and friends may be involved in the infant's health care in order to help fill the maternal role.

References

World Health Organization. (2014). Trends in maternal mortality: 1990 to 2013: estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division: executive summary Retrieved from <http://apps.who.int/iris/handle/10665/112697>

Ghulmiyyah, L, and Sibai, B (2012) Maternal Mortality from Preeclampsia/Eclampsia. Seminars in Perinatology, 36(1), 56-59 Retrieved from: <http://dx.doi.org/10.1053/j.semperi.2011.09.011>

Contact

johnstond@nsula.edu

RSC PST 2 - Research Poster Session 2

The Maternal Opioid Morbidity Study (MOMS)

Lisa M. Cleveland, PhD, RN, PNP-BC, IBCLC, NTMNC, USA
Frank Puga, PhD, USA

Abstract

Purpose: Overdose by “ingestion of drugs” is the second leading cause of maternal mortality in the state of Texas. *Maternal mortality* is defined by the Centers for Disease Control and Prevention as a death occurring during pregnancy or within the first 365 days following the end of a pregnancy. Maternal overdose death in Texas is second only to maternal deaths caused by a cardiac event. Case records (including postmortem toxicology and police reports) indicate that most of these deaths involved the use of licit or illicit prescription opioids. This is consistent with the nationwide increase in prescription overdose deaths, a major public health crisis. While these statistics are concerning, little is known about the context of maternal overdose death. The purpose of this two-year, exploratory study is to provide insight into the contextual factors that surround maternal opioid overdose deaths.

Methods: Qualitative data collection will begin in January of 2017. We will recruit women who have experienced an opioid use relapse and/or overdose, during the maternal period, from gender specific substance use disorders treatment programs. We will also recruit family members, friends and the significant others of women who have died of a maternal overdose. We will first conduct focus groups and individual interviews to guide the development of our interview guide. Following this, we will pilot test our interview guide with our population of interest. Year one data collection for this project will be complete by the end of August 2017. Our plan is to incorporate feedback from participants to hone our interview guide and possibly add survey and biological data collection during year two of this study.

Results: To analyze the qualitative data from year one of this project, we will use thematic analysis. Two experienced qualitative researchers will first analyze the data independent of each other. Following this, we will discuss emerging themes until a consensus is reached. These themes will be incorporated into our interview guide to ensure the collection of rich qualitative and quantitative data in year two of this project.

Conclusion: Having a better understanding of the context and circumstances surrounding maternal overdose could help predict overdose death and contribute to the development of targeted interventions to prevent deaths in this vulnerable population of women.

References

1. Association of State and Territorial Health Officials. (2016). Combatting opioid addiction. Retrieved November 6, 2016 from: <http://www.astho.org/2016-Advocacy-Materials/Opioid-Abuse-and-Overdose/>
2. Centers for Disease Control and Prevention [CDC]. *Today's Heroin Epidemic*. Retrieved 29 October 2016 from: <http://www.cdc.gov/vitalsigns/heroin/>
3. Gynecology and Neonatal Nurses; 25(8): 691-703. National Institute on Drug Abuse [NIDA]. America's Addiction to Opioids: Heroin and Prescription Drug Abuse. Retrieved 29 October 2016 from: <https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2016/americas-addiction-to-opioids-heroin-prescription-drug-abuse>.
4. Texas Maternal Morbidity and Mortality Task Force and the Department of State Health Services (2016). Joint biennial report. Retrieved November 6, 2016 from: <https://dshs.texas.gov/.../legislative/2016Reports/M3TFBiennialReport2016-7-15>
5. Velez, M.L., & Jansson, L.M.. (2008) The Opioid Dependent Mother and Newborn Dyad: Non-Pharmacologic Care. *Journal of Addiction Medicine*. 2 (3) 113-120.

Contact

clevelandl@uthscsa.edu

RSC PST 2 - Research Poster Session 2

Facilitation of Self-Leadership in Nurse Educators

Vhothusa Edward Matahela, MCur (NsgEd), RN, RM, RNE, South Africa

Gisela H. Van Rensburg, DLittetPhil, MACur, BACur (Hons), BACur, RN, RM, RCN, RPN, RNE, RNM, RON, South Africa

Abstract

Purpose: Self-leadership is a process through which people influence themselves to achieve self-direction and self-motivation necessary to behave and perform in desirable ways (Houghton & Neck, 2002:672; Manz in Politis, 2006:204).

Nurse educators are coordinators of programmes, disciplines, subjects and projects in the institutions and are recognized as very strong role models who can easily foster the leadership development of student nurses (Halstead, 2013:4). However, leadership experts such as Neck and Manz (2007:2) indicate that one cannot be expected to lead others effectively if they are unable to lead 'the self' effectively. The challenges that nurse educators meet during teaching and learning require nurse educators who are creative, innovative, resilient and self-leaders. Individuals with self-leadership have high degrees of internal motivation, that is, they have the internal drive to expect more of themselves and persist through difficulties until they achieve their goals (Watson, 2006:460). Although nurse educators are expected to be role models and leaders who promote the professional development of student nurses and peers, there are instances where they fail to display the expected self-leadership attributes. The question that arose therefore was:

What can be done to facilitate self-leadership within nurse educators in nursing education institutions?

The purpose of the study is to understand the self-leadership within nurse educators in order to develop guidelines that could facilitate nurse educator self-leadership

Methods: The study employed an exploratory, descriptive sequential mixed-method design to answer the above question. The study has three (3) phases. Phase 1 consists of two sub-phases. This oral presentation reports on Phase 1, sub-phase 2, the qualitative phase that explores and describes the perceptions of nurse educators with regard to their self-leadership and how this can be facilitated in a nursing education institution.

The population for the qualitative phase was nurse educators teaching at a selected private nursing school, a public nursing college and a university in the Gauteng Province in South Africa. Focus group interviews were held with participants using a semi-structured interview guide. The questions guiding the semi-structured interviews were:

- *Can you please describe how you perceive your self-leadership?*
- *What are the self-leadership activities that you engage in as a nurse educator?*
- *How can the self-leadership in nurse educators be facilitated in a nursing education institution?*

Data obtained from the semi-structured focus group interviews was analysed by the researcher and an independent co-coder using Tesch's protocol (Creswell, 2014:186).

Results: The themes that emerged from the qualitative phase were related to benefits of self-leadership practices, obstacles of self-leadership and factors that facilitate self-leadership within a nursing education context.

Conclusion: The data obtained in this sub-phase will be integrated into the quantitative phase to eventually address the research questions of the study.

References

Creswell, JW. 2014. Research design. *Qualitative, quantitative, and mixed method approaches*. 4th edition. Los Angeles: Sage Publications.
Halstead, JA. 2013. Seeking disruptive leaders in nursing education. *Nursing Education Perspectives*, 31(1): 4.

Contact

vhothusa@yahoo.com

RSC PST 2 - Research Poster Session 2

Reactive Depression's Relationship to Rehospitalization in Heart Failure Patients

Mary Renee Walters, PhD, RN, CCRN, FNP-BC, USA

Abstract

Purpose: To explore the effect of reactive depression on all-cause rehospitalization and all-cause mortality in NYHA Class III and IV patients during the 12 month following an index hospitalization for HF exacerbation. The study aims were: (a) describe the effect of depression, (b) explain the variance of depression, and (c) determine the moderator effect of depression on patient preparedness to manage complex HF home care all-cause rehospitalization and/or all-cause mortality in HF patients.

Methods: A Secondary Data Analysis of data obtained from a longitudinal study. Descriptive statistics, logistic regression, and multiple linear regression analyses with and without interaction effects were performed to address the study purpose and aims. Wagner's Chronic Care Model provided the theoretical framework that guided the study. Instruments included in this study: demographic sheet, the Center for Epidemiological Studies Depression Scale (CES-D), and the Dartmouth Primary Care Cooperative Information Project Chart System (measure social support), Income Adequacy rating scale, Preparedness for HF Home Care, and a medical record review for determining the comorbidities index score.

Results: Logistic regression, multiple regression, and moderator analysis were conducted to address the research questions. These analyses demonstrated that depression consistently has a significant relationship to rehospitalization. Depression as measured by CES-D score greater or equal than 16 has a significant relationship with all-cause rehospitalization $p=.09$ and all-cause rehospitalization and mortality $p=.09$. In this study, depression did not demonstrate a relationship with mortality alone. In addition, depression did not have an interaction effect between preparedness and all-cause rehospitalization and/or mortality.

Conclusion: A significant relationship was identified between depression and all cause readmission. The relationship between depression and the composite variable (all cause readmission and mortality) was also significant due to all cause readmission alone. This further supports the strength of the relationship between depression and rehospitalization. Screening for depression should be part of heart failure management. Management of depression may decrease rehospitalization in HF patients.

References

- J. Katon, W. (2011). "Epidemiology and treatment of depression in patients with chronic medical illness." *Dialogues in Clinical Neuroscience* 13(1): 7-23. Joffe, S. W., et al. (2013). "Improved survival after heart failure: a community-based perspective." *J Am Heart Assoc* 2(3): e000053. Johnson, T. J., Basu, S., Pisani, B. A., Avery, E. F., Mendez, J. C., Calvin, J. E., Jr., & Powell, L. H. (2012). Depression predicts repeated heart failure hospitalizations. *Journal of Cardiac Failure*, 18(3), 246-252. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=2011483760&site=ehost-live>
- Mozaffarian D, Benjamin EJ, Go AS, Arnett DK, Blaha MJ, Cushman M, Das SR, de Ferranti S, Despr s J-P, Fullerton HJ, Howard VJ, Huffman MD, Isasi CR, Jim nez MC, Judd SE, Kissela BM, Lichtman JH, Lisabeth LD, Liu S, Mackey RH, Magid DJ, McGuire DK, Mohler ER III, Moy CS, Muntner P, Mussolino ME, Nasir K, Neumar RW, Nichol G, Palaniappan L, Pandey DK, Reeves MJ, Rodriguez CJ, Rosamond W, Sorlie PD, Stein J, Towfighi A, Turan TN, Virani SS, Woo D, Yeh RW, Turner MB; on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics— 2016 update: a report from the American Heart Association [published online ahead of print December 16, 2015]
- Mozaffarian, D., et al. (2016). "Heart Disease and Stroke Statistics-2016 Update: A Report From the American Heart Association." *Circulation* 133(4): e38-60.

Contact

reneewalters@boisestate.edu

RSC PST 2 - Research Poster Session 2

Community Resiliency Model Training to Improve Mental Well-Being

Linda Grabbe, PhD, PMHNP-BC, FNP-BC, USA

Jordan R. Murphy, BSN, RN, USA

Sarah San Fratello, BSN, RN, USA

Ann Craven, CHC, USA

Abstract

Purpose: Emotion regulation skills afford better coping in the face of stress and trauma and therefore may improve resiliency. The Community Resiliency Model (CRM) is an easily-taught set of somatic mindfulness skills to increase resiliency in any population (Miller-Karas, 2015). The basic three CRM skills are tracking, resourcing, and grounding. These sensory-motor awareness skills serve to re-equilibrate the nervous system when persons are “bumped” out of their “Resiliency Zone” by excessive sympathetic or parasympathetic discharge. Symptoms which result from stress and trauma are seen as normal biologic responses and the CRM skills are also biologic, grounded in the body (van der Kolk, 2015). The impact of CRM training for diverse populations will be presented.

Methods: CRM trainings are 3-4 hours in length and consist of didactic instruction, demonstration, and practice. A pre-/post-test design is planned for 1) hospital nurses and 2) homeless or incarcerated women and youth. There will be a control group for the nurse intervention. Paired samples T-tests will be presented. Established measures of mental wellness are being used to examine response to the CRM intervention. Surveys on the acceptability and usefulness of CRM skills will be described. Use of the free CRM app, "ichill" by participants will be described.

Results: Measures of anger, depression, and anxiety from incarcerated and homeless youth in response to the resiliency training will be presented. Preliminary results indicate reduced anger among incarcerated young women. Findings on well-being, resiliency, and secondary traumatic stress for the nurses will be presented. Heart rate variability as a measure of autonomic flexibility is being considered for future studies with first responders in particular.

Conclusion: Resiliency training to withstand stress and trauma can be taught in a brief group format for diverse populations. The Community Resiliency Model is a simple set of mental wellness skills which nurses can incorporate into their toolkit. Nurses may use the skills for mental wellness self-care and share with family, friends, and patients.

References

Miller-Karas, E. (2015). Building resilience to trauma: The trauma and community resiliency models. Routledge Press: New York.

van der Kolk, B. (2014). The body keeps the score: Brain, mind, and body in the healing of trauma. Penguin Publishing Group: New York.

Contact

lgrabbe@emory.edu

RSC PST 2 - Research Poster Session 2

Factors Associated With Hospitalized Preterm Infants' Sleep/Wake Patterns

Hsiang-Yun Lan, PhC, RN, Taiwan

Abstract

Purpose: Around 15 million infants (about 1 in 10 infants) worldwide are born preterm (gestation < 37 weeks) every year. Sleep plays a key role in preterm infant brain development. However, factors influencing preterm infants' sleep remain controversial. Current knowledge of preterm infants' sleep/wake patterns is limited by short measurement periods and the extent to which these patterns are related to infants' characteristics in the context of routine NICU caregiving with constant light and noise levels. Understanding factors associated with preterm infants' sleep can assist clinicians and researchers to identify preterm infants at high risk for sleep issues, which have been linked to potential developmental concerns. Thus, the purposes of this Actiwatch-based study were to (1) investigate sleep/wake patterns (sleep efficiency, total sleep time, average duration of sleep/wake bouts, percentage of sleep time, and frequency of sleep/wake bouts) for 3 consecutive days in preterm infants with different PMA, and (2) explore how these infants' sleep/wake patterns are associated with their characteristics under current routine NICU caregiving and environmental conditions (i.e., constant light and noise levels).

Methods: In this prospective repeated-measures study, sleep patterns and circadian rhythm were measured by using Actiwatch for 3 continuous days in infants with gestational age of 28-36.4 weeks in a neonatal intensive care unit and hospital nursery. Data on postmenstrual age, body weight, gender, chronological age, and illness severity were collected from medical records.

Results: For the study sample of 30 preterm infants, better sleep/wake patterns were associated with male gender, younger postmenstrual and chronological age, lower body weight, and less illness severity. Preterm infants' total sleep time ($B=41.828$, $P<0.01$) and percentage of sleep time ($B=3.711$, $P<0.01$) were significantly longer at night than during the day.

Conclusion: Overall our study findings suggest that preterm infants' sleep/wake patterns are better if they are male, have younger PMA and chronological age, less body weight, and less severe disease. Preterm infants' total sleep time and percentage of sleep time were significantly longer at night than during the day. Clinicians could use these findings to provide individualized support and protection to maintain the integrity and quality of preterm infants' sleep. For instance, clinicians could provide preterm infants a combination of non-nutritive sucking, oral sucrose, and facilitated tucking during intrusive procedures to minimize stress/pain and protect their sleep integrity. Moreover, clinicians can help preterm infants develop their circadian rhythm through interventions, such as modulating infants' states, to optimize the NICU environment and protect their sleep, thus improving their neurological development.

References

- Guyer, C., Huber, R., Fontijn, J., Bucher, H. U., Nicolai, H., Werner, H., . . . Jenni, O. G. (2015). Very preterm infants show earlier emergence of 24-hour sleep-wake rhythms compared to term infants. *Early Human Development*, 91(1), 37-42. doi: 10.1016/j.earlhumdev.2014.11.002
- Varvara, B., Effrossine, T., Despoina, K., Konstantinos, D., & Matziou, V. (2016). Effects of neonatal intensive care unit nursing conditions in neonatal NREM sleep. *Journal of Neonatal Nursing*, 22(3), 115-123. doi:10.1016/j.jnn.2015.11.004
- Yang, S. C., Yang, A., & Chang, Y. J. (2014). Validation of Actiwatch for assessment of sleep-wake states in preterm infants. *Asian Nursing Research*, 8(3), 201-206.

Contact

shinnylan@msn.com

RSC PST 2 - Research Poster Session 2

Effect of Communication Technology Usage on Sleep and Physical Activity Level in Nursing Students

Yeliz Culha, RN, Turkey

Hatice Kaya, PhD, RN, Turkey

Turkinaz Asti, PhD, RN, Turkey

Nuray Turan, PhD, RN, Turkey

Gulsun Ozdemir Aydin, MSc, RN, Turkey

Abstract

Purpose: Electric and magnetic fields (EMA) have an important place in the life of all living things in the natural structure of the world. At the same time, with the development of technology, the use of human-based EMA tools has become an integral part of human life, bringing together many problems. Today, communication technologies that are widely used among university students are widely used among nursing students. Nursing students who are studying in the field of health and who will serve patient individual after graduation constitute a special group among the university students. It is important for technological tools to be aware of their effects on the negative effects of sleep and movement, which are important elements in the developmental period, and to raise awareness and take appropriate precautions. The present study was conducted in order to examine effect of communication technology usage on sleep and physical activity level in nursing students.

Methods: This descriptive and cross-sectional study was carried out with 215 nursing students in the Nursing Department of a Faculty of Health Sciences in Istanbul in the 2016-2017 academic year. 215 nursing students who agreed to participate in the study constituted the sample group. Approval of the institution and informed consent was obtained from patients before the start of the study. The data were collected by interviewing face-to-face using "Structured Question Form", "Pittsburgh Sleep Quality Index (PSQI)" and "International Physical Activity Inventory (IPAQ short form)". Data obtained by using data collection forms with validity of the research data gathered were analyzed in the program of SPSS 21.00 (Statistical Package for the Social Sciences). Data analysis was performed with frequency, percentage, arithmetic mean, standard deviation, median, minimum, maximum, Mann-Whitney U, Kruskal Wallis, Bonferroni Adjusted Mann-Whitney Spearman's rho correlation tests were used.

Results: The data of the study were collected. The results are analyzed and interpreted.

Conclusion: Results of the research will be presented at the congress.

References

- Yakymenko, I., Sidorik, E. (2010). Risks of carcinogenesis from electromagnetic radiation of mobile telephony devices, *Experimental Oncology*, 32(2): 54-60.
- Cain N, Gradisar M. (2010). Electronic media use and sleep in school-aged children and adolescents: A review. *Sleep Medicine*. 11(8):735-742.
- Chahal H, Fung C, Kuhle S, Veugelers PJ. (2013). Availability and night-time use of electronic entertainment and communication devices are associated with short sleep duration and obesity among Canadian children. *Pediatric Obesity*. 8(1):42-51.
- Çalık, İ. (2011). Yaşlılarda fiziksel aktivite ile uyku Kalitesi arasındaki ilişki. Yüksek Lisans Tezi. Dokuz Eylül Üniversitesi Sağlık Bilimleri Enstitüsü. İzmir.
- Gradisar M, Wolfson AR, Harvey AG, Hale L, Rosenberg R, Czeisler CA. (2013). The sleep and technology use of Americans: findings from the National Sleep Foundation's 2011 Sleep in America poll. *Journal of Clinical Sleep Medicine*. (12):1291-1299.
- Tahiroglu AY, Celik GG, Uzel M, Ozcan N, Avci A. (2008). Internet use among Turkish adolescents. *Cyberpsychology & behavior : the impact of the Internet, multimedia and virtual reality on behavior and society*. 11(5):537-543.
- Kaya, H, Turan N, Hasanoğlu Ö., Güre, Ö., Arslanova, E., Elmas G. (2015). Hemşirelik fakültesi öğrencilerinin sosyal ağ sitelerini kullanma amacı ile iletişim becerileri arasındaki ilişkinin incelenmesi. *İletişim Kuram ve Araştırma Dergisi*, 40:17-31.
- Lazarou C, Soteriades ES. (2010). Children's physical activity, TV watching and obesity in Cyprus: the CYKIDS study. *Eur J Public Health*. 20: 70-77.

Özalp, E., Savaş, N., Toros, F. (2014). Ergenlerde İnternet Kullanımı ile Uyku Problemleri Arasındaki İlişki. Nöropsikiyatri Arşivi. 51:122-128.

Contact

yeliz.culha@istanbul.edu.tr

RSC PST 3 - Research Poster Session 3

Effect of Handwashing Poster and Voice Message on Handwashing Behaviors

SeungKyo Chaung, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: The purpose of this study is to test the effectiveness of the use of intervention strategies of handwashing poster and voice message to improve the handwashing behaviors in college students.

Methods: The study was conducted in September 2016 at S university in J city, South Korea. 300 students who used restrooms were divided into three groups of 100(m: 50, F: 50); non-intervention group, poster group, and voice message group. The subjects were observed in different restrooms of different buildings to avoid testing duplicated subjects. The research focused on whether the students washed hands using soap for at least 20 seconds (as called handwashing compliance), performed the six-step technique of washing hands, and the duration of handwashing. The data were analyzed using SPSS 20.

Results: 17.3% of male students and 34.7% of female students washed hands using soap for over 20 seconds. The result showed a significant difference between gender ($\chi^2=11.7$, $p=.001$). Handwashing compliance of male students was not significantly different among three groups; poster group (24%), voice message group (18%) and non-intervention group (10%) ($\chi^2=3.44$, $p=.1791$), but it was different in female students, respectively voice message group 50%, poster group 32%, and non-intervention group 22% ($\chi^2=8.899$, $p=.012$). Only 1 female student (2.4%) from the voice message group practiced six-step handwashing technique, whereas no male students completed six-step hand washing. 40% of male students in the poster group performed three steps or more hand washing, 25.6% in the voice message group, and 20.6% in the non-intervention group, but there was no significant difference ($\chi^2=3.45$, $p=.175$). 63.4% of female students in the voice message group, 36.4% in the poster group, and 33.3% in non-intervention group performed three or more hand washing procedures, and there was a significant difference ($\chi^2=9.09$, $p=.011$). The interaction of gender and intervention strategies was significant in the time spent handwashing ($F=4.76$, $p=.009$). Female students who heard a voice message washed their hands the longest (15.9±10.2 seconds), and non-intervention male group washed their hands the shortest (5.6±6.12 seconds).

Conclusion: There was a difference in the handwashing behavior according to the intervention strategy in each gender. Voice message strategy was effective for female students while the effect of poster for male student was not significant. Therefore, it is necessary to use an effective handwashing promotion strategy for each subject rather than a uniform method.

References

- Kim, H. S., Lee, M. S., Kim, B. H., Yang, N. Y., Hwang, H. J., Hong, J. Y., Hong, S. J., Kim, E. Y., Kim, Y. T., Park, Y. J., & Lim, G. U. (2015). The effects and related factors of public service announcement on hand-washing. *Korean Journal of Health Education & Promotion*, 32(2), 1-13.
- Davis, O. L., Fante, R. M., & Jacobi, L. L. (2013). The Effectiveness of Sign Prompts to Increase Hand Washing Behaviors in Restrooms. *North American Journal of Psychology*, 15, 565-576.
- Avşar, G., Kaşıkci, M., & Yağci, N. (2015). Hand Washing of Nursing Students: An Observational Study. *International Journal of Caring Sciences*, 8, 618-624.

Contact

seungkc@semyung.ac.kr

RSC PST 3 - Research Poster Session 3

Developing and Validating a Tool to Improve Self-Management of Antineoplastic Therapy at Home

Annamaria Bagnasco, PhD, MSN, RN, Italy

Abstract

Purpose: To develop and validate an educational tool consisting of a deck of cards for lung cancer patients to educate them to autonomously and safely manage their biological antineoplastic oral therapy at home. This process could increase patients' self-confidence and adherence to treatment.

Methods: We started from the definition of 'self-management' coined by Corbin & Strauss (1988): 'Self-management aims at helping patients to maintain a wellness in their foreground perspective' (Lorig & Holman 2003, p. 1). Therefore, self-management is based on the perception patients have about problems linked to their conditions. This led us to choose a method based on the theory of problem-based learning, such as the Barrows Cards (Barrows & Tamblyn, 1977), and applied it to patients with the purpose of improving self-management through therapeutic education.

The Barrows Cards were originally used to test decision-making skills and critical thinking in medical students. This method—also known as the 'Portable Patient Problem Pack' or simply P4 System—uses a situational card that describes a complex problem and learners can choose from a deck of at least 15 cards each of which describes a possible solution to that problem with the support of a picture. The setting was the Oncology Day Hospital of our Teaching Hospital. The participants were 14 adult lung cancer patients taking antineoplastic oral therapy at home.

The instrument development and validation process included the following steps: 1) A review of the literature to retrieve scientific evidence to support the purpose of our study; 2) Obtaining support and advice from cancer experts; 3) Checking the nursing records of the 14 patients under treatment; 4) Using a short questionnaire, feedback from patients on the clarity of the statement provided on each card and on the appropriateness of the picture that illustrates the statement was obtained.

Results: At the end of this study, all of the 14 patients were very satisfied with the deck of 15 cards, plus a situational card initially developed with the support of our cancer experts. Through the active participation of patients, we ensured that the cards were actually appropriate for the purpose of educating them to safely self-manage their biological antineoplastic oral therapy at home. This qualitative process enabled to validate the cards initially developed by our experts.

Conclusion: Despite the great number benefits provided by new antineoplastic drugs, there are still some important issues linked to the incorrect management of oral antineoplastic therapy when patients are at home. The most common issue was found to be the lack of adherence to therapy, which reduces the effectiveness of therapeutic treatment. Therapeutic patient education performed by nurses based on a validated structured model such as the Barrows Cards, can significantly promote adherence to treatment and in achieving better health outcomes also in vulnerable populations, such as cancer patients.

References

- Bagnasco, A., Calza, S., Petralia, P., Aleo, G., Fornoni, L., & Sasso, L. (2016). Investigating the use of Barrows Cards to improve self-management and reduce healthcare costs in adolescents with blood cancer: a pilot study. *Journal of advanced nursing*, 72(4), 754-758.
- Marchand, F., & Mimassi, N. (2016). Evaluation of the impact of a patient therapeutic educational on compliance and on efficacy on allodynic symptoms of lidocaine 5% medicated plaster in postoperative localized neuropathic pains. *Annals of Physical and Rehabilitation Medicine*, 59, e161.

Contact

annamaria.bagnasco@unige.it

RSC PST 3 - Research Poster Session 3

Who Decides?: Analysis of Decision-Makers in the Adoption of Virtual Patients for Nursing Education

A. J. Kleinheksel, PhD, CHSE, USA

Francisco Jimenez, PhD, MA, MA, USA

Abstract

Purpose: As faculty implement more simulations into their nursing curricula, it is important to understand who is being empowered to make the decision to adopt these technologies. This study analyzed data collected as part of the Virtual Patient Adoption and Integration in Nursing (VPAIN) survey distributed in 2015, in order to identify the characteristics of those empowered in the decision-making process to adopt computer-based, interactive, and asynchronous virtual patient simulations for their courses (Kleinheksel, 2015).

Methods: Participants: This study analyzed self-reported demographic data provided by nursing faculty who participated in the 2015 Virtual Patient Adoption and Integration in Nursing (VPAIN) survey, which was designed to identify and measure the factors related to technology adoption and integration by nursing faculty who use computer-based, interactive, asynchronous virtual patient simulations.

Instrument: The final version of the VPAIN survey instrument included four sample eligibility items, ten demographic items, seventy-one adoption items, and twenty-one integration items.

Procedure: The final version of the VPAIN survey instrument was open to participants February 23, 2015 through March 30, 2015. The population of nurse educators using virtual patient simulations was identified through convenience and snowball sampling.

Analysis: The researchers conducted a multiple logistic regression analysis to predict decision-makers in the adoption of virtual patient simulations ("Were you part of the decision-making process to adopt the virtual patient you use in your course? 1 = Yes, 0 = No) using the following predictors: institution type, teaching in a Licensed Practical/Vocational Nursing program (LPN/LVN), teaching in a Bachelor of Science in Nursing program (BSN), teaching in an RN-to-BSN program, teaching in a Master of Science in Nursing program (MSN), teaching in a Doctor of Nursing Program (DNP), current faculty status, years teaching in a nursing program, course delivered face-to-face, course delivered web-enhanced, course delivered fully online, course length being traditional semester, course length being accelerated semester, number of semesters faculty used a virtual patient program, and who currently pays for the virtual patient program. A full model was fit with all the previously detailed predictors, as existing literature identified them as being potentially relevant to best predict the likelihood of being empowered to make the decision to adopt a virtual patient simulation. The multiple logistic regression model was fit using maximum-likelihood estimation (Agresti, 1996). AIC and deviance D values were used as model comparison indices between a constant only (baseline) and full models. The models were fit using the glm function of the package stats in R (R Core Team, 2015).

Results: The baseline model had an AIC value of 372 and a deviance D value of 370.01. The full model including all predictors had an AIC value of 339.42 and a deviance D value of 259.42, which indicated better model fit in comparison to the baseline model. Table 1 shows that teaching in an RN-to-BSN program (log odds = 1.015), teaching in a Master of Science in Nursing program (MSN) (log odds = -1.250), and teaching in a Bachelor of Science in Nursing program (BSN) (log odds = -1.427) were significantly associated with being a decision-maker, controlling for all other variables in the model ($p < .05$). Regarding faculty status, holding a positions as a Clinical Assistant Professor (log odds = 2.004), Instructor (log odds = 1.893), Assistant Professor (log odds = 2.246), or Associate Professor (log odds = 1.277) were significantly associated with being a decision-maker, controlling for all other variables in the model ($p < .05$). Years of teaching experience also had a significant effect. Model results showed that the more experience the faculty had, the higher the odds of being a decision-maker (log odds ranging from 2.228 for 2 and 4 years to 4.376 for between 21 and 25 years). In addition, compared to having used the

virtual patient program for one semester, faculty who had been using it for three semesters (log odds = 1.296), four semesters (log odds = 1.412) or more than four semesters (log odds = 1.391) were more likely to be a decision-maker in adopting. Institution type, course delivery method, course length, and who currently pays for the virtual patient program were not significantly associated to being involved in the decision-making process.

Conclusion: With the increased number of pedagogical innovations available to educators, it is important for faculty and administrators to understand who is being empowered to make the decision to implement a given technology. In the case of virtual patient simulations, the institution type at which a faculty taught, the delivery method of their course, and funding source do not affect a faculty's decision-making status. However, RN-BSN, MSN, and BSN faculty, faculty with more experience, and Clinical Assistant Professors, Instructors, Assistant Professors, and Associate Professors are more likely to have the authority to decide to adopt virtual patient simulations.

References

Agresti, A. (1996). *An introduction to categorical data analysis* (Vol. 135). New York: Wiley.

Kleinheksel, A. J. (2015) *Measuring the Adoption and Integration of Virtual Patient Simulations in Nursing Education: An Exploratory Factor Analysis* (Doctoral dissertation). University of Florida, Gainesville, Florida.

R Core Team (2015). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL: <https://www.R-project.org/>.

Contact

francisco@shadowhealth.com

RSC PST 3 - Research Poster Session 3

Technological Solutions to Foster Communication in Multisite, Longitudinal Studies

Julia A. Greenawalt, PhD, RNC-OB, CHSE, USA
Margory A. Molloy, DNP, RN, CNE, CHSE, USA

Abstract

Purpose: A call noted in the literature has been for more rigorous multisite studies to be executed to drive nursing and healthcare (Mariani and Doolen, 2016). Many obstacles and challenges need to be surmounted to successfully implement a multisite study. This presentation will share some lessons learned and how technology and social media were used to successfully navigate many of the challenges inherent in multicenter research work.

Methods: Multisite studies require close collaboration between all involved, most notable during the preparation and implementation phases. However, time, scheduling, and distance are common challenges of a successful study. This presentation shares with the audience an innovative use of a web-based tool for maintaining open lines of communication used during one multisite study. Solutions and “work arounds” from a ten site national study in the USA will be presented. Strategies for maintaining open lines of communication implemented by the principle investigators allowed for a large sample size with broad generalizability in this multisite study. A free, publically accessible web-based tool will be discussed and how the use of this tool fostered collaboration, communication and cohesiveness for the research team.

Results: The tool is mobile, user-friendly and web-based and allowed team members to send updates and share resources in a timely manner. Video meetings could be conducted with the project team and viewed synchronously or asynchronously from a computer or mobile device. These online meetings provided a means to stay in touch without the need for travel or expense while still benefiting from a live, engaging, and immersive environment. Obstacles such as time and distance were eliminated to allow for successful study implementation.

Conclusion: Evaluating various new technologies for project planning and managing multisite studies can provide future study teams with the tools needed to foster a team commitment to the completion of a successful multisite study to advance the science of healthcare. Lessons learned about multicenter research collaboration, albeit national or global will be explored in this interactive presentation. Other emerging technological applications will be shared that are simple, secure and have reliable messaging and video capabilities which may be applied in the same fashion to foster equal or better results. Further research is warranted to trial these emerging technologies to advance the science of healthcare.

References

- Flaharty, L., Hayes, A. S., Milgrom, L., Malarney, K., Smith, D., Reklau, M. A., Jeffries, P., & McNelis, A. M. (2012, April). A multisite, multicenter evaluation of end-of-life simulation for nursing education. *Clinical Simulation in Nursing*, 8(4), e135-e143. doi:10.1016/j.ecns.2010.08.003.
- Flynn, L. (2009). The benefits and challenges of multisite studies: Lessons learned. *AACN Advanced Critical Care*, 20(4), 388-391.
- Kardong-Edgren, S. E., Oermann, M. H., Ha, Y., Tennant, M. N., Snelson, C., Hallmark, E., . . . Hurd, D. (2009). Using a wiki in nursing education and research. *International Journal of Nursing Education Scholarship*, 6, Article 6. doi: 10.2202/1548-923x.1787
- Lasater, K., Johnson, E., Hodson-Carlton, K., Siktberg, L., & Sideras, S. (2012). A digital toolkit to implement and manage a multisite study. *Journal of Nursing Education*, 51(3), 127-132. doi: 10.3928/01484834-20120113-02
- Mariani, B., & Doolen, J. (2016, January). Nursing simulation research: What are the perceived gaps? *Clinical Simulation in Nursing*, 12(1), 30-36. <http://dx.doi.org/10.1016/j.ecns.2015.11.004>.

Contact

jgreen@iup.edu

RSC PST 3 - Research Poster Session 3

The Effectiveness of Using High-Fidelity Simulation Team Training on Advanced Cardiac Life Support

Lichien Yang, MSN, RN, Taiwan

Abstract

Purpose: The medical developments increasingly complex, many medical practices staff needs through different areas in order to jointly completed, the occurrence of most medical blunders, poor communication and a lack of teamwork is the main reason. In Taiwan, the first aid care quality is very valued, in order to allow physicians, nurse in emergency care that can demonstrate teamwork and advanced cardiac life support capabilities, we aid based on AHA 2015 ACLS guideline processes and hospital medical staff recovery practices, incorporating the spirit of TRM training. Through a systematic way to teach a team how to effectively communicate and collaborate, expect to reduce clinical errors, enhance the advanced cardiac life support (ACLS) knowledge, teamwork, and overall satisfaction, to protect patient safety. The purpose of this study is to evaluate whether the using High-Fidelity Simulation Team Training would produce greater improvement in advanced cardiac life support (ACLS) knowledge, teamwork, and overall satisfaction with the training method.

Methods: This is an interventional study, conducted 18 group of 108 people (54 resident physicians and 54 nurse) for team training from February 2015 to October 2016. The SIM-Man (patient simulator) are Used to training and teaching, and designed a clinical situation. The process according AHA 2015 ACLS guideline included teamwork spirit and made a checklist. ACLS qualified professional teachers to assess the effectiveness of training for each group, and questionnaires. In SPSS for Windows statistic package software was used to process the data analysis.

Results: The use of high-virtual team training compared with the traditional training. There were significant intergroup differences for enhancement class satisfaction ($p < 0.05$), individual professional ability ($p < 0.05$), teamwork spirit ($p < 0.05$) and practical work efficiency ($p < 0.05$).

Conclusion: We recommended that successful implementation of a training program should meet the demands of trainees. Such interventions may include incorporation of the Team Resource Management model, utilization of High-Fidelity Simulation Team Training, scheduled integrated team-based drills, and unscheduled hands-on practice and tests. The results of this study could serve as a reference for the improvement of future ACLS training courses.

References

- Weaver S.J., Dy S.M., Rosen M.A. (2014). Team training in healthcare: A narrative synthesis of the literature. *BMJ quality and safety*, 23(5), 359-372.
- Paige T.J., Garbee D.D., Kozmenko V., Yu Q., Kozmenko L., Yang T., Bonanno L., Swartz W. (2014). Getting a head start: high-fidelity, simulation-based operating room team training of interprofessional students. *American College of Surgeons*, 218(1), 140-149.

Contact

lichien930@pchome.com.tw

RSC PST 3 - Research Poster Session 3

Effective Design Characteristics of Virtual Simulation in Nursing

Hyunsook Shin, PhD, RN, CPNP-PC, Korea, Republic of (South)

Hyojin Kim, MSN, RN, Korea, Republic of (South)

Da Hae Rim, MSN, RN, Korea, Republic of (South)

Sojeong Park, BA, RN, Korea, Republic of (South)

Abstract

Purpose: An educational strategy has to be advanced as technology evolves. Virtual nursing simulation is one of the attempts for a transition of the nursing education method. This study is to develop a template with design characteristics for virtual simulation, to build a sample scenario of virtual simulation using the developed template and with using the developed template, to test the validity of the virtual simulation using the developed scenario in a multi-user virtual environment.

Methods: A methodological study was conducted through three phases. The first process was developing a virtual simulation template based on the findings of literature review and focus interviews with clinical nurses and experts to identify essential components of characteristics of virtual simulation design. The second phase of the study was to build a sample of virtual simulation using the developed template. Testing the validity of the sample virtual simulation was the final development process.

Results: Effective virtual simulation template with design characteristics was developed. The developed template consisted of three domains, which were educational outlines, design characteristics of virtual simulation, and case presentation. The components of the design characteristics in the template were affordance, interaction between a computer and a participant, participant representation, strategies for user interface design, the type of virtual simulation, simulation framework and the overall theoretical framework. The developed sample scenario was a pediatric case representing common pediatric patient situation using a platform in multi-user virtual environments. The sample of virtual simulation established its validity through expert content validity and face validity with clinical nurses.

Conclusions: Virtual simulation scenarios for nursing education should be developed based on the effective design characteristics of virtual simulation. The findings of this study showed the design characteristics of the developed template could allow nurse educators to build more structured virtual simulation strategies for nursing education. Further study focused on evaluating the effectiveness of the virtual simulation is warranted.

References

- Beck, D., & Perkins, R. (2014). Review of educational research methods in desktop virtual world environments: Framing the past to provide future direction. *Journal For Virtual Worlds Research, 7*(1).
- Farra, S., Miller, E. T., Hodgson, E., Cosgrove, E., Brady, W., Gneuhs, M., & Baute, B. (2016). Storyboard Development for Virtual Reality Simulation. *Clinical Simulation in Nursing, 12*(9), 392-399.
- Lemheney, A. J., Bond, W. F., Padon, J. C., LeClair, M. W., Miller, J. N., & Susko, M. T. (2016). Developing Virtual Reality Simulations for Office-Based Medical Emergencies. *Journal of Virtual Worlds Research, 9*(1), 1.
- Rogers, L. (2011). Developing simulations in multi-user virtual environments to enhance healthcare education. *British Journal of Educational Technology, 42*(4), 608-615.

Contact

hsshin@khu.ac.kr

RSC PST 3 - Research Poster Session 3

Elevating Caring Qualities of Emergent Myocardial Infarction Patients Through Systematic Information

Shu Lien Hsu, BSN, RN, Taiwan

Abstract

Purpose: Heart disease remains the second leading cause of death in Taiwan. Medical treatment constantly makes great amount of progress and the time of patient treatment and care is against the clock. Therefore, the time we fight for patients from they sent to ER until medical team members complete the performance of door-to-balloon time in this hospital is critical. According to references, make door-to-balloon time less or no more than 90 minutes could lower down the death rate the the likelihood and amount of cardiac muscle damage.

Methods: Through the design of systematic information, triage nurses are able to utilize the program to page doctors, registered nurses and ECG medical technologists (regularly on duty) so that these team members can arrive at ER in no time. Next, they set up primary PTCA to remind the staff of cardiac catheterization room to look into patients' history and other information, and then take the elevator for emergency use to get the patients to the room immediately.

Results: Due to the set up of systematic information, data can be sent to the team member at once. Since it began to implement from January to April in 2013, the number of patients who took PTCA within ninety minutes has risen to 82.27%. Furthermore, the system brought different medical team members worked together so that we can make the time get patients from ER to cardiac catheterization room 3-5 minutes shorter resulted from completing ECG study, medication treatment, and preoperative preparation in 30 minutes.

Conclusion: The completion of PCTA surgery within 90 minutes can achieve more than 80% in the hospital indicates that myocardial infarction patients can effectively decrease death rate and complications under the collaboration among multiple team work, simplified information system and door-to-balloon time. Therefore, the timely medical treatment and teamwork intervention on the survival of patients is helpful.

References

Lai,C.C., Chang,K.C., Liao, P.C., Wu,C.T., Lai,W.T., Wu,C.J., Chang,S.C., Mar ,G,Y., (2015). Effects of Door-to-Balloon Times on Outcomes in Taiwanese Patients Receiving Primary Percutaneous Coronary Intervention: A Report of Taiwan Acute Coronary Syndrome Full Spectrum Registry. *Zhonghua Minguo Xin Zang Xue Hui Za Zhi* ,31(3),215–225

HK, K., MH, J.,Y,C.,SC ,C.,YJ ,K.,,SH ,H., ,IW ,S.,TJ ,H.,DH,C.,MC,C.,CJ,K.,KB,S.,YS,J.,SW,R.,JH,B.,SS,K.,SJ,P., (2016).Relationship between time to treatment and mortality among patients undergoing primary percutaneous coronary intervention according to Korea Acute Myocardial Infarction Registry. other Korea Acute Myocardial Infarction Registry Investigators.,*J Cardiol.* (16).30211-302118. doi: 10.1016/j.jjcc.2016.09.002. [Epub ahead of print]

Contact

elvashulien@gmail.com

RSC PST 3 - Research Poster Session 3

Refugee Health Education: "Learn to Succeed. Together We Build Our Community."

Maria Theresa P. Panizales, MSN, RN, USA

Abstract

Purpose: The purpose of the project is to develop and implement a comprehensive culture sensitive health education program to address the resettled refugees identified health needs as a result of lack or cessation of support after the refugee resettlement program ends. The health needs were identified through a community needs assessment conducted in Fall 2015.

Methods: The program is a quality improvement project using a qualitative design guided by Avedis Donabedian's quality framework that encompasses structure, process and outcome, and the use of Deming's Plan-Do-Study-Act cycle methodology for continuous process and program improvement.

The project is a collaborative community-based training program with stakeholders involved as resource, and subject matter expert from their respective organizations. The number of community trainers vary depending on date and time availability, the DNP student assumes teaching the course where necessary. The total number of participants are 15, male and female, aged 18 and above, and post resettlement program support. There were participants that does not meet the criteria and would like to attend, this was allowed. The refugee participants are from different ethnic background within the target community, mostly Somali and Congolese.

The program is a 2-hours weekly session to resettled refugees at Providence, Rhode Island ZIP Code 02907. The curriculum is divided into three: (1) health education, (2) community immersion, and (3) case management. Health education will include topics selected from the community needs assessment such as simple illnesses and management, first aid, nutrition, preventive health care, etc. while community immersion activity involves marketing (grocery/market visit as feasible) and socio-cultural "Thanksgiving Dinner" event. Case management is the provision of resource handbook and health insurance road map or guide.

Participant experiences, and composite measures based on the curriculum and program goals and objectives were collected using survey tools for knowledge, skills and general program. The tools were developed by the DNP student based on the community needs assessment to assess if the needs were met. This will be analyzed and utilized to drive improvement of the program. Participants complete pre and post knowledge and skills survey to identify strengths and weakness of the curriculum, teaching methodology and program structure. Refugee community leaders were engaged actively, so skills can be gained in program management and teaching.

The program survey tool will collect quantitative data to determine program efficiency based on the program goals and objectives. Qualitative data will include collecting feedback from participants and random anecdotal reports during meetings with community stakeholders, program staffs, community health advisory board and trainers.

Results: A cursory analysis of the pre-health education program survey reveals knowledge and skills gap in basic health care, and navigation of government health services.

Conclusion: The health education program is expected to be completed by Dec 17th. There will be two more classes after Dec 3rd.

References

Agbenyiga, D., Barrie, S., Djelaj, V., & Nawyn, S.J. (2012). Expanding our community: Independent and interdependent factors impacting refugees successful community resettlement. *Advances in Social Work*, 13(2); 306-324.

Hao Cheng, I., Drillich, A., & Schattner, P. (2015). Refugee experiences of general practice in countries of resettlement: A literature review. *British Journal General Practice*, 65(632); e-171-e-176. doi:10.3399/bjgp15X683977

Joshi, C., Russell. G., Cheng, I., Kay, M., Pottie, K., Alston, M., ... Harris, M. (2013). A narrative synthesis of the impact of primary health care delivery models for refugees in resettlement countries on access, quality and coordination. *International Journal for Equity in Health*, 12(88). doi: 10.1186/1475-9276-12-8

Contact

tesspanizales@gmail.com

RSC PST 3 - Research Poster Session 3

Nurse Practitioner Knowledge, Attitudes, and Practices Regarding Lung Cancer Screening in the United States

Karen Kane McDonnell, PhD, MSN, RN, OCN, USA
Amy C. Dievendorf, DNP, APRN, FNP-BC, USA
Jan M. Eberth, PhD, USA
Erica Sercy, MSPH, MSPH, USA
Deborah Warden, MSN, RN, CNL, CPAN, USA
Lauren Blew, USA

Abstract

Purpose: Lung cancer is a leading cause of cancer morbidity and mortality among men and women in the United States. Lung cancer is usually diagnosed during its most advanced stage, resulting in a dismal 17% five-year survival rate (Siegel, Miller, & Jemal, 2016). However, recent results from the National Lung Screening Trial (NLST) indicate the potential to detect lung cancer at earlier stages, thereby decreasing mortality. Low-dose computed tomography (LDCT) for lung cancer screening has been shown to reduce lung cancer-related mortality by 20% (Bach et al., 2012). Based on this new evidence and the development of practice guidelines, the United States' Centers for Medicare & Medicaid Services (CMS) added lung cancer screening as a benefit for patients at risk for lung cancer, requiring counseling and a shared decision-making visit with a care provider and annual screening with LDCT (CMS, 2015). While lung cancer screening can save lives, very little is known about how it is perceived by primary care providers, and how those perceptions are translated into the practice setting. The required shared decision-making process between care providers and patients is also largely unexplored (Volk & Foxhall, 2015; Ersek et al., 2016; National Academy of Science, Engineering, and Medicine, 2016). This study is part of a larger survey including several types of primary care providers. The purpose of this study, now underway, is to examine knowledge, attitudes, and practices regarding lung cancer screening among nurse practitioners who work with high-risk patients in primary care settings.

Methods: A mixed methods design was used. A conceptual framework of barriers to screening guideline adherence, developed by Cabana et al. (2012), guided the development of the survey and data interpretation. The pre-tested paper survey was distributed to a random national sample of 3,000 nurse practitioners (NPs) self-identified as working in a primary care setting in the United States. A sequential explanatory method will use the quantitative survey data to inform development of questions for a qualitative interview. Audio-recorded interviews will be conducted over the telephone and transcribed by a professional service. Descriptive statistics will be the primary analysis approach. All quantitative analyses will be conducted using SAS®Procedures. Population-based estimates will be based on weighted calculations of completed survey responses. Weights will be applied to ensure that the sample is representative of age, gender, and geographic differences. Comparisons of primary care NPs' knowledge, attitudes, or screening practices across sub-groups (e.g., practice setting, age range, gender, and race/ethnicity) will be made using Pearson's chi-squared tests or t-tests, with associated tests of statistical significance. Standard multivariate linear and logistic regression will be used to analyze relationships between knowledge about and attitudes toward screening (independent variables) and screening practices (dependent variable). Thematic analysis processes outlined by Braun, Clarke and Terry (2015) will be used to analyze and identify common themes among the transcribed qualitative interviews.

Results: Study findings will be used to inform the development and testing of educational interventions targeting identified knowledge gaps among NPs caring for high-risk patients in primary care settings, as well as, clinical interventions to facilitate shared decision-making relating to lung cancer screening. The results will provide researchers in other areas of lung cancer screening research with baseline data to develop and test patient-, provider- and systems-level interventions to increase awareness of and reduce barriers to lung cancer screening in clinical practice.

Conclusion: This is the first study to examine knowledge, attitudes, and practices regarding lung cancer screening of nurse practitioners who work in primary care settings. Results of this study will be used to support this research team's efforts to secure additional funding to further develop this important program of research.

References

1. Siegel, R. L., Miller, K. D. and Jemal, A. (2016), Cancer statistics, 2016. *CA: A Cancer Journal for Clinicians*, 66: 7–30. doi:10.3322/caac.21332
2. Bach, P. B., Mirkin, J. N., Oliver, T. K., Azzoli, C. G., Berry, D. A., Brawley, O. W., ... & Sabichi, A. L. (2012). Benefits and harms of CT screening for lung cancer: a systematic review. *JAMA*, 307(22), 2418-2429.
3. Centers for Medicare & Medicaid Services. (2015, February 5). Decision memo for screening for lung cancer with low dose computed tomography (LDCT) (CAG-00439N). Retrieved from <https://www.cms.gov/medicare-coverage-database/details/nca-decision-memo.aspx?NCAId=274>.
4. Volk, R. J., & Foxhall, L. E. (2015). Readiness of primary care clinicians to implement lung cancer screening programs. *Prevention Medical Reports*, 2, 717-719.
5. Ersek, J. L., Eberth, J. M., McDonnell, K. K., Strayer, S. M., Sercy, E., Cartmell, K. B., & Friedman, D. B. (2016). Knowledge of, attitudes toward, and use of low-dose computed tomography for lung cancer screening among family physicians. *Cancer*, 122(15), 2324-2331.
6. National Academies of Sciences, Engineering, and Medicine. (2016). *Implementation of lung cancer screening: Proceedings of a workshop*. Washington, DC: The National Academies Press. doi: 10.172216/23680.
7. Cabana, M. D., Rand, C. S., Powe, N. R., Wu, M. A. W., Wilson, M. H., Abboud, P. A. C., & Rubin, H. R. (2012). Why Don't Physicians Follow Clinical Practice Guidelines? *JAMA*, 282(15), 1458-1465.
8. Braun, V., Clarke, V., & Terry, G. (2014). Thematic analysis. *Qualitative Research Clinical Health Psychology*, 95-114.

Contact

karenkm@mailbox.sc.edu

RSC PST 3 - Research Poster Session 3

Prevalence of Metabolic Syndrome and Its Components Among Korean Cancer Survivors

Ji-su Kim, PhD, RN, Korea, Republic of (South)

Kyunghee Kim, PhD, RN, Korea, Republic of (South)

Insil Jang, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: The 5-year survival rate of Korean cancer patients is continuously improving, and more than half of cancer patients are known to survive for more than 5 years. Recently, the cause of death in cancer survivors is often attributable to cardiovascular diseases resulting from factors related to metabolic syndrome rather than cancer relapse; therefore, the management of metabolic syndrome and its components is important to improve cancer survivorship. However, large variations in the prevalence of metabolic syndrome in cancer survivors have been reported depending on the study, and there is no guideline for management of metabolic syndrome in cancer patients yet. Furthermore, the number of studies on cancer survivors in Asian countries, including South Korea, is insufficient. This study aimed to identify differences in the prevalence of metabolic syndrome and its components depending on the cancer type, gender, and age group in Korean cancer survivors.

Methods: Data from the 2008–2012 Korean National Health and Nutrition Examination Survey (KNHANES)—a cross-sectional and nationally representative survey undertaken by the Korea Center for Disease Control and Prevention (KCDC)—were used. The KNHANES has a stratified multistage probability sampling design comprising health interviews, health behavior and nutrition survey, and health examination study. The SAS version 9.3 survey procedure (SAS Institute Inc., Cary NC, USA) used a complex sample design based on the survey data analysis; this provided sampling weights and nationally representative estimates. Differences in the ratios between the metabolic syndrome and its components by cancer type, gender, and age group were analyzed using chi-square tests.

Results: The results of the study are as follows. 1) Regarding the general characteristics of cancer survivors, 62.5% were female, the mean age was 57.7, 77.5% were urban residents, and 34.7% were elementary school graduates. As for economic status, 25.8% fell under the 2nd lowest quartile, and 44.4% were currently economically active. Among the cancer survivors, 7.4% were current smokers, 36.8% drank alcohol more than once a month, and 20.7% exercised regularly. Regarding cancer-related characteristics of cancer survivors, the mean age upon cancer diagnosis was 50.1, and 35.3% were currently undergoing treatment. In terms of the type of cancer diagnosed, gastric cancer accounted for 19.6%; thyroid cancer, 18.5%; cervical cancer, 13.8%; breast cancer, 12.40%; colorectal cancer, 10.3%; liver cancer, 2.77%; and lung cancer, 2.21%. 2) Based on the diagnostic criteria of the American Heart Association/National Heart, Lung, and Blood Institute Scientific Statement, the prevalence of metabolic syndrome was 46.9% in cervical cancer, 43.9% in colorectal cancer, 38.6% in lung cancer, and 35.9% in breast cancer. 3) Regarding gender, the prevalence of metabolic syndrome in female cancer survivors was 38.3%, which was significantly higher than that in male cancer survivors (30.4%) ($p = 0.022$). In the components of metabolic syndrome, there were differences depending on gender in waist circumference, low HDL-cholesterol, and high blood sugar. The rates of waist circumference obesity and high blood sugar were higher in female cancer survivors, while the rate of low HDL-cholesterol was higher in male cancer survivors. 4) In terms of age, the prevalence of metabolic syndrome was higher as age increased, and the difference was statistically significant ($p < .001$): 18.4% in the young adult group (20-39 years), 27.9% in the middle age group (40-59 years), and 46.1% in the old age group (60 years and older). In the components of metabolic syndrome, high triglyceride, low HDL-cholesterol, and high blood sugar differed depending on the age group; as age increased, the rates of high triglyceride, low HDL-cholesterol, and high blood sugar became higher.

Conclusion: In summary, the prevalence of metabolic syndrome in cancer survivors was approximately 10 to 20% higher than that in healthy Koreans. Particularly, the prevalence of metabolic syndrome was higher in female cancers, including cervical cancer and breast cancer, and in colorectal cancer.

Moreover, the prevalence of metabolic syndrome was higher in females and in the old age group. Therefore, management of metabolic syndrome should be actively carried out for groups with a high prevalence of metabolic syndrome, and consideration should be given to components with a high risk of onset for each group when developing programs for metabolic syndrome in cancer survivors.

This study was supported by the National Research Foundation of Korea (NRF) funding grant (NRF-2015R1C1A1A02036408).

References

- Jung, H. S., Myung, S. K., Kim, B. S., & Seo, H. G. (2012). Metabolic syndrome in adult cancer survivors: a meta-analysis. *Diabetes Res Clin Pract*, 95(2), 275-282. doi:10.1016/j.diabres.2011.08.029
- Patnaik, J. L., Byers, T., DiGiuseppi, C., Dabelea, D., & Denberg, T. D. (2011). Cardiovascular disease competes with breast cancer as the leading cause of death for older females diagnosed with breast cancer: a retrospective cohort study. *Breast Cancer Research*, 13(3), 1. doi:ARTN R6410.1186/bcr2901
- Sheean, P., Liang, H., Schiffer, L., Arroyo, C., & Stolley, M. (2016). Examining the prevalence of metabolic syndrome among overweight/obese African-American breast cancer survivors vs. matched non-cancer controls. *Journal of Cancer Survivorship*, 1-9.
- Weaver, K. E., Foraker, R. E., Alfano, C. M., Rowland, J. H., Arora, N. K., Bellizzi, K. M., . . . Aziz, N. M. (2013). Cardiovascular risk factors among long-term survivors of breast, prostate, colorectal, and gynecologic cancers: a gap in survivorship care? *Journal of Cancer Survivorship*, 7(2), 253-261.

Contact

jisu80@cau.ac.kr

RSC PST 3 - Research Poster Session 3

Delaying the Second Pregnancy Among Teen Mothers: An Innovative Community Collaboration

Ainat Koren, PhD, RN, USA

Annette McDonough, PhD, CNS, USA

Abstract

Purpose: Nearly one in five births to teens, ages fifteen to nineteen, are repeat births. Most (Eighty six percent) are second births. (MMWR, 2013). Teen pregnancies and births have a negative effect on the physical, psychological, and social wellbeing of all teen mothers and their offspring (Martinez & Abma, 2015). Teenage mothers who have a rapid second birth have substantially poorer socioeconomic and familial outcomes than do those who delay subsequent childbearing. The likelihood that a teen mother will finish high school, break the cycle of welfare dependency, and rise above her social standing, all diminish rapidly with the arrival of each succeeding infant. Early intervention programs for teen parents and their babies during pregnancy significantly reduced the rate of second pregnancies for high-risk mothers (Klerman,2004). Further, initiation of home visits (as a part of the program) prior to the birth of the infant was associated with a lower rate of subsequent childbearing. Parenting teens' access to contraceptive services, in and of itself, does not decrease subsequent birth rates during adolescence. These rates are reduced, however, when access is combined with defined educational goals and support provided by schools and programs. The program goals were:

1. to delay a second pregnancy among first-time adolescent mothers,
2. to encourage consistent and correct contraceptive use
3. to assist the young mothers with continuing their education and graduating from high school or equivalency programs, and
4. to support positive motherhood.

The program consisted of two components: bi-monthly group meeting for support and content delivery, and ongoing, individual support provided by a role model case manager.

This poster will share an innovative and sustainable community collaboration to develop a comprehensive support model for pregnant and parenting teen mothers in a city in Northern Massachusetts with disproportionately high teen birth rates.

Methods: Program evaluation consisted process and outcome evaluations. Team meeting were documented to track the process of program development. Collaboration strategies, challenges and solutions in program implementation were summarized. Individual interviews were conducted with the participating teen mothers and the program staff.

Results: Nine organization from the community collaborated to develop and execute the program. The organization included the state university, community health center, local hospital, women and children (WIC), two high schools, and 4 non profits in the area that serves high risk families and children. Process evaluation identified that program sustainability is essential to the survival of a program. Sustainability has been defined as the capacity to maintain program services at a level that will provide ongoing prevention and treatment for a health problem. Non profit housed the case management project to overcome the challenge of low budget and legal implications. Teen groups were held at the high schools to increase participation. Outreach and collaborations were established with organizations with competing services in the community.

Conclusion: In today's reality where funding is sparse, community organization collaboration is essential. This program is unique by incorporating the case management under existing non-profit organizations. In addition the groups were provided where the teen mothers were, namely the high school.

References

Vital signs: repeat births among teens - United States, 2007-2010. (2013). *MMWR: Morbidity & Mortality Weekly Report*, 62(13), 249-255.

Klerman, L.V. (2004). Another chance: Preventing additional births to teen mothers. Washington, DC: National Campaign to Prevent Teen Pregnancy.

Martinez, G. M., & Abma, J. C. (2015). Sexual activity, contraceptive use, and childbearing of teenagers aged 15-19 in the United States. *NCHS Data Brief*, 209, 1-8.

Contact

ainat_koren@uml.edu

RSC PST 3 - Research Poster Session 3

Factors of Metabolic Syndrome and Quality of Life Among Korean Postmenopausal Women

Young Man Kim, MSN, RN, Korea, Republic of (South)
Yerin Cha, BSN, RN, Korea, Republic of (South)

Abstract

Purpose: This study aimed to identify factors affecting metabolic syndrome and investigate association between metabolic syndrome and health-related quality of life (HRQOL) among Korean postmenopausal women.

Methods: This study was performed using data from the Korea National Health and Nutrition Examination Survey (KNHANES) from 2010 to 2014. The KNHANES is a complex, stratified, multistage, probability cluster survey and also the sample data represents the Republic of Korea. Included number of postmenopausal women was 7,123, and the weighted sample size was 6,530,873. General characteristics, clinical characteristics, HRQOL, and five components of metabolic syndrome including triglyceride level, high density lipoprotein level, hypertension, diabetes, and abdominal obesity were evaluated and correlated with variables of sample at individual and contextual level. After applying sampling weights, the data was analyzed with chi-square test, logistic regression, Poisson regression, and Tobit regression. The used statistical programs were SPSS 23 and STATA 13.

Results: The mean age of sample was 62 and self-reported menopause age was 48. The increase in prevalence of metabolic syndrome according to increase of the postmenopausal age was statistically significant (p for trend $< .001$). The beginning point of the rapid change in slope was with the 50-54 age-group. And Body Mass Index (BMI), education level, employment status, house income and time lapse of postmenopause were statistically significant in both logistic regression and Poisson regression model. As the number of metabolic syndrome components increased, HRQOL among postmenopausal women was decreased ($\beta = -0.025$, $p < .001$). Of five components, factors had a great effect on the HRQOL are high blood pressure ($\beta = -0.067$, $p < .001$) and abdominal obesity ($\beta = -0.047$, $p = .003$).

Conclusion: Metabolic syndrome affect the HRQOL and weight control is the key factor in preventing metabolic syndrome among Korean postmenopausal women. Since the vulnerable groups' socioeconomic status was low, intervention programs should be done at community or national level, considering the critical time point.

References

- Kim, S. (2016). Role of social determinants and lifestyle on women's metabolic risk during the perimenopausal transition: results from a cohort study. *Menopause*. 23(4), 403-409.
- Aguilar, M. (2015). Prevalence of the metabolic syndrome in the united states, 2003-2012. *JAMA*. 313(19), 1973-1974.
- Hong, A.R. (2015). Clinical characteristics of metabolic syndrome in Korea, and its comparison with other Asian countries. *Journal of Diabetes Investigation*. 6(5), 508-515.
- Kim, M.J. (2014). The prevalence and the related factors of metabolic syndrome in Urban and rural community. *Korean Journal of Adult Nursing*. 26(1), 67-77.
- Zhan, Y. (2012). Socioeconomic status and metabolic syndrome in the general population of China: a cross-sectional study. *BMC Public Health*. 12(1), 1-7.
- Wang, S.H. (2011). Multilevel analysis of habitual physical activity and metabolic syndrome in Northern Taiwan. *Prev Med*. 53(1-2), 34-8.

Contact

kym010000@gmail.com

RSC PST 3 - Research Poster Session 3

Psychosocial Predictors of Emotional Eating in Lebanese Young Males

Rita Doumit, PhD, MPH, BSN, RN, Lebanon

Abstract

Purpose: It was previously believed that DE primarily affects women and the vast majority of DE research focused on females. However, recent studies have suggested that DE symptomatology (emotional, restrained and emotional eating) may be underestimated in the male population. Indeed, over the last decade, it was revealed that a substantial number of men suffer from DE and ED (Eating Disorders) (Striegel et al., 2012; Strother et al., 2012), and that up to 25% of all individuals with ED are males (Hudson et al., 2007). Moreover, a recent review paper revealed that 42-45% of individuals engaging in binge eating were males; as were 28-100% of individuals who regularly purged. Laxative abuse among genders was nearly even, and fasting for weight loss was endorsed by nearly 40% of the males (Mond, Mitchison & Hay, 2014). This is the first study to investigate psychosocial predictors of DE in a sample of Middle-Eastern males, thus findings will provide prevalence data about DE behaviors in this context. The present study examined depression as a potential mediator of the relationships between body image dissatisfaction, strategies to change muscle and weight, media pressure, and DE in male young adults. Based on findings from the literature, it was hypothesized that: BID will be indirectly associated with DE through depression (Hypothesis 1); Strategies to change muscle and weight will be indirectly associated with DE through depression. (Hypothesis 2); Media influence (MI) will be indirectly associated with depression and DE (Hypothesis 3).

Methods: This is a cross-sectional design study. After obtaining the ethical approval of the university IRB, which is constituted in accordance with the US Code of Federal Regulation (45CFR 46.107, 21CFR 56.107), and Good Clinical Practice ICH (Section 3), a convenient sample of 260 male undergraduates aged between 17 and 33 was asked to participate voluntarily in the study and completed a self-reported questionnaire. Confidentiality and anonymity were ensured. Data was collected during class time and testing sessions lasted around 35 minutes. Each student received a survey pack with an informed consent.

Results: Path analyses indicated that media pressure and strategies to decrease body weight had direct positive effects on depression ($\beta = .85$ and $.18$, respectively), which in turn predicted emotional eating. Media pressure had a direct positive effect on emotional eating ($\beta = .57$), whereas strategies to decrease body weight did not exhibit a direct effect on emotional eating ($\beta = -.16$ with 95% CI $-.47 - .15$). The link between media pressure, strategies to decrease body weight and emotional eating was partially mediated by depression. The full model provided an acceptable fit to the data: CFI = .99, TLI = .99 and RMSEA = .01 with PCLOSE of .45.

Conclusion: To our knowledge, the present study is the first to explore the psychosocial predictors of DE in a sample of Middle-Eastern males and to explore the mediating effect of depression on DE. Our results will assist in the development of prevention and intervention programs targeting the roots of DE, and ultimately eating disorders. Specifically, nurses could assess psychopathology indicators, and in particular depressive symptoms in males, once they detect that strategies to lose weight are being applied, as a preventive measure against distorted eating. Clinically, it is important to pay attention to behaviors among males that aim at becoming thinner through a change of eating patterns, food choice, and exercise. Such behaviors are indicative of worry and concern about losing weight, which can lead to negative feelings (especially if the behaviors are ineffective, or the individual has the intention but is unable to consistently apply those strategies to decrease weight). Those feelings can, in turn, result in emotional eating, which is ultimately a risk factor for eating disorders (Fairburn, Cooper, Doll, & Davies, 2005). In addition, findings from this study bring attention to the impact of media and importance of restructuring the perceptions of an "ideal" male figure that directly impacts males' emotional functioning, which reflects in emotional eating patterns. These findings have special relevance for the Lebanese context. The region is in need of centralized efforts towards providing holistic health care to males at risk of developing DE habits. A multidisciplinary approach is needed, whereby psychologists, public health

and nursing professionals, as well as nutritionists can join efforts to detect, assess, and treat DE behaviors.

References

Fairburn, C. G., Cooper, Z., Doll, H. A., & Davies, B. A. (2005). Identifying dieters who will develop an eating disorder: a prospective, population-based study. *American Journal of Psychiatry*, 162(12), 2249-55.

Mond, J.M., Mitchison, D., & Hay, P. (2014) "Prevalence and implications of eating disordered behavior in men" in Cohn, Lemberg: *Current Findings on Males with Eating Disorders*. Philadelphia, PA: Routledge.

Striegel, R.H., Bedrosian, R., Wang, C., & Schwartz, C. (2012). Why men should be included in research on binge eating: results from a comparison of psychosocial impairment in men and women. *International Journal of Eating Disorders*, 45, 2, 233-40.

Contact

rita.doumit@lau.edu.lb

RSC PST 3 - Research Poster Session 3

Factors Associated With Postpartum Depression Among Women Who Conceived With Infertility Treatment

Chuan-Chen Li, MS, RN, Taiwan
Li-Yin Chien, ScD, RN, Taiwan

Abstract

Purpose: Around 15% of all couples of childbearing age in Taiwan have infertility. About 7~20% of women have depressive symptoms during infertility treatment, and the psychological pressure might remain high when they become mothers. Postpartum mood disorder of mothers will lower the ability of taking care of themselves and the baby, thus affect the health of the mother and the baby. Most of previous researches on infertile women focused on psychosocial problems during infertility treatment, few focused on examining the effect of different infertility treatments on postpartum depression.

Methods: This study was a cross-sectional survey performed from November 2014 through May 2015. The study participants were 180 women who conceived with infertility treatment and were within 6 months postpartum at a medical center in Taipei, Taiwan. Data were collected by telephone interviews and chart review using a structured questionnaire. The study variables included socio-demographics, personal and family history of depression, women and infant health history, breastfeeding, pressure change, social support, history of infertility, and infertility treatment. The dependent variable is postpartum depression within 6 months after delivery as measured by the Edinburgh Postnatal Depression Scale with a cutoff score of 10.

Results: The prevalence of postpartum depression within 6 months after delivery is estimated at 34.4% among the study women. The binary logistic regression revealed that breastfeeding (OR=0.347, 95% CI=0.123~0.980), social support (OR=0.901, 95% CI=0.853~0.952), and baby gender in line with expectations (OR=0.177, 95% CI=0.060~0.523) were negatively associated with postpartum depression. Perceived postpartum pressure higher than before infertility treatment (OR=4.403, 95% CI=1.512~12.822), duration since infertility diagnosis longer than 3 years (OR=5.158, 95% CI=1.825~14.577), maternal age older than 35 years old (OR=8.313, 95% CI=2.642~26.155), pregnancy via IVF (OR=5.738, 95% CI=1.420~23.189), and experiencing three or more different courses of infertility treatment (OR=8.671, 95% CI=2.382~31.567) were associated with a higher risk for postpartum depression. These eight variables explained 50.6% of variances for postpartum depression.

Conclusion: Women who conceived with infertility treatment in Taiwan had a high prevalence of postpartum depression. Longer duration since infertility diagnosis, older maternal age, conception via invasive treatment, and multiple courses of infertility treatment were associated with an increased risk for postpartum depression. Policies regarding infertility treatment should incorporate mental health counseling and prevention of postpartum depression. Health care professionals should enhance pregnancy- and labor-related health education for women who conceived through infertility treatment and offer them more support and help after delivery.

References

- Burgut, F. T., Bener, A., Ghuloum, S., & Sheikh, J. (2013). A study of postpartum depression and maternal risk factors in Qatar. *J Psychosom Obstet Gynaecol*, 34(2), 90-97.
- Lee, S. H., Liu, L. C., Kuo, P. C., & Lee, M. S. (2011). Postpartum depression and correlated factors in women who received in vitro fertilization treatment. *J Midwifery Womens Health*, 56(4), 347-352.
- Lynch, C. D., & Prasad, M. R. (2014). Association between infertility treatment and symptoms of postpartum depression. *FertilSteril*, 102(5), 1416-1421.

Contact

flavia917@livemail.tw

RSC PST 3 - Research Poster Session 3

Drug Costs vs. Charges: You Can. Should You?

Vincent F. Maher, JD, MSN, RN, CRNA, USA

George V. Priovolos, PhD, CPA, USA

Barbara M. Cohen, PhD, JD, MS, MEd, BSN, RN, USA

Elisabeth J. Maher, MSN, PMHNP-BC, USA

Abstract

Purpose: Pharmaceutical manufacturer Mylan increased the cost of Epi-Pens by 400 percent. The new list price for a two-pack of EpiPens is just above \$600 which charge was just over \$100 when Mylan acquired the product in 2007. The company's CEO, Heather Bresch, whose salary was \$2.4 million in 2007 also raised her salary to 18 million dollars per year. Her acts recapitulate those of former Turing Pharmaceuticals CEO Martin Shkreli who imposed drug charge increases from \$13.50 to \$750 a pill for the price of Daraprim, a medication used by HIV patients, and also of his recommended increases in executive compensation by Turing following his departure. Mental health outpatient drug costs have risen roughly 20% a year in each of the past 5 years for which national data are available (1996-2001). Antipsychotic drugs billed to Medicare have risen 71% in recent years.

Methods: Analysis is based on media and pharmaceutical industry sources and social media response to these actions.

Results: There seems to be a default setting in most people's psyches that cost and charge are supposed to resemble some unspoken reasonable relationship to one another and are not to enter the realm of beyond the pale or even of obscenity. Most would agree that the one producing a product is entitled to a profit. How much profit and its reasonableness are two entirely different issues and not infrequently evade norms on many number of levels. Choice differentials are utilized by consumers pertaining to transportation, housing, education medication and recreation: first class and economy seats will get you to the same place as will a Rolls Royce or a Vespa. Generic versus brand name ibuprofen will provide analgesia. Consumers make a choice. The process of research, price setting and charges practices are typical in the pharmaceutical industry. When speaking of life saving medications however, such differentials are rendered moot and necessarily, many would argue, become the object of public policy scrutiny. Specifically, one needs a particular medication when one needs it or one dies. There isn't an alternative for those who need products like Epi-Pens, Daraprim or Naloxone.

Conclusion: This paper will examine contemporary cost versus charge as applied to commonly used medications and to those that are life-saving and with limited markets, the funding of pharmaceutical research, the impact of direct to consumer advertising, the issue of executive compensation, the realities that legislators around the world have engaged in to remove the immediate charges of emergency medications from the individual to the public realm and product branding issues faced by the manufacturer. The authors will propose recommendations for Nursing and public health advocacy in this regard and will invite discussion by participants.

References

Thomas, K. "Mylan to Settle EpiPen overpricing case for \$465 Million." NYTimes.com. 10/7/16

Upton, E. and Abrams, L. "EpiPen Makeer Lobbies to Shift High Costs to Others." NYTimes.com. 9/16/16

Whelan, J. "Why the US Pays More than Other Countries for Drugs." WSJ.com 12/1/15

Contact

vmaher@iona.edu

RSC PST 3 - Research Poster Session 3

Proper Mobilization of Elderly People With Hip Fracture

Pedro Enrique Trujillo-Hernandez, MSN, RN, Mexico

Sandra Cecilia Esparza-Gonzalez, PhD, RN, Mexico

María de los Angeles Villarreal-Reyna, PhD, RN, Mexico

Raul Adrian Castillo-Vargas, MSN, RN, Mexico

Abstract

Background: The proximal fracture of the femur or hip fracture is one of the major health problems of the elderly people. It includes an increase in morbidity, mortality, functional impairment, costs and increases the degree of dependence and institutionalization of these patients in a year of fracture. There are studies that estimate that, worldwide, the incidence of hip fracture will exceed 6 million in the year 2050. Some authors have already used the term epidemic to qualify this increased incidence in proximal fracture of the femur. Overall hospital mortality is 5%, ranging from 2% to 8%. Reaching 30% of patients at 12 months of fracture. And sin was reduced during a long second half of the last century. Its cost attributed to our environment is high. In the United States of America, it stands at about \$ 20 trillion, a fact that does not oblige to prioritize not only preventive measures but also the most efficient rehabilitation alternatives.

Rehabilitation must begin from the moment of admission. It is important that the patient and the family know the chosen therapeutic plan, along with the recommendations for the post-hospital discharge. Many patients with hip fractures have to remain with disabilities and it is important that they receive the necessary explanations to restore their state of mind. Therefore, early mobilization reduces the percentage of complications due to conditioning syndrome, respiratory complications, pressure ulcers, the risk of deep venous thrombosis and delirium, to which elderly patients are very susceptible.

The main postoperative goal in early rehabilitation, beginning with the mobilization and multidisciplinary rehabilitation, according to indications of the Traumatology and Rehabilitation services in general, must first, if the general conditions of the patient permit, in the first 24-48 hours. The intervention, since the osteosynthesis through the fixations of the nail plate and the arthroplasty allow the load in the joint practically 24 hours after the surgery (always after the radiological control), although the use of prosthesis endomedulares usually delay the full charge until the third day. Despite advances in patient care and surgical techniques, very often, although the operation is successful in terms of healing fractures, the patient is unable to reach the level of function and independence before.

Since most adults who suffer from this type of fracture end the rehabilitation in their home where they are cared for mostly by relatives or primary caregivers who receive little or no training for care and mobilization by health personnel. Of opportunity that if they did not attend can cause the older adult to recover their basic functions, causes immobility syndrome, fear of wandering, pain and worse case a displacement of the prosthesis and a new recidivism of the elderly people. The hospital where it should be reprogrammed for a new surgery, involving a new expenditure in the health sector, a new type of bed in the hospital, which can be assigned to another patient in need.

Purpose: Develop a standardized protocol aimed at primary caregivers of elderly people with hip fracture for proper mobilization and rehabilitation exercises to achieve a successful recovery of the functions prior to the traumatic event.

With this proposal of intervention is intended to put in place a standardized protocol for the care of elderly people with hip fracture, creating a Guide to Practice to guide the primary caregivers about how they must perform the mobilization and rehabilitation exercises to prevent hospital readmissions by displacement of prostheses or falls that the older adult were to be as a result of poor mobilization.

This project is aimed mainly at the primary caregivers who are under the charge of older adults with hip fracture so that they have the scientific basis about how to perform a successful mobilization and

rehabilitation exercises. As well as to all staff in the area of health to learn more about this topic and to be able to better orient the time of hospital discharge both the older adult as the carer.

In terms of the benefits it has provided for the realization of this proposal range from: health institutions, patients and nursing staff which are:

For the institutions, the anticipated savings in health care costs by recurrences hospitalers by displacement and falls to the older adult with hip fracture, and thus these resources could be used in the care of other patients with multiple diseases chronic degenerative diseases, in improving the infrastructure of the health care clinics or in the purchase of better medical equipment or medicines.

For the nursing personnel, since with this protocol may be a further step in the professionalization and social recognition, and hospitable to improve the care of elderly people and avoid repercussions unnecessary for the health of this group of people. And with regard to the workload would be reflected as such interventions previously made by the staff to the elderly people that reincidió can be used in other patients and improve the attention and the quality of the nursing care.

For patients, because with a correct mobilization and appropriate exercises can recover their basic functions of daily life and thus avoid the functional dependence and psychological alterations by the process that is taking, so too could be reflected in less spending money for the purchase of medications or support teams.

Methods: The present proposal is based on the model of transitional care. So also this research lies within the paradigm of critical-purposeful, even in the health field, where its actions should be eminently human, flexible and we identify potentials that are constantly changing and is justified because it allows us to deal with the various situations that will be present in the normal development of research which makes the problem more manageable.

Results: will be compared. Descriptive statistics, means comparison and correlation analysis will be used.

Conclusion: It will be analyzed based on the results, if the correct mobilization of an elderly people with hip fracture, based on a standardized protocol allows the reinsertion of the elderly people to their activities prior to the event, taking into account the scientific evidence available in the advanced nursing practice and its implications on positive health outcomes in Mexican elderly.

References

1. Serra JA, Garrido G, Vidán M, Marrañón E, Brañas F, Ortiz J. Epidemiología de la fractura de cadera en ancianos en España. *An Med Interna (Madrid)* 2002; 19: 389-395.
2. Basora M, Colomina M, et al. *Anestesia en cirugía ortopédica y en traumatología*. Editorial médica Panamericana, 1a ed. Madrid 2011.
3. Alvarez-Nebreda ML, Jimenez AB, Rodriguez P, Serra JA. Epidemiology of hip fracture in the elderly in Spain. *Bone* 2008; 42: 278-285.
4. Sanchez-Crespo MR, et al. Mortalidad al año en fracturas de cadera y demora quirúrgica. *Rev esp cir ortop traumatol*. 2010 doi: 10.1016/.
5. Martínez A, et al. Fractura de cadera en ancianos. *Rev Col de Or. Tra.* 2005; 1: 20-28. 6. Rojo-Venegas, et.al. Factores de riesgo en una población anciana: escalas de valoración para la prevención de fracturas de cadera. *Rev esp cir ortop traumatol*. 2010. Doi: 10.1016.
7. Sandby-Thomas M, Sullivan G, Hall E. A national survey into the perioperative anesthetic management of patients presenting for surgical correction of a fractured neck of femur. *Anaesthesia* 2008; 63: 250-258.
8. Garcia S, et al. Fracturas de cadera en las personas mayores de 65 años: diagnóstico y tratamiento. *JANO* 2-8 Septiembre 2005. VOL. LXIX No 1.574.
9. Adunsky A, et al. Blood transfusion requirements in elderly hip fracture patients. *Arch Gerontol. Geriatr* 2006; 36: 75-81.
10. Amer N, et al. Early operation on patients with a hip fracture improved the ability to return to independent living. A prospective study of 850 patients. *J Bone Joint Surg Am*. 2008; 90: 1436-1442.
11. Monte R, Rabuñal R, Bal M, Guerrero J. *Guía Clínica para la atención de los pacientes con fractura de cadera*. Guías clínicas de la sociedad Gallega de medicina interna. 2005.

12. Bottle A, Aylin P. Mortality associated with delay in operation after hip fracture: observational study. BMJ 2006, Doi:10.1136/bmj.38790.468519.55.
13. Vilarnau M, Nogueras A, Guirao M, Real J, López E, Bacos C. Fractura de fémur del anciano: estudio prospectivo de las variables asociadas a la prescripción de rehabilitación hospitalaria versus domiciliaria. Rev Mult Gerontol 2005; 15(2):81-84.
14. Pei C, Chong W, Savige A J, Wen K L. Medical problems in hip fracture patients. Arch Ortop traum Surg. [serial on the Internet]. 2010 [cited 2016]; 130(11):1355-61: <http://www.springerlink.com/contact/>
15. Martin P, Johansen A. Hip Fracture. Clinical Review. BMJ. [serial on the Internet]. 2016 [cited 2016 jun 3]; 333:27-30: <http://www.intramed.net/>
16. Taylor, A.J; Garray, L.C; Becker, D.J; Curtis, J.R; Kilgore, M.L; Morrissey, M.A; et al. Clinical and Demographic factors associated with fractures among olders americans. Osteoporosis International. [Serie en Internet]. 2011 [citado 2012]; 22(4): 1263-74. Disponible en <http://www.springerlink.com/contact/>
17. Fonseca et. Al. 2012. Título: Adultos mayores con fracturas de cadera en la comunidad. Publicación Periódica de Gerontología y Geriátria-RNPS 2110 ISSN 1816-8450. Vol.7. No.1. 2012.
18. Bravo et. al., 2011. Factores pronósticos de incapacidad funcional en pacientes con fractura de cadera. Revista Española de Cirugía Ortopédica y Traumatología
19. Saquina, 2011. Ejercicios de fortalecimiento y su incidencia en la marcha en los pacientes con prótesis de cadera de 60 a 80 años en el patronato municipal de Latacunga". Universidad Técnica De Ambato, Facultad Ciencias De La Salud: Carrera Terapia Física
20. Morales et. Al. 1999. Movilización precoz de las fracturas diafisarias de la mano. Rev Cubana Ortop Traumatol 1999;13(1-2):58-63.

Contact

enrique_trujillo1702@hotmail.com

RSC PST 3 - Research Poster Session 3

The Correlation of Patients with Spinal Cord Injury and Psychiatric Disorders

Chinghui Chuang, MSN, RN, Taiwan

Abstract

Purpose: Psychiatric disorders often occur concomitantly with spinal cord injury. However, the relationship between psychiatric disorders and spinal cord injury (SCI) remains unclear.

The study was to investigate the correlation between psychiatric disorders and SCI.

Methods: During the 10-year study period, 71253 patients spinal cord injury were enrolled for analysis. The study was to conduct a retrospective cohort study to assess whether psychiatric disorders were an independent risk factor of SCI. Newly diagnosed SCI outpatients (N=71253) during the years 2000-2009 by the Taiwan National Health Research Institute. We categorized psychiatric disorders into four main disorders, including depression disorders, schizophrenia, anxiety disorders, and major depressive disorder recurrent episode. The prevalence of each psychiatric disorder before and after SCI was estimated respectively. McNemar's test was performed to compare the paired prevalence of each disorder before and after SCI.

Results: There was significantly higher prevalence after SCI than before SCI in depression disorders (12.1% vs. 9.2%, $P < 0.0001$), schizophrenia (1.4% vs. 1.1%, $P < 0.02$). It was significantly lower prevalence after SCI than before SCI in anxiety disorders (3.8% vs. 6.0%, $P < 0.0001$), and major depressive disorder recurrent episode (0.2% vs. 0.6%, $P < 0.001$). Among the subgroups of cognitive disorders, the prevalence of schizophrenia and other psychotic disorders was significantly elevated after SCI (2.1% vs. 1.4%, $P = 0.001$). Among the subgroups of mood disorders, the prevalence of Unspecified schizophrenia was elevated after SCI (1.4% vs. 1.1%, $P < 0.02$).

Conclusion: The prevalence of schizophrenia and depression disorders, and other psychotic disorders otherwise specified tended to increase after SCI. Our current study is a population-based study with a large, nationally cohort sample. The study showed that psychiatric disorders in patients may be associated with the development of spinal cord injury, and that this risk was more predominant in young patients. The comorbidities of chronic kidney disease, hyperlipidemia, this may have had an impact among spinal cord injury patients

References

- Lai, E. C., Kao Yang, Y. H., & Kuo, H. C. (2014). Complication rate of neurogenic lower urinary tract dysfunction after spinal cord injury in Taiwan. *International Urology and Nephrology*, 46(6), 1063-1071. doi: 10.1007/s11255-013-0625-6
- McCullumsmith, C. B., Kalpakjian, C. Z., Richards, J. S., Forchheimer, M., Heinemann, A. W., Richardson, E. J., . . . Fann, J. R. (2015). Novel risk factors associated with current suicidal ideation and lifetime suicide attempts in individuals with spinal cord injury. *Archives of Physical Medicine and Rehabilitation*, 96(5), 799-808. doi: 10.1016/j.apmr.2014.12.017
- Wu, J. C., Chen, Y. C., Liu, L., Chen, T. J., Huang, W. C., Cheng, H., & Su, T. P. (2012). Effects of age, gender, and socio-economic status on the incidence of spinal cord injury: an assessment using the eleven-year comprehensive nationwide database of Taiwan. *Journal of Neurotrauma* 29(5), 889-897. doi: 10.1089/neu.2011.1777

Contact

chinhui@cgmh.org.tw

RSC PST 3 - Research Poster Session 3

Injury Factors and Medical Conditions of Motorcycle Riders Were Analyzed By Trauma Database in Taiwan

Pei-Ling Lee, MSN, RN, Taiwan

Chao-Wen Chen, MSN, Taiwan

Wen-Hui Hsiao, BSN, RN, Taiwan

Abstract

Purpose: According to the Taiwan Ministry of Health and Welfare announced in 2015, the accident death for the death of the Taiwanese ranked the fifth, and the average number of years lost in traffic accidents was 25.1 years. However, according to the Taiwan National Police Agency, from 2010 to 2015, the motorcycle of traffic accident in Kaohsiung City, the incidence was 18.7%, higher than the average.

Methods: To analyze the trauma registration database of one level I trauma center in Kaohsiung City, southern Taiwan. The cases were the motorcycle riders taking emergency medical treatment and hospitalization from 2010 to 2015.

Results: There were 5,819 cases. Males were 55.7% and females were 44.3%. The youngest was 11 years old, and the oldest was 98 years old. The mean was 42.7 years old. The way into the hospital by ambulance is 62.5%, by transferred from others is 24.4%. The 1st triage degree is 5.2%, the 2nd is 46.5%, and the 3rd is 46.4%. Occurrence time has two peaks, AM7-10 and PM5-6. Occurrence time is different from weekday and weekend. The top three of the incidence of blunting object are cars (38.7%), motorcycle (27.3%), and loss of control (24.8%). The deadly blunting objects were trucks (4.3%) and pedestrians (2.0%). The injury severity score (ISS) 1-8 score was 54.5%, 9-15 score was 30.2%, more than 16 score was 15.3%. ISS > 16 score mortality rate was 27.9%. The 97.5% was discharged and 1.6% was dead. The region of injured body were extremities > head/neck > chest. However, the major death factor was head/neck of AIS 4 or 5 score (57.8%). Among the deaths, patients with no helmets were 69.9%, and some with positive alcoholic reactions were 59.1%.

Conclusion: The result shows that wearing helmets and no drunk driving should promote for road safety. For the patients with head injury caused by traffic accidents should be further observed to promote the medical quality.

References

1. Safiri S, Haghdoost AA, Hashemi F, Amiri S, Raza O, Sadeghi-Bazargani H. (2016). Association Between Adult Attention Deficit Hyperactivity Disorder and Helmet Use Among Motorcycle Riders. *Trauma Monthly*. 21(2):e21066. DOI: 10.5812/traumamon.21066
2. Taiwan Ministry of Health and Welfare (2015). Health Promotion Administration Health Promotion Administration Annual Report. Retrieved from http://www.mohw.gov.tw/cht/DOS/Statistic.aspx?f_list_no=312&fod_list_no=2220
3. Taiwan National Police Agency (2015). Statistical Yearbook of Police Administration. Retrieved from <https://www.npa.gov.tw/NPAGip/wSite/np?ctNode=12552&mp=1>

Contact

alive1027@gmail.com

RSC PST 3 - Research Poster Session 3

Teeth for Two: Oral Health in Pregnancy and Early Childhood

Erin Hartnett, DNP, CPNP, APRN-BC, USA
Judith Haber, PhD, APRN, BC, FAAN, USA

Abstract

Purpose: During pregnancy, changes occur in the oral cavity that may lead to oral disease. Poor oral health during pregnancy is associated with negative outcomes for mothers and their children. The purpose of this pilot project was to develop a standardized oral health curriculum to prepare Nurse Family Partnership (NFP) nurses to integrate oral health in home visits to high-risk, first time pregnant women and their children.

Methods: The NYU College of Nursing Oral Health Nursing Education and Practice (OHNEP) Program trained NFP nurses in Miami, Florida about oral health during pregnancy and early childhood using Cavity Free Kids (CFK), an evidence-based toolkit for integrating oral health into home visits. NFP nurses used the CFK oral health toolkit during home visits with first-time pregnant women and first-time mothers of children ages 0-2. Nurses and clients completed surveys (baseline, 30 and 90 days) to measure changes in oral health knowledge and practices. The nurse survey was self-administered through a web-based survey, and the client survey telephone-administered by trained interviewers. For the client data, changes across the three points in time were tested for statistical significance using a paired sample t-test.

Results: Following the intervention, there was an increase in the number of nurses including oral health content in their home visits. There was also a statistically significant increase in the number of clients reporting that they have received oral health education and referral.

Conclusion: Including oral health in NFP home visit curriculum is an effective way to positively influence the oral health self-care and child care practices of high risk pregnant women and children. NFP nurses meet with each first-time mom in 64 planned home visits until the child reaches two years of age, when the majority of primary teeth should have erupted. They are well suited to provide the parental education needed to reduce the number of dental caries children experience in their primary teeth. The main barrier to this is finding a place to include oral health in an already jam-packed curriculum. Increased awareness of the burden of oral disease in the United States and greater funding are needed to ensure that oral health becomes a standard component of the home visiting framework.

References

- Haber, J., Hartnett, E., Allen, K., Hallas, D., Dorsen, C., Lange-Kessler, J., ... Wholihan, D. (2015). Putting the Mouth Back in the Head: HEENT to HEENOT. *American Journal of Public Health*, 105(3), 437–41.
<http://doi.org/10.2105/AJPH.2014.302495>
- Hartnett, E., Haber, J., Krainovich-Miller, B., Bella, A., Vasilyeva, A., & Lange Kessler, J. (2016). Oral Health in Pregnancy. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 45(4), 565–573.
<http://doi.org/10.1016/j.jogn.2016.04.005>

Contact

hartne01@nyu.edu

RSC PST 3 - Research Poster Session 3

Investigating Physical Activity and Exercise Motivation in Women With Systemic Lupus Erythematosus

Mei-Ling Wu, MSN, RN, Taiwan
Jen-Chen Tsai, PhD, RN, Taiwan

Abstract

Purpose: Physical inactivity lifestyles are common among systemic lupus erythematosus (SLE) populations. The purpose of this study was to investigate SLE women's level of physical activity and the type of motivation that is related to the amount of physical activity in order to design effective ways to improve physical activity.

Methods: This cross-sectional correlational study collected data from a medical center in Taiwan from August 2015 and July 2016. The study comprised 124 women with SLE who did not have physical limitations or psychiatric disorders, or other diseases that would prevent physical activity. All participants wore a pedometer for 7 days to monitor the level of physical activity and completed the demographic inventory and the modified Behavioral Regulation in Exercise Questionnaire (BREQ-2). Descriptive statistics and Pearson correlation were used to identify the levels of physical activity and the relationships between demographic variables, motivation and physical activity. Multiple regression analyses were further used to find predictive variables of physical activity.

Results: On average, the mean age and disease duration of participants was 43.5 ± 11.0 and 11.1 ± 7.7 years. The demographic data showed that 83 (67%) had a job, 87 (70%) were married, and 59 (48%) had a university or graduate education. Pedometer-determined physical activity classified by zone approach revealed that 47 (37.9%) were sedentary (<5000 steps/day), 46 (37.1%) were low active (5000-7499 steps/day), 21 (16.9%) were somewhat active (7500-9999 steps/day), 7 (5.6%) were active ($\geq 10,000$ -12,499 steps/day) and 3 (2%) were highly active ($\geq 12,500$ steps/day). Identified regulation and intrinsic regulation were significant correlate to both daily step ($r=0.25$; $r=0.3$, respectively) and moderate or vigorous intensity physical activity (MVPA) ($r=0.29$; $r=0.26$, respectively). None of demographic variables was correlated with exercise motivation and physical activity. Daily steps were only predicted by intrinsic regulation which explained 9% of the total variance. Moreover, MVPA was predicted by identified regulation which explained 8% of the total variance.

Conclusion: Results offered a feature of SLE population's low physical activity. To promote active life styles, exercise counseling could focus on how to elicit SLE women's intrinsic motivation and emphasize benefits of exercise to health.

References

Eriksson, K., Svenungsson, E., Karreskog, H., Gunnarsson, I., Gustafsson, J., Möller, S., . . . Boström, C. (2012). Physical activity in patients with systemic lupus erythematosus and matched controls. *Scandinavian Journal Of Rheumatology*, 41(4), 290-297. doi: 10.3109/03009742.2011.624117

Mancuso, C. A., Perna, M., Sargent, A. B., & Salmon, J. E. (2011). Perceptions and measurements of physical activity in patients with systemic lupus erythematosus. *Lupus*, 20(3), 231-242. doi: 10.1177/0961203310383737

Contact

mlwu@mail.cgust.edu.tw

RSC PST 3 - Research Poster Session 3

Factors Associated With Implementation of Early Goal-Directed Therapy in Septic Patients

Shu-Fen Lu, MSN, RN, Taiwan

Abstract

Background: Sepsis is a systemic inflammatory response that cause by infection and it is a continuously process. Sepsis common occur in critically ill patients. Surviving sepsis campaign guidelines in 2012 and 2008 have highlighted the importance of "initial resuscitation- six golden hours", which is the time point sepsis care bundle shall start. Before/ after sepsis care bundle started, we will compare the length of stayed in ICU, the days of hospitalization and mortality rate in patients with severe sepsis or septic shock.

Purpose: This study aims to explore the implementation of early goal directed against sepsis patient prognostic factors of treatment analysis.

Methods: The design of study was retrospective cohort study. We enrolled participants in the forty-two beds Medical & surgical intensive care unit of northern Taiwan. The inclusion criteria were the adult patients who admitted to the ICU from 2012 to 2014, and diagnosis of sepsis. The exclusion criteria were non-sepsis patients. The study tool is checklist of EGDT. Statistics analysis Statist using descriptive statistics presented participants basic information, t-test and chi-square test conducted observations, the outcomes by the logistic regression and survival analysis.

Results: This study recruited 838 patients of severe sepsis patients, including the implementation of early goal-directed therapy for the 687 patients implementation rate of 82%, which reached a total of 581 cases, 84.6% achievement rate. The impact of sepsis patients outcomes of disease severity, types of fluid and goal-directed therapy completion rates.

Conclusion: Achieved goal-directed therapy, the recovery of the initial intravenous infusion type and severity of illness related factors affecting the prognosis of patients with sepsis, it is recommended to enhance the implementation of health care compliance monitor of early goal-directed therapy. This study provides intensive medical care in performing clinical reference basis. This study provides critical care staffs to perform clinical reference basis.

Implication: Nurses play a critical role in the process of EGDT recognition, diagnosis, and treatment of sepsis. The SSC guidelines provide updated evidence-based practice recommendations that help to promote best practices for patient care. Critical care nurses' knowledge of the new guideline recommendations can help to ensure that patients with sepsis receive therapies that are based on the latest scientific evidence.

References

- Chelkeba, L., Ahmadi, A., Abdollahi, M., Najafi, A., & Mojtahedzadeh, M. (2015). Early goal-directed therapy reduces mortality in adult patients with severe sepsis and septic shock: Systematic review and meta-analysis. *Indian Journal of Critical Care Medicine*, 19(7), 401-411. doi:10.4103/0972-5229.160281
- Dellinger, R. P., Levy, M. M., Rhodes, A., Annane, D., Gerlach, H., Opal, S. M., . . . Surviving Sepsis Campaign Guidelines Committee including The Pediatric, S. (2013). Surviving Sepsis Campaign: international guidelines for management of severe sepsis and septic shock, 2012. *Intensive Care Medicine*, 39(2), 165-228. doi: 10.1007/s00134-012-2769-8
- Memon, J. I., Rehmani, R. S., Alaithan, A. M., El Gammal, A., Lone, T. M., Ghorab, K., & Abdulbasir, A. (2012). Impact of 6-hour sepsis resuscitation bundle compliance on hospital mortality in a saudi hospital. *Critical Care Research and Practice*, 2012, 273268. doi: 10.1155/2012/273268
- Rochweg, B., Alhazzani, W., Gibson, A., Ribic, C. M., Sindi, A., Heels-Ansdell, D., . . . Group, F. (2015). Fluid type and the use of renal replacement therapy in sepsis: a systematic review and network meta-analysis. *Intensive Care Medicine*, 41(9), 1561-1571. doi:10.1007/s00134-015-3794-1

Shiramizo, S. C. P. L., Marra, A. R., Durao, M. S., Paes, A. T., Edmond, M. B., & dos Santos, O. F. P. (2011). Decreasing Mortality in Severe Sepsis and Septic Shock Patients by Implementing a Sepsis Bundle in a Hospital Setting. *Plos One*, 6(11). doi: ARTN e26790DOI 10.1371/journal.pone.0026790

Zhang, Y. F., Li, Q. F., Chen, L., Wang, Y., Wei, H. M., & Qian, C. Y. (2012). [Effect of resuscitation strategy based on the early goal directed therapy on the prognosis of patients with shock]. *Zhongguo Wei Zhong Bing Ji Jiu Yi Xue*, 24(8), 478-481. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/22871407>

Contact

sflu@vghtpe.gov.tw

RSC PST 3 - Research Poster Session 3

Self-Reported Parenting Stress and Salivary Cortisol Following Mindfulness-Based Stress Reduction Intervention

Lisa R. Roberts, DrPH, MSN, RN, FNP-BC, CHES, USA

G. Griffin Boostrom, BA, USA

Salem Omar Dehom, MPH, USA

Cameron L. Neece, PhD, USA

Abstract

Purpose: To examine the correlation of self-reported stress and salivary cortisol, a stress biomarker.

Parents of children with developmental delays (DD) experience higher levels of stress than parents of typically developing children. Roughly one- to two-thirds of parents of children with DD experience clinical levels of parental stress (Davis & Carter, 2008). Children with DD have significantly more behavior problems, experience more emotional difficulties, and are more likely to have clinical levels of behavior problems than typically developing children (Emerson & Einfeld, 2010). Parenting stress and child behavior problems appear to have an interdependent, reciprocal relationship (Neece, Green, & Baker, 2012; Woodman, Mawdsley, & Hauser-Cram, 2015). This relationship, parenting stress and child behavior problems, appears to be responsible for the risks associated with the DD, rather than the delay itself (Herring et al., 2006).

Families of children with DD are susceptible to a range of comorbidities and associated risks including higher levels of parent stress associated with parental depression, more marital conflict, poorer parental physical health, higher child anxiety, poorer child social competence, poorer child emotional regulation, and increased likelihood of a child Attention Deficit Hyperactivity Disorder (ADHD) diagnosis. Additionally, the elevated levels of behavior problems associated with DD puts children at risk for developing future mental disorders such as ADHD and Oppositional Defiance Disorder (Anthony, Bormberg, Gil, & Schanberg, 2011; Baker, Neece, Fenning, Crnic, & Blacher, 2010; Eisenhower, Baker, & Blacher, 2009; Mathis & Bierman, 2015).

One way to intervene to reduce these risks is through mindfulness-based stress reduction (MBSR) with parents of children with DD. MBSR is an empirically based eight-week long training program designed to reduce stress through a series of standardized meditation practices (Kabat-Zinn, 1990). MBSR has been found to be feasible for parents of children with DD (Roberts & Neece, 2015), and has proven effective across multiple outcome measures. After the MBSR intervention, parents of children with DD report significantly less stress, greater practice and experience of mindfulness, increased parenting and life satisfaction, greater self-compassion and well-being, more social interactions with their children, better sleep, and lower levels of depression and anxiety (Bazzano et al., 2015; Dykens, Fisher, Taylor, Lambert, & Miodrag, 2014; Neece 2013; Singh et al., 2007; van der Oord, Bögels, & Peijnenburg, 2012). While children do not receive a direct intervention, children's outcomes after parents' completion of the MBSR training included significantly reduce behavior problems and increased social skills (Neece, 2014, Singh et al., 2007, van der Oord et al., 2012).

While these self-report and observational improvements are promising, the question arises if biologic measures can further validate these results. Cortisol levels and changes in cortisol levels over the first hour after awakening for the day are sensitive to anticipated demands of the day (Hibel, Mercado, & Trumbell, 2012). Among healthy adults salivary cortisol levels increase by 50 to >100% (Kudielka, Gierens, Hellhammer, Wüst, & Schlotz, 2012). However, this normal physiological response to awakening is significantly altered in individuals experiencing chronic stress (Chida & Steptoe, 2009), and provides a strong biological basis for measuring stress (Chida & Steptoe, 2009; Kudielka et al., 2012). Few studies have examined cortisol in conjunction with MBSR interventions (Dykens, Fisher, Taylor, Lambert, & Miodrag, 2014; Ruiz-Robledillo, Sariñana-González, Pérez-Blasco, González-Bono, & Moya-Albiol, 2015). We therefore set out to explore the association of self-report findings and cortisol response biomarkers to determine the physiological impact of the MBSR intervention on parenting stress.

Methods: We utilized a randomized, wait-list controlled design with baseline, pre-posttests and six-month follow-up assessments. Participants voluntarily chose to participate in salivary cortisol sample collections ($N=53$), and were part of a larger MBSR study involving parents of children with DD between the ages of 2.5 to 5 years. Measures included basic demographics, and Perceived Stress Scale (PSS) at baseline. Measures at pre-post and 6 months follow-up included Parenting Daily Hassles, Life Stressors subscale (PDH-LS), Self-rated stress at the time of saliva collection, and salivary cortisol measured as area under the curve ground (AUCg).

Results: There were no demographic differences between groups, therefore, results are reported for the combined groups. The majority of the parents participating were mothers (90.6%), married (79.2%), had more than a high school education (69.8%) and about half (50.9%) had a family income of less than \$50,000/year. At baseline the mean PSS score was 23.74 (SD 4.53).

Changes over time for PDH-LS, self-reported stress at the time of saliva collection, and AUCg were analyzed using repeated measures ANOVA, a mixed model procedure and Least Squares Means for missing data. Parenting daily hassles reported in terms of how often child and family hassles occurred were significantly reduced ($p = .012$), and though the intensity of the hassles trended in the desired it did not reach statistical significance. Self-reported stress was decreased at posttest and remained lower at follow-up but did not reach statistical significance. AUCg was reduced at each time point and highly significant ($p < .001$).

Conclusion: At baseline participants' mean PSS score indicates a high perception of stress (Cohen & Janicki-Deverts, 2012). After completion of the MBSR intervention, parents of children with DD reported significantly less parenting stress in terms of how often they experienced child and family hassles. They also reported reduced intensity of these hassles and reduced general stress. Parents' perceptions of reduced stress was validated physiologically in the significantly reduced AUCg. These biologic stress response reduction results were found both at immediate post-treatment, with sustained results on general stress at 6-months follow-up and continued further reductions of stress by all other measures. Results indicate that MBSR is effective for reducing parenting stress and general stress among parents of children with DD, reinforced by objective biophysiological data. Of note, biologic markers were even stronger than self-report which are more susceptible to mood changes. The reduction in parenting and general stress through MBSR is promising for this group of highly stressed parents of children with DD, decreasing the likelihood of child behavior complications as well as a myriad of parental comorbidities and poor mental health sequelae.

References

- Anthony, K., Bromberg, M., Gil, K., & Schanberg, L. (2011). Parental perceptions of child vulnerability and parent stress as predictors of pain and adjustment in children with chronic arthritis. *Children's Health Care, 40*(1), 53–69.
- Baker, B. L., Neece, C. L., Fenning, R. M., Crnic, K. A., & Blacher, J. (2010). Mental disorders in five-year-old children with or without developmental delay: Focus on ADHD. *Journal of Clinical Child & Adolescent Psychology, 39*(4), 492–505.
- Bazzano, A., Wolfe, C., Zylowska, L., Wang, S., Schuster, E., Barrett, C., & Lehrer, D. (2015). Mindfulness based stress reduction (MBSR) for parents and caregivers of individuals with developmental disabilities: a community-based approach. *Journal of Child and Family Studies, 24*(2), 298–308.
- Chida, Y., & Steptoe, A. (2009). Cortisol awakening response and psychosocial factors: A systematic review and meta-analysis. *Biological Psychology, 80*(3), 265 – 278.
- Cohen, S., & Janicki-Deverts, D. (2012). Who's Stressed? Distributions of Psychological Stress in the United States in Probability Samples from 1983, 2006, and 2009. *Journal of Applied Social Psychology, 42*(6), 1320-1334. doi:10.1111/j.1559-1816.2012.00900.x
- Davis, N. O., & Carter, A. S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: Associations with child characteristics. *Journal of Autism and Developmental Disorders, 38*(7), 1278–1291. <http://doi.org/10.1007/s10803-007-0512-z>
- Dykens, E. M., Fisher, M. H., Taylor, J. L., Lambert, W., & Miodrag, N. (2014). Reducing distress in mothers of children with autism and other disabilities: a randomized trial. *Pediatrics, 134*(2), e454-e463.
- Eisenhower, A. S., Baker, B. L., & Blacher, J. (2009). Children's delayed development and behavior problems: Impact on mothers' perceived physical health across early childhood. *Social Science and Medicine, 68*(1), 89–99.

- Emerson, E., & Einfeld, S. (2010). Emotional and behavioural difficulties in young children with and without developmental delay: A bi-national perspective. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 51(5), 583–593.
- Herring, S., Gray, K. M., Taffe, J., Tonge, B., Sweeney, D., & Einfeld, S. (2006). Behaviour and emotional problems in toddlers with pervasive developmental disorders and developmental delay: Associations with parental mental health and family functioning. *Journal of Intellectual Disability Research*, 50(12), 874–882.
- Hibel, L. C., Mercado, E., & Trumbell, J. M. (2012). Parenting stressors and morning cortisol in a sample of working mothers. *Journal of Family Psychology*, 26(5), 738-746. doi:10.1037/a0029340
- Kabat-Zinn, J. (1990). Full catastrophe living: The program of the stress reduction clinic at the University of Massachusetts Medical Center: New York: Delta.
- Kudielka, B. M., Gierens, A., Hellhammer, D. H., Wüst, S., & Schlotz, W. (2012). Salivary Cortisol in Ambulatory Assessment--Some Dos, Some Don'ts, and Some Open Questions. *Psychosomatic Medicine*, 74(4), 418-431.
- Mathis, E. T. B., & Bierman, K. L. (2015). Dimensions of parenting associated with child prekindergarten emotion regulation and attention control in low income families. *Social Development*, 24(3), 601–620.
- Neece, C. L., Green, A. S., & Baker, B. L. (2012). Parenting stress and child behavior problems: A transactional relationship across time. *American Journal on Intellectual and Developmental Disabilities*, 117, 48–66.
- Neece, C. L. (2013). Mindfulness-based stress reduction for parents of young children with developmental delays: Implications for parental mental health and child behavior problems. *Journal of Applied Research in Intellectual Disabilities*, 27(2), 174–186. <http://doi.org/10.1111/jar.12064>
- Roberts, L. R., & Neece, C. L. (2015). Feasibility of Mindfulness-Based Stress Reduction Intervention for Parents of Children with Developmental Delays. *Issues in Mental Health Nursing*, 36(8), 592-602. doi:10.3109/01612840.2015.1017063
- Ruiz-Robledillo, N., Sariñana-González, P., Pérez-Blasco, J., González-Bono, E., & Moya-Albiol, L. (2015). A Mindfulness-Based Program Improves Health in Caregivers of People with Autism Spectrum Disorder: a Pilot Study. *Mindfulness*, 6(4), 767-777.
- Singh, N. N., Lancioni, G. E., Winton, A. S. W., Singh, J., Curtis, W. J., Wahler, R. G., & McAleavey, K. M. (2007). Mindful parenting decreases aggression and increases social behavior in children with developmental disabilities. *Behavior Modification*, 6(31), 749–771.
- van der Oord, S., Bögels, S., & Peijnenburg, D. (2012). The effectiveness of mindfulness training for children with ADHD and mindful parenting for their parents.. *Journal of Child and Family Studies*, 21(1), 139-147.
- Woodman, A. C., Mawdsley, H. P., & Hauser-Cram, P. (2015). Parenting stress and child behavior problems within families of children with developmental disabilities: Transactional relations across 15 years. *Research in Developmental Disabilities*, 36, 246– 276.

Contact

lroberts@llu.edu

RSC PST 3 - Research Poster Session 3

A Grounded Theory Investigation Into Depression in Freshman College Students

Theresa A. Kessler, PhD, RN, ACNS-BC, CNE, USA

Abstract

Purpose: Freshman students may find adjusting to college a stressful experience. The stressors students face during this time of transition require the use of previously developed coping mechanisms, as well as the development of new strategies to effectively adjust to university life. Because adapting to these life changes may be challenging, freshmen college students are at risk of developing depressive symptomology. In a survey of 74, 438 college students in the US, 30.3% reported feeling so depressed it was difficult to function, and 42.0% reported feeling hopeless (ACHA, 2015). Consequences of unrecognized or untreated depression in adolescents can be significant. These consequences may include high-risk behaviors, poor academic performance, sleep disturbances, physical health problems, and suicidal ideation (Reeves & Riddle, 2014).

Based on the significance of this problem, the purpose of the study was to gain knowledge about the experience of living with depression as a freshman college student. The majority of the studies addressing adjustment to college have used quantitative data collection methodologies, thus, missing the richness of social processes surrounding this experience. By using grounded theory and no predetermined questions, students could freely discuss their experiences of living with depression as a college freshman.

Methods: Participants were recruited through scripted class announcements and flyers placed across campus which described the desire to learn about depression and adjusting to the first year of college. After providing informed consent, each participant completed an interview with the primary investigator. Each interview began with the same question: *What is the experience of your freshman year in college?* Every interview was audio recorded, transcribed verbatim, and reviewed by the primary investigator for accuracy. Using grounded theory, the research team analyzed each interview using constant comparative methodology. Data collection continued until saturation was achieved.

Results: A convenience sample of 12 sophomore-level college students from a Midwestern, private, faith-based university in the US participated. The sample consisted of 11 females and one male, with an average age of 19.92 years. Nine participants were Caucasian, two were Hispanic, and one was African American.

Following analysis of the data, four major themes related to living with depression as a college freshman emerged. These themes include expression of stress, changes in eating habits, sleep issues, and procrastination/putting things off. Descriptive examples of each of the themes were found throughout the interview data. These themes reflected the participants' perceptions of their freshman year in college. The descriptors suggested the emotional, social, physical, and behavioral responses to what is perceived as depression. Through individual reflections, students also described how these themes were connected to form the process of living with depression their freshman year.

Conclusion: With a greater understanding of the experience of living with depression as a freshman college student, nurses and other mental health professionals will have additional evidence to guide their professional practices. The results of this study may provide additional insight into prevention strategies to help college students move successfully through the freshmen experience.

References

- American College Health Association. *American college health association-national college health assessment II: Reference group executive summary spring 2015*. Retrieved from http://www.acha-ncha.org/docs/NCHA-II_WEB_SPRING_2015_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- Reeves, G. M., & Riddle, M. A. (2014). A practical and effective primary care intervention for treating adolescent depression. *Journal of the American Medical Association*, 312(8), 797-798.

Contact

terry.kessler@valpo.edu

RSC PST 3 - Research Poster Session 3

Difficulties Associated With the Support for Autism Spectrum Disorders (ASD)

Yasuko Koyano, PhD, RN, PHN, Japan
Hiromi Watanabe, MSN, RN, PHN, Japan

Abstract

Purpose: The objective of this study was to identify the difficulties experienced by staff members providing autism spectrum support services in psychiatry day-hospitals and community institutions for persons with psychiatric disabilities.

Methods: A self-administered questionnaire survey was conducted of staff members of WAM NET-listed day-hospitals and community institutions for persons with disabilities in Japan. The questionnaire contained items to determine the experiences, difficulties, views, and other related issues to autism spectrum support services.

Results: A self-administered mail-based questionnaire survey was conducted with 1561 workers involved in support for adolescents and adults without intellectual disabilities at 1561 institutions for disability aid and psychiatry day- hospitals. The response rate was 17.9%. A total of 251 responses to the questionnaires were collected and the data was analyzed.

The percentage of staff who had participated in specialized training programs was 72.4%, and 92.2% of the support to persons with ASD. The difficulties were related to the behavioral characteristics of the care receivers (48.9%), coordination among care users (25.1%), support development (24.9%), and responses of the family and from the workplace (15.1%). In addition, 89.4% of the staff predicted that the support for persons with developmental disorders in psychiatry day-hospitals would increase in the future.

In order to improve communication with users, the staff provided with some devices: to emphasize important information (55.5%), to give users concrete instructions(36%), to allow them to visualize their schedule (28.1%), and to utilize memos (19.1%), pictures, and photographs (15.8%). Of the respondents, 98.6% felt the need for support to the staff, and the types of support that many of the respondents wished for were case studies (39.3%) and study meetings to allow them to acquire medical knowledge (31.7%).

Conclusion: Currently, staff providing support to subjects with Autistic Spectrum Disorders have access to other persons that can give them support and that they can consult with, and are therefore able to participate positively in training programs, however, they still face some difficulties. For psychiatry day-hospitals and community facilities where increase in the numbers of adolescents and adults having ASD without intellectual disabilities are expected, a better understanding of persons with ASD by the staff providing care and improvements in concrete support skills may be necessary.

References

Hiromi Watanabe, Yasuko Koyano, Mitsuru Yamashina(2016), Analysis of Problems Concerning Support for Persons with Autistic Spectrum Disorder and without Intellectual Disabilities at Community based Facilities for Persons with Disabilities, Medical and Nursing Research 12(2),11-17.(in Japanese)

Contact

ykoyano@juntendo.ac.jp

RSC PST 3 - Research Poster Session 3

Postpartum Contraceptive Use Among Adolescent Mothers in Thailand

Punpilai Sriarporn, PhD, RN, Thailand
Rudee Pungbangkadee, PhD, RN, Thailand
Saowanee Liamtirat, MNS, RN, Thailand
Patchaneeya Chiengta, MNS, RN, Thailand
Prueksalada Khiaokham, MNS, RN, Thailand
Idchayar Monsaeng, MNS, RN, Thailand

Abstract

Introduction: In Thailand, an average of 355 women under the age of 20 give birth every day, 10 of whom are less than 15 years old (Public Health Statistics, 2012; Bureau of Reproductive Health, Department of Health, 2013). In 2012, 11.7% of mothers aged 15-19, or 6.4 per 1,000, gave birth more than once or were pregnant for a second time before they reached the age of 20. According to the Ministry of Public Health, over the nine-year period between 2004 and 2012, repeat birth rates among 15-19 year olds increased from 4.9 per 1,000 adolescents, peaked at 6.4, then subsequently decreased to 6.2 in 2012-2013. Repeated pregnancy in postpartum adolescents is a crisis that affects their physical and psychosocial well-being. The consequences of repeat pregnancy are significant for adolescents and society. Repeat adolescent pregnancy implies a failure in reproductive health services, especially in terms of advising adolescent mothers to start using birth control immediately after giving birth. Previous studies have found several factors associated with repeat pregnancy among adolescents. These include inconsistent contraceptive use, lower educational achievement, and an unsupportive family member. Use of highly effective contraception in the postpartum period can reduce the risk of rapid repeat pregnancy among sexually active mothers. Research on adolescents' postpartum contraceptive use has been limited to adolescents living in Northern Thailand. Little is known about the use of contraceptives, knowledge and attitudes toward contraceptive methods and the factors that influence contraceptive use among Thai adolescent mothers.

Purpose: The purpose of this exploratory study was to use qualitative methods to better understand contraceptive use among Thai adolescent mothers. In-depth interviews were used to understand the factors influencing adolescent mothers' postpartum contraceptive use. Qualitative research is well-suited to explore complex phenomenon like contraceptive use because it provides rich contextualized data and can capture important variations among individuals. In-depth individual interviews in particular can illuminate participants' perspectives and experiences as well as the social context that shapes them. Because adolescents' contraceptive use before pregnancy is strongly associated with their use afterward, this study focuses on learning more about contraceptive use before pregnancy.

Methods: Participants - The participants were 26 adolescent mothers in intermediate postpartum hospitalization. Data were collected at four hospitals in Northern Thailand, during June to November 2015. The sample size was determined by data saturation as is appropriate for qualitative research. All participants and their parents provided written informed consent. This study was approved by the Chiang Mai University Faculty of Nursing Research Ethics Committee.

Procedures - The research instruments included a semi-structured interview guide, which explored a broad range of contraceptive use before pregnancy and after birth, including contraceptive use, knowledge about contraceptive, attitudes and intentions toward contraceptive use after birth. Interviews were conducted privately in a separate room, and participants were encouraged to speak freely about their opinions. Interviews lasted approximately 30 to 45 minutes.

Data analysis - Interviews were recorded using a digital audio recorder and the co-facilitator took notes. Audio files were transcribed verbatim by the investigative team immediately after interview completion. Data were categorized using content analysis. Emergent themes were identified. Descriptive statistics were used to characterize the participants.

Results: The median age of participants was 17 (range 15-19); the mean age was 17.27. All (100%) participants were primigravid. Twenty-four participants (92.31%) used contraception at the time of conception, whereas, two participants (7.69%) did not use any contraception. Twenty participants (76.92%) reported that the pregnancy was unplanned.

The five contraceptive methods used included condoms, birth control pills, contraceptive injections, external ejaculation, and emergency contraceptive pills. The majority of participants reported that a lack of knowledge and misinformation about sex, reproductive health, and contraceptive methods contributed to adolescent pregnancy. Some participants did not know how to take birth control pills and inconsistently used other forms of contraception. Reasons given included forgetting to use contraception or that condoms reduce pleasure for the male. Some participants believed that external ejaculation prevented pregnancy. Participants noted that they often lacked adult supervision because of their parents' work situations, leaving them on their own without productive activities. Other factors such as the media, alcohol, and stigma of abortion were contributing factors to adolescent pregnancy. Participants reported that convenience, perceived effectiveness, familiarity, and side effects were the primary reasons for selecting or changing a method of contraception postpartum and recommended several methods of promoting contraceptive use among adolescents.

Conclusion: The findings from this study indicate that patterns of contraceptive use among adolescent mothers place them at high risk of rapid repeat pregnancy. Understanding adolescent mothers' contraceptive use and the influencing factors is important for developing effective program for interventions.

References

- Herrman, J.W. (2007). Repeat Pregnancy in Adolescence: Intentions and Decision Making. *MCN, American Journal of Maternal Child Nursing*. 32(2), 89–94. doi: 10.1097/01.NMC.0000264288.49350.ed
- Kristina M. Tocce, K.M., Sheeder, J.L. & Teal, S.B. (2011). Rapid repeat pregnancy in adolescents: Do immediate postpartum contraceptive implants make a difference? *American Journal of Obstetrics and Gynecology*. 206 (6), 481.e1–481.e7.
- UNICEF. (2015). *Situation Analysis of Adolescent Pregnancy in Thailand: Synthesis Report 2015*. Bangkok: UNICEF Thailand.

Contact

nupunpilai@gmail.com

RSC PST 3 - Research Poster Session 3

Experience of Being a Young Adult Who Abstains From Alcohol Consumption

Luz Patricia Diaz Heredia, PhD, MSN, RN, Colombia

Abstract

Purpose: This work sought to understand the meaning of the experience of being a young adult who abstains from consuming alcohol.

The phenomenon of alcohol consumption in the young adult population in the world, Latin America, and Colombia has evolved in recent years and is currently a social, public health, political, and economic problem that affects youth and society (1).

Non-consumption as the result of therapeutic processes has been described and its components indicated in individuals who have had alcohol addiction problems, but little is known on the factors that mediate non-consumption in those who have never done it (2). Understanding the significance of the experience of not consuming alcohol within a society that promotes consumption is important because it will permit promoting healthy lifestyles in young adults (3). Youth is a period in life when higher degrees of consumption and addiction are established or when healthy behaviors are structured (4). Nursing, by being a practical discipline with orientation and social commitment, can contribute to knowledge in the area of addictions by recognizing these components seen from the potentiality of the people under their care. This study sought to understand the meaning of the experience of being a young adult who does not consume alcohol in a university setting

Methods: This was a qualitative research with phenomenological approach conducted from an interpretative perspective (Van Manen), used to collect qualitative data through the application of an in-depth interview. To the moment, three informants have been interviewed, who were intentionally invited because they were members of a university community. The interviews were recorded and these lasted between 40 minutes and one hour. The informed consent was signed, maintaining the ethical principles of research with human beings.

Van Manen indicates that the method is aimed at: 1) concentrating on a phenomenon that is truly of interest and which is committed with the world; 2) researching the experience on the way it is undertaken and not on how it is conceptualized; 3) reflecting on the essential aspects that characterize the phenomenon; 4) describing the phenomenon through the art of writing and rewriting; 5) maintaining a solid pedagogical relation with the phenomenon and aimed at it; and 6) balancing the context of the research, always considering the parts and the whole (5).

Results: The analysis performed permitted identifying two large themes: *recognition of the importance of caring for the body*; in this sense, the body is conceived as a good that must be protected and not damaged with alcohol. It is recognized that alcohol is harmful to physical and spiritual health, affects the person's performance, making them carry out actions that no good to them or to society. It is noted that not consuming helps with self-care and promotes wellness.

"How am I going to damage my body? I conceive that body and soul must be in harmony and try to eat well, avoid consuming things that harm me; if one has the integral conception of spirituality, one avoids excess". (e1, p1 r 17)

"My character is quite strong; I say I don't do it and don't because I have high self-esteem". (e 3, p 4 , r 17)

"Suddenly you note what is caused by excessive consumption, like accidents, abuse, how some men are transformed and you see some women being hurt by men when they are drunk. I experienced it myself and got very violent. And I don't feel secure when I drink". (e 3, p 3, r 18)

“Because if there are no drinks in the party, the party is bad because I don’t always need to feel drunk to get disinhibited, because I feel okay with myself and can be spontaneous without drinking”. (e1, p 4, r 11)

“I feel I enjoy the party or reunion if I am sober”. (e 3, p 2,r 16)

The other theme is *feel well with themselves when they are responsible for their actions*, they have the opportunity of acting freely and being responsible and aware of themselves. Alcohol can be considered a buffer to stressful situations, but when it is not consumed one is completely capable and one has power over issues of life, in addition to enjoying more. One has clarity and the possibility to make decisions without pressure and subsequent feelings of guilt.

“...it has to do with the theme of responsibility because it becomes sort of a way to atone guilt in alcohol, which makes no sense that even legally, that is, when you decide to start drinking; that is where your decision is and when you must assume all the consequences. It even seemed interesting to me that people drank as if engaging in the exercise of drinking, in other words, I make decision to drink with all the consequences this brings, whether good, bad and whatever, but it is not so, it is like a thing of inertia”. (e2, p6, r20)

Conclusion: This partial result permits evidencing that significance constructed is in line with the value individuals have of their own being, of their capacity to control situations, and of their responsibility with themselves and with life.

Further information must be collected to more completely understand the meaning.

References

- 1- Organización mundial de la salud. Informe Mundial de Situación sobre Alcohol y Salud 2014. Consulted 24 October 2016. Available in:
[<http://www.who.int/mediacentre/factsheets/fs349/es/>]
- 2- Nash, A., Marcus, M., Engebretson, J., Butstein, O. (2015). Recovery From Adolescent Substance Use Disorder: Young People in Recovery Describe the Process and Keys to Success in an Alternative Peer Group. *Journal of Groups in Addiction & Recovery*. 10 (4), 290-312
- 3- Supski, S., Lindsay, J. (2016). There’s Something Wrong with You’: How Young People Choose Abstinence in a Heavy Drinking Culture. *Young*. 25(4) 1–16
- 4- Labbe, A. K., Slaymaker, V., & Kelly, J. F. (2014). Toward Enhancing Twelve-Step Facilitation among young people: A systematic qualitative investigation of Young Adults’ 12-step Experiences. *Substance Abuse: Official Publication of the Association for Medical Education and Research in Substance Abuse*, 35(4), 399–407.
<http://doi.org/10.1080/08897077.2014.950001>
- 5- Van Manen, M. (2003). *Writing in the dark: Phenomenological studies in interpretive inquiry*. Left Coast Press.

Contact

lpdiazh@unal.edu.co

RSC PST 3 - Research Poster Session 3

The Effect of the Program "Don't Bite Your Nails, Cut Them" Behavior of Biting

Kamer Gur, PhD, Turkey
Saime Erol, PhD, Turkey
Nur Incir, RN, Turkey

Abstract

Purpose: The purpose of this study is to show the effect of the program "Don't Bite Your Nails, Cut Them" in changing the nail biting behavior.

Methods: The population of the study, conducted with pretest/posttest quasi-experimental design, consisted of 299 students who were studying in the first and fourth grades of a primary school located in Istanbul in 2015 (N=1083), had nail biting (n=339), and were voluntary to participate in the study, and whose parents gave consent. The data of the study was collected by using the questionnaire of descriptive information and independent variables, "schedule for follow-up of the nail biting behavior", and the photographs of hands.

Process of the Program "Don't Bite Your Nails, Cut Them";

- **First Stage;** the students and teachers were informed about the purpose and the process of the program. The students' nails were assessed in the classroom and those with nail biting behavior were determined. These students and their parents were invited for participation in the program.
- **Second Stage;** The data collection forms were applied on the students and their parents. The schedule for follow-up of the nail biting behavior was delivered to them and the photographs of their hands were taken.
- **Third Stage;** A training on nail biting behavior was provided to the students and their parents and brochures were delivered.
- **Fourth Stage;** The changes in the nurse students' nails were compared by examining a former photograph taken once a week and counselling was provided by making assessment according to schedule for follow-up of the nail biting behavior.
- **Fifth Stage:** The posttest was applied.
- **Impressions;** After the posttest, the students were followed up with the schedule for follow-up of the nail biting behavior and photographs three times. The successful students were given certificates.
The data of the study were evaluated by using descriptive statistics (numbers, percentages) and Mc-Nemar Test.

Results: When the pretest and the third follow-up were compared as a result of the program "Don't Bite Your Nails, Cut Them", it was observed that those not biting their nails today increased from 32.1% to 78.2% and those cutting their nails increased from 0.66 to 81.9% ($p < 0.001$). Those picking and removing their nails decreased from 66.2% to %22.4, and those picking and biting their nails decreased from 61.2% to 7.6%, and those picking and removing only their cuticle decreased from 64.8% to 14.7% in a statistically significant manner ($p < 0.001$).

Conclusion: The program "Don't Bite Your Nails, Cut Them" had a positive effect in decreasing the nail biting of students. It can be recommended for the school nurses to implement the program.

References

Ergun A, Toprak R, Sisman FN. Impact of a healthy nails program on nail-biting in Turkish schoolchildren: a controlled pretest-posttest study. J Sch Nurs. 2013 Dec;29(6):416-24. doi: 10.1177/1059840513481386. Epub 2013 Mar 14.

Contact

kamergur@gmail.com

RSC PST 3 - Research Poster Session 3

Nursing Students' Attitudes Toward Complementary and Alternative Therapies for Stress Relief

Elizabeth V. Kinchen, PhD, RN, AHN-BC, USA

Victoria W. Loerzel, PhD, RN, OCN, USA

Abstract

Student nurses' experience of stress while enrolled in educational programs is well-documented in the global literature (Cleary, Horsfall, Baines & Happell, 2012; Fornes-Vive, Garcia-Banda, Frias-Navarro & Rosales-Viladrich, 2016; Galbraith, Brown & Clifton, 2014; Graham, Lindo, Bryan & Weaver, 2016; Suresh, Matthews & Coyne, 2012); however, strategies to alleviate, manage, and cope with education-related stressors have not been fully explored.

Stressors to which nursing students are particularly vulnerable can have significant effects on ability to navigate educational and clinical environments, often contributing to 'burnout', dissatisfaction, and attrition in the profession (Asuero, Queralto, Pujol-Ribera, Berenguera, Rodriguez-Blanco & Epstein, 2014). In addition, the demands of didactic and clinical education leave little time for faculty to directly teach students self-care strategies.

Interventional strategies used by students to alleviate educational stress may take the form of pharmaceutical, psychological, or behavioral therapies. Yet there is a growing body of knowledge regarding the use of complementary and alternative modalities (CAM) for stress-related challenges in nursing programs (Escuriex & Labbe, 2011; Galbraith & Brown, 2011). Mindfulness programs, particularly meditation and yoga, are garnering interest as alternatives to established interventions, especially pharmaceutical preparations, which are costly and potentially problematic in clinical and educational environments.

Purpose: This study reports secondary analysis of qualitative data from a larger study exploring the use of, and attitudes toward, yoga and CAM on stress and quality of life in nursing students.

Methods: A convenience sample (n=80) of undergraduate nursing students in a southeastern U.S. university was invited to complete study surveys via email. Inclusion criteria included being age 18 or older, able to speak and read English, and in nursing classes at the time of study start date. Baseline data were collected using an investigator-developed instrument to explore participants' experience with, and attitudes toward, yoga and complementary practices as stress-relieving therapies. Demographic data obtained from participants included age, gender, and race/ethnicity. Content analysis was used to analyze data.

Results: Data reveal that nursing students are open to the use of complementary therapies, that they employ a variety of such therapies to relieve, manage and cope with stress, and that they perceive CAM to have a positive impact on personal health. Themes identified in the data regarding CAM impact include self-empowerment, relaxation and restoration, mind/body/spirit/emotion, and alternative/complement to traditional medicine.

Conclusion: Student nurses experience a variety of stressors in nursing programs, and use a variety of strategies to relieve, manage and cope with stress. Data support the importance of CAM in dealing with educational stressors, and highlight the need for further research on individual CAM therapies in student nurse populations.

References

Asuero, A. M., Queralto, J. M., Pujol-Ribera, E., Berenguera, A., Rodriguez-Blanco, T. & Epstein, R. M. (2014). Effectiveness of a mindfulness education program in primary health care professionals: A pragmatic controlled trial. *Journal of Continuing Education in Health Professions*, 34(1), 4-12.

Cleary, M., Horsfall, J., Baines, J. & Happell, B. (2012). Mental health behaviors among undergraduate nursing students: Issues for consideration. *Nurse Education Today*, 32(8), 951-955.

Escuriex, B. & Labbe, E. (2011). Health care providers' mindfulness and treatment outcomes: A critical review of the research literature. *Mindfulness*, 2(4), 242-253.

Fornes-Vives, J., Garcia-Banda, G., Frias-Navarro, D. & Rosales-Viladrich, G. (2016). Coping, stress, and personality in Spanish nursing students: A longitudinal study. *Nurse Education Today*, 36, 318-323.

Galbraith, N. D., Brown, K. E. & Clifton, E. (2014). A survey of student nurses' attitudes toward help seeking for stress. *Nursing Forum*, 49(3), 171-181.

Galbraith, N. D. & Brown, K. E. (2011). Assessing intervention effectiveness for reducing stress in nursing students: Quantitative systematic review. *Journal of Advanced Nursing*, 67(4), 709-721.

Graham, M. M., Lindo, J., Bryan, V. D. & Weaver, S. (2016). Factors associated with stress among second year student nurses during clinical training in Jamaica. *Journal of Professional Nursing*, 32(5), 383-391.

Suresh, P., Matthews, A. & Coyne, I. (2012). Stress and stressors in the clinical environment: A comparative study of fourth-year student nurses and newly qualified general nurses in Ireland. *Journal of Clinical Nursing*, 22, 770-779.

Contact

elizabeth.kinchen@ucf.edu

RSC PST 3 - Research Poster Session 3

The Effect of Safe-Movement and Walking Program on Reducing the Fear of Falling in Elderly

Gulcan Kar, PhD, RN, Turkey
Saime Erol, PhD, Turkey

Abstract

Purpose: The aim of this study is to determine the effects of “Safe Movement and Walking Program” on reducing the fear of falling in elderly individuals living in a nursing home.

Methods: The study was carried out in a nursing home in İstanbul between November 2012 and April 2013 in a quasi-experimental research design with the pretest and posttest groups. The population of the study consists of 73 individuals who were volunteers for the research, aged 65 and above, having mental scores higher than 24 and were able to move themselves or with the help of walking aids. Those participants were randomly assigned to experimental (n=37) and control (n=36) groups. Elderly Information Form, Tinetti Falls Efficacy Scale (FES), Elderly Falls Behavioral (FaB) Scale and Tinetti Balance and Gait Assessment Form (BGAF) were used as a data collection instrument. Data was collected by the researchers and volunteer participants were educated using the methods of face to face interview and observation before and just after the application of the program and 3 months later. The content of “Safe Movement and Walking Program” was prepared in order to reduce the individuals’ fear of falling and make them able to take their own precautions within the literature studies. The topics such as “Falling”, “the Fear of Falling”, “Safe Movement”, “Physical Activities and Walking” were provided to the participants in groups of 8-10 in a six-week schedule. Verbal lecture, barcoveision, catechism, sample case, observation, interview and demonstration methods were used in the education program and an educative booklet was also provided for each participant after the program. Student 1 and Mann-Whitney U test were used in the evaluation of the obtained data. The analysis of variance was used in repeated measures and Bonferroni test was used within group comparisons.

Results: The “Fear of Falling” scores showed no difference between the experimental and control groups in either pretest or posttest, as well as the follow-up observations. Scale scores remained the same in the control group ($p>0.05$) whereas it increased in the experimental group which is statistically significant. The average scores of Tinetti Falls Efficacy Scale showed no difference between the experimental and control groups in all of the three measurements ($p>0.05$). A statistically significant difference in experimental group in the pretest, posttest as well as the follow-up observations ($p<0.05$). The total score of Elderly Falls Behavioral (FaB) Scale and the sub scale scores of Cognitive Accommodation, Activity, Avoidance, Awareness, Practicability, Level Change, Catching up Phone Calls and Carefulness were measured higher ($p<0.05$) than the scores of the control group for the mentioned topics above. The levels of the sub scale scores of the elderly individuals about taking a walk tirelessly for 30 minutes and starting regular walking in last 6 months were measured higher ($p>0.05$) than the scores of the control group.

Conclusion: The program showed no efficacy in reducing the fear of falling whereas it is found helpful in the affairs such as taking a walk for 30 minutes each day, avoidance of falling, foreseeing the dangers in falling and planning. In order to reduce the fear of falling, it can be proposed that thorough interviews can be carried out, awareness raising applications can be done and coping strategies about fear can be taught to the elderly.

References

1. Oh-Park M, Xue X, Holtzer R, Verghese J. (2011): Trancient Versus Persistent Fear of Falling in Community-Dwelling Older Person: Incidence and Risk Faktors. *Journal of American Geriatrics Society*, 59: 1225-1231
2. Julius LM, Brach JS, Wert DM, Van Swearingen JM. (2012): Perceived Effort of Walking: Relationship With Gait, Physical Function and Activity, Fear of Falling, and Confidence in Walking in Older Adults With Mobility Limitations. *Physical Therapy*, 92 (10): 1268-1278.

Contact

sameerol@hotmail.com

RSC PST 3 - Research Poster Session 3

The Association of Health Literacy, Understanding of Health Information, and Food Choice in Female Caregivers

Sukhee Ahn, PhD, RN, WHNP, Korea, Republic of (South)

Jiwon Oh, MSN, RN, Korea, Republic of (South)

Jisoon Kim, MSN, RN, Korea, Republic of (South)

Seyeon Park, MSN, RN, Korea, Republic of (South)

Hyeji Yoo, BSN, RN, Korea, Republic of (South)

Abstract

Purpose: Female caregivers play an important role to take care of their family health and food choice when one of family members is sick. Caregivers with inadequate health literacy skills have been shown to have poorer understanding of anticipatory guidance such as healthy food choice. Little is known about the relationships among health literacy, understanding of health information, and food choice in female caregivers at hospitals. This study was to explore the relationships among health literacy, understanding of health information, and food choice in female caregivers of adult patients in Korea.

Methods: Using a cross-sectional survey design, 217 female caregivers were recruited from 5 hospitals via convenience sampling. Health literacy was measured by 6 items of Newest Vital Sign (NVS). Understanding health information was measured by 8 items of Mandarin health literacy scale (Lee S-YD, Tsai T-I, Tsai Y-W, 2013) from National Health Research Institutes. Food choice was measured by 12 items based on USDA Diet and health knowledge survey.

Results: Mean age of female caregivers were 44.52 years old (SD=12.25) and 46% graduated college and above, and most of them (68%) were wife. Level of health literacy was 3.62(SD=2.09) ranged from 0 to 6 indicating inadequate level. Correction rates for NVS items to measure health literacy was wide ranged from 26% to 80%. Level of understanding health information was about 3 point out of 5 indicating greater need for further explanation. They believed to have strong relationships between illness and food nutrients such as calories, trans-fat, cholesterol, and sodium. However, only 31% of women read food label. Women's better health literacy and greater perceived benefit of healthy diet pattern were associated with better food choice.

Conclusion: Female caregivers reported inadequate health literacy but they believed illness and food nutrients were highly related. Health literacy and healthy food choice were related. Health education and counseling for female caregivers may help promoting women and their family health.

References

1. Ciampa PJ, White RO, Perrin EM, Yin HS, Sanders LM, Gayle EA, Rothman RL. (2013). The association of acculturation and health literacy, numeracy and health-related skills in Spanish-speaking caregivers of young children. *J Immigr Minor Health*. 15(3):492-8.
2. Jang HB, Park JY, Lee HJ, Kang JH, Park KH, Song J. (2011). Association between parental socioeconomic level, overweight, and eating habits with diet quality in Korean sixth grade school children. *Korean J Nutr*. 44(5): 416-427.
3. Lee S-YD, Tsai T-I, Tsai Y-W. (2013). Accuracy in self-reported health literacy screening: a difference between men and women in Taiwan. *BMJ Open*. 20;3(11):e002928.

Contact

sukheeahn@cnu.ac.kr

RSC PST 3 - Research Poster Session 3

Fact-Finding Survey of Defecation Behavior in Young Japanese Adults

Megumi Katayama, PhD, RN/PHN, Japan

Yoko Aso, PhD, RN/PHN, Japan

Aki Ibe, PhD, RN/PHN, Japan

Osamu Katayama, PhD, Japan

Hiroko Matsuzawa, MSN, RN, Japan

Abstract

Purpose: Defecation is an act that is essential to maintaining biological activity and is a basic physiological need in humans. Spending one's daily life without discomfort or hindrance to defecation is also associated with quality of life. Several past surveys of defecation have focused on constipation and fecal incontinence, and many surveys have focused on the presence or absence and causes of constipation. However, the postures that individuals adopt when independently performing defecation behavior, and behaviors that have been devised to facilitate defecation remain unclear. The purpose of this survey was to clarify the state of defecation behavior and coping behavior for constipation in young adults

Methods: Survey subjects - A total of 300 healthy university students at a nursing faculty.

Survey period - December 2015

Survey method - We created a proprietary self-administered questionnaire in which subjects could fill out information on their experience of constipation, posture during defecation, behavior during defecation and other facts. The questionnaires were distributed to subjects at once and recovered using a collection box in which subjects voluntarily submitted their questionnaires. To avoid coercion of subjects during distribution and recovery of the questionnaires, an investigator with no connection to the allocation process of students' academic credits was assigned to distribution and recovery.

Survey details - Survey items included age, sex, pattern of defecation frequency, the Constipation Assessment Scale (CAS), use of constipation prophylaxis, methods of coping with constipation, use of laxatives, style of toilet, ease of defecation based on the style of toilet, time required for one defecation, fatigue after one defecation, defecation posture, and means of facilitating defecation.

Analysis method - 1) Percentages were tallied up for age, sex, use of constipation prophylaxis, use of laxatives, defecation style, and ease of defecation based on defecation style. 2) Subjects were divided into two groups based on the pattern of defecation frequency: a constipation group who "did not defecate for 3 days or more" and a normal group comprising all other subjects. Subjects were also divided into two groups based on the CAS: a constipation group who scored at least 5 points and a normal group who scored less than 5 points. The CAS incorporates a subjective sense of constipation, which was considered in line with the purpose of this survey. To evaluate fatigue after defecation, subjects were asked to indicate on a visual analog scale (VAS) how fatigued they felt. A VAS score of 0 denoted "Almost no change," a score of 50 denoted "Mild sense of muscle fatigue," and a score of 100 denoted "Either general muscle fatigue, malaise, shortness of breath or other sensation." Those who scored below 50 were allocated to a "low fatigue group" while those who scored over 50 were allocated to a "strong fatigue group." For defecation posture, subjects were divided into three groups: an "upright 90° posture group," "forward leaning group" and "belly-to-thighs group." For defecation time, subjects were divided into 5 groups: a "1-2 minutes group," "3-5 minute group," "6-9 minute group," "10-15 minute group" and "15 minutes or more group." These groups were used to test for statistical differences by using chi-square tests. As "means of facilitating defecation" and "methods of coping with constipation" were open-ended questions, their content was categorized to examine trends.

A *p* value of less than 0.05 was considered to indicate a significant difference in statistical processing, which was done using the statistical software SPSS Ver. 23.

Results: Of the 300 questionnaires that were distributed, 258 were recovered (recovery rate: 86%). The subjects were 30 men and 227 women: the ratio of men and women was 12% and 88%, respectively. The mean age of subjects was 20.5 ± 1.42 years.

The defecation frequency was daily in 51%, every 2 days in 24%, every 3 days in 19% and every 3 days or more in 6% of subjects. CAS scores were 5 points or below in 75% and 6 points or more in 25%. Constipation prophylaxis was used by 47% and not used by 53%. Coping methods were used during constipation by 51% and not used by 49%. Laxatives were used by 10% and not used by 90%. Among those who answered that they used coping methods, 85% described specific methods. Of these methods, laxatives were used by 10%. The style of toilet used was a Japanese-style toilet in 1% and a Western-style toilet in 99%. In response to "ease of defecation based on the style of toilet," 14% responded with a Japanese-style toilet and 86% responded with a Western-style toilet. Defecation time was "1–2 minutes" in 31%, "3–5 minutes" in 40%, "6–9 minutes" in 15%, "10–15 minutes" in 11%, and "15 minutes or more" in 3%. The fatigue score was 50 or below in 86% and over 50 in 14%. The defecation posture adopted was "90°" in 19%, "forward leaning" in 76% and "belly-to-thighs" in 5%.

Significant statistical differences were seen between CAS score and coping methods during constipation ($p < 0.01$), CAS score and use of medication ($p < 0.01$), CAS score and defecation time ($p < 0.05$), CAS score and defecation posture ($p < 0.01$), fatigue and defecation time ($p < 0.01$), and defecation posture and fatigue ($p < 0.05$).

Means of preventing constipation were often described as associated with diet, such as "eating vegetables," "eating yogurt" and "consuming plenty of fluids." Subjects also described conscious defecation behavior, such as "immediately going to the toilet upon feeling the urge to defecate" and physical maintenance including "jogging" and "getting a massage." Methods of coping with constipation were mostly the same, but included methods such as "taking laxatives" and "applying heat."

Means of facilitating defecation during constipation included moving the body such as "crossing legs," "raising heels," "pressing on the tailbone," "twisting the stomach" and "making a fist," but also included physical methods, such as "holding onto handrails," "placing feet on a low platform," "stimulating the anus with a washing machine," and "pushing against the wall with the feet."

Conclusion: CAS scores of at least 5 points in 25% of subjects revealed that a quarter of the students surveyed felt that they were constipated. We also found that many students employed some kind of coping method when they felt constipated. Some subjects relieved constipation by taking oral laxatives, which were used by 10% of all subjects. Those with higher CAS scores tended to be more likely to use laxatives. While laxatives were used as a coping method by 10% of subjects, the remaining 90% used other methods. This revealed that the majority of subjects coped with constipation by means other than medication. The fact that the subjects of this survey were young adult students studying nursing who had knowledge of medications and strong awareness of health may have influenced the results.

As for defecation postures, the majority of subjects adopted a forward leaning posture, which is consistent with a posture considered to morphologically facilitate defecation. This fact-finding survey investigated the postures that people naturally adopt to facilitate defecation and revealed that people adopt a logical posture.

In this survey of healthy adults, 86% of subjects experienced "mild fatigue from defecation," indicating that many subjects felt fatigued after defecating. However, results may differ in elderly people with diminished muscle strength required for defecation and in patients undergoing treatment for heart disease or cerebrovascular disease that restrict actions such as straining during defecation. We intend to continue investigating defecation behavior in such subjects.

References

1)Dov. S (2003) Comparison of Straining During Defecation in Three positions, *Digestive Diseases and Sciences*, vol48, No7, 1201-1205

2)Sakakibara, R (2010) Influence of Body Position on Defecation in Humans, LUTUS,2.16-21

Contact

katamegu@gmail.com

RSC PST 3 - Research Poster Session 3

Uncovering Issues Most Important to Parents After Their Child's Suicide Attempt: A Comparison Study

Kari Lynne Hickey, PhD, RN, USA

Jeanette Rossetti, EdD, RN, USA

Jan Strom, PhD, MPH, RN, USA

Kendal Klein, BSN, RN, USA

Abstract

Purpose: The purpose of this presentation is to compare two studies that surveyed adolescent mental health experts practicing in a suburban and rural setting on their perspectives as to what matters most to parents after their child has made a non-lethal suicide attempt.

Methods: A Delphi technique was utilized with an interdisciplinary panel of adolescent mental health experts in a suburban and a rural mental health setting. Inclusion criteria for the expert panel were over the age of 18 and clinically worked with adolescents who have made a non-lethal suicide attempt and their families. First round questions asked the panelists to provide their opinions as to what matters most for parents whose child has made a non-lethal suicide attempt, what are the needs of parents whose child has made a non-lethal suicide attempt, and what are the current treatment interventions for parents whose child has made a non-lethal suicide attempt.

Using the constant comparative method, two researchers analyzed the data for emerging themes. The themes from each questions were then returned to the participants in a second survey. They were asked to rank the importance of each theme on a 5 point Likert scale (1, very important; 2, quite important; 3- neither important or unimportant; 4- quite unimportant; 5- very unimportant).

Results: 31 total participants from a suburban setting and 18 from the rural setting completed both rounds of the surveys. Professional titles of participants included registered nurse, clinical therapist, social worker, behavioral health associate, and advanced practice nurse.

Both groups indicated that keeping their child safe, understanding what caused the attempt, and how to access support was very important for parents after a non-lethal suicide attempt. Both groups also thought the most important need for parents is education on how to prevent another attempt. In regards to treatment interventions, both groups noted therapy (individual and family) and support groups; however, the rural providers emphasized the Screening, Assessment, and Support Services (SASS). From comparing these two groups of adolescent mental health providers, it was clear that rural providers highlighted the use of SASS as part of the treatment team. Rural providers also consistently cited the need for accessible resources and support. The provider mix of both groups included substantially fewer registered nurses in the rural group.

Conclusion: It is clear from the opinions of the adolescent mental health practitioners that safety of their child is a priority concern of parents after their child has made a non-lethal suicide attempt. This finding may indicate that professionals working with these parents must address the safety concerns before continuing with other therapeutic interventions. Data from both the studies will inform a qualitative research study utilizing focus groups with parents of adolescents who have made a non-lethal suicide attempt to uncover what issues are most important to them.

References

Centers for Disease Control and Prevention. (2015, March 25th). The social-ecological model: A framework for Prevention. Retrieved from: <http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html>

Centers for Disease Control and Prevention Injury Prevention and Control: Division of Violence Prevention. (2015).

Suicide prevention: Youth suicide. Retrieved from: http://www.cdc.gov/violenceprevention/suicide/youth_suicide.html

Hickey, K., Rossetti, & J., Strom, J. (2016). Issues Most Important to Rural Parents After Their Child's Suicide Attempt: A Delphi Study of Expert Practitioners of Adolescent Mental Health. Unpublished raw data.

Hickey, K., Rossetti, J., Strom, J., & Bryant, K. (2015). Issues most important to parents after their children's suicide attempt: A pilot Delphi study. *Journal of Child and Adolescent Psychiatric Nursing, 28*, 157-164.

Hickey, K., Rossetti, J., Strom, J., Brubacher, S., & Bryant, K. (2014). Issues most important to Parents after their child's suicide attempt: A Pilot study. Poster, American Psychiatric Nurses Association 28th Annual Conference, Indianapolis, IN.

Contact

khickey1@niu.edu

RSC PST 3 - Research Poster Session 3

An Emergency Department Nurse-Led Educational Intervention of Bystander Hands-Only Cardiopulmonary Resuscitation in the Homeless Community

Caroline Warren, BSN, RN, CHES, USA

Diana Lyn Baptiste, DNP, MSN, RN, USA

Abstract

Purpose: An estimated 360,000 out-of-hospital cardiac arrests (OCHAs) occur each year in the United States. Individuals living in low socioeconomic neighborhoods and members of the homeless population are at a higher risk for death due to cardiovascular complications. Homeless individuals experience cardiovascular deaths at a higher rate due to inequities related to a lack of access to preventative and routine health care. According to the U.S Department of Housing and Urban Development, there are 7,856 individuals who are without homes in Maryland. Of the individuals experiencing homelessness in Maryland, 22% are considered habitually homeless and demonstrate a high burden of disease including chronic health problems, substance abuse, and mental illness. Cardiovascular disease and related complications are the leading cause of death in the state of Maryland, stimulating concern for the how healthcare professionals manage this problem among the homeless who are disproportionately affected.

The aim of this community-based health education project was to evaluate the feasibility of the implementation of an emergency nurse-led bystander cardiopulmonary resuscitation (CPR) education program for homeless adults in Baltimore. The goal of our education program was to address individual and community health needs by providing instruction of best practice with hands-only CPR to homeless individuals in a transitional setting. We conducted a pilot evaluation of the implementation of hands-only bystander CPR education sessions in the East Baltimore Homeless Community aimed at developing strategies for future sustainable emergency nurse-led programming.

Methods: We conducted a pilot evaluation of the implementation of hands-only bystander CPR education sessions in a homeless shelter aimed at developing strategies for future sustainable emergency nurse-led programming. The setting for this study was a low barrier emergency shelter located in Baltimore, Maryland that offers services to more than 275 adults. This shelter is managed by Catholic Charities of Baltimore and sponsored by the city of Baltimore. Residents of the shelter are encouraged to attend classes like this bystander CPR education session by the on-site counseling staff and are incentivized for their attendance through the shelter's self-sufficiency development programming. The class size was limited to 10 participants so they each could have their own CPR manikin. Our Institutional Review Board deemed this study as non-human subject research and exempt from review.

Instruction was provided by volunteer registered nurses who practice in the adult emergency department in a Level One urban academic medical center that sees 70,000 patients annually. Instructional methods were based on the program American Heart Association's (AHA) Hands-Only CPR curriculum. Hands-only CPR is to be implemented when a teen or adult collapses in an everyday setting and then a trained bystander can initiate the two basic steps which includes starting compression-only CPR (i.e. no mouth-to-mouth breaths are administered). The education program delivered to participants was based on teaching two basic steps to responding to a cardiac arrest, 1) call 911, and 2) "push hard and fast at the center of the chest." Nurses first demonstrated hands-only methods on manikins and provided real-life scenarios in which OCHAs can occur. A focus of this program was to gain the participant's trust of emergency services with the instruction given by emergency nurses who could advocate to create a culture of health and promote a change to increase community safety.

Results: A total of 52 people were trained over seven sessions with the emergency nurse volunteer instructors. Each session lasted for 30 minutes, with a total of 10 volunteer impact hours. Our highest attendance was during the code blue alert months October through March. A total of 32 participants attended during code blue months while 20 attended during non-code blue months. A 64% difference in attendance was apparent. Attendance was lower during the warmer months, when residents were typically less likely to participate in community-based education programs at the shelter.

Conclusion: The AHA Hands-Only CPR curriculum is simple to teach and designed for populations with varying levels of health literacy. The straightforwardness of the hands-only course allows for the educators to specifically target people who live in low-income neighborhoods and communities with an increased risk to die from cardiac arrest. Attendance to this program in-house at the shelter was voluntary, but there was some internal motivation for attendance. We discovered that while many residents were interested in attending the session, the timing often created a scheduling conflict with their other required programs. Through this experience, we learned that it is important to consider the time of the day so that residents can attend other required programs and obligations to shelter rules. Further investigation is necessary to explore learning outcomes, knowledge and attitudes among the participants receiving the hands-only bystander CPR education.

References

American Heart Association (2016) Hands-Only CPR Program. Retrieved on August 9, 2016 from: http://cpr.heart.org/AHA/ECC/CPRAandECC/Programs/Hands-OnlyCPRProgram/UCM_476671_CPR-In-Schools-Program.jsp

Go, A. S., Mozaffarian, D., Roger, V. L., Benjamin, E. J., Berry, J. D., Blaha, M. J., Fullerton, H. J., & et al (2014). Executive summary. *Circulation*, 129(3), 399-410.

Moon, S., Bobrow, B. J., Vadeboncoeur, T. F., Kortuem, W., Kisakye, M., Sasson, C., ... & Spaite, D. W. (2014). Disparities in bystander CPR provision and survival from out-of-hospital cardiac arrest according to neighborhood ethnicity. *The American journal of emergency medicine*, 32(9), 1041-1045.

Contact

cwarre15@jhu.edu

RSC PST 3 - Research Poster Session 3

Helping Relationships Intervention Enhances Health-Promoting Lifestyle and Quality of Life

Miaofen Yen, PhD, RN, FAAN, Taiwan
Shu-Mei Chao, MSN, MS, RN, Taiwan

Abstract

Purpose: This study examined the effects of a targeted helping relationships strategies improved quality of life, health-promoting lifestyle behaviors, renal protection knowledge, and physical indicators of patients with early CKD. Helping relationships from significant others, including understanding, caring and coach to assist people to act and maintain health promotion, which is a positive behavior to prevent disease or solve health problems for increasing health and approach to wellness. The trans-theoretical model (TTM) has become increasingly influential as a framework for understanding health-related behavior and directing efforts in health promotion. Whether helping relationships from significant others of TTM are effectively associated with the processes of healthy lifestyle modification among patients with CKD is still unknown, and this study addresses this gap in the literature.

Methods: A repeated-measures design randomized 120 CKD patients from two southern Taiwan outpatient nephrology clinics into control and intervention groups. Data were collected four times over a year from July 2015 to September 2016. The generalized estimating equation (GEE) model was used to determine whether outcome variables (physical indicators, renal protection knowledge, healthy promoting lifestyle, and quality of life) were different across time in patients in the experimental and control groups. Measurements at baseline and at 3, 6, 9, and 12 months included World Health Organization Quality of Life Questionnaire, the Health Promoting Lifestyle Profile—II Chinese version (HPLP-II) questionnaire, the Renal Protection Knowledge (RPK) Checklist, and physical indicators.

Results: The attrition rates were similar between the two groups. Reasons for failure to follow up included refusal to participate, missing the clinic appointment, lack of time, and death. The participant retention rate was 87.5%. The majority of the subjects were male 72 (72.4%), married 86 (81.9%), 52 participants in experiment group, and 53 participants in control group. The mean age was 62.99 ($SD = 13.06$) years old with more than half reporting a junior high school education. Over half were employed 59 (56.2%). From stage 1 to stage 4 of CKD were 4 (2.9%), 8 (5.8%), 62 (44.6%), and 31(25.3%) participants, respectively. At baseline, CKD patients in both groups showed no significant difference in physical indicators, such as body mass index, waist circumference, hip circumference, waist-hip ratio, systolic blood pressure, diastolic blood pressure, BUN, creatinine, HbA1C and Modification of Diet in Renal Disease(MDRD), except comorbidity index. The baseline values different were adjusted as a covariance-comorbidity index and helping relationships from significant others for these variables in the GEE model. The results of hip circumference ($p = .027$) indicated the experimental had significant changes comparing control groups. The results of body mass index ($p = .000$), systolic blood pressure ($p = .002$), diastolic blood pressure ($p = .000$) revealed significant changes between the two groups over 12 months. The intervention group demonstrated significant improvement with regard to improve trend of renal function protection knowledge ($p = .000$), renal function protection ($p = .000$), diet with CKD ($p = .000$), use of Chinese herbs ($p = .000$), overall health-promoting lifestyle ($p = .003$), health responsibility ($p = .001$), physical activity ($p = .000$), and overall quality of life ($p = .000$), physical domain ($p = .000$), psychological domain ($p = .000$), social domain ($p = .000$) as well environmental domain ($p = .000$) indicated the experimental had significant changes comparing control groups over 12 months. The interventions of helping relationships from significant others among patients with CKD promotes improve health status, adherence health behaviors and increase quality of life.

Conclusion: The interventions of helping relationships for patients with CKD increased renal protection knowledge, act and maintained health-promoting lifestyle as well improved health status and quality of life. Individualized plan about health-promoting lifestyle according to assessment of helping relationships from significant others should include partners, families, peers and medical staff to assist and accompany with people for learning, performing and maintaining disease-related knowledge as well health promoting

lifestyles. Educate nurse students or medical staff to assess and implement strategies of helping relationships from significant others for improving individual's health-promoting lifestyle and quality of life.

References

- Andersen, J. S., & Owen, D. C. (2014). Helping relationships for smoking cessation: grounded theory development of the process of finding help to quit. *Nursing Research*, 63(4), 252-259. doi: 10.1097/NNR.0000000000000040
- Loef, M., & Walach, H. (2012). The combined effects of healthy lifestyle behaviors on all cause mortality: a systematic review and meta-analysis. *Preventive Medicine*, 55(3), 163-170. doi: 10.1016/j.ypmed.2012.06.017
- Ma, L. C., Chang, H. J., Liu, Y. M., Hsieh, H. L., Lo, L., Lin, M. Y., & Lu, K. C. (2013). The Relationship between Health-Promoting Behaviors and Resilience in Patients with Chronic Kidney Disease. *Scientific World Journal*, 2013, 1-7. doi:10.1155/2013/124973

Contact

miaofen@mail.ncku.edu.tw

RSC PST 3 - Research Poster Session 3

Physical Activity Habits and Its Relationship to the Weight of Children

Ana Luisa Rivera Villanueva, Mexico
Sandra Patricia Gutierrez Castro, Mexico
Antonia Linares Valdez, Mexico
Karla Mestizo Hernandez, Mexico
Corina M. Alba-Alba, PhD, RN, Mexico

Abstract

Purpose: The objective of this study was to identify the state of art in reference to the relationship between Physical Activity Habits and Weight.

Methods: A systematic research in the databases: EBSCO, SCIELO, MEDLINE, GOOGLE SCHOLAR, DIALNET was made with the next keywords: Physical Activity Habits, Children, Body Mass Index, and the boolean operators "and" & "not [Adolescents]". A total of 5214 articles published in the last 5 years was retrieved; then 450 relevant titles were chosen, the irrelevant abstracts were rejected and finally 150 articles in English and Spanish were chosen were considered relevant to the knowledge of the subject.

Results: The 150 articles selected were from; Mexico, Brazil, Chile, Colombia, Peru, Venezuela, United States of America, London, Australia, Lithuania, Portugal, Canada, Marruecos, France, United Kingdom, Argentina, Cuba, Spain and Germany.

A correlation between Physical activity habits and Body Mass Index in children were identified. It was observed that there are still limitations in research, which address different approaches in the variables and in their measurements, so the construction of more diverse knowledge is not so deep. It is visible that has not yet been able to implement or execute a comprehensive solution for promoting Physical Activity Habits in Children. And therefore becomes important to develop research to provide relevant information and incorporate new knowledge for nursing and other professions contributing to the solution.

Conclusion: Physical activity is related to the child's BMI, however more research is needed to deepen and corroborate the results. A correlation between Physical activity habits and Body Mass Index in children were identified. It was observed that there are still limitations in research, which address different approaches in the variables and in their measurements, so the construction of more diverse knowledge is not so deep. It is visible that has not yet been able to implement or execute a comprehensive solution for promoting Physical Activity Habits in Children. And therefore becomes important to develop research to provide relevant information and incorporate new knowledge for nursing and other professions contributing to the solution.

References

Gálvez Casas, A., Rodríguez García, P. L., Guillamón, A. R., García-Cantó, E., Pérez Soto, J. J., Tárraga Marcos, M. L., & Tárraga López, P. J. (2015). Nivel de condición física y su relación con el estatus de peso corporal en escolares. *Nutricion Hospitalaria*, 31(1), 393-400. doi:10.3305/nh.2015.31.1.8074 ?

Horsch, A., Wobmann, M., Kriemler, S., Munsch, S., Borloz, S., Balz, A., & ... Puder, J. J. (2015). Impact of physical activity on energy balance, food intake and choice in normal weight and obese children in the setting of acute social stress: a randomized controlled trial. *BMC Pediatrics*, 1512. doi:10.1186/s12887-015-0326-7.

Nalika, G., Kayo, K., Susantha, I., Daisuke, N., Tetsuya, M., & Diyanath, S. (2016). School-based intervention to enable school children to act as change agents on weight, physical activity and diet of their mothers: a cluster randomized controlled trial. *International Journal Of Behavioral Nutrition & Physical Activity*, 131-10. doi:10.1186/s12966-016-0369-7

Contact

ana.riverava@udlap.mx

RSC PST 3 - Research Poster Session 3

Public Health, the Environment, and Nursing Practice: Health Promotion in a Toxic World

Hacah U. Boros, MSN, RN, USA

Abstract

Purpose: Nurses are at the forefront of community and preventative health as educators and practitioners. It is imperative that they provide comprehensive, quality care as it relates to environmental health issues; acknowledging advances in research that are exposing the correlation between chemicals and our body burden. The incidence of many serious diseases and disorders are on the rise and understanding the link to environmental exposures is critical. There is growing consensus among the scientific and medical community that exposure to toxic chemicals in our every day environment including those found in building products, plastics, personal care products and household cleaners, are linked to the rise of many of these diseases. The President's Cancer Panel Report (2010) noted the link between chemicals and cancer has actually been significantly underestimated, as over 80,000 chemicals in commerce have been largely unregulated and untested. The Panel wrote: "the American people—even before they are born—are bombarded continually with myriad combinations of these dangerous exposures...that needlessly increase health care costs, cripple our Nation's productivity, and devastate American lives." [1] Through review of research there is a knowledge gap within nursing as it relates to this body of knowledge; which impacts nursing care and population health.

Methods: Surveys are being created for distribution to nursing schools and hospitals, within the state of Connecticut (USA), that will assess for the need for inclusion of curriculum, annual education and continuing education offerings to assess for environmental health issues, and the nurse's role in assessment and care. An educational webinar is also being offered to provide information on environmental health issues and related nursing interventions, with a pre/post test to assess for competency.

Results: This project is in process, however based on current research it is apparent that there remains a needs gap. The gap shows enhanced education requirements to create competency and nursing leadership in public health.

Conclusion: Environmental factors often disproportionately affect vulnerable and underserved populations. Exposure to toxic, environmental chemicals during critical windows of development (even prenatally) are linked to adverse health outcomes that span a lifetime and also impact fertility and pregnancy. In addition to the health impacts of chemical exposure, the economic impacts are staggering. The NIH projects that cancer costs will reach at least \$158 billion by 2020. [2] Nurses are well suited to be leaders in protecting the public through environmental health education, evaluation, and research to incorporate this expanded view of environmental health. Therefore it is imperative that this knowledge be interwoven into nursing curriculum and offered as continuing education in all practice areas within nursing to improve competency.

References

- [1] Reuben, S.H. (2010) The President's Cancer Panel, *Reducing Environmental Cancer Risk*, 2008-2009 Annual Report, U.S. Dept. of Health and Human Services, National Institutes of Health, National Cancer Institute. p. 1.
[2] National Institute of Health. (2011) *Cancer costs projected to reach at least \$158 billion in 2020*.
<http://www.nih.gov/news-events/news-releases/cancer-costs-projected-reach-least-158-billion-2020>

Contact

hacahrn@yahoo.com

RSC PST 3 - Research Poster Session 3

Talkin' Bout My Generation: Divergence of Academic Atmosphere Evaluations in Nursing Student and Faculty Cohorts

Kate Rocklein Kemplin, DNP, MSN, BNSc, RN, CCEMTP, USA

Emery Lee Dunn, USA

Emily Faith Benoit, USA

Caitlin Bosarge, USA

Laura Barry Williams, USA

Michael Semore, BS, USA

Abstract

Purpose: The purpose of this study was to ameliorate a large gap in the body of knowledge by quantifying perceived intergenerational differences between nursing students and faculty in comparative analysis of their measured perceptions of the academic nursing environment and related subscale constructs. The current global nursing shortage is due in large part to the lack of faculty available to teach nursing students (Flinkman, Isopahkala-Bouret, & Salanterä, 2013; Twigg & McCullough, 2014). Within schools of nursing (SON), the issue is further complicated by disparate expectations and perceptions between nursing faculty and students – often of extensively dissimilar generations. In this innovative study, we built on previous research (Rocklein, 2014; Payne, 2013; Payne & Glaspie, 2014) by capturing and quantifying - for the first known time - perceived faculty-student disconnects of the academic atmosphere within a large American doctoral-degree-granting school of nursing (SON). Despite exhaustive reviews of extant literature, we did not find evidence germane to divisions specifically between nursing faculty and students.

Methods: After obtaining institutional review board (IRB) approval, the Dundee Ready Educational Environment Measure (DREEM) - a psychometrically superb instrument (de Oliveira Filho, Vieira, & Schonhorst, 2005; Miles, Swift, & Leinster, 2012; O'Brian, Chan, & Cho, 2008; Rocklein, 2014; Roff, 2005; Zawawi & Elzubeir, 2012) - was administered to nursing faculty and student groups with subscale constructs measuring perceptions of learning, professors, the scholastic self, pedagogical atmosphere, and social elements. The DREEM instrument has been used worldwide in medical and clinical educational research to quantify effects of various compositional constructs of the educational environment such as curriculum, teaching, and student perceptions.

Results: Multivariate analyses found statistically significant differences ($p < .05$; .01; .005; .0005) between student and faculty perceptions and independence of observations within the instrument and all subscale analyses, with strong correlations ($r = .57 - .68$) within many participant responses and generational delineation. Though both groups rated the educational environment favorably, nursing faculty overall had more positive perceptions of the educational environment and their performance than students. Subscale analysis was most fruitful in determining the majority of group differences.

Conclusion: Distal implications from this study are ultimately improvement of nursing faculty knowledge of their effects on students and thereby enhanced communication, expectations, and retention. This rigorous investigation of the nursing educational environment specific to the dichotomy inherent between faculty and students is essential for understanding intergenerational differences and those effects in schools of nursing. By disseminating this study to an international audience, replication within more heterogeneous groups is possible, as is longitudinal investigation. As such, we recommend future research is directed to formally replicate this study with larger, divergent samples within diverse nursing programs to generate additional evidence and initiate changes based on reliable data and precise analyses. Additionally, this study is generalizable to the greater international nursing workforce, as intergenerational differences affect the entire profession.

References

de Oliveira Filho, G.R., Vieira, J. & Schonhorst, L. (2005). Psychometric properties of the Dundee Ready Educational Environment Measure (DREEM) applied to medical residents. *Medical Teacher*, 27(4), 343–347.

Flinkman, M., Isopahkala-Bouret, U., & Salanterä, S. (2013). Young registered nurses' intention to leave the profession and professional turnover in early career: a qualitative case study. *ISRN Nursing, 2013*.

Miles, S., Swift, L., & Leinster, S. J. (2012). The Dundee Ready Education Environment Measure (DREEM): a review of its adoption and use. *Medical teacher, 34*(9), 620-634.

O'Brian, A. P., Chan, T., & Cho, M. (2008). Investigating nursing students' perceptions of the changes in a nursing curriculum by means of the Dundee Ready Education Environment Measure (DREEM) inventory: results of a cluster analysis. *International Journal of Nursing Education Scholarship, 5*(1), 1–18.

Payne, L. K. (2013). Comparison of students' perceptions of educational environment in traditional vs. accelerated second degree BSN programs. *Nurse Education Today, 33*(11), 1388-1392.

Payne, L. K., & Glaspie, T. (2014). Associations between baccalaureate nursing students' perceptions educational environment and HESI scores and GPA. *Nurse Education Today, 34*(6), 64-68.

Rocklein, K. (2014). A Call for Innovation: Reflective Practices and Clinical Curricula of US Army Special Operations Forces Medics. *Journal of Special Operations Medicine, 14*(4), 70-80.

Roff, S. (2005). The Dundee Ready Educational Environment Measure (DREEM): a generic instrument for measuring students' perceptions of undergraduate health professions curricula. *Medical Teacher, 27*(4), 322–325.

Twigg, D., & McCullough, K. (2014). Nurse retention: a review of strategies to create and enhance positive practice environments in clinical settings. *International Journal of Nursing Studies, 51*(1), 85-92.

Zawawi A. H., & Elzubeir, M. (2012). Using DREEM to compare graduating students' perceptions of learning environments at medical schools adopting contrasting educational strategies. *Medical Teacher, 34*, 25–31.

Contact

kate-kemplin@utc.edu

RSC PST 3 - Research Poster Session 3

The Effect of Cinnamon in Blood Glucose Level of Patients With Type II Diabetes Mellitus

Pearl Ed G. Cuevas, PhD, MAN, RN, Philippines
Rohanney Lucman, BSN, RN, Philippines

Abstract

Purpose: The study aims to determine the effects of cinnamon to the blood glucose level of patients with type 2 Diabetes Mellitus. Specifically, the study parameters are on the FBS, BMI, weight and waist circumference profile of the participants compared in terms of their pre-test and post-test results.

Methods: The researcher used a non-equivalent group design under Quasi-experimental research because it allowed control to the target population by means of randomization and it included a pretest and posttest for the experimental and comparison group.

The subjects of the study are from the community people in Mandaluyong City, Philippines who passed the inclusion criteria. The researchers invited both men and women, ages 40-59 years and with the diagnosis of type 2 Diabetes Mellitus.

Results: The experimental group lowered their FBS with the percentage of 73.3% also with the other parameters such as Waist circumference with a percentage of 73%, Weight with the percentage of 86.6% and BMI with the percentage of 86.6%. Most of the control group increased their FBS with the percentage of 66.67% and there were no changes with their other parameters.

Out of 15 respondents who experienced drinking cinnamon tea of 2 grams twice a day for 6 weeks, participants showed improvement in their BMI. There were evidences of weight loss, decrease in FBS result and reduced waist circumference. These results show that cinnamon reduces blood glucose levels among patients with type 2 Diabetes Mellitus in the experimental group.

Conclusion: This study showed that cinnamon affects the blood glucose level of the respondents. There is a decrease in their FBS as well as their weight and BMI.

Studies similar to the present study have shown improved insulin sensitivity and blood glucose control by taking as little as ½ teaspoon of cinnamon per day (Dolson, 2014). Likewise in the study of Polansky (2010), a noteworthy reduction in fasting plasma glucose, BMI and waist circumference were noticed at week 12 compared to baseline in the experimental group, but the changes were not major as compared to the control group. Wong (2015) added that after 40 days of taking cinnamon blood glucose was reduced by 18 to 29 percent.

Although conclusive for this study, the researchers suggest further experimental studies on the use of cinnamon employing a larger sample size and given intervention for a longer period of time.

References

- Burns, N., and Grove, S.eds.1995 – 2013. Burns and Grove's Understanding Nursing Research: Building an Evidence-Based Practice – Philippine Edition by Teresita I. Barcelo, Editor 2013, Singapore: Elsevier Inc.
- Gay, L. R., and Diehl, P. L. 1992. Research for Business and Management. Accessed at: <http://pr.hec.gov.pk/chapters/2143-3.pdf>
- Mercola, J. Cinnamon for Diabetes? A Half Teaspoon A Day Could Help Control Cholesterol, 2010. Accessed at: http://www.huffingtonpost.com/dr-mercola/cinnamon-diabetes-_b_839487.html
- Sidhu, P. Cinnamon for Weight Loss – What Scientific Research Says, 2011. Accessed at: <http://correct-weight-loss.net/cinnamon-for-weight-loss/>

Contact

pearled.cuevas@gmail.com

RSC PST 3 - Research Poster Session 3

Impacting Congenital Abnormalities and Infectious Complications During Pre-Conception Through Pregnancy: The Zika Prevention Program (ZPP)

Pamela Allyn Di Vito-Thomas, PhD, RN, CNE, USA

Abstract

Purpose: On February 1, 2016 the World Health Organization (WHO) declared a public health emergency of international concern related to the number of births with microcephaly and other neurological disorders affected by the Zika virus (Centers for Disease Control and Prevention (CDC), 2016). The infected mosquito (species *Aedes*) transmits the Zika virus as a primary infection; secondary transmission occurs during unprotected vaginal intercourse, unprotected anal intercourse, or fellatio (CDC, 2016). CDC resources indicated that men traveling to or residing in areas with active Zika virus have been found to carry the virus in their semen up to 62 days after symptoms subside. Notably, the virus will continue to spread over time, and it will be difficult to determine the effects of the virus. 80 % of persons affected may have no knowledge of caring the virus or demonstrate signs or symptoms of infection (Oster et al., 2016, Hurlburt, 2016). Also, the Zika virus can be passed from a pregnant woman to her fetus during pregnancy (Martinez 2016). Therefore, the **purpose** of this **evidence-based practice project** is to investigate the Zika Prevention Program (ZPP) compared to current guidelines in decreasing the rate of congenital abnormalities and infectious complications during pre-conception through pregnancy.

Methods: Population: Currently an extreme health issue exists during critical fetal development in an affected mother. **Intervention:** The Zika Prevention Program (ZPP) seeks to educate the public, and set up health policies for public awareness to decrease the number of birth defects. Health education and prevention can significantly decrease the transmission of the Zika virus. More interventions need to take place in order to decrease birth defects related to Zika virus. **Comparison:** Current educational programing.

Results: Outcome: Decreased rates of congenital abnormalities and infectious complications during pre-conception through pregnancy related to the Zika virus.

Conclusion: The Zika virus is a nationally notifiable disease and healthcare providers are directed to report cases to their local health department for reportable diseases. On-going research continues to determine the outcomes for maternal Zika virus infection, as there is no treatment or vaccine for Zika virus disease at this time.

References

- Centers for Disease Control and Prevention. (2016). *Interim CDC Zika Response Plan* (CONUS and Hawaii): Initial Response to Zika Virus. Atlanta, Georgia: October 2016.
- Centers for Disease Control and Prevention. (2016). *Key messages-Zika virus disease*. Updated November 15, 2016.
- Hurlburt, A., Brooks, J., Money, D., & Patrick, D. (2016). Zika virus: A summary. *British Columbia Medical Journal*, 58(3), 158-161.
- Martinez, M. E. (2016). Preventing Zika Virus Infection during Pregnancy Using a Seasonal Window of Opportunity for Conception. *Plos Biology*, 14(7), 1-11. doi:10.1371/journal.pbio.1002520
- Oster, A. M., Russell, K., Stryker, J. E., Friedman, A., Kachur, R. E., Petersen, E. E., & ... Brooks, J.T. (2016). Update: Interim Guidance for Prevention of Sexual Transmission of Zika Virus--United States, 2016. *MMWR: Morbidity & Mortality Weekly Report*, 65(12), 323-325. doi:10.15585/mmwr.mm6512e3
- Soma-Pillay, P. (2016). New guidelines for Zika virus 2016. *Obstetrics & Gynecology Forum*, 2(26), 10-12.

Contact

pdvitothomas@methodiscol.edu

RSC PST 3 - Research Poster Session 3

Effects of Mindfulness on Outcomes in Cardiac Rehabilitation Participants: A Pilot Study

Stephanie L. Turrise, PhD, RN, BC, APRN, CNE, USA
Nasrin Falsafi, DnSc, RN, PMHCNS-BC, AHN-BC, USA
Richard S. Pond, PhD, USA

Abstract

Purpose: The purpose of this pilot study is to assess the effectiveness of a mindfulness intervention compared to a non-intervention, control group (treatment as usual) on physiological and psychosocial outcomes in a sample of cardiac rehabilitation participants.

Methods: This study utilizes a quasi-experimental, repeated-measures design with participants randomly assigned by cohort to one of two groups: a mindfulness practices (including self-compassion) intervention group or a wait-list control group (i.e. treatment as usual). Fifty participants (25 per group) are being recruited from two sites with a phase II cardiac rehabilitation program in Southeastern North Carolina. Participants in the mindfulness intervention group receive eight weeks of assigned interventions in a group by a doctorally prepared psychiatric clinical nurse specialist who is also board certified as an advanced holistic nurse. Participants are asked to practice their mindfulness intervention for 20 minutes each day. They also receive a book on mindfulness and an MP3 player with soft music and audio-guided meditations on mindfulness and self-compassion. Participants in the control group receive treatment as usual, which includes general information on stress management and deep breathing exercises. All participants are given a journal to document their daily home practice and any important event related to their daily life and emotional state. For both groups, outcome measures are collected at baseline, 4 weeks, 8 weeks, 12 weeks (i.e., 4 weeks post intervention completion) and 24 weeks (i.e., 3 months post intervention completion). Outcomes include anxiety measured by the State-Trait Anxiety Inventory short version (STAI), depression assessed with the Patient Health Questionnaire-9 (PHQ-9), anger measured with the State-Trait Anger Expression Inventory (STAXI), hostility assessed with the hostility subscale of the Positive Affect and Negative Affect expanded version (PANAS-X; Watson & Clark, 1994), stress measured with the Perceived Stress Scale (PSS), and health related quality of life measured by the MacNew Heart Disease Health Related Quality of Life questionnaire. Physiologic outcomes include body mass index and blood pressure. Rate of CR program completion will also be obtained.

Results: Pending completion of data collection and analysis.

Conclusion: Pending completion of data collection and analysis

References

- Abbott, R., Whear, R., Rodgers, L., Bethel, A., Coon, J.T., Kuyken, W., Stein, K., & Dickens, C. (2014). Effectiveness of mindfulness-based stress reduction and mindfulness based cognitive therapy in vascular disease: A systematic review and meta-analysis of randomized controlled trials. *Journal of Psychosomatic Research*, 76, 341-351.
- American Heart Association (2015). *What is cardiac rehabilitation?* Retrieved 9/5/2015 from http://www.heart.org/HEARTORG/Conditions/More/CardiacRehab/What-is-Cardiac-Rehabilitation_UCM_307049_Article.jsp
- Bahremand, M., Alikhani, M., Zakiei, A., Janjani, P. & Aghaei, A. (2015). Emotion risk factors in patients with cardiac diseases: The role of cognitive emotion regulation strategies, positive affect and negative affect, a case-control study. *Global Journal of Health Science*, 8(1), 173-179. doi:10.5539/gjhs.v8n1p173.
- Hughes, J., Fresco, D. Myerscough, R., van Dulmen, H., Carlson, L., Josephson, R. (2013). Randomized controlled trial of mindfulness-based stress reduction for prehypertension. *Psychosomatic Medicine*, 75, 721-728.
- Kitayama, S., Park, J., Boylan, J., Miyamoto, Y., Levine, C., Markus, H.,Ryff, C. (2015). Expression of anger and ill health in two cultures: An examination of inflammation and cardiovascular risk. *Psychological Science*, 26(2), 211-220.

Contact

turrises@uncw.edu

RSC PST 3 - Research Poster Session 3

Physical Activity and Cognitive Function Among Mild Cognitive Impairment Community-Dwelling Elderly Adults: The Transtheoretical Model

Tzu-Ting Huang, PhD, RN, Taiwan
Ying-Fang Huang, MSN, RN, Taiwan

Abstract

Background: Mild cognitive impairment (MCI) is a common clinical syndrome that identifies people at high risk of developing dementia, and the prevalence range from 7.7 to 51.7%. Although treatments for MCI are currently unavailable, preliminary evidence has identified potential neuro-protective effects of physical activity (PA), which may lead to improved outcomes. However, the design and delivery of an appropriate programme for people with MCI is challenging for having physical, psychological, cognitive, and social barriers.

Purpose: The purposes of this study are to develop and examine physical activity program, on primary outcomes (cognitive function & IADL), and secondary outcomes (physical fitness, QOL, social support and depression) among community-dwelling elderly adults with MCI.

Methods: We developed a PA stage-matched intervention (SMI) base on the Transtheoretical Model of Change (TMC), literature and our previous findings, then, 81 elderly adults with MCI were recruited in to a 2-group pretest-posttest randomized controlled trial for 6 months and a 6-month follow-up to examine its effectiveness among community-dwelling elderly with MCI. The 24-week SMI consist of three components: (a) the stage-matched counseling strategies base on main constructs derived from the TMC; (b) exercise behavior training: we provided a 24-week, 2 times group-based (8-12 participants with 2 instructors at community centers, 60' each) and one home-based (with the PA program VCD and manual to bring home, 30'); and (c) telephone counseling each week.

Results: After this 24-week PA SMI, the PA group participants showed significantly better MMSE than those in the comparison group ($t=2.585$, $p=.012$); however, Mixed model analysis showed significantly on group effect only ($F=8.846$; $p=.004$). Also, the PA participants demonstrated significantly better mobility (interaction effects $F=5.325$; $p=.024$).

Conclusion: A 24-week PA SMI could improve cognitive and mobility ability among MCI elderly adults. However, more participants and physical activity other non-pharmacological interventions (such as cognitive training) may boost the effects on cognitive function among MCI elderly.

References

- Cadar, D., Pikhart, H., Mishra, G., Stephen, A., Kuh, D., & Richards, M. (2012). The role of lifestyle behaviors on 20-year cognitive decline. *Journal of aging research*, 2012.
- Doi, T., Makizako, H., Shimada, H., Yoshida, D., Tsutsumimoto, K., Sawa, R., ... & Suzuki, T. (2013). Effects of multicomponent exercise on spatial-temporal gait parameters among the elderly with amnesic mild cognitive impairment (aMCI): Preliminary results from a randomized controlled trial (RCT). *Archives of gerontology and geriatrics*, 56(1), 104-108.
- Kolt, G. S., Schofield, G. M., Kerse, N., Garrett, N., Ashton, T., & Patel, A. (2012). Healthy Steps trial: pedometer-based advice and physical activity for low-active older adults. *The Annals of Family Medicine*, 10(3), 206-212.
- Malek-Ahmadi, M., Davis, K., Belden, C. M., Jacobson, S., & Sabbagh, M. N. (2012). Informant-reported cognitive symptoms that predict amnesic mild cognitive impairment. *BMC geriatrics*, 12(1), 1.
- Sugano, K., Yokogawa, M., Yuki, S., Dohmoto, C., Yoshita, M., Hamaguchi, T., ... & Yamada, M. (2012). Effect of cognitive and aerobic training intervention on older adults with mild or no cognitive impairment: a derivative study of the nakajima project. *Dementia and geriatric cognitive disorders extra*, 2(1), 69-80.
- Suzuki, T., Shimada, H., Makizako, H., Doi, T., Yoshida, D., Ito, K., ... & Kato, T. (2013). A randomized controlled trial of multicomponent exercise in older adults with mild cognitive impairment. *PLoS one*, 8(4), e61483.

Contact

thuang@mail.cgu.edu.tw

RSC PST 3 - Research Poster Session 3

Factors Associated with Non-Acceptance of Testing and Evaluation of Household Contacts Exposed to Tuberculosis

Elvy G. Barroso, MD, MSc, MS, MPH, RN, RN, USA

Abstract

Purpose: The WHO reports that the incidence of TB is approximately 9.0 million new cases globally each year and approximately 3.3 million cases are missed by health systems as either undiagnosed or not reported. A single index case can infect up to 10 to 15 contacts over the course of a year. Thus, complete and timely evaluation of all contacts exposed to TB is crucial for decreasing the transmission and incidence of TB. Several barriers to testing of contacts have been identified, however, no studies specifically address contacts' non-acceptance to TB testing and evaluation. Both nurses and non-nurse managers conduct contact investigations (CI), but it is not known if there are differences in adherence to TB testing and evaluation based on type of provider. The study will seek to determine factors associated with non-acceptance of TB testing and evaluations as well as compare testing adherence rates among household contacts managed by nurses versus non-nurse managers.

Pender's Health Promotion Model (HPM) will guide the examination of factors that prevent contacts from accepting TB testing and evaluation. The HPM stresses that an understanding of the major determinants of health informs the counseling of healthy behaviors. Uncovering the factors that determine a contact's behavior will likely lead to effective counseling of contacts exposed to TB.

Methods: A retrospective study of four years of data extracted from the New York City Department of Health and Mental Hygiene TB registry will be used to assess factors associated with household contact's non-acceptance of TB testing and evaluation. Data elements include demographics, contact information, reporting and assignment, clinical disposition, and case management provider type. Logistic regression will be used to assess the probability of not accepting TB testing and evaluation based on independent variables, and to assess differences between two independent variables: a nurse manager and a non-nurse manager with non-acceptance of TB testing and evaluation.

Results: On-going research.

Conclusion: Study findings will provide data to facilitate health departments to develop appropriate strategies to increase household contacts' acceptance of TB testing and evaluation.

References

- Anger et al. (2012). Active case finding and prevention of tuberculosis among a cohort of contacts exposed to infectious tuberculosis cases in New York City. *Clinical Infectious Diseases*, 54(9), 1287-1295.
- Center for Disease Control and Prevention. (2014). Fact Sheet. Retrieved from <http://www.cdc.gov/nchhstp/newsroom/docs/TB-Drug-Resistance-Factsheet.pdf>
- Centers for Disease Control and Prevention. (2011). *Introduction to the core curriculum on tuberculosis: What the clinician should know* (5th ed.). Atlanta, Georgia: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. Division of Tuberculosis Elimination.
- Chorba, T. (2015). Aggregate reports of TB program evaluation. Centers for Disease Control and Prevention.
- Faccini et al. (2015). Tuberculosis-related stigma leading to an incomplete contact investigation in a low-incidence country. *Epidemiology of Infections*, 1-8.
- Fair et al. (2015). Tuberculosis contact investigation in low- and middle-income countries: Standardized definitions and indicators. *International Journal of Tuberculosis and Lung Disease*, 19(3), 269-272.
- Fox, et al. (2015). Barriers to adherence with tuberculosis contact investigation in six provinces of Vietnam: a nested case-control study. *Infectious Diseases*, 15(103), 1-8.
- World Health Organization. (2016). Fact Sheet. Retrieved from <http://www.who.int/mediacentre/factsheets/fs104/en/>
- World Health Organization. (2014). Global tuberculosis report. Geneva, Switzerland.

Contact

ebarroso@gradcenter.cuny.edu

RSC PST 3 - Research Poster Session 3

Deployment-Related Needs of Children of Army Reserve Soldiers

Margaret C. Wilmoth, PhD, FAAN, USA
Alicia Gill Rossiter, DNP, FNP, PCPNP-BC, FAANP, USA
A. Suzanne Boyd, PhD, MSW, USA

Abstract

Purpose: The spouse of a deployed Army Reservist said that her 5 year old was the only child in his kindergarten class whose daddy was in the military. He would sit in a corner and cry during school yet refuse to talk to his daddy on Skype. Concerned for her child's health she reached out to the community for support and encountered many barriers. Not only did she have difficulty finding a child therapist to help her son, finding one with experience caring for the unique physical and psychological healthcare needs of military children was nonexistent. The school, while willing to help, lacked the knowledge and expertise to fully comprehend the impact of parental military service on children. Furthermore, the family did not live near an active duty military post, however even if they did, her spouse's reservist status would significantly limit services available to her child.

This is just one story from thousands of stories on the effect of a parent's deployment on Army Reserve children (ARC). Military children sacrifice when a parent volunteers to serve in the Armed Forces of the United States and face many of the same stressors as their Army Reserve (AR) parent—essentially military children serve too. Little is known about the impact of deployment on children of Army Reserve Soldiers. This project identifies gaps in the literature regarding deployment concerns of AR children and provides the first ever description of this population.

Methods: Systematic review of the literature on the physical and mental health needs of children of deployed Reserve Component (RC) Soldiers. Descriptive analysis of AR Child and Youth Services (CYS) Programmatic Needs Surveys utilized a convenience sample of parents attending a pre-deployment Yellow Ribbon Program.

Results: The systematic review of the literature is ongoing, but of the 10 studies reviewed to date, RC children comprised approximately 10% of the total sample and none had a sample limited to AR children. A convenience sample of 6,000 parents of children of AR Soldiers who completed the CYS Programmatic Needs Survey, with a majority of children in the age range of (4-16), noted that the greatest need of their child are school support services that include school transition, individual education plans, 504 accommodations, decline in grades due to deployment, and behavior concerns related to deployment. In addition, finding affordable and quality childcare within their local communities can be very challenging. This challenge is compounded if the child requires specialized childcare due to medical or behavior health requirements.

Conclusion: While military children as a whole are an understudied group, even less research is available regarding Army Reserve children specifically. Their needs differ from those of their active duty peers because of their geographic distribution, often making them the only military child in their school, church and other community organizations. Knowledge regarding these unique needs is critical to meeting the educational needs as well as the physical and psychological healthcare needs of this underserved population.

Army Reserve Component children face challenges that differ in many ways from their Active Component counterparts, such as reduced access to military-sensitive psychological support services, military-sensitive school support and peer group support for both parent and child/adolescent. Given the paucity of data on this population, no definitive conclusions can be drawn about the impact of deployment on their psychosocial development. More funding to support research in this population is essential.

References

Meadows, S.O., Tanielian, T. & Karney, B.R. (Eds.) (2016). *The Deployment Life Study: Longitudinal Analysis of Military Families across the Life Cycle*. Santa Monica, CA: RAND.

Rossiter, A. G., D'Aoust, R. F., & Shafer, M. R. (2016). Military serving at what cost? The effects of parental service on the wellbeing of our youngest military members. *Annual Review of Nursing Research*, 34(1), 109-117. doi: 10.1891/0739-6686.34.109. PMID: 26673379

Rossiter, A. G., Dumas, M. A., Wilmoth, M. C., & Patrician, P. A. (2016). "I Serve 2": Meeting the needs of military children in civilian practice. *Nursing Outlook*, -(), 1-6. <http://dx.doi.org/10.1016/j.outlook.2016.05.011>.

Contact

wilmothmc@gmail.com

RSC PST 3 - Research Poster Session 3

The Antimicrobial Effects of Water-Soluble Essential Oils in the Nursing Practice

Yuka Saeki, PhD, RN, Japan

Kimiko Akamatsu, PhD, RN, Japan

Abstract

Purpose: Essential oils have been widely applied for a variety of purposes. Essential oils often have antimicrobial, antioxidant and anti-inflammatory properties¹⁻³. When essential oils are applied as spray in daily life with the intention of removing microorganisms, they have to be dissolved in alcohol at first followed by water. In this case, it can't be clear if antimicrobial effect could be caused by essential oils or alcohol. Therefore, this study was designed to clarify the antimicrobial effect of water-soluble essential oils dissolved with an *emulsifier* and investigate an application in nursing practice.

Methods: Antimicrobial effect was evaluated by measuring adenosine tri-phosphate (ATP) and adenosine mono-phosphate (AMP). ATP is a chemical substance that acts as an energy source for all living organisms on the planet. AMP is derived from ATP during the processing. The presence of ATP or AMP can be considered proof of the presence of a living organism. ATP + AMP were measured at cutting boards, overflows in the bathroom, and necks of yukata (Japanese night clothes), which had been used for nursing skill practice several times by nursing students. The tested area were wiped using the swab stick, which combines a reagent and self-contained swab device (LuciPac Pen, Kikkoman Co. Ltd. Tokyo), after which light is emitted as a result of chemical reaction between luciferase-luciferin-PPDK reagent and ATP and/or AMP. The level of luminescence was measured using the measuring instrument (Lumitester PD-20, Kikkoman, Tokyo), and the degree of cleanliness is determined based on the amount of ATP + AMP detected by it.

Water-soluble essential oils, tea-tree (*Melaleuca alternifolia*) and eucalyptus (*Eucalyptus globulus*) dissolved with an emulsifier were used in this study (Biken Co. Ltd. Tokyo). These water-soluble essential oils were diluted to 100 times with sterilized distilled water and used as spray. The liquid containing only emulsifier without essential oil was also diluted 100 times and used as a control (control). Samples were obtained by wiping up the surface of the sprayed sites to be tested as mentioned above using the swab stick at 30 minutes after the liquid with essential oil or without (control) was sprayed. A swab stick was moved up and down 10 times in a fixed sized area (4 cm x 4 cm) to wipe up. The site for spraying control liquid was about 5 cm apart from that for essential oils. The significance of difference between essential oil and control was evaluated by applying the Wilcoxon rank sum test and were considered statistical at $p < 0.05$.

Results: ATP + AMP in the necks of yukata showed 867 ± 1635.5 RLU (Relative Light Unit, $n=20$) for control, and 242.6 ± 381.1 RLU for tea-tree ($n=20$). For eucalyptus, ATP + AMP showed 163.1 ± 136.3 RLU ($n=14$) and 333.9 ± 199.6 RLU ($n=14$) for control. ATP + AMP for tea-tree or eucalyptus showed significant decreases to 39.0 ± 29.8 % or 49.2 ± 15.6 % compared with that for control (100%) in the necks of yukata, respectively. After spraying tea-tree, ATP + AMP significantly decreased to 36.5 ± 23.5 % in cutting boards ($n=7$) and 37.6 ± 23.8 % in overflows in the bathroom ($n=10$).

Conclusion: The spraying the liquid containing essential oils decreased ATP + AMP in the neck of yukata, the cutting board and the overflow in the bathroom in this study. These results indicate that essential oil must be available to prevent infection by spraying liquid containing essential oil to various things in daily life. In order to apply to nursing practice, further investigation about the antimicrobial effects of essential oils would be needed in clinical practice including nursing clothes, linen goods, and so on.

References

1. Hans V.M., Grover H.S., Deswal H., Agarwal P. (2016). Antimicrobial efficacy of various essential oils at varying concentrations against periopathogen *Porphyromonas gingivalis*. *J. Clin. Diagn. Res.*, 10, ZC16-ZC19.
2. Liang R., Xu S., Shoemaker C.F., Li Y., Zhong .F, Huang Q. (2012). Physical and antimicrobial properties of peppermint oil nanoemulsion. *Agric. Food. Chem.*, 60, 7548-7555.

3. Uma K., & Kumar B.A. (2016). Antifungal effect of plant extract and essential oil. *Chi. J. Integr. Med.*, Sep 3.

Contact

yukas@m.ehime-u.ac.jp

RSC PST 3 - Research Poster Session 3

Factors of Risk Behaviors for Exposure to Endocrine Disruptors in Female College Students in Korea

SoMi Park, PhD, RN, Korea, Republic of (South)

ChaeWeon Chung, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Environmental hormones are known to affect women's health, inducing endocrine imbalances and reproductive health issues. As college students live more independently, they consume more fast food, disposable products, and convenient household items, which exposes them to more environmental hormones. Protecting women's reproductive health is crucial for the succession of health to the next generation. This study examined the factors associated with risk behaviors for exposure to endocrine disruptors in female college students in Korea.

Methods: A cross-sectional correlative study was designed by using a questionnaire survey. The major variables were 1) the predisposing factors of 'interest in health concerns', 'concern about endocrine disruptors', 'perception of endocrine disruptors related to female reproductive health'; 2) the reinforcing factors of 'menstrual problems', 'self-appraisal of exposure to endocrine disruptors', 'need for information on endocrine disruptors'; and 3) the enabling factors of 'participation in pro-environmental activity', and 'pro-environmental lifestyle'. The outcome variable was 'risk behaviors for exposure to endocrine disruptors'. Data were collected from September to October in 2015. A total of 199 female college students in Korea voluntarily participated.

Results: Based on the PRECEDE conceptual framework of the study, the influences of the factors on risk behaviors for exposure to endocrine disruptors were analyzed by a hierarchical regression. In the first step, demographics explained 11.7% ($F=27.3$, $p<.001$) of the variance of the risk behaviors of exposure to endocrine disruptors. The second step showed an additional 20.1% variance ($F=23.1$, $p<.001$) by adding the predisposing factors. In the third step, reinforcing factors markedly increased the explained variance to 55.4% ($F=36.1$, $p<.001$), which added 24.7% more. Finally, by adding the enabling factors, 61.7% ($F=36.4$, $p<.001$) of the variance was explained.

Conclusion: Women with less sense of need for information about endocrine disruptors and a poor pro-environmental lifestyle engage in more risk behaviors for exposure to endocrine disruptors. Education should include practical information about environmental hormones and should focus on leading young women to a pro-environmental lifestyle.

"This research was supported by Basic Science Research Program through the National Research Foundation of Korea(NRF) funded by the Ministry of Education(NRF-2015R1D1A3A01017746)"

References

Van der Linden, S. (2014). On the relationship between personal experience, affect and risk perception: The case of climate change. *European Journal of Social Psychology*, 44(5), 430-440. <http://dx.doi.org/10.1002/ejsp.2008>

Tramm, R., Mccarthy, A., & Yates, P. (2012). Using the Precede-Proceed model of health program planning in breast cancer nursing research. *Journal of Advanced Nursing*, 68(8), 1870-1880. doi: 10.1111/j.1365-2648.2011.05888.x

Contact

somi@yonsei.ac.kr

RSC PST 3 - Research Poster Session 3

Development of an Educational Program for Women's Health Related to Endocrine Disruptors

ChaeWeon Chung, PhD, RN, Korea, Republic of (South)
SoMi Park, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: The environment surrounding us makes changes in the patterns and prevalence of disease. Precocious puberty has become one clear health issue in Korea, showing a 4.4-fold increase in the past 5 years and threatening the reproductive health of young women. Behavior is habitual and guided by cognitive processes, and awareness and perception are essential for individuals to obtain information and to participate in optimal health behaviors. Therefore, it is necessary to provide proper education to the population of young women to help them maintain health behaviors throughout their lifespan. This study aims to develop an educational program to protect young women's health from environmental hormones, which has two specific objectives: 1) to identify knowledge and behavioral patterns of exposure to endocrine disruptors, and 2) to validate the program using an expert group.

Methods: Design: A methodological study was designed; the first phase will use three strategies: cross-sectional survey, individual interviews, and a literature review. During the second phase of the study, a preliminary program will be produced by integrating the data from the first phase. The third phase will contain validation of the program by experts.

Sample and Setting: First, a convenience sample of 600 young women will be recruited for the cross-sectional survey from middle and high schools and colleges in W city in 2016. Individual interviews will be completed with 30 participants from each school age group. The literature review will utilize databases including MEDLINE, PubMed, and CINAHL. For the validation phase, an expert panel will be composed of one Ob-Gyn specialist, one medical doctor in preventive medicine, and three nursing researchers.

Measurement: For the survey, a structured questionnaire will be prepared to measure knowledge about endocrine disruptors and behavioral patterns of exposure to endocrine disruptors. For the interview, key questions for facilitators to ask and barriers to minimize exposure to endocrine disruptors will be incorporated. An expert panel will examine the tentative program for validity and applicability.

Results: Results are anticipated early 2017 and will be presented at the Research Congress.

Conclusion: The conclusion will address each of the two objectives of this study.

"This research was supported by Basic Science Research Program through the National Research Foundation of Korea(NRF) funded by the Ministry of Education(NRF-2015R1D1A3A01017746)"

References

- Faver, C.A. & Muñoz, J.D. (2013). Environmental concern and action: A view from the border, *Journal of Human Behavior in the Social Environment*, 23, 345–355. DOI: 10.1080/10911359.2013.763712
- Scammell, M.K. (2010). Qualitative environmental health research: An analysis of the literature, 1991–2008. *Environmental Health Perspectives*, 118, 1146–1154. doi:10.1289/ehp.0901762
- Van der Linden, S. (2015). The social-psychological determinants of climate change risk perceptions: Towards a comprehensive model. *Journal of Environmental Psychology*, 41, 112-124. <http://dx.doi.org/10.1016/j.jenvp.2014.11.012>
- Health Insurance Review & Assessment Service. (2011). Early detection important precocious puberty, perhaps even my kids? Retrieved May 13, 2016 from http://hira.or.kr/dummy.do?pgmid=HIRAA020041000000&cmsurl=/cms/notice/02/1205871_24959.html&subject

Contact

chungcw@snu.ac.kr

RSC PST 3 - Research Poster Session 3

Bibliographic Review About Anthropometric Measurements in Mother-Child Dyads

Montserrat Morales Alducin, Mexico

Rubi Chantal Casco Ojeda, Mexico

Corina M. Alba-Alba, PhD, RN, Mexico

Abstract

Purpose: Anthropometric techniques are diverse and they do require skilled levels in order to be executed. It is important for the nursing workforce to know about the most practical anthropometric techniques to be applied at community or research interventions, especially when mother-child dyads are assessed to know the relationship between Body Mass Index of both. Anthropometric measurements of mother-child dyads are useful in clinics or research, as alterations can be detected on time for preventing health-related issues. Therefore, the objective of this research is to identify the most practical, reliable, and precise anthropometric indicators for mother-child dyads.

Methods: A systematic research at the Scielo, nursery index, EBSCO, and PubMed databases was carried out using the following keywords: anthropometric, child, mother, and Boolean operators ("AND", "OR", and "NOT"). Retrieving articles published in the last five years, a total of 277 articles were obtained. After that, 200 outstanding titles were chosen; then, the summaries without key information for the research were dismissed; consequently, the whole texts were read and 150 articles, either in English or Spanish, were chosen. Finally, 50 of the most accurate articles related to the information of the mother-child dyads' anthropometric measurements were selected for this literature review.

Results: 50 articles from Brazil, Spain, China, Colombia, Venezuela, and Cuba were retrieved. It was found out that the main anthropometric measurements used to evaluate children were weight, height, waist circumference, and BMI (according to OMS BMI calculator and classification for male and female children); and to evaluate the mother, they were BMI (according to weight/height² formula) and waist circumference. However, a few of them measure skinfold, hip-waist relationship and brachial folds for children and mothers, but these techniques need high trained and standardized skills.

On the other hand, it was found out that manual bio-impedance is not advisable as an interchangeable method for children and adolescents. The BMI and bioelectrical impedance are the ideal indicators to detect symptomless disorders. In fact, the price and special indications in procedures for bioelectrical impedance made this tool less convenient for practical purposes and, besides, enough articles investigating the convenience of every anthropometry technique were not found.

Conclusion: As yet, it has not been found enough information that points out the specific relationship of anthropometric registers among mother and child dyads. The BMI and waist circumference are considered the most practical anthropometric measurements in both child and mothers. Such measurements can be applied by nurses for clinical or research purposes. Finally, it was concluded that the anthropometric measurements must be individualized according to each clinical or research purpose.

References

Zhu, Y., Shao, Z., Jing, J., Ma, J., Chen, Y., Li, X., & Jin, Y. (2016). Body Mass Index Is Better than Other Anthropometric Indices for Identifying Dyslipidemia in Chinese Children with Obesity. *Plos ONE*, 11(3), 1-11. doi:10.1371/journal.pone.0149392

Ruiz Sánchez, E., Bañuelos Barrera, Y., Bañuelos Barrera, P., Álvarez Aguirre, A., Valles Verdín, M. M., & Domínguez Chávez, C. J. (2015). PORCENTAJE DE GRASA CORPORAL EN ESCOLARES Y SU ASOCIACIÓN CON EL ESTILO DE VIDA Y MACRONUTRIENTES. (Spanish). *Revista Cuidarte*, 6(2), 1022. doi:10.15649/cuidarte.v6i2.150

Mardones Santander, F., Bove, I., & Domínguez de Landa, A. (2014). Asociaciones entre el crecimiento prenatal y la antropometría materna en el Uruguay. *Nutricion Hospitalaria*, 30(3), 643-649. doi:10.3305/nh.2014.30.3.7648

Saldívar-Cerón, H. I., Vázquez-Martínez, A. L., & Barrón-Torres, M. T. (2016). Precisión diagnóstica de indicadores antropométricos: perímetro de cintura, índice cintura-talla e índice cintura-cadera para la identificación de sobrepeso y obesidad infantil. *Acta Pediátrica De México*, 37(2), 79-87. doi: 10.1016/j.medcli.2012.01.032

Peralta Peña, S. L., Reséndiz González, E., Vargas, M. R., Terrazas Medina, E. A., CupulUicab, L. A., & Rubí Vargas, M. (2015). INDICADORES ANTROPOMÉTRICOS Y SU ASOCIACIÓN CON EVENTOS CARDIOMETABÓLICOS EN ESCOLARES DE SONORA, MÉXICO. *Nutricion Hospitalaria*, 32(4), 1483-1492. doi:10.3305/nh.2015.32.4.9560

Contact

rubi.cascoa@udlap.mx

RSC PST 3 - Research Poster Session 3

Effect of Health Belief Model-Based Osteoporosis and Fall Prevention Program on Early Old-Aged Women

Jiwon Oh, MSN, RN, Korea, Republic of (South)
Sukhee Ahn, PhD, RN, WHNP, Korea, Republic of (South)
Jisoon Kim, MSN, RN, Korea, Republic of (South)
Seyeon Park, MSN, RN, Korea, Republic of (South)
Rhayun Song, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Osteoporosis is globally affecting the health of people, especially menopausal women. Decreased amount of estrogen during menopause causes loss of bone mass leading to bone fractures. International Osteoporosis Foundation (IOF) (2015) reports 1 in 3 menopausal women are at risk of osteoporotic fractures. One of the typical sites of osteoporotic fracture is at proximal femur and hip fracture is known to increase the risk of mortality rates by 10% to 20% (Miller, 2016; Buttaro, Trybulski, Bailey, & Sandberg-Cook, 2013). Fracture of the hip can be a burden both at an individual and social level because its treatment requires longer hospital stays than any other common chronic illnesses (IOF, 2015). Long hospital stays due to osteoporotic fractures are costly and can be prevented by early identification (Hopkins et al., 2016; Solomon et al., 2014). Due to asymptomatic feature of the disease until fracture develops, higher mortality rates by bone fractures, and great expense followed by its complication treatment, it is important to prevent osteoporosis and fall among population at the most risk group. The purpose of this study is to determine whether Health Belief Model (HBM)-based Osteoporosis and Fall Prevention Program has an impact on the level of osteoporotic/fall related knowledge, self-efficacy on physical activities and diet change, and preventive behaviors among women aged 65 to 74.

Methods: This untreated control group design with pretest and posttest study was performed within community settings for two months. Women who received HBM-based Osteoporosis and Fall Prevention Program (n=47) attended a total of 4 sessions of 1-hour long education and counseling once every two weeks. The remaining participants (n=47) in the control group received 1-hour osteoporosis education after posttest.

Results: Results showed statistically significant differences between control and intervention group on the level of osteoporosis and fall related knowledge ($t = -13.91, p < 0.001$; $t = -2.354, p = 0.021$), self-efficacy of osteoporotic physical activities ($t = 2.736, p = 0.008$), and osteoporosis and fall preventive behaviors ($t = 4.761, p < 0.001$; $t = 3.879, p < 0.001$).

Conclusion: Participants in the intervention group had significantly higher levels of knowledge, self-efficacy, and preventive behaviors after completing 4 sessions of the program. Therefore, the HBM-based Osteoporosis and Fall Prevention Program seems to have an outstanding effectiveness on osteoporosis and fall prevention among early old aged women. The result is meaningful in terms of the intervention program is basing on a theory. In addition, one-to-one counseling session included in the experimental intervention, but was not in the control intervention, may imply individualized care had been performed and had beneficial impact on increased level of knowledge, self-efficacy, and preventive behaviors. Also, the outcome suggests that the program may have the potential to reduce the cost resulting from long hospital stays by osteoporotic fractures.

References

- Buttaro, T. M., Trybulski, J., Bailey, P. P., & Sandberg-Cook, J. (2013). *Primary care: A collaborative practice* (4th ed.). St. Louis, MO: Elsevier Mosby.
- Hopkins, R. B., Burke, N., Von Keyserlingk C., Leslie, W. D., Morin, S. N., Adachi, J. D., ..., Tarride, J. (2016). The current economic burden of illness of osteoporosis and Canada. *Osteoporosis International, 27*(10), 3023-3032.
- International Osteoporosis Foundation (2015). Facts and statistics. Retrieved from <https://www.iofbonehealth.org/facts-statistics>
- Miller, P. D. (2016). Underdiagnoses and undertreatment of osteoporosis: The battle to be won. *The Journal of Clinical Endocrinology & Metabolism, 101*(3), 852-859.

Solomon, D. H., Patrick, A. R., Schousboe, J., & Losina, E. (2014). The potential economic benefits of improved postfracture care: A cost-effectiveness analysis of a fracture liaison service in the US health-care system. *Journal of Bone and Mineral Research*, 29(7), 1667–1674.

Contact

ohjwmail@gmail.com

RSC PST 3 - Research Poster Session 3

The Impact of Bar Code Medication Administration Technology on Faculty Supervision of Nursing Students

Eileen Creel, DNS, RN, USA

Ann Carruth, DNS, RN, USA

Abstract

Purpose: The purpose of this research was to identify current practices, policies, and processes impacting nurse faculty who supervise nursing students administering medications in the clinical setting using bar coded medication administration systems (BCMA). BCMA are one of the proposed solutions to medication administration errors. They have been reported to reduce medication errors by as much as 86% (Rivish & Modeda, 2010). Up to 50% of United States (U.S.) hospitals had implemented BCMA technology in 2011, with the goal of improving compliance with the Five Rights of medication administration (Hassink, Jansen, & Helmons, 2012). BCMA were intended to eliminate “workarounds” which contribute to medication errors. However, this has not been fully realized. Kelly, Harrington and Matos (2016) state that workarounds are most commonly developed as solutions to barriers in patient care delivery and are developed to account for a technology shortcoming.

Very little has been written about nurse faculty’s role related to nursing student supervision while administering medications using BCMA. One of the competencies of the Quality and Safety Education for Nurses (QSEN) project for safety is that student nurses obtain knowledge of safety-enhancing technologies, such as barcode medication administration systems (QSEN, 2014). Research on the impact of the changes related to supervision of nursing student medication administration by faculty in the clinical setting is limited. In some settings students are not provided with a unique log-in code for electronic health records or BCMA records. When faculty supervise student nurses’ administration of medications in these situations, the faculty code is used and faculty name is reflected as the person administering the medication in the record. Reid-Searl (2013) suggested that legal requirements surrounding nursing student medication administration are not being met. Nurse practice acts across the U.S. stipulate documentation of interventions to be within scope of practice as a registered nurse. The act of improperly documenting the person who gives medication potentially violates the standard of care and in essence falsifies the record (York, Cynthia. “Documentation of Medication Administration by Student Nurses During Clinical Experience.” Received by Ann Carruth, September 4, 2106 letter).

Methods: A descriptive cross sectional survey method was used to better understand the current use and policies used by nursing faculty supervising nursing students. Two hundred thirteen (N= 213) surveys were returned from an online invitation to a national sample of Dean’s of Schools of Nursing. Nurse faculty from 17 states returned surveys. These states represented all regions of the U.S.

Results: The findings revealed that most agencies do not give BCMA codes to student nurses to retrieve assigned patient medications, but (60%) were given codes to chart in the electronic health care record (EHR). However, nurse faculty (54%) said they or a nurse scanned their badge at the time of medication administration. The majority (74%) felt technology had increased patient safety, but 25% indicated it was inadequate for use with student nurses. Faculty (50%) indicated over-rides are frequently required due to technological issues, and 32% indicated a student had a medication error using a bar code system. The majority of agencies either had no policy about student administration of medication, or the faculty were unsure about an agency policy (55%). Additionally, the majority of the faculty 54% were over the age of 50 likely indicating they were not originally trained to give medications using this technology.

Conclusion: It is important that faculty and nurse preceptors who supervise nursing students in the skills of medication administration know and are able to recognize what constitutes workarounds. Faculty should receive clear policies and training in the use of all electronic health records and BCMA systems they use while supervising nursing students. This training should include hands on experience to the extent that the faculty feels comfortable enough with the system to avoid workarounds, which maybe longer if faculty are older and have used the technology for a shorter length of time. Kelly et al., (2016)

indicated ongoing evaluation and adjustments within a safety culture environment that is user–centric with input from front line users is a pro-active approach that can be used by organizations to address workarounds. Frontline users include nursing faculty and the nursing students they train and as such need to have input into these policies and processes.

These findings are relevant as technology usage continues to increase seemingly without consideration for the training of future nurses. Most hospitals do not have a separate policy for nursing student medication administration, which could help to address issues with student nurse use of BCMA. The use of the BCMA's and EHR systems has legal implications for supervision of nursing students by faculty. Future research into the impact of BCMA systems and EHRs on the safe and legal training of our future nursing workforce is needed to ensure protection for patients, students and faculty who teach them.

References

Hassink, J., Jansen, J., & Helmons, P. (2012). Effects of bar code-assisted medication administration (BCMA) on frequency, type and severity of medication administration errors: A review of the literature. *European Journal of Hospital Pharmacy* 19, 489-494. doi:10.1136/ejhpharm-2012-000058

Kelly, K., Harrington, L. & Matos, P. (2016). Creating a culture of safety around bar-code medication administration. *Journal of Nursing Administration*, 46(1), 30-37.

Quality and Safety Education for Nurses. (2014). Pre-Licensure KSAS. Retrieved from: <http://qsen.org/competencies/pre-licensure-ksas/#safety>

Reid-Searl, K., Moxham, L., Walker, S. & Happell, B. (2010). Supervising medication administration by undergraduate nursing students: Influencing factors. *Journal of Clinical Nursing*, 19, 775-784.

Contact

ecreel@selu.edu

RSC PST 3 - Research Poster Session 3

Food Insecurity, Early Childhood Feeding, and Weight Outcomes in Hispanic Children and Their Mothers

Elizabeth Reifsnider, PhD, RN, WHNP-BC, PHCNS-BC, FAANP, FAAN, USA

David McCormick, MD, ., USA

Michael Todd, PhD, ., USA

Lucy Reyna, BA, CCHW, USA

Irma Pecina, AA, USA

Maribell Guzman, USA

Lu Zheng, MHI, RN, USA

Abstract

Purpose: Early and rapid growth in infants is strongly associated with early development and persistence of obesity in young children. Obesity adversely affects the lives of nearly 17% of American children and youth aged 2–19, while 8.1% of infants and toddlers under 2 years of age have high weight-for-length. Obesity prevalence is consistently found to be highest among low-income, Hispanic, African American, and American Indian children and adolescents. Longitudinal studies show an association between early experience of childhood poverty and long-term obesity risk. As a result, disparities in early childhood obesity risk are tied to poorer health outcomes. Food insecurity is a household-level economic and social condition of limited or uncertain access to adequate food to promote health and especially for children, to promote healthy growth and development. Obtaining sufficient amounts of healthy food is a major struggle for many Americans. According to the most recent USDA report on food insecurity, an estimated 49 million individuals and 12.6 million US households are food insecure, while 16 million children face food insecurity. Children who are food insecure are more likely to visit emergency rooms and are more likely to have asthma, and food-insecure mothers and children are more likely to be overweight/obese.

Methods: Randomized clinical trial with rolling enrollment of 150, randomized to 75 intervention and 75 control mother/infant dyads. All Recruitment was done at WIC offices in Houston TX. Inclusion criteria for mom: Mexican descent, 18-40 years old, in 3rd trimester pregnancy, no chronic diseases, pregnancy or postpartum complications. Baby inclusion criteria: 38-42 weeks gestation, at least 2500 gm, discharged home with mom and no birth complications. The mothers needed to be able to receive home visits and planning to remain on WIC and in Houston. Home visits to all for measurements, done by community health worker (promotora) blinded to group assignment. Visits at Prenatal, then at 1 week to enroll infant and obtain birth history, then 1, 6, 12, 18, 24, 30 and 36 months of age. Intervention home visits by 2 promotoras to intervention group only. Visits at Prenatal, then 2 weeks, 2, 4, 6, 9, 12, 18, 24 months to deliver manualized intervention content that was personalized for each subject based on status and request. Measures included: anthropometrics for mom and baby, 24 hour diet history; breastfeeding history, Edinburgh Postpartum Depression Survey (EPDS) , Brief Infant Sleep Questionnaire (BISQ), Home Observation for Measurement of the Environment (HOME), Brief Acculturation Rating Scale for Mexican Americans (ARSMA), Mexican American Cultural Values Scale (MACVS), Demographics.

Results: The mean age of the mothers was 29.72 (SD = 5.87). More than 17% of households had an annual income under \$10,000, 62.7% had an income between \$10,000 and \$30,000, 18% had an income between \$30,000 and \$40,000, and 2% had an income over \$40,000. The average household had 5.2 people living in it (SD = 1.7). The mean number of children per family is 2.67 (SD = 1.57). Slightly more than 42% (n=64) of mothers were born in the US, 56.0% (n=84) were born in Mexico, and 1.3% (n=2) were born elsewhere. There is a high rate of food insecurity among the sample with 100% using WIC, 50% receiving SNAP (food stamps), 15% using food banks, 5% skipping meals due to no food, and 89% running out of money to buy food weekly/biweekly. Rates of cesarean delivery are high – up to 38%, with 8% having gestational diabetes, and a mean postpartum BMI of 33. Normal weight infants have a longer duration of breastfeeding than do overweight or obese children. Mother's weight was the most consistently linked to breastfeeding status across time points. Mothers who reported no breastfeeding at either assessment were consistently heavier than those reporting either exclusive breastfeeding or non-exclusive breastfeeding. The association between breastfeeding and weight was significantly more

pronounced at 6 months than at 1 month ($p = .014$). Mothers reporting no breastfeeding at either time point were the heaviest ($p = .017$). At one month, 23.9% of the mothers exclusively breastfed, 35.5% non-exclusively breastfed, and 40.6% did not breastfeed. At six months, 17.4% of the mothers exclusively breastfed, 17.4% non-exclusively breastfed, and 65.2% did not breastfeed.

Conclusion: Social issues frequently create a lot of stress in the families with interest in child feeding taking lesser importance than securing food for family. Prolonged breastfeeding in conjunction with counseling by promotoras *may* promote healthy weight status. Delivery status, C-section versus vaginal, did not appear to be associated with W/L status at most recent visit. In a subgroup of engaged mothers, targeted counseling appeared to reverse unhealthy weight gain trends. Further analysis needed to determine if the engagement is a result of the education provided only or if the positive outcome is a result of an effective working relationship established by the promotora with the families. Any breastfeeding at six months provided a significantly lower mean weight among the participants than did no breastfeeding. Early and sustained breastfeeding for at least six months may reduce the chance of women entering the next pregnancy with retained weight from the previous pregnancy. Although breastfeeding did not show a significant effect on the occurrence of postpartum depression, a trend to significance occurred at six months between mothers who continued to breastfeed and those who did not. We found the low level of depressive symptoms in our population surprising, given studies estimating that nearly 20% of US mothers experience a depressive episode in the first 3 months postpartum. During the early postpartum period, studies have found significantly increased rates of postpartum depression (21-53%) in the Mexican-American population. Several of these studies have indicated that symptoms of depression are associated with level of acculturation in Hispanic and specifically Mexican American mothers. It may be that as the majority of mothers in our sample were more acculturated to the Mexican culture than to the mainstream culture, their Mexican cultural value of *familia* (close family support) contributed to the low levels of depressive symptoms observed in this sample.

References

- Barroso CS, Roncancio A, Moramarco MW, Hinojosa MB, Davila YR, Mendias E, Reifsnider E. Food security, maternal feeding practices and child weight-for-length. *Appl Nurs Res ANR*. 2016;29:31-36. doi:10.1016/j.apnr.2015.03.009.
- Saavedra JM, Deming D, Dattilo A, Reidy K. Lessons from the feeding infants and toddlers study in North America: what children eat, and implications for obesity prevention. *Ann Nutr Metab*. 2013;62 Suppl 3:27-36. doi:10.1159/000351538.
- Redsell SA, Edmonds B, Swift JA, Siriwardena AN, Weng S, Nathan D, Glazebrook C. Systematic review of randomised controlled trials of interventions that aim to reduce the risk, either directly or indirectly, of overweight and obesity in infancy and early childhood. *Matern Child Nutr*. 2016;12(1):24-38. doi:10.1111/mcn.12184.
- Rossiter MD, Colapinto CK, Khan MKA, McIsaac J-LD, Williams PL, Kirk SFL, Veugelers PJ. Breast, Formula and Combination Feeding in Relation to Childhood Obesity in Nova Scotia, Canada. *Matern Child Health J*. 2015;19(9):2048-2056. doi:10.1007/s10995-015-1717-y.
- Willik EM van der, Vrijkotte TGM, Altenburg TM, Gademan MGJ, Holthe JK. Exclusively breastfed overweight infants are at the same risk of childhood overweight as formula fed overweight infants. *Arch Dis Child*. June 2015;archdischild-2015-308386. doi:10.1136/archdischild-2015-308386.
- Reifsnider E, Shin C-N, Todd M, Jeong M, Gallagher M, Moramarco M. How Did They Grow: An Intervention to Reduce Stunted Growth in Low-Income Mexican-American Children. *Res Nurs Health*. 2016;39(2):105-120. doi:10.1002/nur.21714.

Contact

Elizabeth.Reifsnider@asu.edu

RSC PST 3 - Research Poster Session 3

Use of Outside Services and Other Needs of Informal Caregivers of Adult Oncology Patients

Susan C. Cobb, PhD, RN-BC, USA

Abstract

Purpose: The care of oncology patients often involves the assistance of informal caregivers such as family members or friends. Data from the United States reveal that an estimated 40 million caregivers provide care to adults (aged 18+) with a disability or illness. Caregiver services were valued at \$470 billion per year in 2013 – up from \$375 billion in 2007. With the aging population expected to double between 2000 and 2030, the impact of caregiving on healthcare will likely continue to increase (Family Caregiver Alliance, 2016; Cobb, Etkins, Nelson, Egleston, Sweeney, 2016). The important role that informal caregivers play in providing optimal care to oncology patients has been recognized by the Oncology Nursing Society and has consistently been a part of ONS's Research Agenda since 2001 (Knobf, et al, 2015).

An initial study conducted by the PI of this study and her study team compared the reactions and experiences of informal caregivers of oncology patients to that of informal caregivers of patients with other chronic illnesses. One of the key findings of the initial study was that 78% of caregivers reported not using any outside services in providing care to patients in the home setting. A review of the literature revealed only a few research studies exploring caregiver use of outside services and potential barriers to use. In a study of informal caregivers of cancer patients 63% of the caregivers reported that they provided all of the care for the patient without assistance (vanRyn, et al., 2011). Green and Smith (2015) reported a systematic review related to barriers and facilitators for male carers (caregivers) in accessing formal and informal support. The findings from these studies reveal a gap in our knowledge of caregiver needs for home care support services, barriers to use of these services, how these needs change over time and how to best support caregivers in their role.

Another major finding of the initial study was that informal caregivers viewed offering emotional and psychological support to the patient as the most challenging caregiving activity. This finding was consistent with that of vanRyn et al. (2011) who found that while 71% of caregivers in their study felt "very" to "extremely" confident about providing physical care to the patient, they felt much less confident about care of the emotional needs of the patients (49% felt "very" to "extremely" confident). The burden to support patients emotionally and psychologically falls on caregivers who also are burdened with their own emotional and psychological coping needs. Further study of what caregiver needs are in regards to emotional burdens and how healthcare providers can help in this area is merited.

Most caregiving research to date has been static and focused on a specific point in time e.g. diagnosis or palliative care phases (Stamataki, et al, 2014). Few studies have addressed how caregiver experiences and needs change over the trajectory of the cancer experience (Given, Given & Sherwood, 2012). One of the participants in Cobb's original study remarked that caregiver *"emotions change day to day, even hour to hour"*. How caregiver needs and experiences may vary over time is an area of needed study

The purpose of this study is to explore the experiences and needs of informal caregivers of adult oncology patients. The primary aims of this study are to identify what information caregivers need and desire in relation to outside services to assist them in their role and to describe barriers to use of outside services by informal caregivers. Secondary aims are to explore experiences and needs of caregivers relative to providing emotional and psychological support to the care recipient (patient) and to describe how caregiver experiences and needs change over time

Methods: The methodology for this study is qualitative description using structured, open-ended individual interviews with informal caregivers. Data analysis will consist of review of interview transcripts and field notes with identification of themes and key comments. The investigator will search for themes that represent commonalities across participants' comments.

Results: Themes will be generated inductively from responses to interview questions and field notes. Recurring ideas and perspectives will be recorded as themes. Preliminary themes will be identified as the records are reviewed. Themes will be interrelated, by juxtaposing those with similar meanings. Suggestions from study participants regarding what could be done to help them be more effective and cope better in their caregiving role will be analyzed and compiled.

Conclusion: The findings from this study will provide nursing and social work staff with information on how to better support informal caregivers in their very important role in the care of oncology patients. The findings may also be used to inform planning and content of caregiver education for nursing and other staff, to better meet the needs of this population.

References

Family Caregiver Alliance. (2016). Caregiver statistics: Demographics. Retrieved from

<https://www.caregiver.org/caregiver-statistics-demographics>

Given, B. A., Given, C. W., & Sherwood, P. R. (2012). Family and caregiver needs over the course of the cancer trajectory. *The Journal of Supportive Oncology*, 10(2), 57-64.

Greenwood, N., Smith, R. (2015). Barriers and facilitators for male carers in accessing formal and informal support: A systematic review. *Maturitas*, 82(2), 162-169.

Knobf, M. T., et al. (2015). The 2014-2018 Oncology Nursing Society research agenda. *Oncology Nursing Forum*, 42(5), 450-465.

Stamataki, Z., Ellis, J.E., Costello, J., Fielding, J., Burns, M. & Malassiotis, A. (2014). Chronicles of informal caregiving in cancer: Using "The Cancer Family Caregiving Experience" model as an explanatory framework. *Support Care Cancer*, 22:435-444.

Van-Ryn, M., et al. (2011). Objective burden, resources, and other stressors among informal cancer caregivers: A hidden quality issue? *Psychoncology*, 20(1), 44-52.

Contact

slccobb@gmail.com

RSC PST 3 - Research Poster Session 3

The Effect of Music Therapy on Hospitalized Psychiatric Patients

Tso Ying Lee, PhD, RN, Taiwan

Abstract

Purpose: In this study, we explored the effects of music therapy on hospitalized psychiatric patients' anxiety levels using the physiological measures of finger temperature and EEG and a psychological instrument. This study aimed to explore the effectiveness of music therapy in reducing anxiety in hospitalized psychiatric patients.

Methods: The authors used a randomized clinical trial design and randomly allocated the 24 enrolled participants to the experimental or the control group. Patients in the experimental group received music therapy in a therapy room at a set time for 30 min each morning for 11 days. The authors administered the Beck Anxiety Inventory (BAI) and measured skin temperature and brain waves to determine anxiety level before, during, and after music therapy.

Results: Experimental group participants had lower scores on the BAI than control participants, after the music therapy ($z=-2.0$, $p<0.05$) and at 1-week follow-up ($z=-2.2$, $p<0.05$), indicating that they were experiencing significantly less anxiety. The mean BAI anxiety score fell in the experimental group from 23.9 (SD=9.9) at baseline to 13.9 (SD=8.8), after music therapy, and 12.7. (SD=10.5) at follow-up. The experimental group demonstrated a significant elevation in the average alpha electroencephalographic (EEG) percentage (from 38.1% to 46.7%) and a reduction in the average beta EEG percentage (from 61.9% to 53.4%) after the music therapy. After adjusting for change in patient finger temperature on the first day, mean change in finger temperature did not differ significantly between the experimental and control groups.

Conclusion: Our findings support the effectiveness of music therapy in facilitating relaxation. This kind of music can mitigate sympathetic nervous system reaction, resulting in decreased muscle tone and lowered sympathetic activity. Listening to music can, not only convert a person's mood from nervous to calm, also arouse alpha waves in the brain, which are associated with relaxation. Future studies on music therapy should consider mechanisms such as the alpha wave hypothesis and finger temperature in order to advance the understanding of music's psychological and physiological effects.

References

- Shih, Y. N., Chen C. S., Chiang, H. Y., & Liu, C. H. (2015). Influence of background music on work attention in clients with chronic schizophrenia. *WORK: A Journal of Prevention, Assessment, & Rehabilitation*, 51(1), 153-158.
- Shih, Y. N., Huang, R. H., & Chiang, H. Y. (2012). Background music: Effects on attention performance. *WORK: A Journal of Prevention, Assessment & Rehabilitation*, 42(4), 573-578.

Contact

tsoyinglee@yahoo.com.tw

RSC PST 3 - Research Poster Session 3

Related Factors on Sexual Risk Behaviors Among Adolescent at Vocational School in Thailand

Prueksalada Khiaokham, MNS, RN, Thailand

Punpilai Sriarporn, PhD, RN, Thailand

Apsorn Konrad, PhD, RN, Thailand

Piyawan Nuntapong, MNS, RN, Thailand

Abstract

Introduction: Adolescents involve in many changes and these changes sometimes incongruent, contributing to teenagers' confusion, lack of confidence, and lack of restraint. These impacts may lead them to make wrong decisions in risky circumstances and engage in harmful manners, including sexual behaviors. There is a higher incidence of sexual behaviors among adolescents than other groups because the consequences of dynamic sexual development and the influence of dramatically increasing sexual hormones lead to high sexual drives and craving to know about sex. In Thailand, as society changes in terms of increasing nuclear families, parents appear to not have enough time to take care of their children like in the past. As a consequence, the children have direct risks for sexual behaviors.

Most adolescents lack of awareness and are unable to control themselves in terms of expressing appropriate behaviors with opposite genders. These issues lead to risky sexual behavior. In the developmental stage of adolescents, they crave to know about—and try to do—new things, but they do not realize that they are immature and lack of experiences and life skills. Therefore, due to being unaware of the consequences of having pre-marital sex, they might face many problems, such as unwanted pregnancy, seeking criminal abortion, unsafe abortion, and sexually transmitted diseases. The severity and rate of these impacts have been dramatically increasing amongst adolescents (Saifon Eakwarangkorn, 2012; Kungploy Aeiwittayasuporn, and Ornnicha Pomeanthip, 2011).

A study of the relationship between sexual education, self-control, and communication in the family regarding sexual risk behaviors in terms of being with opposite genders among vocational students is needed in order to gain more understanding and develop a program for providing education to adolescents, as well as for preventing sexual risk factors in terms of being suitable for vocational students' contexts in Northern Thailand.

Purpose: The purposes of this correlational research study will determine the relationship between knowledge in sex education, family communication, self-control and sexual risk behaviors and explore the predictability of knowledge in sex education, family communication, and self-control on sexual risk behaviors of adolescent vocational students.

Methods: The samples will be 328 adolescent students aged between 15-19 years old who are studying in vocational school in Thailand. Five assessment tools including one questionnaire and four measurement scales will be used for collecting data, as following: 1) demographic questionnaire, 2 knowledge in sex education scale 3) family communication scale 4) self- control scale and 5) sexual risk behaviors scale. Data will be analyzed by using descriptive statistics, Pearson' product-moment collected and multiple regression analysis.

Results: The expected results will be as follow; 1) Self- control, knowledge in sex education and family communication whether relationship with Sexual risk behaviors of adolescent students. 2) Self- control, knowledge in sex education and family communication whether predict sexual risk behaviors of adolescent students.

Conclusion: The result of this study will be beneficial for health professionals, educators and staff who have been working closely with vocational adolescent students. The results will help to know about basic information and to get more understandings. These data will be useful for planning health education in class and developing program for preventing risk behaviors in vocational school.

References

Tuksina Maungjai. (2012). *Predictability of Self-control, Knowledge in Sex Education and Family Communication Concerning Opposite Sex Friends on Sexual Risk Behaviors of Female Adolescent Students*. Master's thesis, Chiang Mai University.

Contact

prueksalada.aom@gmail.com

RSC PST 3 - Research Poster Session 3

Behaviour Development of Early Detection of Breast Cancer Among University Students With Peer Education Model

Seher Yurt, PhD, RN, Turkey
Rabía Aksut, PhD, RN, Turkey
Hasibe Kadioglu, PhD, RN, Turkey

Abstract

Purpose: Breast cancer, with a rate of 40.7%, is one of the most common cancers among women. Lack of knowledge about this issue among women in developing countries causes late diagnosis of breast cancer and increase of cancer incidence.

Women can realize the 80-90 % of mass by breast self-examination (BSE). After a regular BSE, woman familiarizes her breast tissue and can recognize the changes easily. Furthermore, BSE is a costless, simple, reliable and effective method. Alongside the women over 40 among whom incidence of breast cancer has increased, it is highly important for young women to improve knowledge about BSE and do a regular BSE. One of the important steps to acquire sanitation behaviours and take sanitation responsibilities among young people is informing the young with health education.

The study aims to improve knowledge and early detection behaviours of breast cancer with peer education model among university students.

Methods: In the methodology part of the study, the method of pre-test, post-test and control group will be used among groups that are not randomized. The sample of the study will consist of all first grade students studying at Maltepe University in 2016-2017 fall term (n=2500). In the implementation phase of the study, peer education model for an hour will be applied which aims to give knowledge about breast cancer and BSE. As peer educators, 60 intern nurse students will take part.

The implementation of the project will be between from October to December 2016. For the evaluation of the effect of education, BSE scale developed according to Champion's health belief model will be used.

Results: The project is in process and will be concluded in December 2016. The findings of the study will be presented after the project finishes.

Conclusion: This findings of the study will be presented after the project finishes in January 2017.

References

- Christiansen, B., Bjørk, T.I., Havnes, A. & Hessevaagbakke, E. (2011). Developing supervision skills through peer learning partnership. *Nurse Education in Practice*, 11(2),104–108.
- Alpteker H, Gümüş D, Doğan S, Bilir S, Önal M. (2011). Kız öğrencilerin meme kanseri ve kendi kendine meme muayenesi bilgi ve uygulamalarının incelenmesi, *The Journal of Breast Health*, 7(3):176-181.
- Pınar G, Öksüz E, Beder A, Elbaş NÖ. Testis kanseri taramalarında Champion'un Sağlık İnanç Modeli Ölçeğinin Türkçe uyarlamasının Güvenirlilik ve Geçerliliği, *Tıp Araştırmaları Dergisi*, 2011 9(2):89-96.
- Abdurrahman G.O.J. Rahman GA. Epidemiology of Breast cancer in Europe and Africa, *Journal of Cancer Epidemiology*, 2012, (59); 1-5.

Contact

seheryurt@maltepe.edu.tr

RSC PST 3 - Research Poster Session 3

Encouraging Healthy Coping, Self-Care Efficacy, and Agency in Nursing Students

Paula A. Barbel, PhD, RN, PNP, USA
Amanda Coyle, PhD, RN, FNP-BC, USA

Abstract

Purpose: To examine the effect of the Self-Care Education for Nursing Students (SCENS) program on self-care efficacy, coping, sleep, disordered eating and alcohol use among junior nursing students.

Methods: Undergraduate nursing students are fiercely driven students, but along with this drive to achieve comes a significant amount of stress and anxiety. Often these students develop unhealthy coping mechanisms such as alcohol use, disordered eating, and sleep disturbances (Barry & Piazza-Gardner, 2015; Carvalho Bos, et. al, 2013; Gaultney, 2010; Hershner & Chervin, 2014; Schaumberg, Anderson, Reilly & Anderson, 2014). Nursing students can lack healthy self-care and effective coping strategies while learning to care for others. Lack of appropriate self-care practices can lead to deviations in health status which can have detrimental effects on the physical and mental well-being of nursing students as well as their academic performance (Carvalho Bos, et. al, 2013; Hershner & Chervin, 2014; National Eating Disorders Association, 2015). It is therefore necessary to identify effective intervention programs that will improve self-care practices, healthy coping, and self-care efficacy which in turn leads to increased overall general health and well-being in these students.

The sample consisted of 70 junior nursing students beginning the traditional nursing program at a college in Upstate New York. The Self-Care Education for Nursing Students Program (SCENS) is a mandatory part of the nursing program and consists of three meetings with a graduate counseling student. These meetings took place in the first, eighth, and final week of classes. Meetings consisted of groups of approximately 25 students each. The first meeting focused on how healthy eating and sleeping aid in stress management and self-care. The second meeting covered use of drugs and alcohol and how they can hinder self-care and impair coping. The third meeting included healthy coping strategies. For each of the three meetings, students were directed to on-campus resources for help if needed. The study was explained to the nursing students and if a participant chose to participate, they signed a consent form and completed the questionnaires. There was no penalty for non-participation. The following instruments were utilized: AUDIT-Enhanced measured alcohol; the Exercise of Self-Care Agency Scale (ESCAS) measured self-care agency; the Coping Self-Efficacy Scale (CSES) measured coping self-efficacy; the Eating Disorder Diagnostic Screen (EDDS), questions 1 – 5 and 15 – 18, measured disordered eating, and; the Sleep Difficulty Index measured sleep difficulties. Data were analyzed using descriptive statistics and paired t-tests utilizing SPSS version 22.0.

Results: A final sample size of 65 students participated in the study. Participants were mostly Caucasian female students (75.9%, 88.9% respectively) with an average age of 20.8 years old. Most were never married and without a partner (59.3%) and half of the students were working. The vast majority were not caregivers (92.6%) and did not engage in volunteer activities (85.2%). Only 32.5% reported that they spent time each week on supporting their spiritual needs. Participants had a mean pre-program sleep difficulty score of 7.82 (SD 2.169) and a mean post-program score 8.46 (SD 2.187). However, 18.5% had scores from 11 to 13 indicating significant difficulty sleeping. Higher scores reflect greater difficulties with sleep. The majority of the students (62.9%) reported having suffering from sleeplessness from 1-2 times a month to more than once a week. Students also reported that the sleeplessness did affect their ability to work (66.1%) and most reported having difficulties falling asleep (75.8%) and having woken up in the night and not being able to go back to sleep.

The mean pre-program AUDIT-Enhanced score was 5.52 (SD 4.023) and the mean post-program score was 6.53 (SD 5.173). A score of 8 or greater indicates harmful or hazardous drinking. The majority of the students reported drinking alcohol (90.3%) with 66.1% reporting drinking between 1 to 4 drinks on the occasions that they were drinking, 25.4% drinking 5 or 6 drinks, 6.8% having 7 to 9 drinks and 1.7% 10 or more drinks. Approximately 64% reported having drank 5 or more drinks on one occasion at least

monthly, with 19.4% reported weekly. Several students (32.2%) reported feeling guilt or remorse after drinking and 35% reported being unable to remember what happened the night before because of drinking. Students 23% reported drinking alone (23%), while depressed (19.7%), when they felt nervous (27.9%) and reported drinking to forget their problems (23%).

The pre-program mean score for the questions 1-4 of the Eating Disorder Diagnostic Scale was 12.03 (SD 7.485) and the post-program mean score was 15.05 (SD 9.054). A significant percentage of students (79%) reported feeling slightly to extremely fat and 54.8% had a moderately to extreme fear of gaining weight (54.8%), with 16.1% reported extreme fear of gaining weight. Several students (48.5%) also reported that weight has influenced how they think of themselves, and 55.6% have reported consuming an unusually large amount of food on occasion in the past 6 months. However, none reported having made themselves vomit or use laxatives as a way to prevent weight gain although 11.2% did report fasting or skipping meals at least once a week to prevent weight gain and 19.4% report having exercised excessively to prevent weight gain.

The mean pre-program score for the Coping Self-Efficacy Scale was 178.06 (SD 35.01) and the mean post-program score was 176.15 (SD 39.79). The mean pre-program score for the Exercise of Self-Care Agency Scale was 154.50 (SD 13.826) and post-program score was 154.53 (SD 14.083). Higher scores reflect greater coping self-efficacy and exercise of self-care agency. There were no statistically significant differences in scores between the pre-program measures and the post-program measures.

Conclusion: Results of the study indicate that junior nursing students have self-reported difficulties with sleep including sleeplessness. Students also have significant issues with some disordered eating patterns related to body image perception and alcohol use, with a small percentage reporting binge drinking. This finding is consistent with the literature regarding alcohol use among nursing and health care students (Barry & Piazza-Gardner, 2015; Carvalho Bos, et. al, 2013). Students did have higher levels of perceived coping, self-care efficacy and exercise of self-care agency. Although there were no statistically significant differences in the pre and post program scores, the findings highlight the continued stressors faced by nursing students as they progress through the nursing program. These factors may contribute to unhealthy and ineffective coping strategies and ultimately affect academic performance and achievement. Further studies need to be conducted to develop effective programs to help address these issues for nursing students.

References

- Carvalho Bos, S., Soares, M.J., Marques, M., Maia, B., Pereira, A.T., Nogueira, V., Valente, J. & Macedo, A. (2013). Disordered eating behaviors and sleep disturbances. *Eating Behaviors, 14*, 192-198.
- Barry, A.E. & Piazza-Gardner, A.K. (2012). Drunkorexia: Understanding the Co-occurrence of Alcohol Consumption and Eating/Exercise Weight Management Behaviors. *Journal of American College Health, 60*, 236-243.
- Schaumberg, K., Anderson, L.M., Reilly, E. & Anderson, D.A. (2014). Patterns of Compensatory Behaviors and Disordered Eating in College Students. *Journal of American College Health, 62*, 526-533.

Contact

pneil@brockport.edu

RSC PST 3 - Research Poster Session 3

Factors Associated With Intermittent and Light Smoking Among Korean Adolescents

Jin Suk Ra, PhD, APN, NNP-BC, Korea, Republic of (South)
In Sook Park, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Smoking in adolescence is a risk factor of lung cancer and death from cardio-cerebral vascular disease in adulthood; in the short term, it can also be associated with adolescents' poor psychological health such as depression or suicidal ideation. However, approximately one quarter of adolescents appear to underestimate the harm caused by smoking. In particular, adolescents who engage in intermittent (i.e., smoking on 1–29 days out of every 30) and light smoking (smoking less than 10 cigarettes per day) were more likely to consider that their smoking behaviors were not harmful to their health. Similarly, intermittent and light smokers were less often advised to quit smoking by health care providers than were heavy smokers, and showed more increased risk for cancer, cardiovascular disease, and respiratory symptoms than non-smokers. Most adolescent smokers, including those in the Republic of Korea, exhibited intermittent and light smoking. Thus, adolescents who are still intermittent and light smokers might be an important target group for school-based smoking cessation programs. To maximize the effect of these programs by tailoring them to their target group, the identification of factors associated with intermittent and light smoking among adolescents would be a first step. The purpose of this study is to identify the factors associated with intermittent and light smoking among Korean adolescents based on biopsychosocial model.

Methods: In this cross-sectional study, we employed secondary data from the 2015 Korea Youth Risk Behavior Web-Based Survey, and used the biopsychosocial model as a framework. The analysis was performed using the data of 31,038 high school students (both non-smokers and current smokers). We defined intermittent and light smoking as smoking for 1–29 days in a 30-day period and smoking less than 10 cigarettes per day. Logistic regression analysis using the complex samples procedure was applied to examine the factors associated with intermittent and light smoking among adolescents.

Results: Among all study participants, 11.7% were current smokers; of these current smokers, 42.2% were intermittent and light smokers. The significant factors predicting intermittent and light smoking were male gender (as a biological factor); depressive symptoms and alcohol consumption (as psychological factors); and having siblings and close friends who smoke, observing teachers and other staff smoking in school, academic achievement, and participation in smoking cessation education in school (as sociocultural factors).

Conclusion: In smoking cessation programs, health care providers in both the school and community should consider the unique biological, psychological, and sociocultural characteristics of intermittent and light smoking behaviors among adolescents.

References

- Amrock, S. M., & Weitzman, M. (2015). Adolescents' perceptions of light and intermittent smoking in the United States. *Pediatrics*, 135, 246-254.
- Chung, S. S., & Joung, K. H. (2014). Risk factors for current smoking among American and South Korean adolescents, 2005-2011. *Journal of Nursing Scholarship*, 46, 408-415.
- Rubinstein, M. L., Rait, M. A., Sen, S., & Shiffman, S. (2014). Characteristics of adolescent intermittent and daily smokers. *Addictive Behaviors*, 39, 1337-1341.

Contact

ispark@cnu.ac.kr

RSC PST 3 - Research Poster Session 3

Lived Experience of Emergency Service Personnel in Pediatric Resuscitation and Unexpected Death: A Phenomenological Study

Judith Elwanda Lindsay, PhD, RN, USA

Abstract

Purpose: The purpose of this study was to understand the experiences of health care professionals who have encountered an unexpected pediatric death after an unsuccessful resuscitation in an emergency care setting. There is an emotional cost to caring and emergency health care providers are exposed to trauma and family distress on a regular basis. It is important to understand the emotional and psychological costs to health care providers, especially emergency service personnel who care for children who are dying or may have died. The research question asked of the participants was "What is it like for you when a child dies after an unsuccessful resuscitation effort?"

Methods: This was a qualitative Hermeneutic Phenomenological study guided by the philosophy of Max van Manen to uncover meaning and structures inherent in the experiences of emergency service personnel who experienced an unexpected death of a child. Study participants were recruited by snowballing, flyers and presentations. Using an open-ended format, participants (n=8-4 physicians, 3 registered nurses, and 1 respiratory therapist) were interviewed at a place of their choice and convenience. Interviews were transcribed verbatim with no identifying information. Madison's nine principles were used to ensure rigor.

Results: Van Manen's four existentials guided this study-Spatiality (lived space), Corporeality (lived body), Temporality (lived time), and Relationality (lived other). 12 subthemes emerged from the existentials that included: "what if", "dying before my eyes", "team", "what if it was my child?/being a parent", "brutality of a resuscitation", "being trapped", "wounded healer", "education", "anger", "failure", and "coping".

Conclusion: Findings from this study identified that these health care professionals experience a sense of anger, failure, and a lack of preparation to cope with an unexpected pediatric death and the unknowns of life. Implications include gaining an in-depth understanding of this experience from the perspective of those involved and developing a cadre of coping and grieving interventions for emergency service personnel. Implications for education include: pediatric end-of-life training including education on communication, relaying "bad news", debriefing, and self-care. Findings may also provide guidance for the implementation of revised emergency personnel standards, practices, and policies.

References

American Academy of Pediatrics, Committee on Pediatric Emergency Medicine; American College of Emergency Physicians, Pediatric Committee; Emergency Nurses Association, Pediatric Committee. (2013). Joint policy statement: guidelines for care of children in the emergency department. *Journal of Emergency Nursing*, 39(2), 116-131.

O'Malley, P. Barata, I., Snow, S. (2014, July) Death of a child in the emergency department. *Pediatrics*. 134 (1). E313-e330.

Contact

judith.lindsay@nau.edu

RSC PST 3 - Research Poster Session 3

The Prevalence Rate of Deviations in Body Constitutions and Related Factors in Breast Cancer Patients

Amy Shu-Chuan Lin, MSN, RN, ARNP, Taiwan

Li-Li Chen, PhD, RN, Taiwan

Abstract

Purpose: Breast cancer is one of the most common malignancies in women worldwide, with an overall five-year survival rate of up to 90% in developed countries. The related occurrence of a second malignancy and chronic disease is increasing among breast cancer survivors because of their prolonged lifespan. Healthy lifestyle behaviors to prevent disease have become an important issue for the follow-up stages of breast cancer patients. Breast cancer patients' compliance with healthy lifestyle behaviors is lacking. Enhancing patients' motivation to change health behavior is the main goal for healthcare providers. The aim of this study was to apply a rigorous traditional Chinese medicine (TCM) body constitution questionnaire (BCQ) to survey the prevalence rate of deviations in body constitution and to explore the health-related lifestyle behavior factors of deviations in body constitution. The aim of this study was to apply a rigorous traditional Chinese medicine (TCM) body constitution questionnaire (BCQ) to survey the prevalence rate of deviations in body constitution and to explore the health-related lifestyle behavior factors of deviations in body constitution.

Methods: A cross-sectional study was administered through postal mail. Subjects were recruited from a national organization for breast cancer patients (Taiwan Breast Cancer Alliance). Data were obtained from 311 breast cancer patients by questionnaires including a demographic record sheet, lifestyle behavior scales and the BCQ (Yang-Xu, Yin-Xu, and Stasis). Differences concerning the presence of body constitutions were analyzed by Chi-square tests and analyses of variance, and potential predictive factors were analyzed using multivariate logistic regression.

Results: In total, 55.3% of the subjects had a Yang-Xu constitution, 61.0% had a Yin-Xu constitution, and 47.6% had a Stasis constitution. A total of 42.8% of the patients displayed a combination of the three types of body constitutions. Feeling stressed, physical exercise, and favoring fried food were predictors of the combined Yang-Xu, Yin-Xu and Stasis constitutions ($p < 0.05$). Staying up late was significantly associated with Yin-Xu ($p = 0.017$), and favoring salty food was significantly associated with Stasis ($p = 0.019$).

Conclusion: A high prevalence of deviations in body constitutions was observed in the follow-up stage of breast cancer patients. Increasing the adherence to healthy lifestyle behaviors might strengthen and balance body constitution, which could improve supportive care in breast cancer survivors.

References

1. Ansa B, Yoo W, Whitehead M, Coughlin S, Smith S. Beliefs and behaviors about breast cancer recurrence risk reduction among African American breast cancer survivors. *Int J Environ Res Public Health*. 2016;13. doi: 10.3390/ijerph13010046.
2. Wang JW, Yang ZQ, Liu C et al. Cancer survivors' perspectives and experience on western medicine and traditional Chinese medicine treatment and rehabilitation: a qualitative study. *Patient Preference Adherence*. 2015;9:9-16. doi: 10.2147/PPA.S76617.
3. Lee YW, Chen TL, Shih YR et al. Adjunctive traditional Chinese medicine therapy improves survival in patients with advanced breast cancer: a population-based study. *Cancer*. 2014;120:1338-1344. doi: 10.1002/cncr.28579.
4. Lai JN, Wu CT, Wang JD. Prevalence, pattern, and costs of Chinese medicine use among breast cancer women in Taiwan during 1998-2008. *Tradit Chin Med*. 2013;24:13-23.
5. Feng HP, Hsiao FH, Lai YM et al. Cultural perspectives on health care needs of patient with breast cancer. *Leadership Nursing*. 2013;14:1-10.

Contact

amy6708@gmail.com

RSC PST 3 - Research Poster Session 3

Light Therapy on Sleep Phase-Shift in Shift Workers: A Meta-Analysis

Min-Huey Chung, PhD, RN, Taiwan
Calvin Lam, MSc, Taiwan

Abstract

Purpose: The treatment effects of Light therapy on sleep were widely studied. However, there was limited meta-analysis had investigated the dose-response of light therapy and for shift workers. We are conducting a meta-analysis by including eligible randomized controlled trials (RCTs) to investigate whether there is dose-response of light therapy on sleep phase shift of shift workers.

Methods: We searched for relevant articles in 10 databases, included PubMed, Medline, Cochrane, Embase, LILACS, Open Grey, PsycINFO, PubPsych, SCOPUS, and CINAHL. Search keywords included "light therapy", "shift work", and "randomization". Two reviewers independently screened the articles and extracted the data. No additional data were found even after contacting the authors of the eligible studies. We finally included 9 RCTs from 1819 records. Analyses were performed using the random-effects model.

Results: Outcomes were measured by melatonin concentration and phase shift in hour. Light therapy exerted a significant effect on sleep phase shift, with a large pooled effect size (Hedges's $g = 1.476$, $p < 0.001$). However, There was significant high heterogeneity ($Q = 55.56$, $p < 0.001$, $I^2 = 85.6$) but low publication bias (Begg's test, $p = 0.076$; Egger's test, $p = 0.081$, no missing study in the funnel plot). There were significantly different effect sizes between the studies with the outcomes of melatonin concentration ($k = 4$, $g = 1.201$, $p = 0.07$) and phase shift in hour ($k = 5$, $g = 1.723$, $p = 0.004$). However, no significant treatment dose-response on the sleep phase shift.

Conclusion: The large effect size suggests that Light therapy is effective in sleep phase shift for shift workers. However, the high heterogeneity, inconsistent effect sizes between different measurements, and non-significant treatment dose-response turn the current findings inconclusive. Further investigation on the possible moderators, such as demographic data, and potential research bias, such as methodological quality, are needed.

References

Slanger, T. E., Gross, J. V., Pinger, A., Morfeld, P., Bellinger, M., Duhme, A.-L., . . . Erren, T. C. (2016). Person-directed, non-pharmacological interventions for sleepiness at work and sleep disturbances caused by shift work. *Cochrane Database of Systematic Reviews*(8). doi:10.1002/14651858.CD010641.pub2

Gan, Y., Yang, C., Tong, X., Sun, H., Cong, Y., Yin, X., . . . Lu, Z. (2015). Shift work and diabetes mellitus: a meta-analysis of observational studies. *Occup Environ Med*, 72(1), 72-78. doi:10.1136/oemed-2014-102150

Contact

minhuey300@tmu.edu.tw

RSC PST 3 - Research Poster Session 3

Mental Healthcare Utilization Among School-Based Adolescents in La Union, Philippines

Jonas Preposi Cruz, PhD, MAN, BSN, RN, Saudi Arabia

Paolo C. Colet, PhD, MAN, BSN, RN, RM, Saudi Arabia

Mehmet Sinan Iyisoy, MS (Stats), Turkey

Abstract

Purpose: Mental health problems continue to contribute a significant fraction of the global disease burden (Whiteford, Ferrari, Degenhardt, Feigin & Vos, 2015). Globally, approximately 20 percent of children and adolescents experience mental health problems, while up to 50 percent of adult mental disorders begins in adolescents (Belfer, 2008). The Philippines share similar concern on mental health among adolescents with the rest of the world. In the Philippines, the most common mental health problems among youths are depression, anxiety and mood disorders. Despite this concern, utilization of mental health care facilities across the Philippines is uneven, favoring those living in or near the National Capital Region (World Health Organization [WHO], 2007). Adolescents' utilization of mental health care services, however, has not been carefully investigated especially those in provinces where mental health facilities are lacking. Thus, this study examined the mental health care utilization among school-based adolescents in the province of La Union, Philippines.

Methods: This study employed a descriptive, cross-sectional design in assessing the mental health care utilization among a convenience sample of 683 high school (HS) students in two secondary schools in the province of La Union, Philippines. A 2-part self-administered questionnaire was utilized to gather data from September to October 2016. Part 1 collected data on the socio-demographic characteristics, which include age, gender, grade level, religious affiliation, number of family members, family structure, type of community, perceived family financial status, number of friends, if involve in intimate relationship and involvement in extra-curricular activities (participation in sports team and school organizations and leadership involvement). Part 2 consisted of dichotomous questions with yes or no response option which asked the respondents if they have visited or talked or consulted to the listed mental health care personnel or facilities due to feelings of depression, anxiety or stress in the past six months. The list was based on existing questionnaires related to mental health care utilization, as well as the availability of the said personnel or facility in the research setting. Frequency count, percentage, and mean were used to describe the demographic characteristics and mental health care utilization of the respondents, as appropriate. Pearson's Chi-square test and Fisher's exact test were used accordingly to examine the relationships between the socio-demographic characteristics and the mental health care utilization. A p-value less than 0.05 was considered significant.

Results: The average age of respondents was 14.52 years (SD= 1.37). The majority of the respondents were male (54.6%), were attending public high school (63.7 %), were Roman Catholic member (74.4%), had a nuclear family structure (74.4%), were living in an urban community (72.5%), had middle family financial status (88.0%), had more than 10 friends (68.7%) and were not involved in an intimate relationship (72.9%). Regarding involvement in extra-curricular activities in their school, more than half of the respondents were not a member of any school organization (67.9%), while 75.0% and 76.0% of them were not members of any school sports team and did not hold any leadership position, respectively.

For the utilization of mental health care, only 23.7 % and 46.9% of the respondents visited or consulted their guidance counselor and school clinic, respectively, due to feelings of depression, anxiety or stress in the last six months. More than half of the respondents did not visit or consulted their village health clinic (76.6%) and a general practitioner (65.5%) in the last six months for symptoms related to depression, anxiety or stress. Furthermore, almost all of the respondents did not consult a social worker (91.4%), a private practice psychologist, psychotherapist or psychiatrist (95.2 %), and a psychologist, psychotherapist or psychiatrist in an outpatient department of a hospital (94.7%).

A chi-square test of independence was performed to examine the relation between mental health care utilization and socio-demographic characteristics. The percentage of students who visited their guidance counselor for problems related to depression, anxiety or stress vary significantly between private and public schools, $\chi^2(1, N = 683) = 6.08, p = .014$. Public school students have less percentage/proportion (20.7%) of visiting a Guidance Counselor than private school students (29.0%). On the other hand, the proportion of the respondents who visited a village health clinic in the last 6 months differ by type of school ($\chi^2(1, N = 683) = 22.23, p < .001$), number of friends ($\chi^2(2, N = 683) = 7.62, p = .022$), perceived family financial status ($\chi^2(2, N = 683) = 7.60, p = .022$) and school organization membership ($\chi^2(1, N = 683) = 4.79, p = .029$). Private school students (13.3%) have less percentage of visiting a village health clinic than public school students (29.2%). Moreover, the percentage of the students who visited a village health clinic was higher among students with more than ten friends (26.4%) than students who had only 6 to 10 friends (17.4%) and less than five friends (16.1%). Students who perceived their family as poor (36.5%) had a higher proportion of visiting a village health clinic than those who perceived their family as rich (31.6%) and at the middle (21.8%). Also, students who were non-members of school organizations (25.9%) had a higher percentage of visiting a village health clinic than students who were involved in school organizations (18.3%).

On the other hand, the percentage of the students who consulted a general practitioner vary significantly by number of friends ($\chi^2(2, N = 683) = 6.08, p = .047$), by involvement to intimate relationship ($\chi^2(1, N = 683) = 6.36, p = .012$) and by membership to sports teams ($\chi^2(1, N = 683) = 4.90, p = .027$). Specifically, students who had less than five friends (24.7%) had a lesser proportion to consult a general practitioner than those who had 6-10 friends (31.4%) and more than ten friends (37.3%). Furthermore, the proportion of students who consulted a general practitioner was lesser in students who had a girlfriend (GF) or a boyfriend (BF, 27.0%) than those without GF or BF (37.4%), and higher in students who were members of sports team (41.5%) than those who were non-members (32.2%).

In terms of consultation to social workers, the proportions varies by community type ($\chi^2(2, N = 683) = 6.37, p = .041$) and financial status ($\chi^2(2, N = 683) = 7.04, p = .030$); the proportion is higher in students who were living in suburban communities (26.7%) than those living in rural (8.7%) or urban (8.1%) areas. Also, the percentage of students visiting a social worker is higher in students who perceived their family as poor (17.5%) than those who were rich (10.5%) or at the middle (7.7%).

Lastly, the percentage of the students who consulted a private practice psychologist, psychotherapist or psychiatrist were dependent on the school organization membership ($\chi^2(1, N = 683) = 2.85, p = .09$) and perceived financial status ($\chi^2(2, N = 683) = 11.21, p = .004$), while the percentage of students who visited an outpatient department of a hospital was dependent on school organization membership ($\chi^2(1, N = 683) = 11.22, p < .001$). The proportion of students who consulted a private practice psychologist, psychotherapist or psychiatrist was higher in students who were members of school organizations (7.9%) than those who were non-members (3.9%). Also, the proportion of students who visited an outpatient department of a hospital was higher in students who were members of school organization (10.4%) than those who were not members (3.7%). Students who perceived that they were rich (21.1%) had a higher proportion to consult a private practice psychologist, psychotherapist or psychiatrist than those who perceived that they were poor (4.8%) or at the middle (4.3%).

Conclusion: This study provided an overview of the status of mental health care utilization among school-based adolescents in the province of La Union in the Philippines. The findings suggest an underutilization of mental health care services among school-based adolescents, which is consistent with the results of a study conducted among college students in the Philippines (Tuliao, 2014). The findings also suggest existing disparities in mental health care utilization among the respondents when grouped according to their socio-demographic characteristics. The results of this study should be used to create a school-based, school nurse-led awareness program that aims to increase the awareness of the students regarding the existing mental health care services in their school and in the community, which they could utilize anytime. It should also be emphasized in the program the significance of seeking help for mental health-related problems. Lastly, collaboration with other stakeholders, such as the parents, the teachers, and the guidance counselors, should be initiated in the creation of such program, to identify their potential roles in ensuring good mental health among adolescents.

References

Belfer, M. L. (2008). Child and adolescent mental disorders: the magnitude of the problem across the globe. *Journal of Child Psychology and Psychiatry*, 49(3), 226-236.

Tuliao, A. P. (2014). Mental health help seeking among Filipinos: a review of the literature. *Asia Pacific Journal of Counselling and Psychotherapy*, 5(2), 124-136.

Whiteford, H. A., Ferrari, A. J., Degenhardt, L., Feigin, V., & Vos, T. (2015). The global burden of mental, neurological and substance use disorders: an analysis from the global burden of disease study 2010. *PLoS One*, 10(2), e0116820. doi: 10.1371/journal.pone.0116820.

World Health Organization. (2007). WHO-AIMS Report on Mental Health System in the Philippines. Department of Mental health and Substance abuse. World Health Organization.

Contact

cruzjprn@gmail.com

RSC PST 3 - Research Poster Session 3

Implementation of Current Technology in Online Learning

Glenda Susan K. Jones, MSN, RN, CNS, CCRN, CCM, USA

Milena P. Staykova, EdD, APRN, FNP-BC, USA

David Halpin, PhD, USA

Abstract

Digital technologies have a significant impact on the nursing education. To meet the challenges of the U.S. health care system for excellent patient outcomes, the Institute of Medicine (IOM) recommended higher educational attainment for the nursing workforce. In 2010, the IOM released its landmark report on *The Future of Nursing*, which called for 80% increase of the number of baccalaureate-prepared nurses (BSN) in the workforce by 2020. The online nursing education has grown rapidly to aim the RN to BSN transition. In 2011, an online survey was administered to students from a private health science college to evaluate the current RN-BSN Program. Pre-survey results indicated lower scores for the use of technology, access to faculty, and student interactions. A three phase quality improvement project was initiated to address the identified needs. In 2012, the RN-BSN faculty and members of the Instructional Technology department collaborated to identify best practices in online education and to address areas for improvement in the use of technology. During phase 2, a web-based virtual synchronous conferencing also known as collaboration was implemented in the online courses. The virtual collaboration was utilized for class orientation, office hours, student presentations, lectures, skill demonstrations, guest speakers, and polling and assessments of knowledge. In 2014, a digital clinical experiences virtual program that utilizes avatars was implemented in the physical assessment course to provide students interactive activities.

Purpose: The purpose of this project is to assess the effectiveness of emerging technologies in online teaching.

Methods: Multi-phase Quality Improvement Project. Phase 1: Pre-survey. A convenience sample of 75 Post-licensure BSN students received the Distance Education Learning Environments Survey (DELES) with also included evaluation of concepts such as qualitative learning attitudes and web technology. Six sub- scales were measured by the DELES Survey: instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, and student autonomy (Sahin, 2007, Walker & Fraser, 2005). SPSS 20.0 was utilized for data entry and statistics. Phase 2: Faculty evaluation of available online educational tools, purchase of the virtual program, training of faculty, and implementation of the virtual program in the online RN-BSN courses. Phase 3: A post survey to evaluate the student satisfaction with our online nursing program post implementation of the Blackboard Ultra Collaborate and Shadow Health Virtual Programs.

Results: The 2015 post course evaluations (phase three) reflected 100% satisfaction with access to faculty, student interaction, and use of technology. 60% of the students reported enthusiasm with online learning and concluded that the online learning was stimulating. 80% of the students concluded that the virtual collaboration improved collaboration between students and faculty, and their engagement and participation in the online courses. 80% of the students reported that they liked online examination with computer camera monitoring.

Conclusion: Student engagement is essential for achieving academic outcomes and increased satisfaction with online education. The use of technology has a key role in the success of the students in the contemporary online education.

References

Consorti, F., Mancuso, R., Nocioni, M., & Piccolo, A. (2012). Efficacy of virtual patients in medical education: A meta-analysis of randomized studies. *Computer & Education*, 59(3), 10001-10008. DOI:10.1016/j.compedu.2012.04.017.

Kleinheksel, A. J. (2014). Transforming learning through virtual patient simulation: Predicting critical student reflections. *Clinical Simulation in Nursing*, 10(6), e301-e308. DOI: 10.1016/j.ecns.2014.02.001.

Contact

gkijones@jchs.edu

RSC PST 3 - Research Poster Session 3

Exploring the Trajectories of Cognitive Symptoms in Advanced Cancer Patients Receiving Aggressive Immunotherapy: Preliminary Findings

Tara K. Mann, BSN, RN, USA

Robin B. Dail, PhD, RN, FAAN, USA

Shawn McClintock, PhD, MSCS, USA

Marilyn Hockenberry, PhD, RN, PPCNP-BC, FAAN, USA

Donald E. Bailey, PhD, RN, FAAN, USA

Abstract

Purpose: Patients with cancer receiving high-dose Interleukin-2 (IL-2) therapy experience alterations in cognitive functioning (Musselman et al., 2013) including changes in concentration, attention, short-term memory, executive functioning, language, and orientation (Mann, Dail, & Bailey, 2015) during treatment. Patients and care partners also report in online forums that cognitive symptoms were inadequately screened for and they were uninformed about potential cognitive alterations during and after treatment (Ejneary, 2011). Severe cognitive symptoms may result in early cessation of IL-2 treatment, which results in deficient treatment response. IL-2 is a cytokine produced naturally by the body. High-dose (HD) IL-2 is an immunotherapy produced synthetically and is used as a treatment in patients diagnosed with metastatic renal cell carcinoma (MRCC) to achieve remission or minimize the disease. HD IL-2 is defined as 600,000 IU/kg of IL-2 administered intravenously as a 15-minute bolus every 8-hours for up to 14 treatment doses. These 14 doses comprise one treatment hospitalization; patients can receive up to four treatment hospitalizations (Dutcher et al., 2014). The cognitive symptom trajectory has yet to be described. As such, a description of how symptoms change with each dose within and across hospitalizations is essential to maximize treatment delivery, potentially increasing remission rates in the IL-2 population.

The purpose of this study was to describe IL-2—induced cognitive symptoms (language, concentration, confusion, attention, short-term memory, and orientation) longitudinally from the perspective of the patient, care partner, and primary nurse who have first-hand knowledge of symptoms during the treatment course.

Methods: This exploratory, descriptive study used a mixed-methods case study approach to examine the cognitive symptom trajectory in ten IL-2 cases using qualitative and quantitative data. Each IL-2 case consisted of the IL-2 patient, care partner, and primary nurse. The patient completed two scales, the Montreal Cognitive Assessment (MoCA) and the Attentional Function Index (AFI), evaluating cognitive symptoms at pre- and post-treatment for each hospitalization, and a semi-structured recorded interview after treatment ended. The care partner completed a semi-structured journal entry every 8-hours at the time when a dose of IL-2 was administered, and a semi-structured recorded interview after treatment ended. The primary nurse completed a semi-structured recorded interview after treatment ended providing medical expertise/insight into the treatment trajectory.

The AFI is a 13-item scale with scores ranging from 0-100 measuring perceived changes in attention and working memory (Cimprich, Visovatti, & Ronis, 2011). Higher scores indicate better perceived attention and cognitive stamina (Asher & Myers, 2015). The Montreal Cognitive Assessment (MoCA) measures global cognitive functioning with a maximum total score of 30, and normal scores ranging from 26 to 30 (Rossetti, Lacritz, Cullum, & Weiner, 2011).

Results: Of the nine IL-2 cases currently enrolled, six have completed the study, and three are currently receiving treatment. Nine IL-2 patients have been admitted for two treatment hospitalizations, while three cases have completed all four treatment hospitalizations. Seven of the nine IL-2 patients were white males ranging from 37 to 60 years of age. Two of the IL-2 patients were black females ranging between 45 and 60 years of age. Seven of the IL-2 patients had their spouse as their inpatient care partner, one care partner was a daughter and one care partner was a significant other. All 19 primary nurses were

white, comprised of 18 females and 1 male. Nursing experience ranged from 1.5 to 28 years, with a mean of 13 years.

Our preliminary quantitative analysis suggests that cognitive symptoms can be grouped into three symptom trajectories: stable, mixed, or worsening. Total scores on the AFI decreased anywhere from 50 to 135 points from pre- to post-treatment time points indicating worsening perceived attentional functioning, with the largest change in cognitive fatigue during the first treatment hospitalization across all patients. In all but the first hospitalization, average total scores decreased by approximately 1-point from pre- to post-treatment measurement time points on the MoCA. For all patients, the most common changes were in the visuospatial executive function, attention, abstraction, and orientation domains.

Although quantitative measures were only administered at pre- and post-treatment, each case informant provided unique insight into the trajectory of cognitive symptoms. For example, one care partner stated, “[After dose 8], he said he felt the most ‘beat up’ so far. I can definitely tell a difference today...an increase in sleepiness, fatigue and attention span. Today was by far the worst I’d seen. He slept most of the day and he was not able to communicate very clearly. He really just had no energy.” One patient stated that his biggest challenge was, “Having the ability to focus. My brain could not multi-task. So trying to do things...if there was somebody changing the trash, and the TV on, and you know someone taking my vitals, and a doctor asking me questions, my brain couldn’t process all of those things.” One of the primary nurses noted, “Yesterday morning before [the patient] decided to quit [treatment], he said that he was having trouble and that he was just thinking slower. That he had dropped a Gatorade bottle, and it took him a minute to realize that.” These qualitative reports from the patient, care partner and nurse allowed us to identify symptom changes at the time of each IL-2 dose while also providing context into each symptom trajectory.

Conclusion: The use of a case study approach allowed for in-depth exploration of the cognitive symptom trajectory from individuals closest to the symptom experience. Although IL-2 patients only completed measurement scales at two time points (pre- and post-treatment) for each hospitalization, care partners proved to be essential in providing qualitative rich descriptions of symptoms experienced during high-dose IL-2 treatment, and how symptoms changed with each IL-2 dose. Additionally, the care partner played a unique role in identifying and reporting symptoms when the patient may be cognitively impaired. In the future, specific interventions can be developed for patients receiving IL-2 based on their cognitive symptom trajectory.

References

- Asher, A., & Myers, J. S. (2015). The effect of cancer treatment on cognitive function. *Clinical Advances in Hematology & Oncology*, 13(7), 441-450.
- Cimprich, Bernadine, Visovatti, Moira, & Ronis, David L. (2011). The Attention Function Index--a self-report cognitive measure. *Psycho-Oncology*, 20(2), 194-202. doi: 10.1002/pon.1729
- Dutcher, Janice P., Schwartzenruber, Douglas J., Kaufman, Howard L., Agarwala, Sanjiv S., Tarhini, Ahmad A., Lowder, James N., & Atkins, Michael B. (2014). High dose interleukin-2 (Aldesleukin) - expert consensus on best management practices-2014. *J Immunother Cancer*, 2(1), 1-23. doi: 10.1186/s40425-014-0026-0
- Ejneary. (2011). Interleukin-2 Treatments for Stage 4 RCC: After first round.
- Mann, T. K., Dail, R. B., & Bailey, D. E., Jr. (2015). Cognitive and Affective Symptoms Experienced by Cancer Patients Receiving High-Dose Intravenous Interleukin 2 Therapy: An Integrative Literature Review. *Cancer Nursing*. doi: 10.1097/ncc.0000000000000317
- Musselman, D., Royster, E. B., Wang, M., Long, Q., Trimble, L. M., Mann, T. K., . . . Miller, A. H. (2013). The Impact of Escitalopram on IL-2-Induced Neuroendocrine, Immune, and Behavioral Changes in Patients with Malignant Melanoma: Preliminary Findings. *Neuropsychopharmacology*, 38(10), 1921-1928. doi: 10.1038/npp.2013.85
- Rossetti, H C, Lacritz, L H, Cullum, C M, & Weiner, M F. (2011). Normative data for the Montreal Cognitive Assessment (MoCA) in a population-based sample. *Neurology*, 27(77), 1272-1275.

Contact

tara.mann@duke.edu

RSC PST 3 - Research Poster Session 3

Using Cognitive Rehearsal to Address Nurse-to-Nurse Incivility: Six Months Later, How Are They Doing?

Jennette S. Logan, DNP, RN, USA

Abstract

Purpose: Despite the expectation that nurses behave in civil and caring manners towards patients and other nurses, incivility persists. Research supports however, that there are evidenced based strategies to address uncivil behavior among nurses. Cognitive rehearsal is one of the best evidenced based strategies utilized successfully to address incivility in nursing and to prepare new graduate nurses for a successful career. Nikstaitis, and Simko(2014) conducted training about incivility over a 12 week period and consequently 100% of the population of intensive care nurses were able to successfully use cognitive rehearsal. However, Clark and Griffin (2014) reported that newly licensed nurses described using the rehearsed strategies as difficult, yet successful in reducing or eliminating incivility and lateral violence. The purpose of this research project was to obtain data from new graduate nurses to determine the effectiveness of a workshop and role play about incivility, six months following the training.

Methods: In October 2015, the researcher obtained IRB approval to conduct an educational intervention to address incivility in nursing. The educational intervention was a workshop which consisted of didactics about the definition, prevalence and impact of incivility in nursing. This was followed by a role play demonstrating incivility with time allotted for nursing students to practice Cognitive Rehearsal using cue cards developed by Martha Griffin. At the end of the workshop, 100% of the sample stated that they felt confident that they would be able to utilize cognitive rehearsal to effectively address incivility. The students further agreed to be contacted periodically after graduation regarding the use of Cognitive Rehearsal as new nursing graduates.

Six months following graduation, the researcher conducted the first follow up survey. The following 3 questions were asked. 1) Are you currently employed in nursing? 2) Have you experienced incivility while in the nursing setting? If so describe. 3) Were you able to use Cognitive Rehearsal to address the uncivil behavior? Why or why not?

Comparative analysis was used to analyze and categorize the findings.

Results: A six month follow up revealed the following: Eighty percent of the new nurse graduates experienced incivility in their new employment environments. This is consistent with research findings that suggested somewhere between 27-85% of nurses experience incivility. Fifty percent of the new graduate nurses who experienced incivility used Cognitive rehearsal to address the uncivil behavior whereas 50% did not successfully use Cognitive Rehearsal. The new graduates who did not use Cognitive Rehearsal explained that because they were new to the job, they felt uncomfortable addressing the uncivil behavior. One new graduate stated "I decided to just let it go since I had only been on the job a few weeks."

The uncivil behaviors experienced were categorized as rude, dismissive behavior and withholding information. One new graduate nurse stated "I called the charged nurse to give report at the end of my shift and she yelled at me... "not now"... and hung up the phone" I confronted her the following day and documented it in the discussion forum." Another nurse graduate stated, "I made a suggestion to the nurse manager about a procedure and she dismissed my suggestion without consideration. I approached her later in a calm manner and she apologized for her behavior. Other uncivil acts were categorized as withholding information. The nurse giving report ignored the new graduate and gave report only to the preceptor. The new graduate confronted the nurse and stated, "I am a part of the health care team also and I need report in order to provide quality patient care."

Conclusion: Evidenced based strategies to address incivility such as Cognitive rehearsal are effective but should be threaded throughout the nursing curriculum to increase efficacy and confidence in new graduates. Research by Warner (2016) demonstrated that a series of workshops over a 12- week period

enabled 100% of the participants to successfully utilize incivility. A single workshop conducted by this researcher enabled 50% of the new graduate nurses to use Cognitive rehearsal to address uncivil behavior. The researcher concurs with Clark (2014) that new graduate nurses find that Cognitive rehearsal is effective in reducing or eliminating incivility but it is extremely difficult for some new graduates to utilize this strategy. The researcher would further recommend that Cognitive Rehearsal training should be threaded throughout the curriculum as part of orientation, transition classes, mental health class and simulation/lab scenarios. More training and practice may boost confidence in using the strategy. Additionally, policies should be developed to reflect a “no tolerance stance” for incivility in the class room as well as the clinical setting. The researcher would further recommend a collaborative approach to addressing incivility which would involve academia as well as new nurse residency programs. Generalization of these findings is limited due to a small sample size.

References

Griffin, M. & Clark, C. (2014). Revisiting cognitive rehearsal as an intervention against incivility and lateral violence in nursing: 10 years later. *The journal of continuing education in nursing*, 45 (12), 535-542.

Stagg, J. Sheridan, D., Jones, R. & Speroni, K .(2011). Evaluation of workplace bullying cognitive rehearsal program in a hospital setting. *The journal of continuing education in nursing*. 42(9),395-401.

Contact

Jennette.Logan@Morgan.edu

RSC PST 3 - Research Poster Session 3

Mediator Role of Memory Function on Diabetes Self-Care Management in Older Adults

Youngshin Song, PhD, RN, Korea, Republic of (South)

Jeonghwa Cho, MSN, RN, Korea, Republic of (South)

Younghee Jun, MSN, RN, Korea, Republic of (South)

Kawoun Seo, MSN, RN, Korea, Republic of (South)

Keumok Park, MSN, RN, Korea, Republic of (South)

Bohyun Kim, BSN, RN, Korea, Republic of (South)

Abstract

Purpose: Memory function is important to perform the special intended tasks. Diabetes self-care composed of several complex tasks such as regularly check the glucose monitor, balance of diet and physical activity, and foot care. For improving diabetes self-care, higher diabetes self-efficacy as an essential factor was emphasized in studies. Despite of having higher self-efficacy in cognitively intact older adults with diabetes, individual behaviors on diabetes self-care is not same level. In order to transfer the intended behavior from self-efficacy, memory should be embedded. Memory function may help the self-initiated behavior such as diabetes self-care. However, little empirical evidences regarding the effects of memory function on self-efficacy and self-care management was found in adults with diabetes. Therefore, this study was to identify the role of memory function on the relationship between diabetes self-efficacy and self-care behavior for older adults with diabetes.

Hypothesis 1: Diabetes self-efficacy and memory function will significantly associate with diabetes self-care management.

Hypothesis 2: The relationship between diabetes self-efficacy and self-care management will be mediated by memory function.

Methods: The descriptive cross-sectional study design was conducted with a sample of 259 older adults (+65 years) with diabetes. Using structure equation model, the direct effect of diabetes self-efficacy and memory function on diabetes self-care management was estimated. After then, indirect effect of diabetes self-efficacy on self-care management after controlling for memory function as a mediator was estimated in the path diagram.

Results: The mean age of participants was 72yrs, and the mean year of diabetes was 12 yrs.

Hypothesis 1: Diabetes self-care management was positively associated with self-efficacy ($r=0.55$, $p<.001$), whereas memory function was negatively correlated with diabetes self-efficacy ($r=-0.19$, $p=.003$) and self-care management ($r= -0.29$, $p<.001$) in correlation matrix. The hypothesis 1 was confirmed

Hypothesis 2: Diabetes self-efficacy significantly predicted the diabetes self-care management ($\beta = 0.79$, $p = .009$) and memory function ($\beta = -0.22$, $p=.006$) in older adults with diabetes. Lower memory function was also significantly associated with greater self-care management ($\beta = -0.20$, $p = .043$). However, when memory function was entered as a mediator in the relationship between diabetes self-efficacy and self-care management, the direct effect between two was changed from $\beta = -0.79$ ($p=.009$) to $\beta = 0.04$ ($p = .017$). That is, the memory function was a partial mediator between diabetes self-efficacy and self-care management in older adults with diabetes. Thus, hypothesis 2 was confirmed.

Conclusion: A structural equation model confirmed the mediator role of memory function on the relationship between diabetes self-efficacy and self-care management in older adults. Therefore, for improving the diabetes self-care management in older adults with diabetes, health care provider should consider not only to enhance the diabetes self-efficacy but also to monitor individual function of memory in older adults.

References

1. Crawford JR, Henry JD, Ward AL, Blake J. The prospective and retrospective memory questionnaire (PRMO): Latent structure, normative data and discrepancy analysis for proxy-ratings, *British Journal of Clinical Psychology*, 45, 83-104, 2006.
2. Song Y, Song HJ, Han HR, Park SY, Nam S, Kim MT. Unmet needs for social support and effects on diabetes selfcare activities in Korean Americans with type 2 diabetes. *Diabetes Education*. 38(1):77–85, 2012
3. Cho J, Song Y, Jun Y, Lee Y, Kim JI. The mediation role of unmet need in healthcare providers' support for diabetes. *Indian Journal of Science and Technology*, 9(35), 1-8, 2016.
4. van Bussel FCG, Backes WH, Hofman PAM, van Boxtel, Schram MT, Stehouwer CDA, Wildberger JE, Jansen JFA, Altered hippocampal white matter connectivity in type 2 diabetes mellitus and memory decrements, *Journal of Neuroendocrinology*, 28(3), 1-8, 2016.
5. Garcia-Casares N, Jorge RE, Garcia-Ames JA, Acion L, Berthier ML, Gon-zalez-Alegre P, Nabrozidis A, Gutierrez A, Ariza MJ, Rioja J, Gonzalez-Santos P. Cognitive dysfunctions in middle-aged type 2 diabetic patients and neuroimaging correlations: a cross-sectional study. *Journal of Alzheimers Disease*, 42, 1337–1346, 2014.

Contact

yssong87@cnu.ac.kr

RSC PST 3 - Research Poster Session 3

Collaboration With Special Olympics: Graduate Nursing Program Successful Clinical Experience

Melissa A. Murphey, DNP, FNP-C, USA
Kathleen A. Muglia, DNP, APRN-BC, USA

Abstract

Purpose: Obtaining health care for those in vulnerable populations coupled with multiple comorbidities can be difficult. Vulnerable populations include those patients with developmental and physiological impairments including those born with Down Syndrome. Caregivers and family can be challenged by insurance coverage, transportation, advanced age and life constraints when obtaining care for this vulnerable group. As more nurses return to school for further education and positions as advanced practice nurses particularly nurse practitioners, the need to obtain clinical preceptorships have become increasingly competitive. This competition leads to a decrease in available positions for adequate clinical placement. Providing quality care to vulnerable groups (i.e., Special Olympics) in a setting that is comfortable for the patient was identified by a graduate nursing program. The aim at educating and preparing graduate students who would be successful with varied experience had become paramount in one school's journey

Methods: As a nursing school in an urban setting has found, collaborating and developing clinical partnerships with vulnerable groups has become a success for both the university and the target population. The university educators embraced on a journey of travelling to secondary schools to provide much needed care to groups in great need. Two doctorally prepared nurse practitioner led clinical groups were started that provided students the opportunity to learn a variety of skills that prior clinical sites often lacked. Physical exams were performed on patients with special needs assisting them in competing in their desired extracurricular activities.

Results: Practitioners recognized the rare opportunities students would have to experience care focusing on patients affected by Down syndrome, cerebral palsy and those developmentally challenged. Educating caregivers and patients on the importance of exercise and proper nutrition led to further enrichment and understanding of risks associated with obesity. Partnering with Special Olympics, a graduate nursing program broadened the clinical residency experience of nurse practitioner students.

Conclusion: Clinical educators should capitalize on diverse learning experiences to provide a more unique learning experience for their graduate student population.

References

- Donley, S. R., Flaherty, S. J., Sarsfield, E., Burkhard, A., O'Brien, S., & Anderson, K. M. (2014). Graduate Clinical Nurse Preceptors: Implications for Improved Intra-Professional Collaboration. *Online Journal Of Issues In Nursing*, 19(3), 1. doi:10.3912/OJIN.Vol198No03PPT01
- Elli, E. F., Gonzalez-Heredia, R., Patel, N., Masrur, M., Murphey, M., Chen, J., & Sanchez-Johnsen, L. (2016). Bariatric surgery outcomes in ethnic minorities. *Surgery*, 160(3), 805-812. doi:10.1016/j.surg.2016.02.023
- Hahn, J. (2003). Addressing the need for education: curriculum development for nurses about intellectual and developmental disabilities. *Nursing Clinics Of North America*, 38(2), 185-204.
- Jackson, D., Power, T., Sherwood, J., & Geia, L. (2013). Amazingly resilient Indigenous people! Using transformative learning to facilitate positive student engagement with sensitive material. *Contemporary Nurse: A Journal For The Australian Nursing Profession*, 46(1), 105-112. doi:10.5172/conu.2013.46.1.105
- Weber, S. (2005). Education in practice column. Specialized advanced clinical placements for nurse practitioner students. *Journal Of The American Academy Of Nurse Practitioners*, 17(8), 291. doi:10.1111/j.1745-7599.2005.0055.x

Contact

melissa.murphey@resu.edu

RSC PST 3 - Research Poster Session 3

Students' Perceptions of Stress When Experiencing Loss and the Support From Academia That is Needed

Kathleen M. Bell, EdD, MS, RN, PHN, USA

Abstract

Purpose: This presentation will explore the results of a 2015 dissertation regarding students who experienced loss through death within the prior 12 months. Students attending colleges and universities often have complex lives, which may include the experience of loss of someone close during an academic year at rates of 20-30 percent (Balk, Walker, & Baker, 2010; Boynton Health Service, 2013). The demographics of the United States reflect an aging population, increasing the chance of the death of the students' close relatives (Portman, Velkoff, & Hogan 2014).

Experiencing loss and the grief that follows can jeopardize educational goals. Because of the preponderance for experiencing loss for students, this author chose to research the stresses with loss that community college students experience and possible ways colleges can support.

Students may not always be able to prioritize their education while grieving and experiencing the secondary ramifications of loss. Their familial role may change, there may be financial and/or household details to be addressed, travel may be necessary to attend the funeral, and the students may experience emotional upheaval. Missing time can be detrimental to progression in nursing programs that are attendance driven and focus on a professional track of study. Additionally, for many students, their commitment to continue academically may depend on their integration into the college experience (Tinto, 2012). Colleges have not historically been responsive to supporting students who experience grief and loss, except during catastrophic experiences that may affect a community nearby or the college itself. Additionally, staff and faculty may not know how to address the issues of grief and loss experienced by students.

Assisting students through the immediacy of experiencing loss may not be enough help. Grief from loss can linger for months, if not years, in the form of complicated grief (Fox & Jones, 2013; Shear, 2012). Anecdotal comments of those who have experienced loss may include, "After the death, all was a blur, or I don't remember how I got through that time." Therefore, academic institutions and nursing need an understanding of the short and long term ramifications of grief and loss.

While reviewing quantitative data from multi-year research of the Boynton Health Service of the University of Minnesota (2013), this researcher was struck by the following student survey response: 20 percent of students, who participate in the studies, stated that *death of someone close was their number one stressor*, the highest ranked response of the stressors' category. This response rate ranks above the intensity of stress caused by relationships and financial challenges, which college students also report as stressors (Boynton Health Service, 2013). This researcher worked in hospice care as a registered nurse for over ten years prior to making a career change to education. This involvement with dying and death, and experiencing a number of personal losses in my adult life, led to a focus on this aspect of the University of Minnesota's research. The topic had a level of being personal and the topic grew in interest. Time had passed since my personal losses and Maxwell (2013) suggests that the researcher assess personal desires regarding the choices of research questions, selection of settings and participants, data collection, and analysis to gain insight into the impact on conclusions in order to prevent a flawed or bias study.

In my recent past role as an administrator in higher education, it became necessary to counsel students who request decision-making advice regarding academic progression after experiencing recent loss of someone close. The variables are complex in a context of personal goals, prior experiences with death, the relationship with the deceased, and cultural and religious beliefs. An example is whether to stay in school while actively grieving or perhaps facing issues of missing school to attend lengthy death rituals mandatory within the student's culture.

In order to strengthen a college campus's response to students experiencing loss, there are a number of considerations. Are faculty and staff, including counselors, comfortable with loss and able to listen intently to a student's story of loss? Additionally, are staff up-to-date in the unfolding theories of loss and support for the bereaved? Does the college campus have multicultural staff to relate to students and understand bereavement responses from a cultural perspective? These are questions for each institution to evaluate so that students can continue on with their academic journey during a time of loss and mourning.

Assisting people, including students, through the complexities of bereavement or grief involves a number of disciplines with nursing being deeply involved. Therefore, it is imperative that nurse educators recognize a dual role of educating students on loss and grief as well as supporting students experiencing loss. Balk (2011) writes that the impact of bereavement on a person is physical, cognitive, emotional, interpersonal, behavioral, and spiritual, words that demonstrate nursing's holistic model of care.

Nursing historically honored the work of Elisabeth Kübler-Ross who identified five stages of grief, including denial, anger, bargaining, depression, and acceptance (Kübler-Ross Foundation, 2016). Archer (1999/2000) believes Kübler-Ross's work was inspired by Bowlby's stage theory and her work was based on observations of her dying patients, rather than bereaved individuals, and therefore, her work has also been disputed due to the stages extrapolated for bereaved individuals rather than the dying and it was observational-based rather than developed from empirical data (Bonanno, 2009; Bugless, 2010). Another model is the dual process model (DPM) of coping with bereavement, which describes coping, predicting adaptation, and strives for a better understanding of individual differences (Stroebe & Schut, 2010).

Methods: This presentation will be based on my 2015 dissertation that used mixed methods research methodology to discover aspects of what a set of community college students were experiencing after loss. The mixed-method research included a survey, interviews, and artifact review. Triangulation of data assists to broaden understanding of the issues, and add validity to the findings (Maxwell, 2013). This study used a constructivist framework because the research relied on the participants' views of the situation and recognizes the impact of the researcher's background and experiences (Mackenzie & Knipe, 2006). The constructivist paradigm was chosen with consideration to the complexities of individuals experiencing loss due to history with the deceased, roles, familial, cultural, and spiritual considerations, circumstances regarding the death, and how a person makes meaning and is able to articulate their inner thoughts. The complexity of the loss experience may interplay with the meaning attached to attending college and how the person perceives the academic institution.

The primary research question of the dissertation was: *What are community college students' perceptions of stress when experiencing loss through death of someone close?* A secondary question was: *What support is available and needed from a community college for students experiencing stress from loss?*

Results: The results of this research indicate that students were experiencing stress related to their loss. The survey analysis suggests that 78% of these community college students who had experienced loss had stress levels that were staying the same or increasing. The students reported that their feelings, difficulty studying, getting through school, keeping up with class, and finding emotional relief as the main stress concerns.

Only one-fifth of survey respondents discussed their loss with anyone on campus and classmate, instructor, and friend were the most common responses of whom the students spoke with at the college. Multicultural students spoke less with instructors and more frequently with counselors, classmates, friends, or support services' personnel. Thirty-seven percent of the students completing the survey reported experiencing the loss of more than one person and grandmother (35%) and friend (30%) were the most common reported loss. Respondents request that a place to go for privacy was the number one request for support.

All seven interviewees experienced physical illness, accidents, and/or an increase in psychological symptoms with their loss. Additionally, interviewees found that continuing with their studies provided a needed structure and they often continued as a commitment to the deceased. The interviewees were

articulate about stress management techniques that include phone apps, children, cooking, journaling, drinking, group support, and friends. Each of the student participants interviewed spent time discussing the situation surrounding the death of their loved one. The process of storytelling provides a cathartic function and creates a reality and gives words to grief (Hooghe, Neimeyer, & Rober, 2011). Six of the seven cried during the interview at multiple times, demonstrating the outpouring of grief continued and they also smiled and laughed. Those interviewed disclosed issues involving their loss and issues of negative family dynamics, mental health challenges, and experiences with specific instructors on campus. One student, who disclosed a number of personal issues, said that this researcher was the first adult to offer words of hope, a sad statement.

Conclusion: The findings of this research have implications for developing support for students by staff, faculty, and administration of community colleges and other academic institutions. Results from this study support the need for a college-wide policy for bereavement in that students had mixed responses from faculty and students did not know options for an academic leave or campus support.

References

- Archer, J. (1999/2000). *The nature of grief: The evolution and psychology of reactions to loss*. New York, NY: Routledge.
- Balk, D. E. (2011). *Helping the bereaved college student*. New York: Springer Publishing Company.
- Balk, D. E., Walker, A. C., & Baker, A. (2010). Prevalence and severity of college student bereavement examined in a randomly selected sample. *Death Studies, 34*(5), 459-468. doi:10.1080/07481180903251810
- Bonanno, G. (2009). *The other side of sadness: What the new science of bereavement tells us about life after loss*. New York, NY: Basic Books.
- Boynton Health Service. (2013). College student health survey. Retrieved from <http://www.bhs.unm.edu/surveys/index.htm>
- Buglass, E. (2010). Grief and bereavement theories. *Nursing Standard, 24*(41), 44-47.
- Elisabeth Kübler-Ross Foundation. (2016). Retrieved from <http://www.ekrfoundation.org/five-stages-of-grief/>
- Fox, J., & Jones, K. D. (2013). DSM-5 and bereavement: The loss of normal grief. *Journal of Counseling & Development, 91*, 113-119.
- Hooghe, A., Neimeyer, R., & Rober, P. (2011). The complexity of couple communication in bereavement: An illustrative case study. *Death Studies, 35*, 905-924. doi: 10.1080/07481187.2011.553335
- Mackenzie, N., & Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research 16*, 193-205. Retrieved from <http://www.iier.org.au/iier16/mackenzie.html>
- Maxwell, J. (2013). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage Publications, Inc.
- Ortman, J., Velkoff, V., & Hagan, H. (2014). An aging nation: The older population in the United States. Retrieved from <http://www.census.gov/prod/2014pubs/p25-1140.pdf>
- Shear, M. K. (2012). Getting straight about grief. *Depression and Anxiety, 29*, 461-464.
- Stroebe, M., & Schut, H. (2010). The dual process model of coping with bereavement: A decade on. *Omega, 61*(4), 273-289. doi: 10.2190/OM.61.4b
- Tinto, V. (2012). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago, IL: The University of Chicago Press.

Contact

kmbell4@earthlink.net

RSC PST 3 - Research Poster Session 3

How Do Student Nurses in Malawi Choose, Adapt to Career Transition, and Construct Careers?

Zione Dembo, MSc, BSc, RNM, Malawi

Evelyn Baxter Chilemba, PhD, RN/RM, Malawi

Abstract

Purpose: As demand for nurses continues to surpass supply in Malawi it is important to understand what motivates new entrants to join and remain in the profession. The objectives of this study were to understand students' motivations for choosing nursing and their future career plan which has implications for developing strategies to enhance professional satisfaction and career fulfilment.

Methods: The study used qualitative study methods. A purposively selected sample size of 37 final year students was used. There were 16 individual in depth interviews and 3 focus group discussions. The study was conducted in 2 colleges of nursing in Malawi; Nkhoma College which trains diploma students and Kamuzu College of Nursing (KCN) which trains BSc nurses. Interviews covered how and why nurses entered nursing, their training experiences and future career plans. Data were analysed using thematic analysis.

Results: The findings highlight that the choice of nursing course was influenced by desire to help people, admiration from significant others including nurse models, anticipated career rewards while almost half was by default however their training experiences were crucial to reframing nursing as a 'suitable job'. For nearly all students the impact of training experiences through contact with coursework, practical and lecturers on career choice were marked. Nursing was seen as a viable career particularly for undergraduate students from KCN, where it is regarded 'a guaranteed job with prospects'. Almost all nurses interviewed intended to seek employment in public sector citing their reason as opportunities to pursue advanced nursing qualification to satisfy career objectives; increased knowledge, skills and economic rewards. Undesirably, most students indicated preference to have non clinical job after attaining higher qualifications following observation that there are no established clinical job post for nurse specialist in Malawi.

Conclusion: Findings suggest that preservice orientation remains a key factor in choosing nursing. Students also look for a career which offer professional values and rewards. If advanced clinical nursing practitioner career path remain undefined nursing may be in danger of losing service orientated recruits to other non-clinical professions.

References

Brugha, R., Kadzandira, J., Simbaya, J., Dicker, p., Mwapasa, V., & Washa A. (2010). Health workforce responses to global health initiatives funding: a comparison of Malawi and Zambia. *Human resources for health* 2010; 8 (19)

Malawi Ministry of Health. (2011). *Malawi Health Sector Strategic Plan 2011-2016*. Lilongwe

Zimbabwe, E. (2013). Stemming the impact of health professional brain drain from Africa; a systemic review of policy options. *Journal of Pub Health in Africa* 2013; 4 (4)

Contact

zionedembo@gmail.com

RSC PST 3 - Research Poster Session 3

Walking for Our Health: Evaluation of Randomized Spousal Physical Activity Pilot Intervention

Elizabeth A. Richards, PhD, RN, CHES, USA

Melissa M. Franks, PhD, USA

Meghan M. McDonough, PhD, Canada

Sharon L. Christ, PhD, USA

Abstract

Purpose: Addressing physical inactivity among older adults is a crucial public health challenge as less than 5% of older adults meet physical activity (PA) recommendations (Troiano et al., 2008) and PA declines with age (Centers for Disease Control and Prevention, 2012; de Rezende et al., 2014). Physical inactivity and sedentary behavior are associated with a higher risk of all-cause mortality and multiple chronic conditions (Physical Activity Guidelines Advisory Committee, 2008; de Rezende, Rey-López, Matsudo, & do Carmo Luiz, 2014).

Despite concerted efforts, physical inactivity remains a major public health concern, especially among older adults who struggle to maintain PA over extended periods of time (de Rezende et al., 2014). PA interventions, particularly goal setting, have shown promise because the experience of setting and achieving goals promotes self-efficacy, a key predictor of PA behavior change (Shilts, Horowitz, & Townsend, 2004). In addition to this individual-level approach, interpersonal approaches such as social support also have promise for improving PA (Berli, Stadler, Inauen, & Scholz, 2016). However each of these approaches alone have had limited success. Currently there is a significant gap in PA intervention strategies that activate and maximize older adults' available social ties to promote PA behavior change and maintenance.

The purpose of our study was to examine the effectiveness of two couple-focused goal setting interventions to increase PA among older adults in committed relationships. These interventions leveraged the strong association between couples' PA behavior and the opportunity for regular and sustained support over time to improve PA among older adults.

Methods: Our conceptual framework for examining the effects of a dyad intervention on PA behavior change and maintenance is informed by social cognitive theory and interdependence theory (Bandura, 1997; Lewis et al., 2006). In social cognitive theory self-efficacy is the primary, proximal determinant of PA behavior, and mediates the association between other individual, social and environmental determinants, and PA behavior (Bandura, 1997). Behavior change strategies, such as goal setting, increase self-efficacy by defining and focusing effort on a manageable but challenging behavioral improvement (Locke & Latham, 2006). Behavioral change strategies that include setting and achieving goals with a significant other have the added potential of enhancing self-efficacy through role modeling and of providing encouragement and support. Drawing on interdependence theory, Lewis and colleagues (2006) conceptualize health behavior change as a process that takes place in the context of interdependent relationships and not solely a product of individual effort. We hypothesized that dyad-level interventions that coordinate interpersonal resources with goal setting techniques will promote PA behavior change. By combining key elements of these theories, we hypothesize that effective support from a significant other engaging in the same behavior change process will enhance the effects of a goal-setting intervention.

We recruited a sample of 31 couples who met the following inclusion criteria: 1) at least one partner 50 years of age or older, 2) partners living together, and 3) at least one partner has received medical advice to increase PA in the past year. We also used the following exclusion criteria: 1) unable to speak and understand English, 2) partner unwilling to participate in the intervention, and 3) failed the screening to identify contraindications to participating in PA or did not receive physician clearance to participate in PA.

Intervention methods included partners randomized (together) into a concurrent individual goal-setting group or a collaborative goal-setting group. At the start and end of the study, each partner was fitted with an accelerometer for 1 week to evaluate baseline and post-intervention PA. All partners attended a group session with other couples in their condition and received information about healthy PA targets and rates of progression for realistic and safe increases in PA. Partners in the collaborative goal-setting group set and evaluated their goals in terms of cumulative number of steps taken by both members of the couple. Each partner in the concurrent individual goal-setting condition set and evaluated her/his own goals in terms of the number of weekly steps taken. In addition, all participants received eight weekly phone calls to assess progress towards goals and assist in setting new goals or revising current goals.

Activity intensity was established using accelerometer cut-points derived specifically for older adults (Copeland & Eslinger, 2009). To analyze the data, a mixed-effects (3-level) model was estimated with a couple level random intercept and an individual level random intercept to adjust for nesting of individuals within couple and time within individual, respectively. Change in moderate to vigorous physical activity (MVPA), weight in pounds, and body mass index (BMI) between pre-intervention and post-intervention were evaluated. The change slope was also allowed to vary randomly across individual and/or couples when this random slope had statistically significant variance. In each model, participant age, sex, number of health conditions, income, education, current employment status, and relationship satisfaction were included as covariates.

Results: Twenty-eight couples completed the study. Reasons for attrition included injury (unrelated to the study) and dissatisfaction with the study pedometers. A majority of participants were Caucasian with an average age of 64.8 years and had been married for an average of 35 years. Compliance with the intervention was high. At baseline, nearly all participants (98.4%) had at least the minimum 4 days of valid accelerometer wear time with an average wear time of 838.1 minutes/day.

On average, weekly minutes of MVPA increased by 58 ($p < 0.001$) between pre-intervention and post-intervention eight weeks later. Weekly minutes of MVPA increased by 66 ($p < 0.01$), on average, for those in the concurrent individual goal setting group and by 49 minutes ($p < 0.05$), on average, for those in the collaborative goal setting group. There was no difference in these changes across the intervention groups ($p = 0.62$). Sedentary time did not change from pre- to post-intervention on average ($p = 0.41$) and there was no difference between groups.

On average, BMI decreased by 0.50 ($p < 0.01$) and weight decreased by 3.13 pounds ($p < 0.01$) between pre-intervention and post-intervention. BMI decreased by 0.57 ($p < 0.01$) and weight by 3.7 pound ($p < 0.01$), on average, for those in the concurrent individual goal setting group. BMI decreased by 0.42 ($p = 0.06$) and weight by 2.5 pounds ($p=0.07$), on average, for those in the collaborative goal setting group. There was no difference in these changes across the intervention groups ($p \geq 0.55$).

Conclusion: Our results suggest that spouse-involved PA interventions could be effective in eliciting increases in PA among married partners. Potential for spouse-involved health behavior change interventions are possible because spouses could provide assistance, social support, and feedback to one other to maximize PA promotion, as well as having the potential to improve relationship quality or satisfaction. Few PA intervention studies have been conducted at the dyad-level such as with committed partners (Richards et al., 2016). Additional research is needed to understand effective strategies for increasing PA drawing on the available support of partners or other social network members. Such dyadic interventions should address supportive interactions that may maximize PA promotion. In conclusion, demonstrating the effectiveness of these couple-level PA intervention strategies is an important step toward promoting healthy aging by facilitating a key lifestyle modification that can delay the onset of chronic illness and reduce healthcare costs for older adults, their families, and society.

References

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman and Company.
Berli, C., Stadler, G., Inauen, J., & Scholz, U. (2016). Action control in dyads: A randomized controlled trial to promote physical activity in everyday life. *Soc Sci Med*, 163, 89-97. doi:10.1016/j.socscimed.2016.07.003

Centers for Disease Control and Prevention. (2012). *Behavioral Risk Factor Surveillance System Survey Data*. Atlanta, GA: U.S. Department of Health and Human Services.

de Rezende, L. F., Rey-López, J. P., Matsudo, V. K., & do Carmo Luiz, O. (2014). Sedentary behavior and health outcomes among older adults: a systematic review. *BMC Public Health*, *14*, 333. doi:10.1186/1471-2458-14-333

Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. Dienstbier (Ed.), *Nebraska symposium on motivation: Perspectives on motivation* (Vol. 38, pp. 237-288). Lincoln, NE: University of Nebraska Press.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*, 227-268.

Dishman, R. K., Vandenberg, R. J., Motl, R. W., Wilson, M. G., & DeJoy, D. M. (2010). Dose relations between goal setting, theory-based correlates of goal setting and increases in physical activity during a workplace trial. *Health Education Research*, *25*(4), 620-631. doi:10.1093/her/cyp042

Fjeldsoe, B., Neuhaus, M., Winkler, E., & Eakin, E. (2011). Systematic review of maintenance of behavior change following physical activity and dietary interventions. *Health Psychol*, *30*(1), 99-109. doi:10.1037/a0021974

Jamnik, V. K., Gledhill, N., & Shephard, R. J. (2007). Revised clearance for participation in physical activity: Greater screening responsibility for qualified university-educated fitness professionals. *Applied Physiology, Nutrition, and Metabolism*, *32*, 1191-1197.

Kinnafick, F.-E., Thøgersen-Ntoumani, C., Duda, J. L., & Taylor, I. (2014). Sources of autonomy support, subjective vitality and physical activity behaviour associated with participation in a lunchtime walking intervention for physically inactive adults. *Psychology of Sport and Exercise*, *15*(2), 190-197.
doi:http://dx.doi.org/10.1016/j.psychsport.2013.10.009

Lewis, M., McBride, C., Pollak, K., Puleo, E., Butterfield, R., & Emmons, K. (2006). Understanding health behavior change among couples: an interdependence and communal coping approach. *Soc Sci Med*, *62*(6), 1369-1380.
doi:10.1016/j.socscimed.2005.08.006

Locke, E. A., & Latham, G. P. (2006). New directions in goal-setting theory. *Current Directions in Psychological Science*, *15*(5), 265-268.

McAuley, E., Jerome, G. J., Elavsky, S., Marquez, D. X., & Ramsey, S. N. (2003). Predicting long-term maintenance of physical activity in older adults. *Preventive Medicine*, *37*, 110-118. doi:10.1016/S0091-7435(03)00089-6

Physical Activity Guidelines Advisory Committee. (2008). *Physical activity guidelines advisory committee report*. Washington D.C. Retrieved from <http://www.health.gov/PAGuidelines/Report>.

Richards, E.A. Franks, M. McDonough, M., & Marshall, M. (2016). *Role of Spouses in Physical Activity Promotion: A Systematic Review*. Paper presented at the American Public Health Association, Denver, CO.

Satariano, W. A., & McAuley, E. (2003). Promoting physical activity among older adults: from ecology to the individual. *Am J Prev Med*, *25*(3 Suppl 2), 184-192.

Shilts, M. K., Horowitz, M., & Townsend, M. S. (2004). Goal setting as a strategy for dietary and physical activity behavior change: a review of the literature. *Am J Health Promot*, *19*(2), 81-93.

Contact

erichards@purdue.edu

RSC PST 3 - Research Poster Session 3

Applying a Nursing Framework to Understand a Governmental Health Promotion Strategy

Bridget M. O'Connor, BSN, RN, USA

Patty Hayes, MN, RN, USA

Jennifer DeYoung, MPA, USA

Abstract

Purpose: The purpose of this presentation is to describe how Dobbins evidence-based framework was used to design a case study about Best Starts for Kids (BSK), an innovative, governmental initiative to fund health promotion and early intervention for children.

Methods: Across the world, the prevalence of chronic illness is escalating, and population health disparities are widening. These international trends are prompting governments to address public health by innovatively shifting investments from illness care to prevention and health promotion.^{1,2,3,4} There is a need to describe how current governmental initiatives use evidence-based decision making in order to replicate successful strategies in other regions.^{1,2,3,4} The World Health Organization (WHO) and National Prevention Council both support the evaluation of innovative governmental health initiatives.^{2,4}

This presentation will describe the case study design and rationale, including the systematic literature analyzed to design the case. PubMed and CINAHL databases were searched using the key search terms “health policy,” “government,” and “case study” in the subject line from 2011 to present. The same search was repeated with the addition of “equity” in the subject line. Resulting articles included PubMed, 154 and CINHAL, 73 after duplicate articles were omitted. Inclusion criterion required that articles discussed analysis of comprehensive governmental approaches to health promotion and prevention. Articles that focused on individual programs were excluded.

Of the published case studies reviewed, 8 described the processes of comprehensive approaches to prevention and health promotion policy within the local government environment. Cross sector collaboration and evidence of health disparities were presented as significant factors that contributed to innovative health policy development. What is not clear from this review is how factors such as the culture, relationships, and characteristics of government leaders, organizations, community and innovation itself contributed to the development of evidenced based policies which is important for the dissemination of new approaches. Dobbins' *Dissemination and use of Research Evidence for Policy and Practice* framework was chosen to evaluate the development of BSK because it guides the user through the processes of evidenced-based decision making, including looking at factors that contributed to those decisions.⁵

Results: The process of how BSK was developed will be illustrated in a diagram, depicting the stages of the innovation development based upon Dobbins framework *Dissemination and use of Research Evidence for Policy and Practice*.⁵ One purpose of this framework is to provide a model of the process of evidenced-based decision making.⁵ This case study will integrate Roger's *Diffusion of Innovation's* stages; “knowledge,” “persuasion,” and “decision” to discover the factors that led to the development and passing of the BSK initiative. The knowledge phase is emphasized in the case study by collecting information about how evidence is sought, what evidence influenced the policy makers and stakeholders, and impact of community outreach and engagement. The “knowledge” phase will include looking at hierarchy of evidence that was sought and used. The “persuasion” phase will focus on factors that may have influenced the decision process such as individual, organizational, environmental, and innovation characteristics. The methods used to gather information about the persuasion phase will include document analysis, interviews with 5-8 key participants, and an online survey of the members of the three primary advisory groups to BSK. The “decision” phase will be used to understand types of decisions that were made such as whether to adopt the innovation and how organizational values, beliefs, and culture influenced the decision making.^{5,6} Questions about decision making factors such as the following will be asked; “Who was involved in the decision to adopt the innovation?,” “What was the stakeholder

involvement in the decision making process?” and “How did collaborations across governmental branches influence decision making?”

Conclusion: The Dobbins' *Dissemination and Use of Research Evidence for Policy and Practice* was an ideal framework to depict the environmental, individual, organizational, and innovation characteristics that propelled BSK to a levy on the ballot. This presentation is significant for nurses because it illustrates how the Dobbins' framework can be used to describe the development of a governmental initiative. Depicting the processes involved in innovative health policy is necessary in order for the innovation to be disseminated and replicated.

References

1. Andermann A, Pang T, Newton JN, Davis A, Panisset U. Evidence for health I: Producing evidence for improving health and reducing inequities. *Health Research Policy and Systems*. 2016;14(1). doi:10.1186/s12961-016-0087-2.
2. National Prevention Council, National Prevention Strategy, Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General, 2011. <http://www.surgeongeneral.gov/priorities/prevention/strategy/report.pdf>. Accessed October 9, 2016
3. Jackson B, Huston P. Advancing health equity to improve health: the time is now. *Health Promotion and Chronic Disease Prevention in Canada* : *Research, Policy and Practice*. 2016;36(2):17-20.
4. World Health Organization. World Conference on Social Determinants of Health. Summary Report. Brazil. 2011. http://www.who.int/sdhconference/resources/Conference_Summary_Report.pdf?ua=1. Accessed October 09, 2016.
5. Dobbins, M, DeCorby, C, Robeson, P. In: Roycroft-Malone, J, Bucknall,T, eds *Models and Frameworks for Implementing Evidenced-Based Practice: Linking Evidence to Action*. 1st ed. West Sussex, United Kingdom: Wiley-Blackwell: 2010
6. Dobbins M, Ciliska D, Cockerill R, Barnsley J, DiCenso A. A framework for the dissemination and utilization of research for health-care policy and practice. *Worldviews on Evidence-Based Nursing*. 2002;E9(1):149–160. doi:10.1111/j.1524-475x.2002.00149

Contact

bmo@uw.edu

RSC PST 3 - Research Poster Session 3

Application of the "Attentively Embracing Story" Theory in Older Persons Living in Long-Term Care Facilities

Hui-Wan Chuang, MS, RN, Taiwan

Abstract

Background: The "Attentively Embracing Story" is a middle-range nursing theory, which employs intentional dialogue to encourage individuals to describe events that are a challenge to their health. The "Attentively Embracing Story" helps individuals transform negative thoughts into positive thoughts, reflect on new meanings and values, and boost spiritual healing and health improvement. However, most studies had methodological shortcomings, including small sample sizes ($N < 10$), pre-post designs, lack of objective outcome, and lack of active treatment controls, which preclude clear conclusions regarding efficacy.

Purpose: The purpose of this study was to examine the effectiveness of a "Story-Centred Care Intervention Program" based on the "Attentively Embracing Story", in improving quality of life, blood pressure and heart rate variability in institutionalized older adults.

Methods: A single-blind two-group longitudinal experimental design was used. Participants ($N = 60$) were adults over 65 years of age living in long-term care facilities in northern Taiwan. Participants were randomly assigned to an experimental group ($n = 29$) or a control group ($n = 31$). The experimental group received a "story-centred care intervention program" once a week for 4 weeks. The control group received a control intervention of medical and life consultations over the same time period. Measurements were obtained in four waves: pre-intervention, post-intervention, and one month and three months after completion of the intervention. Instruments included the WHOQOL -BREF Questionnaire, an electronic blood pressure monitor (type HEM-7210, made by OMRON Co., Ltd., Japan) and 5-minute heart rate variability time-domain parameters of SDNN, and RMSSD (DailyCare BioMedical, Inc., Chungli, Taiwan). Data were analysed using Fisher's exact test, chi-square test, Mann-Whitney U test, and generalized estimating equation.

Results: At 1-month and 3-month follow-up, the group that received the story-centred care intervention program had significantly higher scores for quality of life ($p < 0.001$, $p < 0.001$, respectively) compared with the control group. Neither Blood pressure nor heart rate variability parameters did not show a statistically significant improvement, however a trend of improvement in parameters was observed in the experimental group.

Conclusion: The story-centred care intervention program was effective in improving quality of life in older adults living in long-term care facilities; however, further study is needed to demonstrate its role in improving blood pressure and heart rate variability.

Keywords: Attentively embracing story, story-centred care, quality of life

References

- Hain, D. J., Wands, L., & Liehr, P. (2011). Approaches to Resolve Health Challenges in a Population of Older Adults Undergoing Hemodialysis. *Research In Gerontological Nursing*, 4(1), 53-62. doi:103928/19404921-20100330-01
- Liehr, P., Nishimura, C., Ito, M., Wands, L. M., & Takahashi, R. (2011). A lifelong journey of moving beyond wartime trauma for survivors from Hiroshima and Pearl Harbor. *Advances In Nursing Science*, 34(3), 215-228. doi:10.1097/ANS.0b013e3182272370
- Schroeder, N. R. (2016). Using innovative teaching strategies to engage students in a gerontology course. *Journal of Clinical Gerontology and Geriatrics*, 7(1), 31-32. doi.org/10.1016/j.jcgg.2015.03.004

Contact

huiwan@ndmctsggh.edu.tw

RSC PST 3 - Research Poster Session 3

Predictors of Academic Performance of Nursing Students at a University in the Western Cape, South Africa

Felicity M. Daniels, PhD, MPH, RN, RPN, CHN, RNE, South Africa
Katlego D. Mthimunye, MSN, RN, PGDipNsgEd, MEd, South Africa

Abstract

Purpose: The overall purpose of the study was to determine whether specifically selected predictor variables (cognitive, non-cognitive) influence academic performance of second-year nursing students at a University in the Western Cape, South Africa.

Methods: A non-experimental quantitative research approach with a cross-sectional predictive design was applied. The selected sample ($n=226$) included all first-time enrolled Bachelor of Nursing students for the years 2012 – 2013 at a University of the Western Cape, South Africa. An all-inclusive sampling method was applied. Data were obtained from the online Student Administrative System Integrated (SASI) and recorded in the data collection check list designed for the study purpose. The Statistical Package for Social Sciences software version 23.0 was used to sort and analyse the data. Descriptive analysis was done.

Description of variables - Cognitive variables: Grade 12 high school grade (admission points)

Grade 12 high school grade was calculated according to the university's approved point system. These points are also referred to as the Student's Admissions Points. The grade obtained for each high school subject is captured from the student's official transcripts submitted on application to the university. The sum of the grades obtained for all high school subjects determines the student's admission points. A student must achieve at least 27 admission points for acceptance to the higher education institution and a desired score of 30 or more points for admission to the Bachelor of Nursing programme.

- Previous nursing qualifications
This variable was designed to identify those students who entered the Bachelor of Nursing programme with previous nursing qualifications at certificate, diploma or degree level.
- National Benchmark Test
The student's average score on the National Benchmark Test consisted of three components namely: academic literacy (AL), quantitative literacy (QL) and knowledge health science.

Non-cognitive variables:

- English as a second language
This non-cognitive variable is defined as the student's home language or mother tongue as indicated on the application forms received by the university.
- Student's place of residence
This variable is defined according to whether the student lived in or out of the university residence during their second-year registration on the Bachelor of Nursing programme.

Ethics: The study was approved by the university's Senate Research and Ethics Committees and permission to conduct study was granted by the university's Registrar and the Director of the School of Nursing.

Results: The study found that the cognitive predictor variables, including Grade 12 high school grades; previous nursing qualifications and student's average score on the National Benchmark test, had the strongest predictive power in relation to student performance in comparison to the non-cognitive predictor variables which included English as a second language and the student's place of residence.

Conclusion: The study found that the grades which students achieved in grade 12 of high school and the National Benchmark Test, both referred to cognitive predictors, are able to predict a student's academic performance in the second year of a Bachelor of Nursing programme.

References

Jeffreys, M.R., 2014. Student retention and success: optimizing outcomes through holistic competence and proactive inclusive enrichment. *Teach. Learn. Nurs.* 9 (4), 164–170.

Umalusi, 2015. South African National Senior Certificate.

http://www.umalusi.org.za/docs/certification/2012/qcc_certificate.pdf Accessed 05 November 2016.

Universities South Africa, 2016. <http://www.nbt.ac.za/> Accessed 05 November 2016.

Contact

fdaniels@uwc.ac.za

RSC PST 3 - Research Poster Session 3

Graduate Students' Perceived Genetic Knowledge: A Preliminary Study

Leighsa Sharoff, EdD, RN, NPP, AHN-BC, USA

Abstract

Purpose: Summary of a preliminary assessment of graduate nursing students' from the City University of New York [CUNY] knowledge about genetics and genomics.

Methods: Thirty-six graduate students, 7 in a DNP program, were surveyed with the Genetics and Genomics Literacy Assessment (GGLA). This consisted of 16 multiple choice questions, 7 questions related to their perceptions and attitudes about genetics and genomics integration into nursing curricula, 5 questions related to their comfort level about genetics and genomics and 4 demographic items. Data was collected via Survey Monkey converted to SPSS.

Results: Summary of categorical data revealed that the majority of participants for 8 of the survey questions answered correctly [greater than 60%] while 8 questions had significantly lower correct percentages [55% or less]. These included limited knowledge related to understanding the diagnosis of an autosomal recessive disease [26% correct]; reciprocal translocation in the genome [12% correct]; genetic testing concepts [13% correct]; understanding carrier status of X-linked recessive condition [38% correct]; understanding amniocentesis results with phenotypic abnormality [40% correct]; understanding inheritance patterns via pedigree [40% correct]; understanding the concept of penetrance [55% correct] and being able to read a pedigree [20% correct]. The majority [> 75%] of students' attitude is that it is important for nurses and nurse educators to know this content and to be able to teach this material however, the majority [>75%] were not comfortable with teaching or explaining this material.

Conclusion: All nursing students, from pre-licensure to doctoral studies, would benefit from receiving additional education on the foundational concepts of genetics. Genetics and genomics are increasingly relevant in all areas of clinical nursing practice and faculty charged with educating the future generation must have a basic understanding of this content. The required competency of genetic knowledge mandates that all nurses are able to integrate the basic concepts so they can educate and advocate for their patients. Without additional educational preparation, advanced practicing nurses will not be adequately prepared to provide this essential information.

References

- Daack-Hirsch, S., Driessnack, M., Perkhounkova, Y., Furukawa, R., & Ramirez, A. (2012). A practical first step to integrating genetics into the curriculum. *Journal of Nursing Education*, 51(5), 294-298.
- American Association of Colleges of Nursing (2011). Essential Genetic and Genomic Competencies for Nurses with Graduate Degrees. Retrieved from https://www.genome.gov/pages/health/healthcareprovidersinfo/grad_gen_comp.pdf.
- Godino, L. & Skirton, H. (2012). A systematic review of nurses' knowledge of genetics. *Journal of Nursing Education and Practice*, 2(3), 173-184.

Contact

lsharoff@hunter.cuny.edu

RSC PST 3 - Research Poster Session 3

Attitudes Toward the Elderly Among Pre-Licensure Nursing Students

Maria E. Mackey, DNP, RN, CNE, USA

Abstract

Purpose: In the United States, the baby-boomers of yesteryear are emerging as today and tomorrow's elderly population. Given this fact, health care is faced with the challenge of providing safe, quality, and compassionate care to this ageing population. According to the U.S. Census Bureau (2014), in 2010 the population of elderly (identified as 65 and older) accounted for 13.1% of the U.S. population. The U.S. Census Bureau (2014) projects that in the year 2030, the population of elderly in the U.S. will nearly double to 20.3%, and will sustain through 2060 with a projected elderly population of 20.9%. While projections are only estimates of what is to come and not definitive, it is important that health care providers be prepared to address the needs of this identified patient population. The ageing process leads to physiological, functional, cognitive and psychosocial changes; however, these changes do not suggest that ageing predictably leads to disability and dependence (Potter & Perry, 2013). Inevitably, with age-related changes individuals make assumptions and assign labels to the elderly population based on preconceived notions and inaccurate beliefs. As identified by the U.S. Department of Health and Human Services (2013), unrealistic perceptions of ageing can, and do, negatively impact the physical and mental health of the elderly. When living in an ageist society, health care professionals are often unaware of how stereotypes of ageing mold perceptions of the elderly. Perceptions become reality, and the only way to change perceptions is to create a new reality with increased sensitivity and improved attitudes. The purpose of this study was to investigate student nurses' attitudes toward the elderly after receiving gerontology specific education, in a diploma nursing program, in the Northeastern United States.

Methods: With the increased number of elderly needing healthcare and concerns of ageist attitudes towards the elderly, pre-licensure student nurses need to have a better understanding of this patient population and the implications of providing biased care. Research indicates that there are multiple variables that help form attitudes about the elderly, and the positive influence of education. This study implemented a non-experimental Single Group Before-After study design. Using Kogan's (1961) Attitudes Towards Old People (ATOP) scale, this project surveyed attitudes of pre-licensure diploma level nursing students, in a mixed rural and urban setting of the Northeastern U.S.. Surveys were conducted both before and after the completion of a seven-week gerontology specific course, guided by Miller's (1990) Functional Consequences Theory for Promoting Wellness in Older Adults. Using an independent-samples t-test, before gerontology ATOP total scores were compared to after gerontology ATOP total scores to determine if the gerontology specific education improved student nurses' attitudes toward the elderly.

Results: Results of the independent-samples t-test revealed that there was no significant difference in scores for before ($M = 124.88$, $SD = 8.47$) and after ($M = 123.55$, $SD = 9.73$; $t(26) = .39$, $p = .7$, two-tailed). Mean differences were 1.34 (95% CI: -5.8 to 8.48). The magnitude of the effect on group difference in the overall mean scores was determined using eta squared and demonstrated a very small effect at $\eta^2 = .006$. The results of this project demonstrated no significant difference in scores for before and after, suggesting that the intervention of gerontology specific education had no impact as a strategy to improve student attitudes.

Conclusion: With no significant difference in scores for before and after surveys, the implication is that the intervention of gerontology education had no impact as a strategy to improve student attitudes. The lack of improvement may have been a result of students already having positive attitudes. Or, the results may have failed to demonstrate an improvement in student attitudes after gerontology education, because the sample size may have been too small to capture a change that may have occurred with a larger sample size. Nonetheless, this study provided a means to objectively measure student attitudes and provided objective data that may or may not be captured, in the classroom and clinical learning environments.

References

McKenna, L., Boyle, M., Brown, T., Williams, B., Molloy, A., Lewis, B., & Molloy, L. (2012). Levels of empathy in undergraduate nursing students. *International Journal of Nursing Practice*, 18(3), 246-251. doi:10.1111/j.1440-172X.2012.02035.x

Nurses Improving Care for Healthsystem Elders. (2015). NICHE mission and history. Retrieved from: http://www.nicheprogram.org/mission_and_history

Swanlund, S., & Kujath, A. (2012). Attitudes of baccalaureate nursing students toward older adults: A pilot study. *Nursing Education Perspectives*, 33(3), 181-183. doi:10.5480/1536-5026-33.3.181

Contact

2849hill@gmail.com

RSC PST 3 - Research Poster Session 3

Focus on Fidelity: Delivering What's Intended in a Multi-Site Randomized Clinical Trial

Janet D. Morrison, PhD, RN, MSCN, USA

Alexa K. Stuijbergen, PhD, RN, FAAN, USA

Abstract

Purpose: Intervention fidelity, the degree to which an intervention study is carried out as proposed, is critical to ensuring internal validity, reliability and generalizability of research findings (Gearing et al., 2011; Goense, Boendermaker, & von Yperen, 2016). Unfortunately, intervention fidelity is infrequently reported in the research literature (Corely & Kim, 2016; Stone 2015). The absence of intervention fidelity reporting may contribute to dissemination of potentially low-efficacy or ineffective interventions into clinical practice. The purpose of this abstract is to explicate the strategies used to assess and monitor intervention fidelity in an ongoing multi-site clinical trial. The intervention fidelity strategies used in the current study were guided by best practice recommendations put forth by the Treatment Fidelity Workgroup of the National Institutes of Health Behavior Change Consortium (BCC) (Bellg et al., 2004). The BCC's recommendations encompass five strategy domains: (1) study design, (2) facilitator training, (3) intervention delivery, (4) intervention receipt, and (5) intervention enactment.

Methods: Strategies promoting intervention fidelity were developed a priori for use in a multi-site randomized clinical trial testing the efficacy of a computer-assisted cognitive rehabilitation intervention for adults with multiple sclerosis. Data were collected continuously throughout the study to assess and monitor intervention fidelity related to study design, facilitator training, intervention delivery, and intervention enactment.

Results: Fidelity data from 10 cohorts were gathered throughout the study's 8-week long intervention and again at 2 and 4-months after the intervention ended. Data were extracted from audio-recordings of intervention sessions, session attendance records, audits of computer exercises completed at home by the participants, and post-intervention goal attainment scaling that suggested reasonably high fidelity to the intervention protocol.

Conclusion: This research project demonstrates how nurse researchers may examine and report intervention fidelity guided by best-practice recommendations. Detailed attention to, and documentation of, intervention fidelity strategies may serve to promote scientific rigor in future studies and foster translation of effective interventions into nursing practice.

References

- Corley, N. A., & Kim, I. (2016). An assessment of intervention fidelity in published social work intervention research studies. *Research on Social Work Practice, 26*, 53–60. doi:10.1177/1049731515579419
- Gearing, R. E., El-Bassel, N., Ghesquiere, A., Baldwin, S., Gillies, J., & Ngeow, E. (2011). Major ingredients of fidelity: A review and scientific guide to improving quality of intervention research implementation. *Clinical Psychology Review, 31*, 79–88. doi:10.1016/j.cpr.2010.09.007
- Goense, P. B., Boendermaker, L., & van Yperen, T. (2016). Support systems for treatment integrity. *Research on Social Work Practice, 26*, 69–73. doi:10.1177/1049731515579205
- Stone, J. A. (2015). Why does treatment fidelity matter? *Alternative Therapies in Health and Medicine, 21*, 24–25.

Contact

jmorrison@mail.nur.utexas.edu

RSC PST 3 - Research Poster Session 3

Assessing Learning Styles: How Do Nursing Students in a Baccalaureate Nursing Program Learn?

Anne White, PhD, RN, USA

Jane Brannan, EdD, RN, USA

Abstract

Purpose: Nursing faculty throughout the world strive to provide quality education that can be effectively translated to positive learning outcomes. The learners in the university today are dramatically different from those of the past. Educators are being challenged to re-shape the curriculum to address the contemporary learner and understand their approaches to learning. Research has focused on various aspects of learning, yet gaps remain in our understanding and assessment of how students learn. The Felder-Solomon Index of Learning Styles (ILS) instrument has been used sparsely in nursing education, but is one that may serve the assessment need well. It has been identified as a more theoretically well rounded approach to determine learning styles. It can also be used by international colleagues as its psychometric properties have been explored and the instrument has been translated into several languages. Classes are typically composed of students from varied backgrounds and needs. Few studies have investigated the learning styles of baccalaureate degree student nurses to determine if there are differences in learning preferences by program type (accelerated versus traditional), gender, race, or age group. Given the changed nature of today's learner, it is important that faculty have a greater understanding of the learning process to better facilitate the classroom and assure that there are options that best address the needs of today's students. The purpose of the study was to examine the learning preferences of nursing students in a baccalaureate degree nursing program to determine if there are differences in learning preferences by program type (accelerated or traditional), gender, race, or age group.

Methods: A cross-sectional, descriptive design was used for this study to examine learning preferences of senior nursing students in a baccalaureate degree nursing program. The research questions were: 1) What are the learning preferences of senior nursing students in a baccalaureate degree nursing program that offers accelerated and traditional program options?, 2) What are the differences in nursing students' learning preferences by program type, gender, race and age group? The Felder-Soloman Index of Learning Styles (ILS) instrument was administered to 331 senior nursing students prior to the first class day during a four-year period. Demographic information was collected from each participant. The ILS is an instrument containing 44 forced choice questions that classifies learning styles into four domains: processing (active vs reflective), perceiving (sensing vs intuitive), receiving (visual vs verbal), and understanding (sequential vs global). Scores indicate students' learning preferences within each of the domains. The ILS results were compared with program type, student gender, race, and age to determine relationships between student characteristics and learning styles.

Results: Predominant learning styles included active, sensing, visual, and sequential preferences. There were no significant relationships by age, race, or gender and learning style domain. There was a significance difference found in program type between traditional and accelerated programs. The traditional program nursing students were 2.4 times more likely to be visual learners than accelerated degree students.

Conclusion: It is beneficial for all students to determine their own learning style in order for them to begin to grow and strengthen their repertoire of learning capabilities. The National League for Nursing (NLN) has noted in the list of core competencies for nurse educators that awareness of student learning styles is important for designing effective nursing education. Assessment of learning styles of each cohort may guide teaching strategies appropriate for the needs of those students. Simulation has been identified as an effective strategy for incorporating different learning style preferences which may be useful for a cohort of students that have a wide variety of learning styles. The instrument has been used with students of multiple nationalities and has been found to be valid and reliable. The study also is clinically relevant in

that a nurse's understanding of learning styles may affect the selection of effective patient teaching techniques and potentially improve patient outcomes.

References

- Beagley, L. (2011). Educating patients: Understanding barriers, learning styles, and teaching techniques. *Journal of PeriAnesthesia Nursing, 26*, 331-337.
- Brannan, J. D., White, A., & Long, J. (2016). Learning styles: Impact on knowledge and confidence in nursing students in simulation and classroom. *International Journal of Nursing Education Scholarship, 13*, 1-11.
- Gonzales, L., Glaser, D., Howland, L., Clark, M., Hutchins, S., Macauley, K. Close, J., Leveque, N., Failla, K., Brooks, R., & Ward, J. (2016). Assessing learning styles of graduate entry nursing students as a classroom research activity: A quantitative research study. *Nurse Education Today, 48*, 55-61.
- Felder, R. & Solomon, B. (2004). Learning styles and strategies. Retrieved from <http://www.ncsu.edu/felder-public/>
- Halstead, J. (2007). Nurse educator competencies: Creating an evidence-based practice for nurse educators. *National League for Nursing*, Washington, D. C.
- Shinnick, M., & Woo, M. (2015). Learning style impact on knowledge gains in human patient simulation. *Nurse Education Today, 35*, 63-67.
- Tenhunen, M., & Fitzgerald, A. (2014). Revision of an undergraduate older adult health care nursing education course. *Journal of Nursing Education, 53*, 110-113.

Contact

awhite@kennesaw.edu

RSC PST 3 - Research Poster Session 3

Chronic Disease Burden and the Impact on Nursing Practice in South Texas

Jean Dowling Dols, PhD, RN, NEA-BC, FACHE, USA
Mary M. Hoke, PhD, RN-BC, APHN-BC, ANEF, USA
Karen L. Weis, PhD, RNC-OB, FAAN, USA
M. Danielle Gunter, PhD, RN, CPN, USA

Abstract

Purpose: Chronic diseases are the leading causes of death in the United States, with 45% of the population having at least one chronic disease.¹ Americans aged 65+ with one or more chronic disease has risen from 86.9% in 1998 to 92.2% ten years later in 2008.² The healthcare costs associated with treatment of chronic diseases accounts for almost 99% of the total Medicare spending and 83% of Medicaid spending.³ It is anticipated that by 2025, chronic diseases will affect about half of the population.³

Understanding the patterns of health and chronic disease burden by region is important in order to provide nurses appropriately prepared to address the regional issues of health and chronic illness. Today's graduates are expected to understand broad concepts and assess evidence-based information rather than just memorize facts. Applying information and knowledge to specific nursing situations requires well-developed curriculum that aligns with local and regional individual and population health needs. Understanding the disease burden by region is essential to develop appropriate nursing curricula with pertinent exemplars for this unique patient and nursing population.⁴

The 43 South Texas counties included in the study's region are predominately rural (n =28, 65%), with a substantial number considered border counties (n=17, 39.5%) on the U.S. border of Mexico.⁵ While the global burden of disease has been reported, the results primarily reflect 2010 data and do not provide a perspective of regional disease burden.⁶

The purpose of this study is to describe the scope and change in chronic disease burden across 43 counties in South Texas for a 10-year period in order to systematically assess health and chronic disease shifts to identify appropriate exemplars and continually assess and update nursing curriculum for a concept-based nursing curriculum.

Methods: De-identified data from the Texas Healthcare Information Collection (THCIC) will be used to determine the scope and the change in chronic disease burden across 43 counties in South Texas from 1st Quarter 2005 to 1st Quarter 2015.⁷ The THCIC database, built with healthcare data collected by the THCIC, a department within the Department of Health & Human Services (DSHS), was created in 1995 by the Texas Legislature.⁷ The data reports healthcare activity in Texas hospitals and health maintenance organizations. THCIC data contains the billing information for all inpatient admissions, excluding exempt facilities, including demographic data, hospital, admission/discharge information, payment information, principal and secondary diagnoses, E-codes, MS DRGs, charges, physician data, and a unique patient identifier. THCIC data also contains the emergency room utilization and charge procedure codes.

Hospitalizations for the disease codes of Diabetes, Coronary Artery Disease, COPD, arthritis, depression, cirrhosis, chronic kidney disease, respiratory tract infections, asthma, and stroke will be reviewed. Data will be exported from the THCIC database to SPSS version 21.

Descriptive statistics will be used to describe the disease categories. Differences between 2005 and 2015 disease burden by category will be analyzed with paired *t*-tests. Comparisons of disease burden with the presence of greater numbers of licensed nurses will be compared using parametric testing including Pearson's *r*.

Results: Results are pending the completion of the data analysis in January 2017.

Conclusions: As schools of nursing struggle with increasing educational content requirements while also being urged to create seamless transitions to the workforce, there is a need for innovative approaches focused on the healthcare needs of the populations in which the students will most likely be immersed. This requires detailed knowledge and understanding of the chronic disease burden affecting the region in which the nursing schools reside. The results from this study will inform the faculty and administration of healthcare needs and priorities for the region. Exemplars for the 22 nursing programs in South Texas counties may then be focused on the change in disease burden.

References

1. Centers for Disease Control and Prevention (2016, February 23). Chronic disease prevention and health promotion. Retrieved from <http://www.cdc.gov/chronicdisease/overview/>.
2. Dall, T. M., Gallo, P. D., Chakrabarti, R., West, T., Semilla, A. P., & Storm, M. V. (2013). An aging population and growing disease burden will require a large and specialized health care workforce by 2025. *Health Affairs*, 32(11).
3. Bodenheimer, T., Chen, E., & Bennett, H. D. (2009). Confronting the growing burden of chronic disease: Can the U.S. health care workforce do the job? *Health Affairs* 28(1), 64-74 doi: 10.1377/hlthaff.28.1.64.
4. Whittmann-Price, R.A., Godshall, and Wilson, L. (Eds.) (2013). Chapter 11: Curriculum Design and Evaluation of Program Outcomes by Marylou K. McHugh Certified nurse educator (CNE) review manual, 2nd ed. New York: Springer Publishing Company.
5. Texas Department of State Health Services (2014). Texas Center for Nursing Workforce Studies Retrieved on 12/5/2016 from: www.dshs.state.tx.us/chs/cnws
6. Murray, C. J. L., Phil, D., & Lopez, A. D. (2013). Measuring the global burden of disease. *New England Journal of Medicine*, 369(5), 448-457 doi: 10.1056/NEJMra1201534.
7. Texas Department of State Health Services Center for Health Statistics (2015). Health Care Information User Manual Texas Hospital Inpatient Discharge Public Use Data File (PUDF). Retrieved from: <http://dshs.texas.gov/thcic/hospitals/Inpatientpdf.shtm>

Contact

Dols@uiwtx.edu

RSC PST 3 - Research Poster Session 3

Auscultation Skills: Gown Versus Skin?

Jane Brannan, EdD, RN, USA
Anne White, PhD, RN, USA

Abstract

Purpose: Current nursing education programs throughout the world, typically include physical assessment courses with specific procedures for heart and lung auscultation. Students practice in a variety of ways through, manikins, sounders, recorders, and live patients. With traditional teaching, students are taught to place a stethoscope directly against the skin for auscultation. However, practitioners have been observed in many settings performing auscultation through the patient gown or clothing. A concern of this practice is the potential for missing soft added sounds in heart auscultation and mistaking rubbing of gown on the stethoscope as pulmonary crackles. Despite this prevalent observation in clinical settings, few studies have been conducted to determine if this is acceptable practice. The purpose of this research is to provide evidence for or against the generally-accepted practice of teaching graduate nursing students to auscultate heart sounds and lung sounds by placing the stethoscope directly against the skin.

Methods: The study was a non-experimental repeated measures design to determine if there was a difference in correct identification of heart and breath sounds using a stethoscope placed directly against the skin versus through a gown. Research Questions: 1) Is there a difference between heart sound and lung sound interpretation when auscultated with a stethoscope against the skin and auscultated through a gown?, 2) Does auscultation directly against the skin improve accuracy of heart sound and lung sound auscultation when compared to auscultation through a gown? The sample consisted of 30 graduate students in their final semester of a nurse practitioner program who had successfully completed the advanced health assessment course. Participants were asked to perform basic auscultation maneuvers typically used in clinical practice. The sounds were produced using a simulation manikin specifically designed for auscultation of heart and lung sounds (Harvey® The Cardiopulmonary Patient Simulator). Four breath sounds and four cardiac sounds were programmed. A high quality stethoscope (provided with manikin) was used during auscultation. Participants were individually scheduled to perform auscultations. After orientation to the simulator sounds, participants auscultated four heart sounds with the stethoscope placed directly on the skin. Following each sound, the participant identified the sound on a written form. Then, four heart sounds were repeated in a different order and participants auscultated through a gown. This procedure was repeated with breath sounds.

Results: There was no significant effect of auscultation on skin or gown. There was a significant difference in participant ability to identify correct breath sounds over cardiac sounds.

Conclusion: In practice, many practitioners auscultate through hospital gowns, possibly related to dignity and privacy issues in patient care. Further research is needed to determine the impact of the practice to determine if sounds are being overlooked or misidentified. Further efforts in nursing education of nurse practitioner students should focus on repeated practice of cardiac sounds, normal and abnormal, to further hone their capabilities and expertise in diagnostics. The importance of auscultatory skills should not be underestimated in favor of higher technology readily available. While such diagnostics tools are necessary, they cannot replace skillful assessment techniques that may provide early detection of slight changes in a patient's condition

References

- Atkinson, D. (2013). *Nursing observation and assessment of patients in the acute medical unit* (Doctoral dissertation). Retrieved from usir.salford.ac.uk/29466/1/E_Thesis_DA.pdf
- Douglas, C., Osborne, S., Reid, C., Batch, M., Hollingdrake, O., Gardner, G., RBWH Patient Assessment Research Council. (2014). What factors influence nurses' assessment practices? Development of the barriers to nurses' use of physical assessment scale. *Journal of Advanced Nursing*, 70, 2683-2694.
- Finley, J. (Ed.). (2016). Teaching heart auscultation to health professionals. Retrieved from <http://teachingheartauscultation.com/>

Oh, H., Lee, J., & Kyung, K. (2012). Perceived competency, frequency, training needs in physical assessment among registered nurses. *Korean Journal of Adult Nursing*, 6, 627-634.

Rankin, A., Rankin, S. & Rankin, A. (2015). Auscultating heart and breath sounds through patients' gowns: who does this and does it matter? *Postgraduate Medical Journal*, 91, 379-383.

Reimer-Kent, J. (2013). Heart sounds: Are you listening? Part 1. *Canadian Journal of Cardiovascular Nursing*, 23, 3-6.

Zambas, S., Smythe, E. & Koziol-McClain, J. (2016). The consequences of using advanced physical assessment skills in medical and surgical nursing: A hermeneutic pragmatic study. *Qualitative Studies on Health and Well-being*, 11, 1-12.

Contact

jbrannan@kennesaw.edu

RSC PST 3 - Research Poster Session 3

Effects of Forest Therapy on Children in Socially Disadvantaged Families: A Systematic Review

Kyung-Sook Bang, PhD, RN, Korea, Republic of (South)

Sungjae Kim, PhD, RN, Korea, Republic of (South)

Minkyung Song, MSN, RN, Korea, Republic of (South)

KyungIm Kang, BSN, RN, Korea, Republic of (South)

Abstract

Purpose: Children in socially disadvantaged families and welfare facilities have higher level of aggressiveness, socio-psychological problems such as depression, shrinkage, low self-esteem and social maladaptation than other children. Forest therapy refers to a visit to forest areas or various activities which take place in forest areas for relaxation, healing, and wellness. In spite of the increasing attention to the various health benefits of forest therapy, until now, systematic review on the body of evidence for the effect of forest therapy on vulnerable children has not been conducted. A clearer and comprehensive understanding of the effects of forest therapy on vulnerable children is needed for further refinements of forest therapy programs. The purpose of this study is to systematically review the forest therapy programs designed for vulnerable children to identify contents, format, and strategies essential for effective forest therapy programs.

Methods: This systematic review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. Various databases including PubMed, EMBASE, CINAHL, KISS, RISS, and DBpia were used to identify relevant studies published up to September 2016. The two authors independently screened the full text articles using the following criteria: 1) intervention studies assessing the effects of forest therapy among vulnerable children ages 8 and 13; 2) unpublished thesis; and 3) articles or thesis written in English or Korean. The Methodological Index for Non-Randomized Studies (MINORS) measurement tool was used to assess the risk of bias in each trial.

Results: A total of 4,813 records, including 3,915 records published in English and 898 records published in Korean, were retrieved from initial database searches. Finally, 8 articles in total (English: 0, Korean: 8) were included in the present systematic review. The most common research design was quasi-experimental pre-test and post-test study. None of the studies used randomized controlled trial (RCT) and the sample size ranged from 16 to 308. Walking, observation in the forest and playing with natural objects were the key components of the forest therapy. The length of time over which the interventions were undertaken ranged from 1 day to 15weeks. Only one study had a 4-week follow-up. The most common variable was sociability among those of forest therapy effects and the next was psychological health-related variables such as depression, anxiety, and stress level. Most of studies used self-reported questionnaires and only one study used both self-reported questionnaires and physiological measures. Regarding the quality assessment based on the MINORS criteria, 7 studies were rated 17.7 (out of 24) and 1 study without control groups was rated 8 (out of 16). Regardless of the diversity in format and contents of forest therapies, most of studies showed significant positive effects on vulnerable children.

Conclusion: This systematic review showed that forest therapy is one of the emerging and effective intervention approaches to improve sociability and psychological health among vulnerable children. Limitations on the current programs identified from the review were as follows; 1) small sample size; 2) inadequate information about research process. Future studies assessing the long-term effects of forest therapy on vulnerable children using rigorous study designs are needed.

References

Bang, K. S., Lee, I. S., Kim, S. J., Song, M. K., & Park, S. E. (2016). The effects of urban forest-walking program on health promotion behavior, physical health, depression, and quality of life: A randomized controlled trial of office-workers. *Journal of Korean Academy of Nursing*, 46(1), 140-148.

Chung, A. S., Choi, S. W., Woo, J. M., Mok, J. Y., Kim, K. W., & Park, B. J., (2015). The effect of short-term forest therapy camp on youths with internet addiction risk group: focused on the biological, neurocognitive and psychosocial aspects. *Journal of Korean Forest Society*, 104(4), 657-667.

Kim, S. A., Joung, D. W., Kim, G. W., & Park, B. J. (2015). The effect of forest activities on attitude toward forest and mental health of elementary school students. *Journal of the Korean Institute of Forest Recreation*, 19(4), 35-43.

Lee, J. Y., Tsunetsugu, Y., Takayama, N., Park, B. J., Li, Q., Song, C., & et al. (2014). Influence of forest therapy on cardiovascular relaxation in young adults. *Evidence-Based Complementary and Alternative Medicine*, 2014, 1-7.

Contact

kshang@snu.ac.kr

RSC PST 3 - Research Poster Session 3

Health Professionals' Knowledge, Attitudes, Experiences, Confidence, and Behaviors Regarding Advance Directives

Shu-Fen Wu, MSN, RN, Taiwan

Hong-Yi Tung, MS, MD, Taiwan

Yu-Hua Lin, PhD, RN, Taiwan

Chao-Hsien Lee, PhD, Taiwan

Hsiu-Chen Liao, BSN, RN, Taiwan

Ching-Yun Ching, BSN, RN, Taiwan

Abstract

Purpose: Advance directives (ADs) are one of the few means for people to indicate their end-of-life treatment decision preference. The purpose of this study was to determine the ADs compaction knowledge, attitudes, experiences, confidence, and behaviors of health professions.

Methods: This was a descriptive correlational research that targeted 765 subjects (included 43 physicians, 424 nurses, 85 other medical staffs, and 213 administration staffs) working in a regional hospital in southern Taiwan. The structured questionnaires gathered the knowledge, attitudes, experiential survey on advance directives (KAESAD) instrument and basic demographic data with regard to advance directives. Data were analyzed by using SPSS 20.0 software. Descriptive statistics, independent *t* test, chi-square test (χ^2), Pearson product-moment correlation, one way ANOVA, and Binary logistic regression were used for data analysis.

Results: The results indicated that signing advance directives consent form is low. Only 1.8% of the health professionals had completed advance directives, although 86.3% indicated their willingness to have one. The first two reasons for signing include: not want to be burden on their family (85.9%), and ensure the quality at end-of-life (85.5%). The first two reasons why health professionals do not want to sign are: they still have plenty of time to make end-of-life decision (33.3%), and self-perceived health status (31.0%). Age, working years, and attitudes were found to correlate positively with knowledge. Knowledge, attitudes, and experiences were found to correlate positively with confidence. The result of questionnaire survey, the total knowledge, experience of ADs scores and total confidences is low, held positive attitudes toward ADs. Between groups that physicians have more knowledge, attitudes, experiences, and confidence of ADs compared with other groups. In addition the mean scores for professional experiences with end of life decision-making were low in physicians with nurses (physicians 56.00 ± 3.54 ; nurses 57.16 ± 4.80). Have "relatives and friends suffering from serious illness experience" and heard "advance hospice palliative care & life-sustaining treatment choices of intent" could be used as predictive factors for ADs in nurse group (Nagelkerke R Square= .082). The self is the primary medical decision maker and have "relatives and friends suffering from serious illness experience" could be used as predictive factors for ADs in other medical staffs group (Nagelkerke R Square= .292). Have "relatives and friends were suffering from serious illness experience", not heard "any advance hospice palliative care document" and "have experience of ADs" could be used as predictive factors for ADs in administration staffs group (Nagelkerke R Square= .123).

Conclusion: The study findings showed that health professionals' have insufficient knowledge, inadequate practices, and had lower completion rate of ADs. Such indicates the need for designing different of clinical educational programming to provide health personnel's knowledge and experience and enhance ADs facilitation effectiveness.

References

Aging with dignity. (2015). *Five wishes*.

https://www.agingwithdignity.org/catalog/nonprintpdf/Five_Wishes_Multi_Final_TC.pdf

Fried, T. R., Redding, C. A., Robbins, M. L., O'Leary, J. R., & Iannone, L. (2011). Agreement between older persons and their surrogate decision-makers regarding participation in advance care planning. *Journal of American Geriatrics Society*, 59(6), 1105-1109.

Chan, H. Y. L., & Pang, S. M. C. (2011). Readiness of Chinese frail old age home residents towards end-of-life care decision making. *Journal of Clinical Nursing*, 21(11), 1454-1461.

Contact

y355400@gmail.com

RSC PST 3 - Research Poster Session 3

Toxic Stress and Protective Factors in Multiethnic School-Age Children

Eileen M. Condon, MSN, APRN, FNP-BC, USA

Abstract

Purpose: Exposure to stress in early childhood is associated with poor health and developmental outcomes that extend across the lifespan (McEwen, 2008a). To explain this link, researchers have proposed a conceptual taxonomy consisting of three types of stress response in early childhood: positive stress, tolerable stress, and toxic stress (Shonkoff et al., 2012). The most potent stress response, toxic stress, results from exposure to chronic stressors such as poverty, violence, or parental mental illness. Without the protection of a nurturing caregiver, this exposure can result in persistent elevation of the child's stress response system, and in turn impair brain development and contribute to disruption in the neuroendocrine, immune, metabolic and cardiovascular systems (Juster, McEwen, & Lupien, 2010; McEwen, 2008b). These physiological disruptions are associated with poor long-term health and behavioral outcomes, including growth delay, obesity, depression, alcoholism, and cardiovascular disease (Garner, 2013). Identifying factors that protect against toxic stress is of significant importance to nursing research and clinical practice, as toxic stress prevention is essential for health promotion, disease prevention, and reduction of health disparities among families at risk.

Although toxic stress is a metaphor that cannot be empirically measured, examining the physiological, health, and behavioral outcomes associated with chronic stress exposure in childhood may provide important insight into the mechanisms through which toxic stress can be prevented. Studies of animals and maltreated children demonstrate that supportive caregiving can buffer against exposure to chronic stress, but the specific positive caregiving patterns that best protect children against chronic stress are poorly understood (Hostinar, Sullivan, & Gunnar, 2014). Past maternal experiences and maternal mental health can also impact the caregiver-child relationship, but the relationship between these maternal characteristics and indicators of exposure to chronic stress in children remain largely unexplored (Goodman et al., 2011). Racial discrimination can also be a significant source of stress for racial and ethnic minority families, but the relationships among maternal experiences of racism, racial socialization parenting behaviors, and indicators of exposure to chronic stress in children have not been examined (Yasui, 2015). Therefore, the purpose of this study is to describe and examine associations among maternal characteristics (past maternal experiences and maternal mental health), maternal caregiving patterns, and indicators of exposure to chronic stress in a multiethnic, urban sample of mothers and children at early school age (4-9 years).

This study is framed by the ecobiodevelopmental (EBD) model, which guides understanding of the link between early childhood adversity and lifelong health via the toxic stress response. Within this framework, a child's biology interacts with the early social environment to influence long-term health and development (Shonkoff et al., 2012).

Methods: This ongoing descriptive study employs a cross-sectional design and includes a sample of maternal-child dyads living in socioeconomically disadvantaged neighborhoods in New Haven, Connecticut. Families in the sample are anticipated to primarily self-identify as Latina and Black, and the targeted sample size is 58 dyads. Families are eligible for inclusion if the child is between 4-9 years of age and the child's mother has regular contact with the child. Maternal variables include past maternal experiences (adverse childhood experiences, family strengths, experiences of discrimination), maternal mental health (PTSD symptoms), and current caregiving patterns (parental reflective functioning, parenting behaviors, racial socialization behaviors). Child variables include neuroendocrine functioning (hair cortisol), immune functioning (salivary cytokines and c-reactive protein), cardiovascular functioning (blood pressure), health (body mass index, growth delay, health history), behavior (internalizing/externalizing behaviors), and learning (school performance). At the completion of data collection, univariate statistics will be used to describe maternal characteristics, maternal caregiving patterns, and child indicators of exposure to chronic stress in the sample population. Bivariate analyses

will be used to examine the strength and direction of relationships between the maternal and child variables.

Results: Completion of data collection is expected in Spring 2017. Preliminary descriptive results will be presented, with a focus on associations among maternal protective factors and physiological indicators of exposure to chronic stress in children.

This study is innovative in its use of biological outcome measures to explore the effects of maternal protective factors within families at risk for toxic stress. However, physiological indicators of toxic stress are poorly defined in the literature, and thus biomarkers for the current study were selected based on available knowledge and feasibility. Another limitation is the study's small sample size, which may not be adequate to use multivariate statistical methods to study the relationships between variables. However, it is expected that this exploratory study will provide an important foundation for future research on toxic stress and protective factors in young children at risk.

Conclusion: Given the cascade of poor outcomes associated with toxic stress, there is a pressing need to understand the mechanisms through which toxic stress can be prevented in early childhood. The results of this study will lay important groundwork for future nursing research studies focused on promoting health and reducing disparities in vulnerable families at risk for toxic stress. The findings of this study will also make a valuable contribution to nursing clinical care, as the protective caregiving strategies identified can be encouraged both in the primary care setting and as part of in-depth interventions. Furthermore, identifying links among maternal characteristics, current caregiving patterns, and indicators of exposure to chronic stress in children may play an important role in the development of social and economic policies that reduce maternal stressors, promote family strengths, prevent intergenerational transmission of trauma, and empower socioeconomically disadvantaged communities.

References

- Asok, A., Bernard, K., Roth, T. L., Rosen, J. B., & Dozier, M. (2013). Parental responsiveness moderates the association between early-life stress and reduced telomere length. *Development and Psychopathology, 25*, 577-585. doi:10.1017/S0954579413000011
- Badanes, L. S., Dmitrieva, J., & Watamura, S. E. (2012). Understanding cortisol reactivity across the day at child care: The potential buffering role of secure attachments to caregivers. *Early Childhood Research Quarterly, 27*, 156-165. doi:10.1016/j.ecresq.2011.05.005
- Champagne, F. A., Francis, D. D., Mar, A., & Meaney, M. J. (2003). Variations in maternal care in the rat as a mediating influence for the effects of environment on development. *Physiology and Behavior, 79*, 359-371. doi:10.1016/S0031-9384(03)00149-5
- Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology and Behavior, 106*, 29-39. doi:10.1016/j.physbeh.2011.08.019
- De Bellis, M. D. (2005). The psychobiology of neglect. *Child Maltreatment, 10*, 150-172. doi:10.1177/1077559505275116
- Garner, A. S. (2013). Home visiting and the biology of toxic stress: Opportunities to address early childhood adversity. *Pediatrics, 132*, S65-S73. doi:10.1542/peds.2013-1021D
- Goodman, S. H., Rouse, M. H., Connell, A. M., Broth, M. R., Hall, C. M., & Heyward, D. (2011). Maternal depression and child psychopathology: A meta-analytic review. *Clinical Child and Family Psychology Review, 14*(1), 1-27.
- Hibel, L. C., Granger, D. A., Blair, C., & Cox, M. J. (2011). Maternal sensitivity buffers the adrenocortical implications of intimate partner violence exposure during early childhood. *Development and Psychopathology, 23*, 689-701. doi:10.1017/S0954579411000010
- Hill-Soderlund, A. L., Mills-Koonce, W. R., Propper, C., Calkins, S. D., Granger, D. A., Moore, G. A., . . . Cox, M. J. (2008). Parasympathetic and sympathetic responses to the strange situation in infants and mothers from avoidant and securely attached dyads. *Developmental Psychobiology, 50*, 361-376. doi:10.1002/dev.20302
- Hostinar, C. E., Sullivan, R. M., & Gunnar, M. R. (2014). Psychobiological mechanisms underlying the social buffering of the hypothalamic-pituitary-adrenocortical axis: A review of animal models and human studies across development. *Psychological Bulletin, 140*, 256-282. doi:10.1037/a0032671
- Juster, R. -, McEwen, B. S., & Lupien, S. J. (2010). Allostatic load biomarkers of chronic stress and impact on health and cognition. *Neuroscience and Biobehavioral Reviews, 35*, 2-16. doi:10.1016/j.neubiorev.2009.10.002
- Laurent, H. K., Ablow, J. C., & Measelle, J. (2012). Taking stress response out of the box: Stability, discontinuity, and temperament effects on HPA and SNS across social stressors in mother-infant dyads. *Developmental Psychology, 48*, 35-45. doi:10.1037/a0025518

McEwen, B. S. (2008a). Central effects of stress hormones in health and disease: Understanding the protective and damaging effects of stress and stress mediators. *European Journal of Pharmacology*, 583, 174-185. doi:10.1016/j.ejphar.2007.11.071

McEwen, B. S. (2008b). Understanding the potency of stressful early life experiences on brain and body function. *Metabolism: Clinical and Experimental*, 57, S11-S15. doi:10.1016/j.metabol.2008.07.006

Shonkoff, J. P., Garner, A. S., Siegel, B. S., Dobbins, M. I., Earls, M. F., McGuinn, L., . . . Wegner, L. M. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, 129, e232-e246.

Yasui, M. (2015). A review of the empirical assessment of processes in ethnic-racial socialization: Examining methodological advances and future areas of development. *Developmental Review*, 37, 1-40.

Contact

eileen.condon@yale.edu

RSC PST 3 - Research Poster Session 3

Evaluation of a Comprehensive Pro-Active Intervention on Quality of Life for Community Frail Older Adults

Yen-Chun Lin, PhD, RN, Taiwan

Lian-Hua Huang, PhD, RN, FAAN, Taiwan

Meei-Fang Lou, PhD, RN, Taiwan

Abstract

Purpose: To evaluate a comprehensive pro-active intervention for community frail older adults and examine its effectiveness.

Methods: This is a pilot experimental study. The older adults who consented and met the frail or pre-frail status assessed by Fried Frailty Criteria were randomly assigned into experimental (N=55) and control groups (n=54). The experimental group received a 6-month comprehensive pro-active intervention. We provided a comprehensive assessment for each participants. Based on their individual needs, we provided physical activity practice, health education, community resource referrals, community support groups, group community activity participation, counseling, self-management skills teaching, regular telephone follow-up, and home visits every two weeks or monthly. The control group received the usual primary care. Both the intervention and control groups completed the Health Related Quality of Life (WHOQOL-BREF) at baseline and again at a 6-month follow up. Analysis of covariance (ANCOVA) was used to compare the outcome across groups with post-test as outcome and baseline values as a covariate.

Results: There were 109 clients participated in this study. The overall average age of participants was 76.96 years old. The 57.8% participants were male. Assessed by Fried Frailty Criteria, 12 participants (11.0%) were frail, and 97 participants (89.0 %) were pre-frail. During the research process, 7 participants in experimental group and 8 participants in control group withdraw from the study. Finally, 48 participants in experimental group and 46 participants in control group completed the post-test. The differences of mean scores of quality of life between pre and post-test were assessed by paired t-test. The results showed that quality of life of post-test in experimental group were improved compared to that of pre-test except for social relationship domain. After adjusted the pre-test scores, the results showed that the mean scores of quality of life for physical domain in experimental group were statistically increased compared to that of control group ($F=5.343$, $p=0.023$).

Conclusion: The results showed that the interventions were significantly improved the quality of life for physical domain. Future research to investigate effective interventions for other domains is recommended.

References

- Bleijenberg, N., Drubbel, I., Ten Dam, V. H., Numans, M. E., Schuurmans, M. J., & de Wit, N. J. (2012). Proactive and integrated primary care for frail older people: design and methodological challenges of the Utrecht primary care PROactive frailty intervention trial (U-PROFIT). *BMC Geriatr*, *12*, 16. doi: 10.1186/1471-2318-12-16
- Hoogendijk, E. O. (2016). How effective is integrated care for community-dwelling frail older people? The case of the Netherlands. *Age Ageing*, *45*(5), 585-588. doi: 10.1093/ageing/afw081
- Looman, W. M., Fabbicotti, I. N., & Huijsman, R. (2014). The short-term effects of an integrated care model for the frail elderly on health, quality of life, health care use and satisfaction with care. *Int J Integr Care*, *14*, e034.

Contact

yenlin@ntu.edu.tw

RSC PST 3 - Research Poster Session 3

What Is My Role As Professional Nurse in Guiding Students to Professionalism?

Magda Cunze, BaCur (NsgEd/Mng), RN, RM, RT, RCN, RNM, South Africa

Gisela H. Van Rensburg, DLittetPhil, MACur, BACur (Hons), BACur, RN, RM, RCN, RPN, RNE, RNM, RON, South Africa

Abstract

Purpose: The purpose of the presentation is to inform, guide and support professional nurses regarding their role in guiding students to professionalism

Methods: An exploratory-descriptive qualitative approach was followed. The population constituted for this study are the final year students of the programme: Diploma in General Nursing, R683 of the South African Nursing Council. Non-probability, purposive sampling was done to select the participants. The study was conducted at two campuses of the private nursing education institution situated in one of the nine provinces in South Africa. Two World Café conversation focus groups were conducted to collect the data. A total of thirty participants formed part of each conversation. After two sessions of the World Café conversations during which 60 students participated, data saturation was achieved.

Results: Three major themes were identified namely the professionalism of professional nurses, need for student support and factors related to the teaching and learning environment. This presentation will focus on the role of professional nurses in the clinical environment to guide students to professionalism.

Exposure to positive behaviours by professional nurses in the clinical environment will give students the opportunity to develop their own professional behaviours by observation and imitation of professional nurses. The categories identified for factors related to the professionalism of professional nurses are professional attitude and behaviour, the professional role and the professional image of the professional nurse.

Perry (2009) wrote that the attitude of professional nurses as role models is reflected to the student through actions and behaviours, that influences the nature of the relationships the professional nurse has with the student.

Professional attitude and behaviour of professional nurses were clear in the participants' identification of the need for role models, values of the profession and communication as they requested professional nurses to portray characteristics such as positive attitudes and behaviour, high self-esteem, honesty, trustworthiness, reliability, self-respect, integrity, fairness and energy. Professional nurses as role models are resourceful and confident; approachable, available and friendly; helpful and understanding; welcoming and have the students' interests at heart. The role model therefor must be an advocate for students.

Brown et al (2012:606) described the professional role concept as the "development of a nursing identity over a period of time and is the expected function of a member of a specific profession" and is of the opinion that the development of a nursing identity is an important factor during the students' professional development process. Leadership, professional support and lifelong learning was identified as important attributes needed by professional nurses in supporting students. In his/her professional role, the nurse is responsible for teaching students how to care for patients, colleagues, themselves and their profession and to accept responsibility for their own professional roles. To do this, they need to role model effective and ethical behaviours and actions.

Portraying the image of nursing depends on how the members of the profession portray themselves. Oosthuizen (2012) stated that it is up to the nursing profession itself to look at the image of the profession as portrayed in the media and to change that image positively.

Brown et al (2013) revealed that nursing education institutions' curricula and workforce policies must be developed in such a way that students are able to develop an understanding of their role, are successfully acculturated and assimilated into the profession and organisation, and acquire the correct professional knowledge, skills and values from expert role models. This related to the findings in this study where participants expressed their desire for professional nurses to show them professionalism which they, the students, would imitate.

Conclusion: Role models are valuable resources in any clinical health setting, however given the sophistication of skills and attributes associated with ideal role models it is evident that many professional nurses will only provide partial opportunities to imitate their behaviours as role models to student nurses.

Student nurses will continue to practice the behaviours imitated by role models they believe to be important. Therefore it is important that professional nurses are aware of the key role that their behaviour plays in the process of socialising students into the profession. Forming role models of tomorrow is largely dependent on the present practices of professional nurses in the clinical environment.

To answer my question in the title, professional nurses need to ensure:

- Role models who act professional and portraying professional attitudes and behaviours;
- who live the professional role; and
- portray a professional image.

References

Brown, J, Stevens, J & Kermode, S. 2013. Measuring student nurses professional socialisation: The development and implementation of a new instrument. *Nurse Education Today* 33:565-573.

Curtis, K, Horton, K & Smith, P. 2012. Student nurse socialisation in compassionate practice: A grounded theory study. *Nurse Education Today* 32:290-295.

Perry, B. 2009. Being an exemplary role model. It begins with an optimistic attitude. *Journal for Nurses in Staff Development* 25(5):242-248.

Oosthuizen, MJ. 2012. The portrayal of nursing in South African Newspapers: A qualitative content analysis. *Africa Journal of Nursing and Midwifery*. 14(1):49-62

Contact

magda.cunze@lifehealthcare.co.za

RSC PST 3 - Research Poster Session 3

Predicting Success: An Analysis of the Characteristics of Applicants to the Ontario PHCNP Program

Elsabeth Jensen, PhD, RN, Canada

Shelley Walkerley, PhD, RN-EC, Canada

Abstract

Purpose: This project is an extension of the previous study focusing on the predictive value of personal essays for admission to the PHCNP Program at York University. The original study findings revealed that while the scores on admissions essays were not associated with success or failure in the program, other characteristics or attributes such as years of nursing experience may be related to a successful outcome. The current project is aimed at further describing the characteristics of the applicants as well as exploring relationships between those characteristics and applicant success.

Methods: This study expanded the study population by including three additional provincial Primary Health Care Nurse Practitioner sites, one of which enrolls francophone students. This is a retrospective quantitative analysis of data normally collected for enrollment decision-making, i.e., common admission criteria and information including demographic information, UGPA, scores on nursing theory and research courses in the applicant's undergraduate program, number of years of nursing experience, and type of clinical experience. Applicants to the PHCNP program at the 4 participating universities were approached for consent.

Results: The data from the study is informative in describing the education and experience successful applicants bring to the program. As all of the 53 participants are now registered as Nurse Practitioners, this data give no insight into those graduates who are unsuccessful on the exam. Few of our students are not successful in licensing; most of those who fail first writing go on to be successful on second writing

Conclusion: As we continue to work forward to meet the Ontario's need for PHCNP services, it is important to select applicants to the program who have the greatest potential to complete the program in a timely fashion, pass the registration exam, and successfully enter practice. The next stage of this program of research will explore the characteristics of those who were admitted but did not complete to see if they differ from those who complete.

References

Callwood, A., Allan, H., & Courtenay, M. (2012). Are current strategies for pre-registration student nurse and student midwife selection 'fit for purpose' from a UK perspective? Introducing the multiple mini interview. *Nurse education today*, 32(8), 835-837.

Hart, C. (2012)/ Factors associated with student persistence in an online program of study: A review of the literature. *Journal of Interactive Online Learning*, 11(1), 19-42

Jensen, E. & Walkerley, S. (2014). Personal Essays for Admission to the Primary Health Care Nurse Practitioner Program: Can they predict success? Technical Report to COUPN.

Contact

ejensen@yorku.ca

RSC PST 3 - Research Poster Session 3

Integrative Review of Virtual Simulation in Nursing

Hyunsook Shin, PhD, RN, CPNP-PC, Korea, Republic of (South)

Hyojin Kim, MSN, RN, Korea, Republic of (South)

Da Hae Rim, MSN, RN, Korea, Republic of (South)

Sojeong Park, BA, RN, Korea, Republic of (South)

Abstract

Purpose: Presence of virtual reality allows nursing educators to design innovative educational platforms for the pre-service education as well as in-service education. An integrative review of the simulation literature was conducted to identify effective characteristics of virtual simulation for nursing education.

Methods: An integrative review was conducted from three major electronic databases: Ovid MEDLINE, PubMed and the Cumulative Index of Nursing and Allied Health Literature (CINAHL) using the keywords; patient simulation, computer-user interface or computer-user training, and virtual in English. The initial review of titles and abstracts produced 170 results. Out of the initial 170 articles retrieved, 85 articles, mostly intervention studies and a few descriptive studies were analyzed. The research questions focused on the characteristics of virtual simulation approaches including the virtual type, realism methods, participant representation and outcome indicators to suggest the effective virtual simulation design for nurse educators.

Results: The literature suggests the effective use of virtual simulation approaches that allow for multi-user interaction and more accessible training opportunities for learners. Most of the studies had incorporated virtual environments in different ways involving 2D images to augmented reality. Length of the virtual simulation and type of virtual platforms were greatly varied. Use of augmented reality or screen, use of commercial platforms such as Second Life or Unity 3D or newly developed, designed feedback system or not, presence of self as an avatar or use of script are identified as design characteristics of virtual simulation approaches. Constructive educational tradition was identified as major theoretical framework of virtual simulation through experiential learning or active learning. However, knowledge acquisition and clinical reasoning rather than clinical competency and clinical outcomes had been found as major outcome indicators of virtual simulation, which represented to be inferior for training outcomes in Kirkpatrick's model of training

Conclusions: Design characteristics for virtual simulation should be selected based on the evidence to support effective educational strategies. Effectively designed virtual simulation can lead to improvements in knowledge and clinical reasoning skills, but there is less evidence directly linking virtual simulation to improved performance and clinical outcomes.

References

Cobbett, S., & Snelgrove-Clarke, E.(2016). Virtual verses face-to-face clinical simulation in relation to student knowledge, anxiety, and self-confidence in maternal-newborn nursing: A randomized controlled trial. *Nurse Education Today*, 45, 179-184. <http://dx.doi.org/10.1016/j.nedt.2016.08.004> 0260-6917

Sweigart, L.I., Umoren, R.A., Scott, P.J., Carlton, K.H., Jones, J.A., Truman, B., and Gossett, E.J. (2016). Virtual TeamSTEPPS® Simulations Produce Teamwork Attitude Changes Among Health Professions Students. *Journal of Nursing Education*, 55(1), 31-35. doi:10.3928/01484834-20151214-08

Verkuyl, M., Atack, L., Mastrilli, P., and Romaniuk, D.(2016). Virtual gaming to develop students' pediatric nursing skills: A usability test. *Nurse Education Today*, 46, 81-85. <http://dx.doi.org/10.1016/j.nedt.2016.08.024> 0260-6917

Contact

hsshin@khu.ac.kr

RSC PST 3 - Research Poster Session 3

Transition to College Campus Living With a Chronic Condition: Type 1 Diabetes Exemplar

Jennifer L. Saylor, PhD, MSN, BSN, RN, APRN-BC, USA
Christina Calmaro, PhD, RN, CRNP-BC, USA

Abstract

Purpose: The purpose of this study is to examine sleep, resilience, and diabetes related quality of life (DQOL) and their effect on diabetes management in young adults ages 18-24 living on university/college campuses. RQ1: What is the relationship between sleep and HgbA1c (HgbA1c) and resilience and HgbA1c and quality of life and HgbA1c among those with type 1 diabetes 18-24 years of age living in dormitories. RQ2: What are the inter-relationships between sleep and HgbA1c and quality of life among those with type 1 diabetes 18-24 years of age living in dormitories?

Significance/Literature Review: Young adults with chronic conditions, like their healthy counterparts, have the same excitement and goals as they look forward to the independence of college. Yet for those living with a chronic condition, the diagnosis can create serious intrusions into the lives of young adults as they transition to campus life. While transitioning, the young adult with a chronic condition like type 1 diabetes (T1D) must negotiate a delicate balance between adhering to a management regimen that supports a stable blood glucose level while attempting to integrate into campus life. There are 1.25 million Americans with T1D and a 23% increase is expected over the next 40 years among those < 20 years of age (American Diabetes Association, 2012; SEARCH for diabetes in youth, 2015). T1D is becoming more common in the United States. Between 2001 and 2009 there was a 21% increase in the prevalence of T1D in people under age 20 (Dabelea et al., 2014). More than 18,000 new cases of T1D are estimated to be diagnosed among U.S. youth < 20 years of age each year. This may result in more students entering college and living on campuses. By 2050 in the U.S., 5 million people are expected to have T1D by 2050, including nearly 600,000 youth (Dabelea et al., 2014; Imperatore et al., 2012). This will dramatically increase the number of college students matriculating with T1D. Students with a chronic condition had impaired health related quality of life (QOL) compared to those without a chronic condition and a higher level of loneliness (Herts, Wallis, & Maslow, 2014; Maslow, Haydon, McRee, Ford, & Halpern, 2011). Surprisingly, only 7% of first year college students with chronic conditions knew another student with a chronic illness and 57% reported not knowing anyone with chronic illness (Herts, Wallis, & Maslow, 2014). Many young adults without a chronic condition have difficulty adjusting to this campus living and balancing academic, social life, and psychological well-being. This balancing act is even more complex for students with T1D who require vigilant self-management that includes consistent insulin administration, regular nutrition, and physical activity and sleep patterns. Therefore, inconsistency occurs because of new-found freedoms in an unstructured living environment. There is a paucity of information on effect of campus life for students with T1D and potential effects on diabetes management and long-term health outcomes.

Campus life is not only about academics and socialization, but potentially encompasses changing patterns of sleep, nutrition, physical activity, mental health, and risk behaviors. For optimal health, students must manage many changing patterns and behaviors that are unique to the college environment. This can be exacerbated in young adults managing a chronic condition such as T1D. Campus experiences can aggressively affect those students with T1D from new student ice-cream social with unknown nutritional information for insulin administration to late night studying and lacking sleep. Using T1D as an exemplar, this proposal will examine sleep, resilience, and Diabetes related QOL as potential components of campus living that have not been fully explored in the literature. This allows universities to implement programs/interventions to better support the needs of those with T1D and possibly other chronic conditions. By surveying young adults with T1D, ages 18 to 24 years, this proposed study will provide further information on potential components of campus life effect diabetes management in college. This work will contribute to the body of knowledge on T1D to further identify barriers to a successful campus living and effect on diabetes management HgbA1c. Also, this will inform a larger research body focused on young adults with chronic conditions during campus life transition.

Methods: This research study used a descriptive, cross-sectional research design to examine how much sleep (sleep duration) (Calamaro, Mason, & Ratcliffe, 2009; Eliasson, Lettieri, & Eliasson, 2010), how adaptation to changes and stress (resilience) (Santos, Bernardo, Gabbay, Dib, & Sigulem, 2013) and level of quality of life (Varni et al., 2003) among young adults ages 18-24 living on university/college campuses.

Sample: A total of 50 participants will be enrolled in the study with the exploratory research questions. Participants will be recruited with the agreed upon assistance of the Disability Support Services (DSS) and the College Diabetes Network (CDN). The *inclusion criteria* includes participants must be at least 18 years old, have a formal diagnosis of T1D, and live on campus during the undergraduate college years. Participants are considered properly diagnosed if they are fully dependent on insulin administration via a vial and syringe or an insulin pump. The *exclusion criteria* include a diagnosis of Type 2 Diabetes, no diagnosis of T1D, younger than 18 years of age, unable to read or write English, or does not live on college/university campus housing.

Variables/Outcomes/Measurements: The outcome or dependent variable is HgbA1c determines extent of diabetes management. This is self-reported on the electronic questionnaire. HgbA1c is an average of blood sugar control over the past 2-3 months. Thus, this laboratory blood test is typically completed every 3 months for those with T1D and it shows how well their diabetes is being management. Sleep, Resilience and Diabetes Quality of Life are the independent variables. Sleep is measured using the Sleep, Caffeine Intake, and Technology Use questionnaire. This is a 36-item, 3-concept instrument that measures intake of caffeinated drinks, use of nighttime media-related technology, and sleep behaviors (Calamaro et al., 2009). Content and face validity were established by using 5 sleep experts to judge the relevancy of each item to the intent of the questionnaire (Calamaro et al., 2009). The instrument that takes approximately 10-15 minutes to complete is validated in adolescents and young adults. Resilience is measured using the *Resilience Scale (RS-14)*. This 14-item scale Likert scale format measures one's individual resilience and take about 2-4 minutes to complete. The higher the score, the greater his/her resilience in response to an event (Resilience Center, 2015; Wagnild, 1993) The RS-14 in use since 2008; it is significantly correlated with the longer RS ($r=.97$) and internal consistency reliability for the RS-14 is $\alpha = .93$. The Diabetes-Related Quality of Life (DQOL) will be assessed using a modified version of Ingersoll and Marrero 1991 DQOL scale (Ingersoll & Marrero, 1991). This 5-point Likert Scale is the most commonly used quality of life scale for youths and young adults with T1D. The modified electronic tool takes approximately 15-20 minutes and includes subscales for life satisfaction (17 items), disease impact (23 items), disease-related worries (11 items), and 1 item relating to health (Hanna, Weaver, Slaven, Fortenberry, & DiMeglio, 2014). The test-retest reliability ranged from 0.78-0.92 (Ingersoll & Marrero, 1991).

Procedure: After receiving Human Subjects approval, emails will be sent to participants via DSS. Also, the CDN will post an IRB approved Facebook and twitter post to their members. Using REDCap (Research Electronic Data Capture) the participants will be screened by answering a few inclusion/exclusion criteria. After the screening, the participants will receive the electronic consent, followed by the survey. The confidentiality of the participant information was protected. All identifiers were be removed and each participant was assigned a unique anonymized subject identifier. Also, all study data will be on password protected computers in a locked office (double lock principle). Updated anti-virus protection will be on researchers' computers used to access data. The key to the data set will be kept separately in a locked cabinet in a locked office (double lock principle). For this study we apply principles of the Market Model to justify our compensation (Dickert & Grady, 1999; Grady, 2005). Incentives are given to enhance the likelihood of participation, and money is justifiable as an incentive for a healthy individual or one who would otherwise not benefit from participation. Therefore, to enhance the likelihood of enrollment of busy college students, participants will receive remuneration in the form electronic gift cards in the amount of \$10.

Data Analysis: All statistical procedures will be completed using the Statistical Package for Social Sciences. Standard descriptive statistics will be used to describe the outcomes, demographic and independent variables of interest. Internal reliability of the questionnaires and instruments included in the surveys will be examined using Coefficient α for each of the constructs identified and included in the

survey, i.e. sleep, diabetes-specific quality of life, and resilience. All of these measures will be correlated with diabetes management (HgbA1c) using a Pearson correlation.

Results: The data collection will occur November 2016 through March, 2017.

Conclusion: A conclusion will be presented on the poster as data collection and analysis will be complete before the 28th International Nursing Research Congress.

References

- American Diabetes Association. (2012). Number of youth with diabetes projected to rise substantially by 2050. *American Diabetes Association*.
- Calamaro, C. J., Mason, T., & Ratcliffe, S. J. (2009). Adolescents living the 24/7 lifestyle: Effects of caffeine and technology on sleep duration and daytime functioning. *Pediatrics*, *123*(6), e1005-10. doi:10.1542/peds.2008-3641
- Dabelea, D., Mayer-Davis, E. J., Saydah, S., Imperatore, G., Linder, B., Divers, J., . . . SEARCH for Diabetes in Youth Study. (2014). Prevalence of type 1 and type 2 diabetes among children and adolescents from 2001 to 2009. *Jama*, *311*(17), 1778-1786. doi:10.1001/jama.2014.3201 [doi]
- Dickert, N., & Grady, C. (1999). What's the price of a research subject? Approaches to payment for research participation. *The New England Journal of Medicine*, *341*(3), 198-203. doi:10.1056/NEJM199907153410312 [doi]
- Eliasson, A., Lettieri, C., & Eliasson, A. (2010). Early to bed, early to rise! Sleep habits and academic performance in college students. *Sleep & Breathing*, *14*(1), 71-75.
- Grady, C. (2005). Payment of clinical research subjects. *The Journal of Clinical Investigation*, *115*(7), 1681-1687. doi:10.1172/JCI25694 [doi]
- Hanna, K., M., Weaver, M., T., Slaven, J., E., Fortenberry, J., D., & DiMeglio, L., A. (2014). Diabetes-related quality of life and the demands and burdens of diabetes care among emerging adults with type 1 diabetes in the year after high school graduation. *Research in Nursing & Health*, *37*(5), 399-408. doi:10.1002/nur.21620
- Herts, K., Wallis, E., & Maslow, G. (2014). College freshman with chronic illness: A comparison with healthy first-year students. *Journal of College Student Development*, *55*(5), 475-480.
- Imperatore, G., Boyle, J. P., Thompson, T. J., Case, D., Dabelea, D., Hamman, R. F., . . . SEARCH for Diabetes in Youth Study Group. (2012). Projections of type 1 and type 2 diabetes burden in the U.S. population aged *Diabetes Care*, *35*(12), 2515-2520. doi:10.2337/dc12-0669 [doi]
- Ingersoll, G. M., & Marrero, D. G. (1991). A modified quality-of-life measure for youths: Psychometric properties. *The Diabetes Educator*, *17*(2), 114-118.
- Maslow, G. R., Haydon, A., McRee, A., Ford, C. A., & Halpern, C. T. (2011). Growing up with a chronic illness: Social success, educational/vocational distress. *Journal of Adolescent Health*, *49*(2), 206-212. doi:http://dx.doi.org.udel.idm.oclc.org/10.1016/j.jadohealth.2010.12.001
- Resilience Center. About the resilience scale. The Resilience Scale: Building a life of strength, courage and meaning Web site. <http://www.resiliencescale.com/about-the-resilience-scale-2/>. Updated 2015. Accessed 10/07, 2016.
- Santos, F. R., Bernardo, V., Gabbay, M. A., Dib, S. A., & Sigulem, D. (2013). The impact of knowledge about diabetes, resilience and depression on glycemic control: A cross-sectional study among adolescents and young adults with type 1 diabetes. *Diabetology & Metabolic Syndrome*, *5*(1), 55-5996-5-55. doi:10.1186/1758-5996-5-55 [doi]
- SEARCH for diabetes in youth. (2015). Retrieved from <https://www.searchfordiabetes.org/public/dsphome.cfm>
- Wagnild, G. (1993). Development and psychometric evaluation of the resilience scale. *Journal of Nursing Measurement*, *1*(2), 165-178.
- Varni, J. W., Burwinkle, T. M., Jacobs, J. R., Gottschalk, M., Kaufman, F., & Jones, K. L. (2003). The PedsQL in type 1 and type 2 diabetes: Reliability and validity of the pediatric quality of life inventory generic core scales and type 1 diabetes module. *Diabetes Care*, *26*(3), 631-637.

Contact

jsaylor@udel.edu

RSC PST 3 - Research Poster Session 3

Breastfeeding Practices: Attachment and Positioning, a Health Center Level Study in Sinazongwe District, Zambia

Jerry John Nutor, MSN, BSN, RN, USA

Shannon Marquez, PhD, MEng, USA

Jaime C. Slaughter-Acey, PhD, MPH, USA

Abstract

Purpose: Breastfeeding has been accepted as one of the most important intervention to enhance growth and development of a child. It satisfies an infant's nutritional and emotional needs better than any other methods of infant feeding (Haga et al., 2012). At the Innocenti Declaration in 1990, the World Health Organization (WHO) in collaboration with United Nations Children's Fund (UNICEF) recommended exclusive breastfeeding, this recommendation encourages mothers to feed their infants the first 6 months of life with breastmilk alone and then up to 2 years of age and beyond (World Health Organization, 1991). In order to achieve maximum benefit of breastfeeding for both mother and infant, there is a need for good attachment and adequate positioning. Positioning an infant appropriately is one of the easiest ways to ensure postural support that has impact on both the infant and the mother's comfort. It could also affect the infant's neurobehavioral and neuromotor development temporarily or permanently (Waitzman, 2007). Attachment is defined as the connection from infant to the mother and it is the initiation of the bond that exist between them. Effective breastfeeding means adequate positioning of mother and baby and attachment of child to the mother's breast (Dongre et al 2010). Positioning of the infant's body is essential for good attachment, comfortable and successful breastfeeding. Good attachment during infant breastfeeding could also prevent many emotional and psychological problems for both mother and the infant (Goyal et al 2011). The purpose of this project was to educate mothers on good attachment during breastfeeding and important of breastfeeding to the mother, infant and the society.

Methods: In commemoration of the 2016 world breastfeeding day, the Sinazongwe district health center and the Sinazongwe Area Development Project of World Vision joined the rest of world from August 1st to August 7th to celebrate world breastfeeding day on the theme "Raising Awareness of the Links between Breastfeeding and the Sustainable Development Goals". In all forty-eight breastfeeding mothers were selected from Sinazongwe district hospital postnatal clinic to undergo a day's workshop on the importance of breastfeeding, attachment and position during breastfeeding. Three mothers were randomly selected to demonstrate how they usually breastfeed their infants. After every demonstration, other participants were given the opportunity to debrief the sessions.

Results: None of the three mothers was able to demonstrate infant breastfeeding with good attachment and positioning. In addition, majority of the women could not identify what their colleagues did wrong while demonstrating the breastfeeding. Workshop facilitators including nurses and midwives educated the mothers on proper breastfeeding position and attachment. The mothers were also taught proper hygiene technics such as hand washing before and after breastfeeding and oral hygiene for infants. Other topics including benefits of breastfeeding to the mother, infants, community and the nation were also covered.

Conclusion: Good attachment and positioning during breastfeeding make the difference between a happy, comfortable and successful breastfeeding and one that is painful for mothers and frustrating for the baby. Given that none of the three mothers could not demonstrate proper positioning and attachment during the demonstration, a need exists to develop breastfeeding education program and also use culturally appropriate methods to disseminate this program among postpartum women in the Sinagongwe district.

References

Dongre, A. R., Deshmukh, P. R., Rawool, A. P., & Garg, B. S. (2010). Where and how breastfeeding promotion initiatives should focus its attention? A study from rural Wardha. *Indian Journal of Community Medicine*, 35(2), 226.

Goyal, R. C., Banginwar, A. S., Ziyu, F., & Toweir, A. A. (2011). Breastfeeding practices: Positioning, attachment (latch-on) and effective suckling-A hospital-based study in Libya. *Journal of Family and Community Medicine, 18*(2), 74.

Haga, S. M., Ulleberg, P., Slinning, K., Kraft, P., Steen, T. B., & Staff, A. (2012). A longitudinal study of postpartum depressive symptoms: multilevel growth curve analyses of emotion regulation strategies, breastfeeding self-efficacy, and social support. *Archives of Women's Mental Health, 15*(3), 175-184.

Waitzman, K. A. (2007). The importance of positioning the near-term infant for sleep, play, and development. *Newborn and Infant Nursing Reviews, 7*(2), 76-81.

World Health Organization (1991). Indicators for assessing breast feeding practices. *WHO Geneva, Switzerland: World Health Organization Document WHO/CDD/SER, 91, 14.*

Contact

jjnutor@drexel.edu

RSC PST 3 - Research Poster Session 3

Does Playing the Role or Wearing Clinical Attire Improve Self-efficacy in Culturally Diverse Nursing Students?

Mary Elizabeth Fortier, EdD, MA, BSN, RN, CNL, USA

Abstract

Purpose: In light of the recent IOM Report and Patricia Benner's study: A Call for Radical Transformation, we, as nurse educators, need to identify the barriers to a baccalaureate degree in nursing for culturally diverse students and create academic environments that will promote their achievement of obtaining a baccalaureate degree in nursing.

Recent media spotlight on the RN shortage has highlighted nursing as a lucrative and secure field, providing practice opportunities beyond traditional roles. Government analysis data projects an explosion of new nursing positions through 2020. This fact makes the profession of nursing one of the nation's top professions in terms of projected job growth. Therefore; if the healthcare needs of society, now and in the future are to be met then improving recruitment, retention, and graduation rates of the culturally diverse baccalaureate nursing students is critical.

The purpose of this presentation is to inform the attendees of the significance that self-efficacy plays in the success of culturally diverse baccalaureate nursing students in their first clinical course and again at the end of their coursework. Self-efficacy is a necessary criterion for achieving student success, developing critical thinking and reasoning skills. Psychologist Albert Bandura has defined self-efficacy as one's belief in one's ability to succeed in specific situation; suggesting that self-efficacy plays a critical role in how we think, feel, and behave.

Methods: The results of this exploratory research determined that faculty and schools need to explore and identify exemplars for academic practices; such as, developing peer-mentor support services: study groups and writing support services that would improve not only the self-efficacy of this student population but would ensure their future success as licensed professional nurses. Additionally, this research assisted in identifying exemplars for clinical practice settings that were not considered "traditional" settings; such as, community centers and rent-assisted apartment houses.

Results: All of these solutions can provide diverse nursing students with clinical knowledge and a learning environment conducive to growth and the development of critical thinking and reasoning, ensuring a future of culturally diverse and sensitive Professional nurses for our changing global populations and society.

Colleges continue to study admission criteria in order to fine tune their selection processes and enhance the guidance of our culturally diverse BSN students towards academic success. The time has come for faculty and colleges not to focus on only admission criteria but on identifying criteria that will ensure this success throughout the academic progression timeline: entry, midpoint, and exit points.

There is a fair amount of literature regarding self-efficacy in senior nursing students and patient education with most of the focus on patient self-efficacy and registered nurses and many are older publications. Of the limited available studies, most explore self-efficacy in an academic, rather than a clinical context. Few exploratory studies of this nature have been done in this population of students, considering how fast nursing school admissions have risen in the past five years. This research would add to the literature, providing a springboard for additional inquires.

Conclusion: This study may provide the needed socialization to the professional role of nursing for those students with low self-efficacy perceptions and our culturally diverse student population.

In addition, the results of this study would be of great interest to the field of nursing education and may be considered for publication in one of the following noteworthy healthcare professional journals: Nursing Education, Nursing Research, Nurse Educator, and Journal of Nursing Education and Practice.

The target population for this presentation is nurse researchers, educators, clinicians, college administrators, clinical practice partners and future employers of our diverse BSN graduates.

References

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Benner, Patricia . Sutphen, Molly. Leonard,Victoria. Day, Lisa. (2010). *Educating nurses A call for radical transformation*. San Francisco, CA: Jossey-Bass.
- Burns, N., & Grove, S. K. (2016). *The practice of nursing research* (8th ed.). St. Louis, Missouri: Elsevier and Saunders.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON
- Schwarzer, R., & Jerusalem, M., (2013): The General Self-Efficacy Scale (GSE) retrieved on 1/10/13 from: <http://userpage.fu-berlin.de/~health/selfscal.htm>.

Contact

mfortier@njcu.edu

RSC PST 3 - Research Poster Session 3

Meta-Synthesis of Studies on Self-Stigma in Chronic Disease

Kawoun Seo, MSN, RN, Korea, Republic of (South)
Yoonhee Lee, MSN, RN, Korea, Republic of (South)
Bohyun Kim, BSN, RN, Korea, Republic of (South)
Youngshin Song, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: Kato et al. stated that self-stigma is to the biased attitude in which individuals develop negative attitudes toward themselves because of their various conditions. This condition can be referred to as internalized stigma. Contrast with social-stigma, self-stigma may particularly affect to individual belief and behaviors toward disease self-management in patients with chronic disease. The literatures have reported that the self-stigma under chronic diseases conditions would be associated with a poor attitude toward self-care behaviors, and its results may negatively impacts on their health outcome such as quality of life. Recently, the importance of self-stigma was emphasized in mental health and AID study, and comprehensive review study was also published in prior.

However, self-stigma in patients with chronic disease such as diabetes has not yet been investigated. Thus, the purpose of this study was to comprehensively review the concept of self-stigma in patients with chronic disease, and to synthesize the attributes of self-stigma using published literatures. Based on the findings from this meta-synthesis, the concept of self-stigma in chronic disease conditions can be distinguished from mental health, and classified the attributes of self-stigma for patients with chronic disease. Ultimately, the instrument for measuring the self-stigma under chronic disease condition can be developed in future study.

Methods: A systematic literature search was conducted using electronic databases such as Pubmed, Cochrane and CINAHL from 1986 to 2016 years. Mesh terms such as 'self' or 'internalized' and 'stigma' were used. The inclusion criteria were as follows; a) English literatures, b) human study, c) original studies using qualitative/quantitative methods, and d) sample with chronic diseases condition such as cancer, diabetes, hypertension etc. The exclusion criteria were sample with a) mental health problem, b) HIV/AIDS, c) non-chronic condition such as smoking, and d) concept was not clearly presented in studies. Two researchers were searched and coded using coding scheme independently. If there was found the discrepancies between reviewers, principal investigator was resolved. Coding scheme consist of study characteristics (sample size, clinical condition of participants, study design etc.) and the definition or attributes of self-stigma.

Results: Total 878 studies were initially searched using three electronic databases. Among them, 237 duplicated studies were removed, and the remained 641 were reviewed its abstracts. However, 491 studies did not meet the inclusion criteria. In the next step, 150 studies were reviewed the full-text by researchers, but 117 studies were excluded due to have not the concept of self-stigma. Finally, 33 literatures were analyzed in meta-synthesis.

The final 33 studies included 12,831 samples with chronic diseases such as diabetes mellitus, hepatitis C, liver cirrhosis, stutter, epilepsy, leprosy, TB, ESRD, neuromuscular disease, lung cancer, and overweight/obesity. Research methods of twenty-seven studies were quantitative research, and remained six were qualitative research.

The attributes of the self-stigma in chronic disease were divided into two categories: interpersonal focused self-stigma and self-blamed focused self-stigma in this meta-synthesis. The attributes of interpersonal focused self-stigma included stereotype agreement, withdrawal from social relationships, and fear of disclosure of the illness. It would include avoiding the social relationships with people due to fear of discrimination or disadvantage because of their disease. This behavior was related to the social stereotypes that some of the chronic disease was considered to be a lifestyle-related. This phenomenon was appeared in patients who have more focused on interpersonal relationship. They were even

disconnecting from social networks because they have worrisome about their illness that would affect social activities. On the other hand, self-blamed focused self-stigma might be associated with negative thoughts or feelings about themselves. It included self-blame, guilt/shame, lower sense of self-worth, feeling unhealthy, and anxiety or low expectations of the future. Those attributes were related to prejudices about one self. The patients who have self-blamed or feeling guilty, and show reduced confidence in self-care management tend to be thought that the cause of their illness is their own mistakes.

Conclusion: The finding showed that the attributes of self-stigma stigma in patients with chronic disease were different from mental health and other conditions. The attributes of self-stigma from this meta-synthesis were divided into two folds such as interpersonal focused self-stigma and self-blamed focused self-stigma. However, those attributes were affected by patients' situations. Based on this meta-synthesis, self-stigma in patients with chronic disease can be understood and classified, but little information was remained on how to measure the self-stigma. Therefore, it should be needed to investigate the systematic review again for self-stigma measurement tool in further study.

References

- Kato, A., Fujimaki, Y., Fujimori, S., Izumida, Y., Suzuki, R., Ueki, K., . . . Hashimoto, H. (2016). 6. A qualitative study on the impact of internalized stigma on type 2 diabetes self-management. *Patient Education & Counseling*, 99(7), 1233-1239. doi:10.1016/j.pec.2016.02.002
- Kato, A., Takada, M., & Hashimoto, H. (2014). 7. Reliability and validity of the Japanese version of the self-stigma scale in patients with type 2 diabetes. *Health Qual Life Outcomes*, 12, 179. doi:10.1186/s12955-014-0179-z
- van der Beek, K. M., Bos, I., Middel, B., & Wynia, K. (2013). 32. Experienced stigmatization reduced quality of life of patients with a neuromuscular disease: a cross-sectional study. *Clin Rehabil*, 27(11), 1029-1038. doi:10.1177/0269215513487234

Contact

ania24@naver.com

RSC PST 3 - Research Poster Session 3

Integrative Review of Self-Care Measurement in Diabetes Nephropathy

Younghee Jun, MSN, RN, Korea, Republic of (South)
Jeonghwa Cho, MSN, RN, Korea, Republic of (South)
Keumok Park, MSN, RN, Korea, Republic of (South)
Youngshin Song, PhD, RN, Korea, Republic of (South)

Abstract

Purpose: According to the International Diabetes Federation (IDF) Diabetes Atlas, 415 million people have diabetes mellitus (DM) in 2015. Along with increasing number of diabetes prevalence, its complications are also currently increasing. Among diabetes complications, the rate of prevalence for nephropathy was 30- 40 % of diabetes patients in literature. For controlling the diabetes nephropathy (DN), patients should have the complicated self-care competence. The self-care for DN should be included the proper behaviors not only to control their glucose level, but also to manage their kidney dysfunction. Lots of patients have experienced the difficulties for managing those complicated situations. For example, studies reported that diabetes patients have confused of what kinds of food they can eat during hemodialysis. As such, self-care management for diet, physical activity, glucose monitoring, and medications according to changing their diabetes progress should be monitored and educated by health care providers. However, lots of studies have researched the DN self-care behavior as measuring the diabetes focused self-care behaviors. For better understanding the research trend in terms of measuring tool for assessing the DN self-care behaviors, integrative review is needed. Thus, this purpose of this study was to describe self-care research related to diabetic nephropathy patients and to analyze instrument for measurement of self-care. The findings from this review can be provided the information on what kinds of measurement the studies were used for DN and what limitations those instruments.

The review questions were as follows;

Q1) How many studies were focused on self-care behavior for DN, and what study characteristics they reported

Q2) What kinds of instruments they used for measuring the self-care for DN?

Methods: Literature search was conducted using computerized databases such as Pubmed, CINAHL, Embase, and Cochrane (2005-2016). The search terms of this study were “diabetes mellitus”, “Self-Care”, and “Kidney disease”. The inclusion criteria were studies of self-care for DN, English literatures, and qualitative studies. If the studies designed using qualitative method, systematic review and meta-analysis, non-English paper, non-original study, and non-human sample, those studies were excluded. The literatures were searched by two researchers independently. The coding schemes for study consist of two folds such as population characteristics (sample size, age distribution, gender, clinical status, etc.) and study characteristics (design, instrument, main variables and its outcomes, methodological quality level, etc). Two researchers were coded those information from individual studies independently. The discrepancies in coding schemes between two coders were resolved by principal investigator.

Results: Q1 How many studies were focused on self-care behavior for DN, and what study characteristics they reported?

Total 1135 articles were reviewed the titles and abstracts. Of total, 939 studies were excluded because they were duplicated and did not meet the inclusion criteria. In the next step, 183 studies were excluded during full text review because the removed studies mentioned the concept of self-care without tools and some studies were not original papers. Thus, 13 studies were selected for final analysis.

The 6 studies out of 13 were cross-sectional design, and 4 studies were experimental design. The remained 2 studies were case study and mixed method study. The number of studies that included only DN patients was 8 articles. The numbers of sample size in 6 studies were less than 100, whereas the four

studies were from 100 to 200. In remained three studies, more than 200 participants were recruited for study. Various academic areas such as Nursing, Medical, Pharmacology and Psychology were involved in studies. In 13 studies, the clinical factors such as biochemical results (BUN, Cr, HbA1c, etc.) and psycho-cognitive-emotional variables (self-efficacy, quality of life, knowledge of disease, self-management capacity, depression, feeling of loneliness, hopelessness, etc.) were used.

Q2) What kinds of instruments they used for measuring the self-care for DN?

Twelve instruments for measuring self-care behaviors in DN were found. Summary of Diabetes Self-Care Activities (SDSCA) revised instrument was used in five studies. The Self-Management Capacities Scale (SMCS), Dialysis Diet, and Fluid Non-Adherence Questionnaire (DDFQ) were used in 2 studies. The Morisky Medication Adherence Scale (MMAS)-4 items and 8 items (MMAS-8) were also measured in 2 studies for assessing the self-care in DN. Moreover, the Partners In Health (PIH), the cognitive restraint subscale of Three Factor Eating Questionnaire (TFEQ), and Self-care Ability Scale were used in 3 studies. Of total, 10 studies reported the reliabilities of their used self-care instrument, but remained 3 did not report the reliability and validity.

Conclusion: In this integrative review, relatively small studies (13 studies) during past 10 years were conducted for DN self-care. Included studies were assessing the self-care for DN using non-DN specific instruments. That is, half of studies measured the self-care for DN using diabetes focused instrument, whereas several studies used the self-care instruments that can assess hypertension or kidney disease. Thus, DN specific instrument for measuring the self-care should be developed in future study. The appropriate DN specific self-care instrument will be contributed to measure the complicated self-care behavior in DN, and its information can be help to use for patients education.

References

- Bonner, A., Havas, K., Douglas, C., Thepha, T., Bennett, P., & Clark, R. (2014). Self-management programmes in stages 1-4 chronic kidney disease: a literature review. *J Ren Care*, 40(3), 194-204. doi:10.1111/jorc.12058
- Federation, I. (2015). IDF Diabetes Atlas 6th.
- Foundation, N. K. (2012). KDOQI clinical practice guideline for diabetes and CKD: 2012 update. *American Journal of Kidney Diseases*, 60(5), 850-886.
- Lai, A. Y., Ishikawa, H., Kiuchi, T., Mooppil, N., & Griva, K. (2013). Communicative and critical health literacy, and self-management behaviors in end-stage renal disease patients with diabetes on hemodialysis. *Patient Educ Couns*, 91(2), 221-227. doi:10.1016/j.pec.2012.12.018
- Zoungas, S., & Chalmers, J. (2012). Diabetes: Glycemic control and outcomes in people with diabetes and CKD. *Nature Reviews Nephrology*, 8(3), 133-134 132p. doi:10.1038/nrneph.2012.18

Contact

muus77@hanmail.net

RSC PST 3 - Research Poster Session 3

An Application of Machine Learning for the Identification of Adolescent Smoking Risk Factors

Sophia J. Chung, PhD, MSN, RN, Korea, Republic of (South)
Youngji Lee, PhD, MS, RN, USA

Abstract

Purpose: Smoking is known to be a modifiable risk behavior that causes various health problems that include cancer and respiratory disease. Moreover, the literature reveals that adolescent smoking behaviors are likely to persist through adulthood, and this is the case in countries worldwide. In South Korea, despite many efforts to reduce smoking among Korean adolescents, this modifiable risk behavior remains a significant social problem. An effective intervention to target and modify the behavior of adolescents concerning smoking must understand and address the factors that underlie and influence the behavior of smoking. These factors can be surfaced in data using an appropriate approach. Machine learning is an approach that is well suited to reveal patterns of information in large, complex datasets that are useful in predicting outcomes (Chekroud, 2016). For example, machine learning has been used to predict readmission in in-patients (Mortazavi, 2016; Frizzell, 2016). However, this approach had not yet been applied to address an adolescent's risk behavior, such as smoking. Therefore, the goal of this study was to identify the predictors of adolescents' smoking behaviors in South Korea using a machine-learning approach.

Methods: The 2015 Korean Youth Risk Behaviors Web-based Survey (KYRBS) was used as the data source of this study. The KYRBS is an annual, nationwide survey conducted in South Korea to examine health behaviors that include cigarette smoking, individual hygiene, and alcohol consumption. Data gathered in the 2015 KYRBS was collected via self-report questionnaires responded to by 68,043 students in grades 7 through 12 in randomly-selected 800 schools in South Korea. For this study, we used 5,123 surveys which completed items concerning smoking on the questionnaires. This study utilized the machine-learning pipeline developed by Fayyad (1996) and Yoon (2015). To reduce the "curse of dimensionality," in which a high number of inter-related variables in large dataset interfere with the accuracy of the machine-learning model, we selected clinically meaningful features based on the conceptual framework for adolescent risk behaviors (Jessor, 1991). Then, we applied three machine learning algorithms embedded in Weka (i.e., J48, Naïve Bayes, and Logistic Regression) to build a predictive model for the smoking behavior of the adolescents represented by the KYRBY dataset. The final model was selected based on the accuracy of not only the predictive model, but also the F-measure calculated using precision and recall rate.

Results: Through the feature selection process, we classified 40 features into three predictive categories. Among three machine algorithms we applied, we found that the Logistic Regression algorithm demonstrated the highest level of accuracy (i.e., 84.0% of adolescent smokers were correctly classified; F-measure = 0.795). Using this model, grade (-0.06) and alcohol consumption (-0.56) were the top two features with the highest coefficients. In other words, middle school students and students who had never drunk alcohol were highly associated with the behavior of smoking.

Conclusion: Our study demonstrates that a machine-learning approach is effective in identifying behavioral predictors from a large, complex dataset—in this case, the behavioral predictors associated with smoking using the KYRBY. However, our study results were inconsistent with those reported in the literature. Previous studies showed that increasing grade and previous alcohol consumption were associated with adolescents' smoking behaviors (Mendol, 2013; Talip, 2015). Further study with association between smoking behaviors and alcohol consumption among Korean adolescents is needed. Although this study did have some limitations (e.g., the data from the KYRBY is cross-sectional), our machine-learning approach shows promise, and subsequent research using longitudinal data can take into account the trends of association implicit in creating a predictive model.

References

- Chekroud, A. M., Zotti, R. J., Shehzad, Z., Gueorguieva, R., Johnson, M. K., Trivedi, M. H., ... & Corlett, P. R. (2016). Cross-trial prediction of treatment outcome in depression: a machine learning approach. *The Lancet Psychiatry*, 3(3), 243-250.
- Fayyad, U. M., Piatetsky-Shapiro, G., & Smyth, P. (1996, August). Knowledge discovery and data mining: towards a unifying framework. In KDD (Vol. 96, pp. 82-88).
- Frizzel, J. D., Liang, L., Schulte, J., Yancy, C. W., et al. (2016). Prediction of 30-day all-cause readmission in patients hospitalized for heart failure: Comparison of machine learning and other statistical approaches. *JAMA cardiology*.
- Jessor, R. (1991). Risk behavior in adolescence: A psychosocial framework for understanding and action. *Journal of adolescent Health*, 12(8), 597-605.
- Kim, Y., Choi, S., Chun, C., Park, S., Khang, Y. & Oh, K. (2016). Data resource profile: The Korean Youth Risk Behavior Web-based Survey (KYRBS). *International Journal of Epidemiology*, 45(4), 1076-1076e.
- Mendel, J. R., Berg, C. J., Windle, R. C., & Windel, M. (2012). Predicting young adulthood smoking among adolescents smokers and nonsmokers. *American Journal of Health Behavior*, 36(4), 542-554.
- Mortazavi, B. J., Downing, N. S., Bucholz, E. M., Dharmarajan, K., et al. (2016). Analysis of machine learning techniques for heart failure readmission. *Circulation: Cardiovascular Quality and Outcomes*, 9(6), 629-640.
- Taip, T., Murang, Z., Kifli, N., & Naing, L. (2016). Systematic review of smoking initiation among Asian Adolescents, 2005-2015: Utilizing the frameworks of Triadic influence and planned behavior. *Asian Pacific Journal of Cancer Prevention*, 17(7), 3341-3355.
- Yoon, S., Suero-Tejeda, N., & Bakken, S. (2015). A data mining approach for examining predictors of physical activity among older urban adults. *Journal of Gerontology Nursing*, 41(7), 14-20.

Contact

schung@ulsan.ac.kr

RSC PST 3 - Research Poster Session 3

Perceptions of Baccalaureate Nursing Students Before and After Placement on a Behavioral Health Unit

Margaret M. Egan Touw, DNP, MS, RN, USA
Susan Reimann Jackson, EdD, RN, USA

Abstract:

The focus of this paper is to determine if the Baccalaureate nursing student has changed their preconceived perceptions of their training in nursing education as well as fears or anxieties for being on a Behavioral Health unit both prior to and after placement. Both inpatient and outpatient behavioral health units provide clinical interventions for mental health or substance use diagnosis in medically staffed psychiatric supervised treatment environments. Information from this research will enhance the future education of the undergraduate in the behavioral health specialty area. The clinical rotation on an acute unit for nursing students may be challenging as well as anxiety provoking. As faculty, the intent is to provide the best clinical experience that is constructive to learning, to reduce negative attitudes or misperceptions that the students may have regarding clients with a mental illness.

The question is how to best efficaciously generate knowledge acquisition of mental and emotional disorders and promote therapeutic communication within the context of a clinical placement for students in a baccalaureate nursing program?

This research study may not specifically be a measurement tool to identify specific teaching strategies but rather lead the pathway towards the enhancing of the clinical education of bachelor degree undergraduate nursing students in behavioral health nursing. The intent is to provide a glimpse of different areas or gaps in student knowledge, as well as changes in perceptions, that once identified, might indicate a necessity to investigate methodologies available for faculty to provide the best teaching practices for active learning.

Purpose: The main focus as a professor of nursing is to prepare the student nurses for practice in an environment that they might encounter when they enter the profession. The utilization of a framework to organize the development of the program in designing courses and clinical practicum experience becomes paramount in this changing environment of mental health. The concerns of today also may be related to the consequences of insurance changes within the psychiatric illness continuum of care that is provided for patients today. Recent changes within the acute setting require that more patients are discharged to outside services and clinics. The student must be competent not only in the content that is required on the licensing examination but provided the foundation in meeting the quality care outcomes for this mental health population of patients. The reduction of anxiety and stress by implementation of support services, and better communication between faculty and students may increase positive influences of well-being for the baccalaureate nursing students. The focus upon research to provide the best possible evidenced based practice in nursing education for future behavioral health clients is imperative to generate a future of well-prepared professional nurses.

Methods: A descriptive, non-experimental study design was used to explore whether and in what ways that psychiatric nursing students in a baccalaureate nursing program have been influenced pre and post rotation in an acute behavioral health unit as well as in outpatient service settings. A comparative survey was designed to explore whether the perceptions of the students had been altered by the immersion within this educational experience

Results: Pending

Conclusion: Pending

References

Ganzer, C.A. and Zauderer, C. (2013). Structured learning and self-reflection.: Strategies to decrease anxiety in the psychiatric mental health clinical nursing experience. *Nursing Education Perspectives*. July/August 34(4). 244-69.

Happell, B. and Gaskin, C.J. (2012). the attitudes of undergraduate nursing students towards mental health nursing: a systematic review. *Journal of Clinical Nursing*. 22, 148-48.

Ketola, J. and Stein, J.V. (2013). Psychiatric clinical course strenghtens the student-patient relationships of baccalaureate nursing students. *Journal of Psychiatric and Mental Health Nursing*. 20, 23-44.

Contact

jacksons@wpunj.edu

RSC PST 3 - Research Poster Session 3

Cultural Humility and Nursing Education for Study Abroad Nursing Students

Dalit Wilhelm, MA, RN, Israel

Cheryl Zlotnick, DrPH, MPH, MS, RN, Israel

Abstract

Purpose: Bachelor's nursing students in a study abroad program are plunged in a different society, with a different culture, language, and orientation. Universities repeatedly note the importance of transcultural nursing experiences that study abroad programs can provide. These programs often report broadening perspectives and bringing awareness to the lack of cultural humility. Ethnocentrism influences our ability to absorb and learn about cultures, and determines how we filter information ("environmental sensitivity"), why we focus on an observation, and what we think about the experience. Thus, lack of cultural humility influences our learning. Educators are challenged to address this problem in study abroad nursing students by finding methods and processes to help them acclimate, learn, and function as student nurses. This project describes a program designed to make ethnocentrism visible and enable students to access their biases.

Methods: Norwegian nursing students come to Israel for a semester-long, study abroad program in Israel. The program provides a two-facet strategy to enable them to view their perspectives on population behaviors and health care services: (1) theoretical learning; and (2) clinical practice. Within the theoretical course, students learn about the basics of cultural humility. They receive a framework on how to self-examine their own perspective of their and other's culture (Hays' ADDRESSING MODEL), have the opportunity to an exercise (theater) to practice the model, and to implement these principles in "real-life" situations within clinical practice.

Results: Nursing students are challenged by their experiences in clinical practice. The students write about their internal discussions between what they believed at the outset and how those beliefs have been reframed. The cycle and process of these newly evolving beliefs demonstrate the ability of nursing students to make better understand the impact of having a set of cultural beliefs, and projecting these beliefs on others. They describe surprising themselves with their former rigid thinking, and feeling less judgmental and having more flexible thinking as a result.

Conclusion: Although this program is useful in a study abroad program where the vast different cultures are emphasized, this program would be useful in all nursing programs where students encounter patients who are different from them in Age, Development/Disability, Religion, Ethnicity, Sex, Socioeconomic, Immigration/Indigenous, Nation, Gender (ADDRESSING). This process allows students working with individuals of different cultures to create their own internal language that facilitates their evolution - to make the invisible, more visible and - to become transculturally aware professionals.

References

Foronda, C., Baptiste, D. L., Reinholdt, M. M., & Ousman, K. (2016). Cultural Humility A Concept Analysis. *Journal of Transcultural Nursing*, 27(3), 210-217.

Isaacson, M. (2014). Clarifying concepts: Cultural humility or competency. *Journal of Professional Nursing*, 30(3), 251-258.

Owiti, J. A., Ajaz, A., Ascoli, M., Jongh, B., Palinski, A., & Bhui, K. S. (2014). Cultural consultation as a model for training multidisciplinary mental healthcare professionals in cultural competence skills: preliminary results. *Journal of psychiatric and mental health nursing*, 21(9), 814-826.

Schuessler, J. B., Wilder, B., & Byrd, L. W. (2012). Reflective journaling and development of cultural humility in students. *Nursing education perspectives*, 33(2), 96-99.

Contact

dwilhelm@univ.haifa.ac.il

RSC PST 3 - Research Poster Session 3

Professional Formation: Facilitating Integration of Personal and Professional Values in Nursing Education

Margaret (Betsy) Babb Kennedy, PhD, RN, CNE, USA
Abigail Parish, DNP, AGPNCP-BC, GNP-BC, FNAP, USA

Abstract

Purpose: Intentional activities related to professional formation and integration of personally held and collective professional values are often lost in an already laden nursing education curricula. Cognitive and psychomotor skills are central to nursing education, but the affective domain of learning is often neglected. Students are faced with moral dilemmas, the hidden curriculum, and other challenges in the learning environment that can erode purpose and commitment to the detriment of self and practice. Exploration of these issues can only be done in ways that feel safe for students and faculty, in a community of inquiry that is relationship-centered. Intentional focus on acknowledgment of personal healing qualities, experiences of personal courage, and strengthening of the intentions that drew them into nursing is critical. The purpose of this study is to describe themes and perceived benefits for students and faculty facilitators after implementation of an innovative, experiential approach to supporting professional growth and development in the affective domain.

Methods: The Power of Nursing elective course will be offered for the third time in Spring 2017 by two course directors and faculty facilitators. To date, two cohorts of students have participated in the course. In the course, students engage with each other and faculty facilitators in a non-judgmental, non-competitive space to offer an experience that differs from typical nursing curricula. Topics include authenticity and wholeness, grief and loss, personal healing qualities, courage to enact power, and remembering the calling and commitment to values. Concepts central to the experience such as listening and presence are introduced as habits of interaction within the group.

Results: Qualitative thematic analysis will be performed on narrative evaluation results of student and faculty facilitator participants across three cohorts [Spring 2015 (n=24), Spring 2016 (n=44), Spring 2017 (n=x)]. Student data includes personal values repressed as a part of nursing education, perceived personal healing qualities, personal mission statements, and valuable personal and professional insights gained from engaging in the elective course. Faculty data includes comparisons of teaching this elective course as opposed to others in the curriculum, how the course might have changed impressions of students, thoughts on teaching in general, or changes in the way they relate to students. Themes for each will be presented and potential benefits of participation examined. Quantitative responses to evaluation questionnaires will also be analyzed.

Conclusion: Nursing education curricula require attention, intention, and adaptation to support students as they develop professional identity. Learning experiences in the affective domain can assist students to recognize and reinforce the foundation of personal strengths, values, and professional principles that is needed to navigate the hidden curriculum and future career in a profession with inevitable moral conflicts.

References

- Crigger, N. & Godfrey, N. (2014). From the inside out: A new approach to teaching professional identity formation and professional ethics. *Journal of Professional Nursing*, 30(5), 376-382.
- Del Prato, D. (2013). Students' voices: The lived experience of faculty incivility as a barrier to professional formation in associate degree nursing education. *Nurse Education Today*, 33, 286-290.
- Hensel, D. & Laux, N. (2015). Longitudinal study of stress, self-care, and professional identity among nursing students. *Journal of Nursing Education*, 39(5), 227-231.
- Iacobucci, T., Daly, B., Lindell, D. & Griffin, M. (2013). Professional values, self-esteem, and ethical confidence of baccalaureate nursing students. *Ethics*, 20(4), 479-90.

Contact

betsy.kennedy@vanderbilt.edu

RSC PST 3 - Research Poster Session 3

Second Career Nurses' First Year of Nursing Practice Experiences

Jessica G. Rainbow, BSN, BA, RN, USA

Abstract

Purpose: There continues to be a global nursing shortage and high turnover among new nurses (Oulton, 2006). Nurses are key in providing quality patient care (Aiken et al., 2013). One strategy to increase the number of nurses in the workforce is to attract individuals to pursue nursing as a second career. This has led to innovative new educational programs and approaches for these learners, but little is known about the transition to nursing practice experiences and turnover among second career nurses (Auerbach, Staiger, Muench, & Buerhaus, 2013). In order to discover potential differences in experiences during the transition to practice of second career nurses, exploration of both first and second career new graduate nurses in the same setting is needed. The purpose of this mixed method study was to explore the experiences of first and second career nurses as they transitioned to nursing practice.

Methods: The study approach included semi-structured interviews and a longitudinal survey of both first career and second career nurses during their first year of practice. For the interviews, fifteen nurses with between one and two years of nursing experience who either had or did not have a career prior to nursing were recruited through a residency program listserv at an Academic Medical Center. Participants took part in hour-long semi-structured interviews. Interview questions queried prior work experiences, experiences with stress and coping during the transition to practice, and future career plans. Interview transcripts were analyzed using latent inductive thematic analysis (Braun & Clarke, 2006).

Survey participants were recruited in the month prior to their graduation from nursing school from a nursing program in the Midwestern United States, and completed follow-up surveys at 6 and 12 months following their graduation. The initial survey had 115 respondents, at 6 months there were 50 respondents and at 12 months there were 30 respondents. Survey respondents answered questions about prior career experiences, demographics, and future plans, in addition to validated scales on coping skills, stress and burnout levels.

Results: Themes identified during analysis of interview transcripts included: Difficulty defining nursing, improved coping with second career, and prevalence of burnout and presenteeism among nurses. All participants were unable to define nursing as a career and describe their days at work. They expressed how this made it difficult to relate to other non-nurses, which hindered coping. Second career nurses had developed coping strategies and support systems, and did not feel the need for support from coworkers. All participants relayed experiences of coworkers exhibiting presenteeism, physical presence at work when impaired, and burnout behaviors on their units and the consequences of these behaviors. However, first career nurses discussed how these experiences with coworkers made them question how long they would stay in their current position. Survey data analysis of the longitudinal descriptive correlation data is ongoing, but initial results indicate that lack of coping skills is a predictor of burnout. In particular, self-blame is a predictor of the emotional exhaustion component of burnout. Positive coping strategies, like positive reframing and active coping, are significantly correlated with self-compassion. Further analysis of the difference between first and second career respondents over the entire first year is in progress.

Conclusion: There were differences in the transition to practice experiences of second and first career nurses identified in the interviews. The difficulty that participants discussed in describing nursing reflects an ongoing challenge in defining nursing's professional identity (Öhlén & Segesten, 1998). Multiple participants stated that they did not understand what nursing was when they chose to become nurses and still struggle to define it, which could be a factor in recruitment and retention. First career nurses often lacked the coping strategies and social support of second career nurses, and turned to their coworkers for support. Prior work on coping within nurses has highlighted the importance of developing these skills early in a nursing career (Crary, 2013). However, their coworkers were often burned out, and leaving their positions. Further analysis of all of the time points in the longitudinal survey data, which will be completed in Spring 2017, has potential to reveal differences in how first career and second career students cope

with the transition to nursing practices. Findings from this study can offer important insight and recommendations for nursing education and transition programs on future interventions aimed at each of these groups.

References

- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Sermeus, W., & Consortium, R. C. (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies, 50*(2), 143-153.
- Auerbach, D. I., Staiger, D. O., Muench, U., & Buerhaus, P. I. (2013). The Nursing Workforce in an Era of Health Care Reform. *New England Journal of Medicine, 368*(16), 1470-1472. doi:10.1056/NEJMp1301694
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.
- Crary, P. (2013). Beliefs, behaviors, and health of undergraduate nursing students. *Holistic Nursing Practice, 27*(2), 74-88. doi:10.1097/HNP.0b013e318280f75e
- Oulton, J. A. (2006). The Global Nursing Shortage: An Overview of Issues and Actions. *Policy, Politics, & Nursing Practice, 7*(3 suppl), 34S-39S.
- Öhlén, J., & Segesten, K. (1998). The professional identity of the nurse: concept analysis and development. *Journal of Advanced Nursing, 28*(4), 720-727. doi:10.1046/j.1365-2648.1998.00704.x

Contact

jessicagdykstra@gmail.com

RSC PST 3 - Research Poster Session 3

Using Art to Boost the Self-Confidence of BSN Graduating Nurses

Denise A. Gray, EdD, MSN, MBA, BSN, RN, USA

Abstract

The purpose of this study was twofold: 1) to help BSN graduating nurses increase their self-confidence and 2) to encourage their self-expression using a selection of a personal motto and art materials. Attainment of knowledge is a precursor to self-confidence. Graduating nurses from a BSN program have attained the requisite clinical skills and theory knowledge base to be competent entry level nurses. Self-confidence is a valued attribute in which an individual believes in their abilities. Support is needed for new BSN graduates to encourage their self-confidence. This was a phenomenological study. It was based on earlier works of Kroner and Biermann that found that low self-confidence makes others feel uncomfortable. The study used a phenomenological approach to this qualitative research. Emphasis was on the meaning of the "lived experience" of each participant. Using in depth interviews with each participating nursing student was the means of data collection. Each participant described their artistic expression. Feedback from the nursing students and others has been strongly positive. All students reported that they had never considered a personal motto before this study. They reported that this motto would become part of their persona as it increased their self-confidence. Nursing educators have the challenge of preparing nursing students who can practice as safe, competent, and self-confident entry level nurses upon graduation. This study highlights the importance of developing self-confidence among senior nursing students using innovative, artistic expression within a nursing theory course.

Purpose: The purpose of this study was twofold: 1) to help BSN graduating nurses increase their self-confidence and 2) to encourage their self-expression using a selection of a personal motto and art materials.

Methods: This study was a phenomenological study. It was based on earlier works of Kroner and Biermann that found that low self-confidence makes others feel uncomfortable.

Results: Feedback from the nursing students and others has been strongly positive. All students reported that they had never considered a personal motto before this study. They reported that this motto would become a part of themselves as it increased their self-confidence.

Conclusion: Nursing educators have the challenge of preparing nursing students who can practice as safe, competent, and self-confident entry level nurses upon graduation. This study highlights the importance of developing self-confidence among senior baccalaureate nursing students using an innovative, artistic expression within a nursing theory course.

References

Iacobucci, T; Daly, B; Lindell, D; & Griffin, M. (2013). Professional values, self-esteem and ethical confidence of baccalaureate nursing students. *Nursing Ethics*, 20(4), 479-490.
Kukulu, K; Korukcu, O; Ozdemir, Y; Bezci, A; Calik, C. (2013). Self-confidence, gender and academic achievement of undergraduate nursing students. *Journal of Psychiatric Mental Health Nursing*, 20(4), 330-335.

Contact

dagray47@hotmail.com

RSC PST 3 - Research Poster Session 3

The Influence of Transcultural Nursing Course on Stereotypes of Foreign Spouses in Taiwanese Nursing Students

I-Chen Lu, PhD, MSN, BSN, RN, Taiwan

Abstract

Purpose: More and more women from South-east Asia who married Taiwanese men are living in Taiwan. These foreign spouses are starting the transformation of Taiwan into a multicultural society. Nursing students might have some stereotypes of foreign spouses which may affect the caring attitude and quality for foreign spouses. Previous study showed stereotypes of foreign spouses had some significant association with culturally competent nursing care ability in nursing students. The purpose of this experimental study was to 1) assess the effect of a course of transcultural nursing on the change of stereotypes of foreign spouses in nursing students in Taiwan, and 2) examine which teaching strategy was more helpful for decreasing stereotypes.

Methods: A quasi- experimental study design was applied. A total of 126 eligible nursing students were assigned to group course of transcultural nursing (experimental group) and control group. Students assigned to experimental group received the intervention program (course of transcultural nursing) which contained 16-weeks sections including history, theory and practice of cross-cultural nursing, the influence of stereotype, culturally competent assessment and communication, and management and coordination of cultural conflict, while controlled group did not receive any intervention. All participants completed the consent forms and the questionnaires. A demographic questionnaire, the Stereotype of Foreign Spouse Questionnaire and Teaching Strategies Questionnaire were used to collect data. Data were analyzed by utilizing the SPSS Version 22.0 for Windows including descriptive statistical techniques and T-test.

Results: 126 students in total (65 in the intervention group and 61 in the control group) were recruited in this study. The result revealed course of cross- cultural nursing was effective for significantly reducing stereotypes of foreign spouses ($164.32 \pm 35.90 \rightarrow 132.12 \pm 32.13$) ($T= 8.84$, $p = 0.000$). In addition, students pointed the teaching strategies which were helpful for reducing stereotype included the speech provided by foreign spouse, role play, and visit and interview of foreign spouses.

Conclusion: The results showed the effectiveness of course of transcultural nursing on reducing stereotypes of foreign spouses in nursing students in Taiwan. The findings can be used in the future to make a better design of transcultural nursing course in nursing college to help nursing students to have fewer stereotypes of foreign spouses and to enhance the knowledge of transcultural nursing for clinical practice. The evidence- based research method can be utilized in other countries to develop appropriate course content for transcultural nursing.

References

- Chang, H.Y., Yang, Y. M., & Kuo, Y. L., (2013). Cultural sensitivity and related factors among community health nurses. *The Journal of Nursing Research*, 21(1), 67-73.
- Allen, J., Brown, L., Duff, C., Nesbitt, P., & Hepner, A. (2013). Development and evaluation of a teaching and learning approach in cross-cultural care and antidiscrimination in university nursing students. *Nurse Education Today*, 33, 1592-1598.

Contact

luichen2006@yahoo.com.tw

RSC PST 3 - Research Poster Session 3

Incivility Between Nursing Students in the Classroom: A Review of the Literature

Abby Grammer Horton, MSN, RN, USA
Norma Graciela Cuellar, PhD, DSN, RN, USA

Abstract

Background: Nearly 62% of students and faculty in nursing education have reported incivility in an academic setting (Clark & Springer, 2007). In a national survey, 24.8% of faculty have been physically assaulted and 42.8% had experienced verbal abuse while in the clinical setting (Lashley & de Menese, 2001). Vertical incivility/violence may occur between faculty:students, nurse:students, and administration:employees. Horizontal incivility/violence may occur between nurse:nurse, faculty:faculty, and student:student. However, there is very little evidence of incivility reported between student:student.

Purpose: The purpose of this review of the literature was to identify the evidence of incivility between student and student in the classroom in undergraduate nursing education. The Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) was used to guide the review of the literature.

Methods: A comprehensive review of the literature was conducted in Medline, Pubmed, CINAHL, ERIC, and PsycInfo. Inclusion criteria included 1) peer-review journals, 2) original publications, 3) no limitation to time, 4) quantitative or qualitative designs, and 5) studies identifying student to student incivility. Exclusion criteria was any vertical incivility in nursing education (faculty:student, clinical nurse:student, administrator:student/faculty). Terms used in the search included nursing, nursing education, nursing students, incivility, bullying, and micro-aggressions utilizing Boolean terms. The search was conducted in June/July 2016 and in several phases.

Results: We found six articles on incivility between students. These included two articles that were qualitative and one article that was quantitative. Additionally, three articles were listed as mixed- methods studies. Five of the studies were conducted in the USA and one study was conducted in Egypt. Incivility exists between students in nursing programs. Incivility in undergraduate programs is reported as a problem both in the classroom and in clinical settings. Incivility can result in poor performance in the classroom and higher attrition rates in nursing programs. As well, incivility experienced by nursing students may impact the role of professional behavior in those that are both the perpetrators and the victims of incivility.

Conclusion: The negative consequences of incivility to students will impact attitudes towards the profession after graduation resulting in uncivil nurses. During the nurse education experience, students must learn how to be civil to each other to be prepared to work with other nurses and health care providers in their professional careers. There is a lack of knowledge in faculty on how to address incivility. Faculty must be able to identify incivility and stop it when it occurs. As well, further research is needed to examine the psychological and social consequences of incivility in undergraduate nursing students which may include coping, self-efficacy, stress, anxiety, depression, health and wellness.

References

- Clark, C. M., Ahten, S. M., & Macy, R. (2013). Using problem-based learning scenarios to prepare nursing students to address incivility. *Clinical Simulation in Nursing*, 9(3), e75-83 1p. doi:10.1016/j.ecns.2011.10.003
- Clark, C. M., & Davis Kenaley, B. L. (2011). Faculty empowerment of students to foster civility in nursing education: A merging of two conceptual models. *Nursing Outlook*, 59(3), 158-165 8p. doi:10.1016/j.outlook.2010.12.005
- Conerly-Glenn, Y. (2015). Influences of civility on learning. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=109828477&site=ehost-live>
- Davis, K. (2013). Incivility in nursing education. *ASBN Update*, 17(3), 16-17 2p. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=107971496&site=ehost-live>

Contact

abby.horton@ua.edu

RSC PST 3 - Research Poster Session 3

The Work Readiness of Senior Nursing Students in Turkey

Abdullah Beyhan, MSc, RN, Turkey

Ayşe Ergun, PhD, RN, Turkey

Abstract

Purpose: The present study was conducted to identify work readiness among senior nursing students in Turkey.

Methods: This descriptive study was carried out with 1008 nursing senior year students from 15 universities 6 of which are state and 9 of private universities. Data were collected with the Work Readiness Scale (WRS). The Work Readiness Scale has 53 items with a 10-point Likert scale (0= strongly disagree and 10= strongly agree) and 4 subscale that are work competence (WC), social intelligence (SI), organizational acumen (OA) and personal work characteristics (PWC) (Walker et al, 2015, Caballero et al. 2011). Cronbach Alpha Value varies from .84 to .88 for the sub-scales. Descriptive statistics (mean, SD, min, max, percent), Mann-Whitney-U test and Kruskal Wallis test were used to analyze the data.

Results: Mean age of students was 22.53 ± 1.37 and 81.9% was girls. Subscale score means of Work Readiness Scale was found the following results respectively; work competence mean was $6,68 \pm 1,47$, social intelligence mean was $7,35 \pm 1,56$, organizational acumen mean was $7,91 \pm 1,31$ and personal work characteristics mean was $4,76 \pm 1,85$. Girls had higher scores on organizational acumen ($p < 0.01$) and personal work characteristics ($p < 0.05$). According to type of school there are significance differences between the private and state universities on three subscales (except PWC) ($p < 0.01$). Another significance difference is that the schools which have 50 and less students have higher scores according to the others on three subscales (except PWC) ($p < 0.01$). Among the students who choose the nursing consciously and still love his/her job have higher scores according to the other (except PWC) ($p < 0.01$). The student who gave 7 and more marks for their theoretical and clinical education has higher marks than the other ($p < 0.05$).

Conclusion: In Turkey there was no study regarding work readiness for nursing because of that, we suggest that to understand this concept better various studies should be carry out.

References

Walker, A., Storey, K. M., Costa, B. M., & Leung, R. K. (2015). Refinement and validation of the Work Readiness Scale for graduate nurses. *Nursing outlook*, 63(6), 632-638.

Caballero, C. L., Walker, A., & Fuller-Tyszkiewicz, M. (2011). The Work Readiness Scale (WRS): Developing a measure to assess work readiness in college graduates. *Journal of teaching and learning for graduate employability*, 2(2), 41-54.

Contact

ayergun@gmail.com

RSC PST 3 - Research Poster Session 3

Comparison of Negative Stereotypes Toward Aging in Students of Nursing in Mexico and Peru

Erika Ramos-Cabrera, MSN, RN, Mexico

Ana Laura Carrillo-Cervantes, MSN, RN, Mexico

María de los Angeles Villarreal-Reyna, PhD, RN, Mexico

Maria Magdalena Delabra-Salinas, MSN, RN, Mexico

Abstract

Purpose: To compare the presence of negative stereotypes towards aging and its relationship with socio-demographic and coexistence variables with the elderly in college level students of nursing in the cities of Saltillo, Mexico and Lima, Peru

Methods: Correlational-Descriptive design. A stratified random simple with proportional allocation by gender will be taken from a public university in Saltillo, Mexico and Lima, Peru. According to Sarabia and Pfeifer (2015) the expected percentage of people with negative stereotypes towards aging is of 60%; the size of this sample will have a have an associated statistical confidence of 95% and an error of 5%, based on the finite population calculation.

The instruments that will be applied are the following: template of coexistence with the Elderly and a questionnaire about Negative stereotypes towards aging, which shows an acceptable confidence (Cronbach's $\alpha=0.845$). Descriptive statistics will be used to characterize the sample. A Kolmogorov-Smirnov test, with Lilliefors' correction, will be carried out to contrast the normality hypothesis in the allocation of continuous variables, considering them significant on a value $p < 0.05$; this will allow the selection of parametrical tests in the case of normality, or non-parametrical for results with random distribution.

In case of normality, to measure the relationship of negative stereotypes towards aging, with socio-demographic and coexistence with the elderly variables, the Pearson coefficient will be processed. If no normality exists, non-parametrical tests will be done, such as Spearman's correlation.

Results: As a first analysis we will obtain reliability through the Cronbach Alpha test of the CENVE instrument, describe the sociodemographic characteristics of the subjects to be studied, after which we proceed to describe negative stereotypes towards aging and compare the Results of Mexican and Peruvian students.

Conclusions: This study will discuss the importance of the identification of negative stereotypes and their relationship with sociodemographic variables in students from Saltillo Mexico and Lima Peru, which will allow in the near future the implementation of nursing interventions to modify stereotypes And to be able to improve the integral formation of the future nurses.

References

Sarabia and Cobo, 2015. Changing negative stereotypes regarding aging in undergraduate nursing students. *Nurse Educ Today*. 2015 Sep;35(9):e60-4. doi: 10.1016/j.nedt.2015.06.006. Epub 2015 Jun 20.

WHO. Echar abajo los estereotipos [Internet]. World Health Organization; 2015. [Consultado 10 Octubre 2015]. Disponible en: http://www.who.int/ageing/about/fighting_stereotypes/es/.

Burnett J, Achenbaum WA, Murphy KP. Prevention and early identification of elder abuse. *Clinics in Geriatric Medicine*. Elsevier BV; 2014 Nov;30(4):743–59.

Sánchez PC. Negative stereotypes towards old age and its relationship with sociodemographic, psychosocial and psychological variables [doctoral thesis]. Málaga: University of Málaga. [Internet] 2004 [accessed 15 February 2014]; Available at: <http://www.biblioteca.uma.es/bbldoc/tesisuma/16704046.pdf>

Larraz GB. Social Image of Old Age: an Approach to Major Stereotypes and Discriminatory Impacts on the Elderly [Internet] 2013 [Accessed 8 March 2014]; 1-57. Available at: <http://zaguan.unizar.es/record/12051/files/TAZ-TFG-2013-759.pdf>

Contact

erikamosc@hotmail.com

RSC PST 3 - Research Poster Session 3

Predictors in Titulation Exam of Nursing at University of Coahuila, Mexico

María de los Angeles Villarreal-Reyna, PhD, RN, Mexico

José Luis Nuncio-Domínguez, MSN, RN, Mexico

Raul Adrian Castillo-Vargas, MSN, RN, Mexico

Irving Arnoldo Viera-Villanueva, BSN, RN, Mexico

Zabdiely E. Vargas-Rangel, RN, BSN, Mexico

Maria Ascencion Tello, MSN, RN, Mexico

Abstract

Background: In México, one of the processes of external evaluation about the domain of general and specific knowledge that it has attained by them graduates of bachelor's degree in the Institution of Higher Education (IHE), is the General Exam of Degree Egress (EGEL). That is applied by the National Center of Evaluation CENEVAL. This external evaluation provides objective, valid and reliable information about their academic preparation and represents a highly recommended activity by the organizations that carry out the certification of nursing's education programs. In the last three years, only 40% of the supporters which applied the EGEL-ENFER in an IHE, in Coahuila, obtained a performance attestation, and their results were situated below the national average.

Purpose: To identify the variables that produce academic success in the EGEL-ENFER test for graduated students in nursing, in an IHE of Coahuila, Mexico.

Methods: Predictive-Correlational study. The sample will be composed by graduated students from the bachelor's degree of nursing, in the 2013-2016 periods. Sociodemographic and academic performance data (from high school, the Academic Aptitude Test from the College Board and the grades at the end of the nursing's career) will be collected as independent variables. The obtained score in the EGEL-ENFER will be the dependent variable. The assessment of data will be carried out with the SPSS Version 24 Statistical Package.

Results: Sociodemographic characteristics of the subjects and their relationship with their academic performance will be described, using the predictive variables from the EGEL-ENFER test.

Conclusion: It will be discussed which ones of the variables: sociodemographic characteristics, the previous academic performance in high school, the result in the AAT for access to nursing school and the grades in the nursing career; are the best predictors for the EGEL-ENFER test results, along with the implications for the improvement of the results of quality indicators for the nursing career in the bachelor's degree, and the adequate inclusion of graduated students in the working market.

References

Centro Nacional de Evaluación en México, Ceneval, (2015).

College Board, 2016. Recuperado el 24 de septiembre de 2016. <https://latam.collegeboard.org/page/paa>

Escamilla-Cruz S, Córdova- Ávila M, Campos-Castolo E. Autopercepción de competencias profesionales de alumnos de la Licenciatura en Enfermería. (Spanish). Revista CONAMED [serie online]. April 2012,17(2):67-75. Available from: MedicLatina. Ipswich, MA. Accessed September 15, 2016.

Guía para el sustentante. Examen General para el Egreso de la Licenciatura en Enfermería (EGEL-ENFER).

Recuperado el 27 de julio del 2016 en <http://www.urse.edu.mx/pdf/guiasceneval/GuiaEGEL-ENFER.pdf>

Hernández-Jiménez, Arturo, Pavón-Silva, Thelma Beatriz, & Rodríguez-Barrientos, Damaris. (2015). Análisis de la evolución del examen general de egreso de licenciatura en Química. *Educación química*, 26(2), 81- 86.

Landero Hernández R. y González Ramírez MT. (2014). *Estadística con SPSS y Metodología de la Investigación*. Primera edición. México D.F. Editorial Trillas. Pp79-96

Reporte de resultados EGEL-ENFER, 2013-2016.

Hernández Sampieri R, Fernández Collado C, Baptista Lucio Pilar (2014). *Metodología de la Investigación*. Sexta Edición. México D.F. Editorial Mc Graw Hill Education pp 90-96.

Contact

angelesvillarreal@uadec.edu.mx

RSC PST 3 - Research Poster Session 3

The Feasibility of Developing an Evidence-Based Workplace Violence Simulation for Undergraduate Nursing Students

Angel Johann Solorzano Martinez, MSN, MBA, RN, USA

Abstract

Purpose: The main purpose of this poster is to present an overview of workplace violence in the nursing field and also provide strategies and recommendations for nursing faculty to develop an evidence-based workplace violence nursing simulation in a university setting.

Methods: Nurses are at risk of encountering incidents of workplace violence in clinical settings (Baby, Swain, & Gale, 2016). The major forms of violence encountered by nurses in clinical settings are verbal and physical (Edward, Ousey, Warelou, & Lui, 2014). Nurses who are victims of workplace violence sometimes do not report those incidents because they feel that violence is part of their job (Magnavita & Heponiemi, 2014). Nursing students are also at risk of encountering incidents of aggression and violence in the workplace during their clinical training (Magnavita & Heponiemi, 2014). It is critical to identify and implement innovative methods to train nursing students to prevent and manage incidents of workplace violence. A nursing simulation focusing on management and prevention of workplace violence can provide an opportunity for nursing students to learn and employ evidence-based interventions to combat this unwanted phenomenon.

Nursing simulations with an emphasis on management and prevention of workplace violence should contain evidence-based content found in the literature. Heckemann, Zeller, Hahn, Dassen, Schols, and Halfens (2015) reviewed the effects of training programs on aggression management for nursing students and nurses working in hospital settings. Their review showed that training programs implemented in nursing schools encompassed homogenous topics such as de-escalation techniques, theoretical models of aggression, triggers, causes, verbal and non-verbal communication skills (Hechemann et al., 2015).

Simulated scenarios employing a standardized patient (SP) provide the opportunity to enhance the nursing students' learning experience (Alexander & Dearsley, 2013). A nursing simulation with a SP behaving as an agitated patient can help simulate interactive and challenging scenarios in a controlled environment. Nursing simulations focusing primarily on preventing and managing workplace violence are limited. Evidence-based nursing simulation programs employing a SP have the potential to enhance the student's knowledge and confidence dealing with mental health patients (Lyng, Cocoman, Ward, & McGrath, 2012; Goh, Selvarajan, Chng, M., Tan, C., & Yobas, 2016; Doolen, Giddings, Johnson, de Nathan, & Badia, 2014).

Learning the development of nursing simulations is essential for nursing faculty's professional growth. Designing the scenario for a mental health nursing simulation requires a series of steps. The nursing simulation's goal statement, content, objectives, and the SP's psychosocial history, and family history must be clearly stated (Sideras, McKenzie, Noone, Markle, Frazier, & Sullivan, 2013). The scenario should address the learning concepts and the SP's appropriate symptoms, body language, responses, dialogue, and interaction with the nursing student (Sideras et al., 2013).

Ethical considerations and university regulations should be addressed before implementing a nursing simulation. Researchers attempting to implement a nursing simulation in a university setting should consult with the IRB department of the chosen institution.

Results: Nursing simulations can supplement the nursing content for nursing students. A nursing simulation focusing on management and prevention of workplace violence has the potential to enhance the student's learning experience in a controlled setting. It can also improve their confidence preventing and managing incidents of workplace violence in their clinical settings.

Conclusion: A nursing simulation focusing on management and prevention of workplace violence can provide an opportunity for nursing students to learn and employ evidence-based interventions to combat this unwanted phenomenon. Learning the development of nursing simulations can assist nursing faculty create mental health nursing simulations in their university settings.

References

- Alexander, L., & Dearsley, A. (2013). Using Standardized Patients in an Undergraduate Mental Health Simulation. *International Journal of Mental Health*, 42(2/3), 149-164. doi:10.2753/IMH0020-7411420209
- Baby, M., Swain, N., & Gale, C. (2016). Healthcare Managers' Perceptions of Patient Perpetrated Aggression and Prevention Strategies: A Cross Sectional Survey. *Issues In Mental Health Nursing*, 37(7), 507-516. doi:10.3109/01612840.2016.1166300
- Doolen, J., Giddings, M., Johnson, M., de Nathan, G.G., & Badia, L.O. (2014). An Evaluation of Mental Health Simulation with Standardized Patients. *International Journal of Nursing Education Scholarship*, 11(1), 1-8 8p. Doi:10.1515/ijnes-2013-0075
- Edward, K., Ousey, K., Warelow, P., & Lui, S. (2014). Nursing and aggression in the workplace: a systematic review. *British Journal of Nursing*, 23(12), 653-659
- Goh, Y., Selvarajan, S., Chng, M., Tan, C., & Yobas, P. (2016). Using standardized patients in enhancing undergraduate students' learning experience in mental health nursing. *Nurse Education Today*, 45167-172. doi:10.1016/j.nedt.2016.08.005
- Heckemann, B., Zeller, A., Hahn, S., Dassen, T., Schols, J., & Halfens, R. (2015). The effect of a aggression management training programmes for nursing staff and students working in an acute hospital setting. A narrative review of current literature. *Nurse Education Today*, 35(1), 212-219. doi:10.1016/j.nedt.2014.08.003
- Kirkbakk-Fjær, K., Hedelin, B., & Moen, Ø. L. (2016). Undergraduate Nursing Students' Evaluation of the Debriefing Phase in Mental Health Nursing Simulation. *Issues In Mental Health Nursing*, 37(5), 360-366. doi:10.3109/01612840.2015.1136716
- Lyng, C., Cocoman, A., Ward, E., & McGrath, M. (2012). Managing challenging situations in practice: A new program developed to meet the specific needs of nursing students. *Journal of Nursing Education*, 51(11), 656-659. doi:10.3928/01484834-20121005-01
- Magnavita, N., & Heponiemi, T. (2011). Workplace Violence Against Nursing Students and Nurses: An Italian Experience. *Journal of Nursing Scholarship*, 43(2), 203-210. doi:10.1111/j.1547-5069.2011.01392.x
- Sideras, S., McKenzie, G., Noone, J., Markle, D., Frazier, M., & Sullivan, M. (2013). Making Simulation Come Alive: Standardized Patients in Undergraduate Nursing Education. *Nursing Education Perspectives* (National League For Nursing), 34(6), 421-425. doi:10.5480/1536-5026-34.6.421

Contact

anjohann@yahoo.com

RSC PST 3 - Research Poster Session 3

How Does Negotiating a Partnership Agreement Influence Relationships in a BSN Clinical Experience?

Kimberly D. Belcik, PhD, RN-BC, CNE, USA
Shirley Ann Levenson, PhD, FNP-BC, USA

Abstract

Purpose: Partnership agreements are negotiated among partners to air out wishes, fears and concerns and to spell out expectations prior to jumping into collaborations. They have been used among partners in writing collaborations with success. To date, no one has explored their use with clinical students in baccalaureate nursing education. After one author experienced the positive influence of a partnership agreement within a professional relationship, she was curious about how negotiating one with her clinical students might influence their relationships with her and with one another. This project examines the influence of breaking down principles of domination inherent in nursing education and pedagogy and instead creates a partnership-based relationship. The partnership agreement is a concrete device to open a dialogue between the student and teacher. Such an agreement recognizes and values their worries and concerns as well as their prior experience and knowledge. It also give credence to their desires and wants from the clinical experience. Furthermore, the teacher is also given the opportunity to share their wishes, fears and concerns, thus potentially deepening the relationship between student and teacher.

Methods: This project was initiated in the fall semester of 2015 and repeated in the fall semester of 2016 with senior nursing students completing their adult medical-surgical clinical. On the last day of clinical, students were asked to anonymously handwrite their answers to the following questions: 1) How did negotiating a partnership agreement this semester affect your relationships with each other as a clinical group? 2) How did negotiating a partnership agreement affect your relationship with me? Forty students responded to the questions. Handwritten responses were transcribed to a word processing program and analyzed for recurring themes.

Results: Preliminary content analysis reveals a positive influence on the relationships between nursing students and between nursing students and their teacher.

Conclusion: Findings have implications for using partnership agreements to positively impact the relationships between nursing students and their peers and with their teachers.

References

Heinrich, K. T. (2011). Take the civility challenge: how partnership practices can turn toxic workplaces terrific. *Nurse Educ*, 36(5), 224-227. doi:10.1097/NNE.0b013e3182297c61
Eisler, R. T., & Potter, T. M. (2014). *Transforming interprofessional partnerships: a new Framework for nursing and partnership-based health care*. Indianapolis, IN : Sigma Theta Tau International, [2014].

Contact

kdb120@txstate.edu

RSC PST 3 - Research Poster Session 3

Attitudes Change During an Interprofessional Simulation With Physical Therapy and Nursing Students

Dawn Ferry, MSN, APRN, CNP, CHSE, USA

Robert Wellmon, PhD, PT, DPT, NCS, Aland Islands

Kristin Lefebvre, PhD, PT, CCS, USA

Abstract

Purpose: Providing effective patient-centered care requires collaboration among healthcare professionals from different disciplines. Across multiple practice settings, physical therapists (PT) and nurses (RN) interact around patient care and management issues. The skills needed for effective interprofessional collaboration (IPC), important to improving patient outcomes, have to be taught prior to licensure. This requires that students from different professions learn together. High-fidelity human simulations (HFHS) provide safe and authentic learning opportunities to practice the skills needed for IPC. The purpose of this study was to examine changes in PT and RN student attitudes towards interprofessional learning (IPL) and IPC following an opportunity to engage in curricular experience that featured a simulated cardiac arrest scenario. It was hypothesized that the learning experience would positively affect attitudes toward IPL and IPC.

Methods: PT (n=42) and RN (n=35) students participated in a 90-minute IPL experience featuring HFHS. Interprofessional teams reviewed the patient's medical chart prior to the HFHS. The goal for HFHS encounter was to collaborate to get the patient out of bed while closely monitoring the physiological responses to activity. RN students assisted the PT students with the bed to chair transfer. Once in the chair, the patient's vital signs deteriorated and ventricular tachycardia appeared on the EKG monitor. A full code ensued, which required the students to work together in responding to the medical emergency. The encounter concluded with a 45 minute debriefing. A control group consisting of PT (n=41) and RN (n=33) students was also included. Three surveys were completed pre and post-simulation: the Interdisciplinary Education Perception Scale (IEPS), the Readiness for Interprofessional Learning Scale (RIPLS), and the Attitudes Toward Healthcare Teams Scale (ATHCTS).

Results: A 2 (group – learning intervention vs. control) by 2 (time - pre vs post) repeated measures ANOVA revealed a statistically significant interaction. The learning intervention group demonstrated a statistically significant within group increase in post-test scores on the IEPS subscales examining competency and autonomy ($p < .001$), perceived need for cooperation ($p < .001$), and perceptions of actual cooperation ($p < .001$), the RIPLS subscales examining teamwork and collaboration ($p < .001$) and professional identity ($p < .001$), and the ATHCTS subscales for team value ($p < .001$) and efficiency ($p = .006$). For each of the previously identified subscales, statistically significant between group differences appeared at the post-test ($p \leq .003$) indicating more positive attitudes toward IPL and IPC in the learning intervention group. The control group was not significantly different from the learning intervention group at the start of the study and did not change significantly from pre to post-test.

Conclusion: The results of the study support the effectiveness of including HFHS as part of an IPL experience designed to foster the skills necessary for IPC. In the learning intervention group, the patterns of within group differences are supportive improvements in attitudes toward IPL and teamwork. Simulation provided a meaningful context for students to work collaboratively and actually implement the skills needed to work interprofessionally. Participation in the simulation and the related education activities positively altered student attitudes toward learning from and working with peers in other healthcare disciplines. A 90-minute learning experience had the capacity to positively change attitudes toward IPL and IPC, which is an important step in developing the skills needed to work effectively with other healthcare professionals.

References

Bridges, D. R., Davidson, R. A., Odegard, P. S., Maki, I. V., & Tomkowiak, J. (2011). Interprofessional collaboration: three best practice models of interprofessional education. *Med Educ Online*, 16. doi:10.3402/meo.v16i0.6035

Franklin, A. E., Burns, P., & Lee, C. S. (2014). Psychometric testing on the NLN student satisfaction and self-confidence in learning, simulation design scale, and educational practices questionnaire. *Nurse Education Today*, 34(10), 1298-1304. doi:10.1016/j.nedt.2014.06.011

Gough, S., Hellaby, M., Jones, N., & MacKinnon, R. (2012). A review of undergraduate interprofessional simulation-based education (IPSE). *Collegian*, 19(3), 153-170. doi:http://dx.doi.org/10.1016/j.colegn.2012.04.004

Contact

dferry1111@gmail.com

RSC PST 3 - Research Poster Session 3

Students' Perceptions of Front-End Loading of Didactic and Simulation Classes in a Maternal Child Course

Judy Comeaux, DNP, ARNP, CRNI, USA

Julie A. Baker-Townsend, DNP, FNP-BC, WHNP-BC, USA

Abstract

Purpose: The purpose of the presentation is to share an innovative approach to teaching undergraduate BSN students' concepts and practices essential to maternal child nursing prior to inpatient clinical experiences.

Methods: In an effort to improve confidence and ensure acceptable skill level in the maternal child specialty areas, all didactic and simulation experiences were front-end loaded during the first two weeks of the semester. This concept was developed to improve knowledge of maternal child principles to promote safe practices in various inpatient clinical areas of maternal child health. Evidence-based studies have shown the use of laboratory simulators help students become better providers of quality care, increases confidence in the delivery of care, and provides a safe learning environment (Samawi, Miller, & Haras, 2014; Kim, Park, & Shin, 2016).

Clinical readiness after simulation activities is essential to success and deeper understanding of nurses processes of the maternal child settings. A six question qualitative survey evaluated students' perceptions of teaching methods employed by maternal child faculty. Students appreciated the novel teaching technique. They expressed an increase in knowledge and confidence prior to entering the specialty areas. The didactic portion of the class afforded the opportunity to understand the evidence-based concepts prior to simulation experiences. The simulation activities led to increased confidence in students' abilities to apply safe quality best practices.

Results: Students appreciated the novel teaching technique. They expressed an increase in knowledge and confidence prior to entering the specialty areas. The didactic portion of the class afforded the opportunity to understand the evidence-based concepts prior to simulation experiences. The simulation activities led to increased confidence in students' abilities to apply safe quality best practices.

Conclusion: Teaching undergraduate nursing students maternal child concepts is both challenging and rewarding. Preparing lectures to stimulate students while maintaining their interest in the content is difficult. The students need to be able to apply the knowledge acquired from the classroom and textbooks to inpatient clinical settings. Empowering students to become self-directed learners and promoting the development of critical thinking skills is a key component of teaching. Providing students with the resources to be successful in the classroom while holding them accountable for their own learning leads to academic success (Yang & Jiang, 2014). Utilizing innovative methods of instruction to accommodate the diverse learning skills of individuals' aids in promoting confidence and success in the clinical setting (Davis, 2013). Students need to be engaged in their learning; they need to actively participate in classroom and simulation experiences (Brannan, White, & Long, 2016; Sin, Sok, Hyun, & Kim, 2015).

References

- Brannan, J.D., White, A., & Long, J. (2016). Learning styles: impact of knowledge and confidence in nursing students in simulation and classroom. *International Journal of Nursing Education Scholarship*, 13(2), 1-11. doi: 10.1515/ijnes.2015-0052
- Davis, J. (2013). Modelling as a strategy for learning and teaching in nursing education. *Singapore Nursing Journal*, 40(3), 5-10. Retrieved from <http://www.sna.org.sg/publication/singapore-nursing-journal>
- Kim, J., Park, J.H., & Shin, S. (2016). Effectiveness of simulation-based nursing education depending on fidelity: a meta-analysis. *BMD Medical Education*, 16, 152. doi:10.1186/s12909-016-0672-7
- Samawi, Z., Miller, & Haras, M.S. (2014). Using high-fidelity simulation and concept mapping to cultivate self-confidence in nursing students. *Nursing Education Perspectives*, 35, 408-409, doi: 10.5480/12-1042.1
- Shin, H., Sok, S., Hyun, K.S., & Kim, M.J. (2015). Competency and an active learning program in undergraduate nursing education. *Journal of Advanced Nursing*, 71, 591-598. doi: 10.1111/jan.12564

Yang, G.G. & Jiang, X.Y. (2014). Self-directed learning readiness and nursing competency among undergraduate nursing students in Fujian province of China. *International Journal of Nursing Sciences*, 1, 225-259, doi.org/10.1016/j.ijnss.2014.05.021

Contact

jcomeaux@unf.edu

RSC PST 3 - Research Poster Session 3

Impact of an Integrated Care Clinical Experience on Skills and Confidence of Nurse Practitioner Students

Joyce M. Shea, DNSc, APRN, PMHCNS-BC, USA

Abstract

Purpose: Approximately one in four adults, and one in five youth between the ages of 13 and 18, experience some form of mental illness (MI) in a given year. The majority receive assistance from providers outside of behavioral health specialties, particularly in primary care settings. In addition, those with severe forms of MI face an increased risk of serious medical co-morbidities and significantly shorter life spans than the general population. Experts have increasingly called for the integration of behavioral health and primary care to more effectively treat mental, substance-use, and general health problems. The integration of behavioral health services into primary care has been found to have improved outcomes both clinically and financially. However, finding clinical staff with the necessary skills and knowledge to bridge the behavioral and primary care systems has been difficult, and there have been few reports of the effectiveness of educational programs that aim to prepare future healthcare providers in the provision of evidence-based integrated care (IC). The purpose of this mixed methods pilot study was to determine the impact of a comprehensive didactic and clinical education experience that prepares nurse practitioners to deliver effective integrated care services in community-based primary care settings.

Methods: An innovative educational program was developed to provide coordinated clinical practicums for dyads of Family Nurse Practitioner (FNP) and Psychiatric-Mental Health Nurse Practitioner (PMHNP) students. Three pairs of students have been matched with preceptors working within primary care centers or School-Based Health Centers (SBHCs), and will be providing direct care to under-served clients across the lifespan for a 14-week semester. Services offered include primary medical, behavioral health, and dental care, along with a wide range of supportive services such as intensive case management, prenatal education and lactation support services, and family violence prevention and education. The unique educational model of pairing a FNP student with a PMHNP student is expected to result in maximum cross-disciplinary learning as well as better role preparation, along with demonstrated skills in delivering effective integrated care by the completion of the clinical rotation. Students are scheduled to be evaluated by their preceptor at the end of the practicum on their integrated care skills and competencies using the 26-item, Likert style Integrated Care Competency Assessment Tool (ICCAT). They will also complete a self-report on their experience of the integrated care practices at the clinical site using either the Primary Care Provider (PCP) Self-Report Questionnaire or the Behavioral Health Provider (BHP) Self-Report Questionnaire, and participate in a Focus Group that will elicit information about their experiences in the program. Finally, students will self-report, at the beginning and end of the practicum, on their level of comfort with providing integrated care by use of an analogue scale.

Results: Analysis of the results from the ICCAT, the Self-Report Questionnaires, the analogue scales and the Focus Group will be shared; the overview will determine the impact of the innovative clinical educational experience.

Conclusion: Results from the pilot study are expected to indicate that the students both enjoyed and benefitted from the innovative educational program.

References

- Kaufman, E.A., McDonell, M.G., Cristofalo, M.A., & Ries, R.K. (2012). Exploring barriers to primary care for patients with severe mental illness: Frontline patient and provider accounts. *Issues in Mental Health Nursing*, 33, 172-180.
- Kwan, B.M., & Nease, D. (2013). The state of the evidence for integrated behavioral health. In M.R. Talen & A.B. Valeras (Eds.), *Essentials of integrated care: Connecting systems of care, clinical practice and evidence-based approaches* (pp. 65-98). New York: Springer.
- Petterson, S., Miller, B.F., Payne-Murphy, J.C., & Phillips, R.L. (2014). Mental health treatment in the primary care setting: Patterns and pathways. *Families, Systems, & Health*, 32, 157-166.

Contact

jshea@fairfield.edu

RSC PST 3 - Research Poster Session 3

Do Nursing Residency Programs Influence New Graduate Nurses' Professional Self-Concept?

Allison Bautista, SN, SN, USA

Sarah Elizabeth Kelly, PhD, RN, USA

Molly Naft, SN, SN, USA

Maria LoGrippto, PhD, RN, NE-BC, USA

Abstract

Purpose: During the course of study, students learn and grow to become proficient in the delivery of quality healthcare (AACN, 2008). However, according to the Joint Commission (2010), many new graduate nurses are clinically unprepared for the practice environment and lack the expertise to ensure patient safety (Letourneau & Fater, 2015). The first few months when new graduates work as registered nurses have been reported to be the most stressful time period, as they struggle with their role expectations, seek emotional support, and develop their professional communication (Cheng, Liou, Tsai, & Chang, 2015). Traditional orientation programs require a new graduate nurse to work with a designated preceptor over a period of several months; the new graduate nurse relies on her preceptor in her progression as a professional nurse and healthcare role model. Unfortunately, a lack of adequate training can have severe consequences on retention rates among new graduates. The National Council of State Boards of Nursing (2015) estimated that approximately 25% of new nurses leave their initial place of employment within one year of hire. One method utilized by hospitals to combat the revolving door of nurses is the development of hospital-based nurse residency programs, which are increasingly evolving as a means of transition into the nursing role. Nurse residency programs allow new graduate nurses the opportunity to develop and establish nursing skills, adapt to the professional environment, and encourage the new graduate to assume greater responsibility in a structured setting (Letourneau & Fater, 2015). Therefore, the purpose of this study is to explore the differences between participation in a nurse residency program versus a traditional orientation program and the effect they may have on new graduate nurses' professional self-concept.

Methods: This study is a non-experimental cross-sectional quantitative research design that used an online survey method. The participants were asked to complete a demographic informational questionnaire, which includes a question related to involvement in a hospital-based nursing residency program. In addition to the demographic information, the participants were asked to complete the Professional Self-Concept Nurses Instrument (PSCNI), a 27-item based survey measuring professional practice, job satisfaction, and communication. The questionnaire takes an estimated 15 to 20 minutes for completion, and the range of possible scores is 27-108 (Arthur, 1995). Cronbach's Alpha for this study was 0.81.

A convenience sample of new graduate nurses in the state of New Jersey (N = 199) was invited to participate in this study. An email list serve from the New Jersey Board of Nursing with new graduate nurses' email information was used to recruit participants; a new graduate nurse was defined as a successful NCLEX test taker between May 2014 and April 2015. Descriptive statistics were used to characterize the demographics of the sample. Outcome measures were studied using non-parametric analysis: Mann-Whitney U test. SPSS version 23 was used to manage the data. Power Analysis indicated that a minimum of 87 participants were needed in order to determine statistical significance with an Alpha = .05, Power = .80, and Effect size at .20.

Results: One hundred twenty-four (124) new graduate nurses participated in this study. The majority of participants were female (n = 109, 88.6%), single (n = 84, 68%), and baccalaureate-prepared (n = 87, 71%). Most nurses worked in an acute care environment; the unit of employment varied from a general medical-surgical floor (n = 45, 39%) to a pediatric unit (n = 7, 6%). More than half of the nurses had been employed for over 5 months (63%) and were oriented using a traditional program (n = 83, 78%) versus a residency program (n = 23, 22%).

The scores on the PSCNI ranged from 61-108 with an average score of 78 (SD = 8.0). To address the purpose of this study, a Mann-Whitney U test was conducted to explore the correlation between orientation methods and levels of professional self-concept. There were no significant differences in levels of professional self-concept between nurses who participated in a traditional orientation program and those who were involved in a residency program. There were also no significant differences in levels of professional practice, job satisfaction, and communication based on the type of orientation.

Conclusion: The study explored the impact of nurse residency programs versus traditional orientation programs on new graduate nurses' professional self-concept during their first year of employment. Data analysis revealed that many new graduate nurses were employed in a hospital-based environment, with the greatest percentage working on a medical-surgical unit. Many nurses reported a high level of professional self-concept. Although this study did not find significant differences between orientation methods in improving new graduate nurses' self-concept, the literature shows that nurses involved in residency programs have higher retention rates than those who do not participate (Bérubé et al., 2012). Perhaps an alternate strategy to address levels of self-concept and retention rates may not be the *type* of the orientation program but the *quality* of educational and clinical training. There are many intrinsic and extrinsic factors that influence self-concept, performance, and job satisfaction of a new graduate nurse, including the nurse's learning style and the type of unit on which he or she works. Therefore, the individualization of education and orientation may better prepare new graduate nurses for the nursing role and its many responsibilities.

References

- Bérubé, M., Valiquette, M., Laplante, E., Lepage, I., Belmonte, A., Tanguay, N., & ... Touchette, S. (2012). Nursing residency program: a solution to introduce new grads into critical care more safely while improving accessibility to services. *Nursing Leadership (Toronto, Ont.)*, 25(1), 50-67.
- Cheng, C., Liou, S., Tsai, H., & Chang, C. (2015). Job stress and job satisfaction among new graduate nurses during the first year of employment in Taiwan. *International Journal of Nursing Practice*, 21(4), 410-418. doi: 10.1111/ijn.12281
- Letourneau, R. M., & Fater, K. H. (2015). Nurse Residency Programs: An Integrative Review of the Literature. *Nursing Education Perspectives (National League for Nursing)*, 36(2), 96-101. doi:10.5480/13-1229

Contact

avb45@scarletmail.rutgers.edu

RSC PST 3 - Research Poster Session 3

Understanding Work Value Profiles and Exploring Factors Affecting Work Values of Student Nurses

Chia-Hsin Cheng, MS, RN, Taiwan

Abstract

Purpose: To understand the work value profiles and explore factors affecting the work values of student nurses.

Methods: A cross-sectional design involving 164 junior and senior baccalaureate student nurses in Southern Taiwan was employed to explore the work value profiles and the factors influencing the perceived work values of nursing students. Surveys were completed anonymously, and contained three categories: demographic characteristics, the Chinese version of the short-form revised Eysenck Personality Questionnaire (EPQR-S; Liao, 2001), and Adolescents' Work Values Inventory (Li & Ou, 2011). Internal consistency of Cronbach Alpha was shown to be .666, .722, .462, .042 on the four dimensions of extraversion, neuroticism, lying, and psychoticism on personality questionnaire, and .881, .942, .870, .867, .883, .911, .937, .856 on the eight dimensions of beyond, realistic, growth, respect, organization, relationship, security, and comfort on the work values inventory. The first four dimensions of the work values inventory represented "terminal (intrinsic) values", while the latter four dimensions represented "instrumental (extrinsic) values". Perceived work values were measured on a 6-point Likert scale with sum scores of 48 indicating "very important" and 8 meaning "not important" on each 8-item dimension. Descriptive statistics, t tests, One-way ANOVA, Pearson correlation coefficient, and stepwise multiple linear regression analyses were carried out through SPSS 18.0.

Results: Overall, students perceived realistic ($M \pm SD = 30.01 \pm 4.93$), relationship (30.23 ± 4.56), and security (30.24 ± 4.98) as their three most important work values. Junior students perceived realistic ($M = 31.26$) and security ($M = 31.01$) values, while senior students perceived relationship ($M = 29.81$) and security ($M = 29.67$) values as their most important work values. Also, juniors' perceptions of the importance of realistic ($F = 3.44, p < .01$) and growth ($F = .96, p < .05$) values were significantly greater than those of seniors. Comparing across different levels of students' self-reported average practice grades, significant differences were shown on the beyond values ($F = 3.19, p < .05$). Age ($r = -.22, p < .01$) and parents' marriage status ($r = .17, p < .05$) were negatively and positively correlated with the realistic and organization values, respectively. Among the eight work value dimensions, the beyond dimension showed the most significantly positive correlation with the demographic characteristics of willingness to do nursing work ($r = .19, p < .05$), levels of self-reported average practice grades ($r = .17, p < .05$), satisfaction toward practice grades ($r = .20, p < .01$), and satisfaction toward the clinical practice arrangement ($r = .30, p < .001$). The personality trait of extraversion revealed a significantly positive correlation with beyond ($r = .27, p < .01$), growth ($r = .25, p < .01$), and relationship values ($r = .16, p < .05$). Finally, students' satisfaction toward the clinical practice arrangement and extraversion accounted for 16.00% of the variance in predicting students' terminal values.

Conclusion: Students' practice performances could potentially influence their terminal values, thus affecting their willingness to do nursing work. And, strategies should be applied by educators when arranging clinical placements for students in order to enhance their experiences and satisfaction toward clinical practice. Finally, it is important for nurse managers to identify work value profiles and address work value conflicts between newly graduated student nurses with specific personality traits and the nursing unit as a whole in order to foster greater job satisfaction thus stabilize the retention rate of new nurses.

References

Li, K. C., & Ou, H. M. (2011). *Adolescents' work values inventory-revised guidebook*. Taipei, Taiwan: Youth Development Administration, Ministry of Education.

Liao, J. F. (2001). *The associations of personality and depression with nicotine dependence among male vocational students in Tainan, Taiwan* (Unpublished master's thesis). National Cheng Kung University Medical College Institute of Behavioral Medicine, Tainan.

Tseng, H. C. (2012). *The nursing competencies, work values and willingness to nursing work among baccalaureate nursing students* (Doctoral dissertation). Kaohsiung Medical University College of Nursing, Kaohsiung.

Contact

chbelinda.cheng@gmail.com

RSC PST 3 - Research Poster Session 3

A Longitudinal Study of Body Weight Loss in Patients Receiving Radiotherapy for Head/Neck Cancers

Shu-Chiung Lee, MSN, RN, Taiwan

Tsae-Jyy Wang, PhD, ARNP, RN, Taiwan

Abstract

Purpose: 1. to describe body weight change over time in patients receiving RT for head neck cancer.

3. to explore the influence of mucositis and nutritional support on weight change over time.

4.

Methods: The study uses a longitudinal design. A convenient sample of 101 H&NC patients scheduled for RT was recruited from a medical center in Taiwan. Data on patients' demographics and clinical variables were collected prior to RT. Body weight and mucositis were measured repeatedly at baseline (T1), one month (T2), the completion of radiotherapy (T3), and one month after completing radiotherapy (T4).

Results: The mean age of the sample was 54.3 (SD=10.8). Majority of the patients were male (n = 87), married (n = 80), and had a middle school (n = 30) education level. Thirty-seven patients had oral cancer, 29 had *nasopharyngeal cancer*, 23 had oropharynx cancer, and 12 had pharynx cancer. Their cancer stages were 11 in stage I or II, 23 in stage III, and 67 in stage IV. The average body weight was 69.4 Kg (SD = 13.2) at T1, 66.3 (SD = 12.0) at T2, 64.5 (SD = 11.9) at T3, and 63.4 (SD =10.7) at T4. Results of GEE showed a significant time effect [$F = 2802.6, P < .001$] on body weight. As for the parameter estimates, the patients' body weight dropped from the baseline by 5.96 kg at T4, 4.82 kg at T3, and 3.09 kg at T2. Results of GEE also showed a significant main effect of mucositis and interaction effects of nutritional support by time on body weight after controlling for the patients' height, age, and the dose of radiation. Patients with a higher grade of mucositis had a lower body weight. The changes of body weight over time were significantly different among patients with different types of nutritional support. Those who had oral intake during the entire course of RT or had enteral tube feeding part-way through the course of RT had more weight loss than those who received enteral tube feeding during the course of RT.

Conclusion: The results of the study supported that H&NC patients are at a great risk for body weight loss while receiving RT, especially for those with severe mucositis. Enteral tube feeding may provide better nutritional support than oral intake in this population. However, more studies are needed to verify this finding.

References

- Nourissat, A., Bairati, I., Fortin, A., Ge'linas, M., Nabid, A., Brochet, F.,..... Meyer, F. (2012). Factors associated with weight loss during radiotherapy in patients with stage I or II head and neck cancer. *Supportive Care Cancer*, 20(3), 591-599. DOI 10.1007/s00520-011-1132-x
- Nugent, B., Lewis, S., & O' Sullivan, J. M. (2013). Enteral feeding methods for nutritional management in patients with head and neck cancers being treated with radiotherapy and/or chemotherapy (review). *Cochrane Database of Systematic Reviews*, 1, 1-20. DOI: 10.1002/14651858.CD007904.pub3
- Wang, J., Liu, M., Liu, C., Ye, Y., & Huang, G. (2014). Percutaneous endoscopic gastrostomy versus nasogastric tube feeding for patients with head and neck cancer: a systematic review. *Journal of Radiation Research*, 55(3), 559-567. doi: 10.1093/jrr/rrt144

Contact

leesc@vghtpe.gov.tw

RSC PST 3 - Research Poster Session 3

Exchanging Expertise: Collaborative Teaching Opportunities in Research Courses

Joyce A. Brill, PhD, RN, CPNP, USA

Paulette Dorney, PhD, RN, USA

Robert T. Brill, PhD, USA

Abstract

Purpose: Research courses for undergraduate nursing education can present challenges for the professor to bring real world research experiences into the classroom. Generating research experiences within an undergraduate nursing course can be limited by multiple factors, such as constraints of multiple ethical reviews by the college and medical institution and narrow time frames for student time available to complete data collection and analyses. A collaborative effort between a social science research course and nursing research course allowed the professors to incorporate expertise from each discipline. Students from two courses assisted in the design, implementation, and evaluation of a real world research experience. The purpose of this research partnership experience was to evaluate nurses' perceptions of stress, coping, and intention to return to school. The social science research course (in this case an upper level psychology seminar course on organizational stress that required an empirical project component) laid the theoretical foundation for work stress and coping. The nursing research course added the nursing perspective to these concepts.

Methods: In the context of this pedagogical endeavor, methods will refer to the joint efforts of the instructors to create this substantive research opportunity at the undergraduate level for students in both academic majors. Three professors from the same college, one from the social science department and two from the nursing department, developed the idea for joining their respective research courses to evaluate nurses' stress, coping, and intent / incentive for returning to school. Recognizing that both courses had parallel learning outcomes for developing undergraduates' competency in research, the collaborative team honed in on hypotheses that would be of mutual interest and relevance for both courses. The social science professor guided the search for appropriate tools for evaluation of stress and coping in nurses. The nursing department professors assisted in the literature review for the significance of the problem and the development of open-ended questions to evaluate nurses' intent to return to school.

Results: In this case of this pedagogical initiative, the results are the actual parallel research project assignments created for each course. A survey was developed based on literature reviews from both classes. For measures, the instructors decided to use the Nursing Stress Index (NSI), the brief COPE scale, and three open ended questions related to incentives to return to school, barriers to return to school, and factors that assisted returning to school. This provided both quantitative and qualitative sources of data. Students assisted in translating the instrument to an online electronic format and helped to pilot test that it ran smoothly and to estimate how long it would take to complete. The survey was distributed via SurveyMonkey to all currently enrolled Registered Nurses (RNs) in the college's RN to BSN, Master's degree in Nursing, and Nurse Practitioner programs. Students from both the nursing and social science course participated in data analyses in their separate respective classes. During each session the social science and one of the nursing instructors was present to discuss the rationale for each analysis as linked to the hypotheses, discuss theoretical connections, and provide multiple discipline-based perspectives on student questions and the overall implications of the data. Quantitative data analyses were facilitated for students in both classes by the social science professor and one nursing professor using SPSS Version 23. Qualitative data analysis was facilitated by the nursing professors with both classes. The students participated using thematic analysis and emergent themes were identified. Nursing students developed presentations based on their independent research focus areas. In addition to sharing and disseminating the development of this pedagogical multidisciplinary collaboration, pending comments from student course evaluations will also be presented.

Conclusion: Students from both courses benefited from this collaboration. Students were able to experience data collection from a sample of nurses. Students also participated in quantitative and qualitative data analyses including interpretation of the results. The joining of these classes allowed the students to evaluate the research process from a nursing and social science perspective in a real world research experience. The joining of these courses also allowed for the use of the expertise from professors experienced in quantitative and qualitative research techniques.

References

- Fiabane, E., Giorgi, I., Sguazzin, C., & Argentero, P. (2013). Work engagement and occupational stress in nurses and other healthcare workers: The role of organisational and personal factors. *Journal of Clinical Nursing, 22*, 2614-2624 doi:10.1111/jocn.12084
- Galdikiene, N., Asikainen, P., Balc, S., & Suominen, T. (2014). Do nurses feel stressed? A perspective from primary health care. *Nursing and Health Sciences, 16*, 327-334
- Lim J., Bogossian F., & Ahern K. (2010) Stress and coping in Australian nurses: A systematic review. *International Nursing Review 57*, 22-31
- Purcell, S.R., Kutash, M., & Cobb, S. (2011). The relationship between nurses' stress and nurse staffing factors in a hospital setting. *Journal of Nursing Management, 19*, 714-720

Contact

brillj@moravian.edu

RSC PST 3 - Research Poster Session 3

An Assessment of Errors and Near-Misses From Pre-Licensure Student Nurses

Megan Wolfe, DNP, FNP, RN, RD, CMSRN, CNE, USA

Abstract

Purpose: Approximately one-half of new nurses with less than one year of experience who were involved in adverse patient events identified that their formal education preparation was a causal factor in their error (Saintsing, Gibson & Pennington, 2011). However, the concern arises that there is little to no standardized measurement or assessment practice that measures safe and effective practice at various points in the time frame that precedes graduation (Docherty & Dieckmann, 2015). As there is little consensus and often contention in the determination of what precise behaviors and attitudes constitute a passing nursing student clinical grade, and as there is often further pressure amongst academic administrations and schools of nursing to demonstrate a significant student success percentage, these variables may in fact promote an academic climate of failing to fail. Students being rated as successful in a clinical setting that actually employ behaviors that do not promote a culture of safety have serious, immediate and long-lasting consequences that will affect public health, safety, and welfare (NCSBN, 2011).

To assist with the identification of students and clinical errors and near misses, a Student Opportunity for Improvement (SOFI) form is completed by our clinical faculty for each error or near miss at our hospital based Associate Degree Nursing (ADN) Program research site. SOFI reporting forms are considered part of the institution's clinical paperwork and all of the faculty at this hospital based ADN program have been trained regarding the criterion standards for the completion of the SOFI.

The purpose of the SOFI is to assist the student in the identification of the event, potential patient consequences, and actions that might have prevented the event(s) in question. Secondary purposes of the SOFI are to assist in the identification of student(s) requiring remediation as well as to assist in the identification and tracking of trends. This identification and measurement intervention process is essential to the provision of optimal, safe care.

An examination of quality and safety measures of a current hospital based associate degree nursing (ADN) educational program provided data regarding errors committed by prelicensure students. Tracking and analysis of frequency and type of student clinical errors provided for identification of similarities and an opportunity for system evaluation and improvements. The purpose of my project was to identify the number, types and categories of Student Opportunity for Improvement (SOFI) reports from a hospital based ADN program over a four-year period from July 30th 2012 through July 30th 2016 and compare the numbers of SOFIs by academic term, the student's previous healthcare experience, and student age. My project also examined the number of errors in the ADN hospital based program after a curricular change was implemented to condense the previously existing 24-month program to 18 months.

Methods: A twenty-four month retrospective comparative design was utilized, in a private, non-profit 2-year associate degree nursing program in the northeastern region of the United States with an enrollment of approximately 300 students. The target population was all enrolled prelicensure nursing students between the ages of 18 and 60 who have had a SOFI report filed. A convenience sample was utilized. Students who were dismissed from the program due to either academic or clinical failures but who have had at least one SOFI filed were included in the study population. The number and types of SOFI reports generated with the previously discussed demographic variables were measured.

The SOFI forms were physically stored in a locked cabinet in the Assistant Dean's or her designee's office. All data from the SOFI reporting forms since 2012 was available to all faculty in an Excel spreadsheet in a secure faculty share hard drive. This Excel spreadsheet was downloaded to the secure research computer, and data entered for the student SOFI category, student semester, student age, program option, and previous healthcare experience. The program option, student age, and previous healthcare experience demographic information was available to all faculty on a shared drive. The

student course and therefore semester of enrollment is recorded on the SOFI form. Names were permanently removed prior to analysis. Approximately every 5th SOFI form entry was verified with the secure access Excel spreadsheet data as compared to the original SOFI forms for accuracy, and the Assistant Dean or her designee performed the check of each data entry from the SOFI to the Excel spreadsheet to verify accuracy. Data entries that were determined to be inaccurate were modified in the secure spreadsheet after consultation with the Assistant Dean or her designee. A running total of inaccurate entries was tabulated for further analysis if inaccurate entries are found. Once the data was cleaned and verified for accuracy it was downloaded from Excel to SPSS for data analysis.

Data from the SOFI reporting form have never been used in a pilot study, nor has the instrument been used in a related population or research study.

Results: Ongoing research

Conclusion: Ongoing research

References

Docherty, A., & Dieckmann, N. (2015). Is there evidence of failing to fail in our schools of nursing? *Nursing Education Perspectives*, 36(4), 226-231. doi: <http://dx.doi.org.proxygw.wrlc.org/10.5480/14-1485>
National Council of State Boards of Nursing (NCSBN) (2011). *Public Policy Agenda*.
Saintsing, D., Gibson, L. M., & Pennington, A. W. (2011). The novice nurse and clinical decision-making: How to avoid errors. *Journal of Nursing Management*, 19(3), 354-359.

Contact

megwolfe10@gmail.com

RSC PST 3 - Research Poster Session 3

The "Lived Experience" of Nursing Faculty Following the Sudden Death of a Student

Paulette Dorney, PhD, RN, USA

Abstract

Purpose: The purpose of this phenomenological qualitative research study is to explore the grief experiences and reactions of nursing faculty following the unanticipated, sudden death of a nursing student. According to the Essentials of Baccalaureate Education for Nursing Practice, "the baccalaureate generalist graduate nurse is "...prepared to engage in care of self in order to care for others" (AACN, 2008, p. 8). While nursing faculty teach students how to care for patients and their families at end of life, little is known about the impact of a student's death on faculty. Nursing faculty serve as teachers, role models, coaches, and mentors not only in the classroom, but also in the clinical setting. The unique closeness of this relationship poses an additional challenge to both students and faculty when a classmate suddenly dies. Nurses by the pure nature of their discipline, are perceived as providers of compassionate and supportive care to the dying and bereaved. Society presumes nursing faculty are more prepared to cope with such a stressful and devastating event since they are indeed nurses themselves, however, gaps exist in the literature regarding what support is appropriate to offer by nursing faculty. Since little is known about this phenomenon, the following research question will guide this inquiry: What is the lived experience of nursing faculty following the sudden unanticipated death of a student?

Methods: The phenomenon of "the grief experience of nursing faculty following the sudden unanticipated death of a student" lacks both exploration and description in nursing literature. An understanding of this experience has failed to be elucidated in nursing education, warranting a need to explore this understudied phenomenon. As Field and Morse (1985) stated, "qualitative methods should be used ...when the research question pertains to understanding or describing a particular event about which little is known" (p.11). Phenomenology as a qualitative research method, seeks to describe and unfold a phenomenon before the eyes of the researcher and reader so the essence of the participant's narratives can be experienced and understood (Munhall, 1994). This approach was the most suitable method of inquiry for studying the richness and complexity of bereavement. By utilizing the phenomenological method of inquiry rooted in Husserl's philosophy and data analysis as described by Paul Colaizzi (1978), the researcher will obtain a full description and understanding of the essence of this experience.

Results: The source of qualitative data included a demographic questionnaire and in-depth interviews with each participant. Interviews were digitally recorded, and verbatim transcriptions were analyzed utilizing the seven-step Colaizzi's (1978) method. Findings of this study support contemporary models of grief and bereavement. Researcher will explore the unique aspects of grief that emerged for nursing faculty.

Conclusions: This study yields a rich understanding of the grief experience of nursing faculty, while providing insights for policy development and supportive interventions for students, faculty and college administrators.

References

- Hedman, A. S. (2012a). College students' comfort level discussing death with faculty and perceptions of faculty support for grief-affected students. *Journal On Excellence In College Teaching*, 23(4), 77-99.
- Hedman, A. S. (2012b). Faculty's empathy and academic support for grieving students. *Death Studies*, 36(10), 914-931.

Contact

dorneyp@moravian.edu

RSC PST 3 - Research Poster Session 3

Use of Crib Sheets and Exam Performance in an Undergraduate Nursing Course

Ann Malecha, PhD, RN, CNE, USA
Pinky Budhrani-Shani, PhD, RN, USA

Abstract

Purpose: A correlational study was conducted to assess the outcomes of allowing baccalaureate nursing students to use authorized crib sheets during exams.

Methods: Senior nursing students ($N=86$), enrolled in a community health nursing course, received a blank crib sheet (10 cm X 15 cm index card) one week before each unit exam ($n=2$) and the final exam. The students were allowed to write on the front and back of the index card and then use the card during the exam. Use of the card was not required. The crib sheet was collected after each exam and the students immediately completed a post-exam survey developed by the researchers. The survey included five scaled questions assessing the benefits of using the crib sheet across the domains of Exam Confidence, Exam Preparedness, Test Anxiety, Assistance during Exam, and Recommend for Future Exams. Other survey items collected data on amount of time spent creating the crib sheet and number of times crib sheet was used during exam. One open-ended question requested additional written feedback.

Results: This study is ongoing and the last data point of the study will be collected during the final exam in December 2016. Preliminary results indicate that all students created and used the crib sheet for the first 2 exams of the semester. Data to be analyzed includes mean time to create the crib sheet, mean number of times used card during exam, and Spearman rank order correlations will examine relationships between confidence, preparedness, anxiety, assistance, future use, and grades for unit exams 1 and 3 and final exam. Preliminary qualitative data indicates an emerging theme that creating the card "helped me memorize," and "I accidentally learned while making the card." All study results will be presented in July 2017.

Conclusion: There is a growing body of evidence that the use of student-prepared testing aids (cheat sheets or crib notes) can have a positive impact on student outcomes such as test anxiety and exam performance. Some researchers have suggested that the actual preparation of a crib sheet can help students to organize course content, reduce the need for memorization, and focus on conceptual knowledge and learning. A review of the literature indicates faculty-approved crib sheets during exams are becoming more common in the disciplines of math, engineering, psychology, and other sciences. This study will be one of the first to report on the use of authorized crib sheets with nursing students.

References

- Burns, K.C. (2014). Security blanket or crutch? Crib card usage depends on students' abilities. *Teaching of Psychology, 41*(1), 66-68. <http://dx.doi.org/10.1177/0098628313514181>
- Hamouda, S., & Shaffer, C.A. (2016). Crib sheets and exam performance in a data structures course. *Computer Science Education, 26*(1), 1-26. <http://dx.doi.org/10.1080/08993408.2016.1140427>
- Larwin, K. (2012). Student prepared testing aids: A low-tech method of encouraging student engagement. *Journal of Instructional Psychology, 39*(2), 105-111. Retrieved from <http://www.projectinnovation.biz/index.html>
- Larwin, K.H., Gorman, J., & Larwin, D.A. (2013). Assessing the impact of testing aids on post-secondary student performance: A meta-analytic investigation. *Educational Psychology Review, 25*, 429-443. <http://dx.doi.org/10.1007/s10648.013.9227.1>

Contact

amalecha@twu.edu

RSC PST 3 - Research Poster Session 3

The Value of the Caring Moment in Patient Advocacy

Lorraine Emeghebo, EdD, MS, BSN, BS, RN, USA
Kathleen M. Lamaute, EdD, FNP-BC, NEA-BC, CNE, USA
Kathleen Maree Daus, BSN, RN, USA
Sonia Ponton, BSN, RN, USA
Antoinette Kunz, BSN, RN, USA

Abstract

Purpose: As student nurses navigate their way through clinical experiences, they may not understand how to learn the value of caring through patient advocacy. According to a study conducted by Archarya Pandey & Chalise, (2015), nursing students have low levels of self-esteem. They therefore, may feel that they do not have the necessary education to advocate for their patients. The American Nurses Association (ANA) states that high quality practice should include advocacy as an integral component of patient safety (ANA, n.d.). The purpose of this research study was to explore the experience of nursing students' caring advocacy using the basic concepts of human-to-human caring during the therapeutic relationship with their patients in the clinical setting. According to Ozam and Oumus (2015), the four basic concepts of Human-to-Human Caring include healing processes, interpersonal maintenance of relationship, the caring moment, and awareness of healing. The basic question was: "when you are a student nurse, where does advocacy begin?" Advocacy is the pillar of nursing and nursing students may not be aware of the extent that they advocate for their patients.

Methods: This is a qualitative study, based on Dr. Jean Watson's Theory of Human Caring. Watson's theoretical framework was used to capture the essences of the participant's experiences. A convenient purposive sampling of 26 senior level nursing students from a baccalaureate Nursing program in the Northeastern region of the United States completed a survey of three statements: 1) describe a caring moment you have experienced in the clinical setting; 2) identify the phase of the therapeutic relationship where the caring moment happened; 3) what specific actions, if any, did you take? Four themes synthesized from the data were: 1) communication 2) relationship 3) advocacy and 4) presence.

Results: Rich data was unearthed as participants clearly described moments in their relationship with their patient when their presence communicated advocating for their patient and their family. They all described feeling a rewarding moment, although they did not recognize that advocacy was what they were doing.

Conclusion: Findings from this study illuminated the interaction between students' motivation to be present for their patients and their clinical experience. Findings from this research study may also add to nursing education curriculum by emphasizing caring moments during the phases of the therapeutic relationship.

References

- American Nurses Association. (n.d.). *Advocacy*. Retrieved October 12, 2016 from: www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/PatientSafetyQuality/Advocacy.aspx
- Archarya Pandey, R., & Chalise, HN. (2015). Self esteem and academic stress among nursing students. *Kathmandu Univ Med J (KUMJ)*. Oct-Dec;13(52), 298-302. Retrieved October 10, 2016 from <https://www.ncbi.nlm.nih.gov/pubmed>
- Halter, M. J. (2014). *Varcarolis' foundations of psychiatric mental health nursing: A clinical approach* (7th ed.). St. Louis, Mo: Elsevier.
- Ozan, Y. D., & Okumus, H. (2015). Implementation of Watson's theory of human caring: A case study. *International Journal of Caring Sciences*, 8(1), 25-35, Retrieved October 10, 2016 from www.internationaljournalofcaringsciences.org.
- Priest, The definition of advocacy. In D. J. Mason, J. K. Leavitt, & M. W. Chaffee (Authors) *Policy and politics in nursing and healthcare- revised reprint* (6th Ed., pp. 31-38). St. Louis, Mo: Elsevier Saunders

Contact

lemeghebo@molloy.edu

RSC PST 3 - Research Poster Session 3

An Investigation of the Integration of Technology to Enhance Consistency in Grading Clinical Skills

Sabine S. S. Dunbar, RN, NM, USA

Abstract

Background: A vital aspect of health professional education is the evaluation of clinical competence (Snodgrass, Ashby, Onyango, Russell, & Rivet, 2014). Moreover, nurse educators ensure that students become safe and competent practitioners (Hodson Carlton, 2012). The development of competence begins during pre-licensure nursing education (Vernon, Chiarella, & Papps, 2011) hence, students utilize learning opportunities to become proficient in clinical skills prior to practicing these on real patients. In light of the current focus on quality and safety in health care, there is a need to accurately evaluate performance to ensure safe clinical practice (Zazadny & Bull, 2015). In nursing education, clinical skills laboratories serve the purpose of evaluating student performance of clinical skills (Houghton, Casey, Shaw, & Murphy, 2012), which are an important component of nursing competence. Clinical skills commonly taught in prelicensure nursing programs include physical assessment skills, with summative evaluation taking place through student demonstration of a physical examination on a simulated patient. Nurse educators evaluate student performance via direct observation (Bourke & Ihrke, 2012), which may predispose inconsistency in grading (Donaldson & Gray, 2012; Zazadny & Bull, 2015). Students report such inconsistency in a baccalaureate, prelicensure health assessment course as educators grade summative examinations. Professional education programs utilize audio-visual technology for student learning and evaluation in health professional education programs. Audio visual recording may potentially enhance consistency among faculty evaluating clinical skills.

Purpose: This project investigated consistency among nursing faculty who grade summative physical examinations in a health assessment course through the utilization of audio-visual technology to compare live review and video review methods of grading.

Methods: A descriptive, comparative design was used to compare live grading to grading based on a video recording, and to measure reliability among six nurse educators teaching a health assessment course. Educators graded the performance of a physical examination by student and patient actors in a simulation laboratory. Grading was based on a pre-established checklist used in the nursing course for grading physical examinations performed by students. The physical examination was simultaneously recorded, allowing for measurement of inter-rater and intra-rater reliability, and a comparison of live and video grading of the examination by the same faculty approximately one month later.

Results: The study is ongoing until January, 2017, at which time data will be analyzed and results will be available.

Conclusion: Conclusions of this project will be dependent upon the results. However, it is anticipated that conclusions may be drawn related to consistency among faculty grading physical examinations, potentially leading to consideration of methods to improve consistency among multiple faculty members. Additionally, the results may provide evidence for the integration of audio-visual technology for grading clinical skills in nursing education.

References

- Bourke, M. P., & Ihrke, B. A. (2012). The evaluation process: An overview. In D. M. Billings, & J. A. Halstead (Eds.), *Teaching in nursing: A guide for faculty* (4thed., pp. 422-440). St. Louis, MO: Elsevier.
- Donaldson, J. H., & Gray, M. (2012). Systematic review of grading practice: Is there evidence of grade inflation? *Nurse Education in Practice*, 12, 101-114. doi: 10.1016/j.nepr.2011.10.007
- Hodson Carlton, K. E. (2012). The evaluation process: An overview. In D. M. Billings, & J. A. Halstead (Eds.), *Teaching in nursing: A guide for faculty* (4th ed., pp. 335-351). St. Louis, MO: Elsevier.
- Houghton, C. E., Casey, D., Shaw, D., & Murphy, K. (2012). Staff and students' perceptions and experiences of teaching and assessment in clinical skills laboratories: Interview findings from a multiple case study. *Nurse Education Today*, 32, e29-e34. doi: 10.1016/j.nedt.2011.10.005

Snodgrass, S.J., Ashby, S.E., Onyango, L., Russell, T., Rivett, D.A. (2014). Electronic practical skills assessments in the health professions: A review. *The Internet Journal of Allied Health Sciences and Practice*. 12(1), Article 8.

Vernon, R., Chiarella, M., & Papps, E. (2011). Confidence in competence: Legislation and nursing in New Zealand. *International Nursing Review* 58, 103 – 108.

Zazadny, M. F., & Bull, R. M. (2015). Assessing competence in undergraduate nursing students: The Amalgamated Students Assessment in Practice model. *Nurse Education in Practice*, 5, 126 – 133.
<http://dx.doi.org/10.1016/j.nepr.2015.01.003>

Contact

sdunbar@westernu.edu

RSC PST 3 - Research Poster Session 3

Pandora's Box: Unveiling the Hidden Curriculum in a Military Teaching and Learning Environment

Karen Zagenhagen, MPhil, BACur (Hons), BACur, BCur, RN, RM, RCN, RPN, RNE, RNA, South Africa
Gisela H. Van Rensburg, DLittetPhil, MACur, BACur (Hons), BACur, RN, RM, RCN, RPN, RNE, RNM, RON, South Africa

Abstract

Purpose: The South African Military Health Service (SAMHS) Nursing College is responsible for the education and training of student nurses in order to provide the South African National Defence Force with competent professional nurses to care for its members, their dependants as well as for operationally deployed soldiers.

These students undergo six months of basic military training and six months of officer's training prior to commencing with their nursing training. The SAMHS Nursing College currently offers a 4-year diploma course leading to registration as a general nurse, community nurse, psychiatric nurse and midwife. The theoretical as well as most of the clinical component of the nursing training take place within a military environment.

Hafferty and O'Donnell (2015:7-9) point out that much of what students learn is not taking place in the classroom or the clinical environment, but that they are learning knowledge, values and behaviours unrelated to what is required through a multitude of other learning opportunities and educational settings which they labelled the "hidden curriculum".

Because of the unique context, the professional socialisation of students at the SAMHS Nursing College is compounded by simultaneous military socialisation within a teaching and learning environment inundated with military culture. Given the unique teaching and learning environment in which these students find themselves, it is difficult to determine whether the military nursing education environment nourishes the desirable professional attributes or whether it inhibits the development of these attributes. Is it thus likely that factors implicit in the military organisational structure, culture and learning environment may influence the professional socialisation of these students.

The purpose of this presentation is to convey and discuss the themes which emerged from the findings related to the influence of the hidden curriculum on the professional socialisation of students in the military nursing context.

Methods: The findings that will be discussed in this presentation form part of a constructivist grounded theory study that was done to answer the research question: "*What is the influence of the hidden curriculum on the professional socialisation of students in a military nursing context?*" The researcher employed focus-group interviews and critical-incident narratives to address the research question. In keeping with the constructivist paradigm adopted for the study, Charmaz's (2014:109-136) approach to data analysis was applied.

Results: Four themes emerged from the findings namely:

Theme 1, "You're in the army now", was described in terms of the process of military acculturation where the student undergoes a transition from civilian life to military life and is being introduced to military culture.

Theme 2, "Off to boot camp", reflected the processes taking place in the theoretical learning environment where students are taught the knowledge and skills necessary to execute their roles as nurses.

Theme 3, "Off to battle field" represented the clinical environment where students are placed to apply the knowledge and skills they acquired in the theoretical learning environment.

Theme 4, "Fighting a dichotomy" reflected on the professional role conflict experienced by nurse educators and students alike.

Conclusion: Conclusions made regarding the elements of the hidden curriculum present in a military teaching and learning environment and their influence on the professional socialisation of students revealed that the hidden curriculum were found to be present in people, processes and places to which the students are exposed to during the course of their training. Most of the elements could be related to a consequence which in turn could influence professional socialisation. This study not only revealed the complexity of the military teaching and learning environment but also exposed the many forms and facets of the hidden curriculum and its power and influences. It was found that the hidden curriculum in the military teaching and learning environment can function as a positive as well as a negative force.

References

Charmaz, K. (2014). *Constructing grounded theory*. 2nd edition, CA: Sage.
Hafferty, F.W. & O'Donnell, J.F. (2015). *The Hidden Curriculum in Health Professional Education*. Dartmouth College Press.

Contact

kzagenhagen@gmail.com

RSC PST 3 - Research Poster Session 3

Treatment Options for Chronic Lymphocytic Leukemia Tumors Chimeric Antigen Receptor Modified T Cells Therapy (CART-19)

Felicia M. Morrison, MSN, MBA, RN, USA

Abstract

Purpose: The National Cancer Institute (2016) estimates that there will be eighteen thousand, nine hundred and sixty thousand new cases of Chronic Lymphocytic Leukemia (CLL) in 2016. With the survival rate of only five years, there is a need for new and improved treatment options with sustained remissions and improved patient outcomes (National Cancer Institute, 2016).

The purpose of this presentation is to increase nursing awareness of a new treatment option available for Chronic Lymphocytic Leukemia (CLL) patients. In 2010, a new treatment module was developed for CLL patients with the goal of sustained remissions. This new treatment option called: Chimeric Antigen Receptor T-cells therapy (CART-19) are laboratory created T-cells (white blood cells) that have the ability to target the CD19 antigens found on all B-cell malignant tumors (Porter, 2013). Currently, this treatment option is only received in a clinical trial; however, these patients can have serious adverse reactions causing them to seek management in the emergency department. There is a nursing knowledge and skill deficit related to this treatment option. Therefore, formal education is warranted in order to increase awareness and promote health literacy.

Methods: A quantitative analysis of ten advance beginner oncology nurses was presented to determine their knowledge of CART-19 therapy as a treatment option for CLL patients. In mid November of 2016 a face to face in-service was developed. Several days before the start of the in-service participants were asked to complete a learning needs assessment tool (LNA). The LNA demonstrated a significant knowledge deficit related to newness of information and lack of exposure as evidenced by written deficiency in knowledge. The results of the LNA tool was used to developed an educational module that would educate both visual and auditory learning styles. The in-service included: a lecture, discussion outline, Likert style pre and posttest, PowerPoint presentation, instructor course evaluation, and time to process and ask questions. At the beginning of the in-service participants were also asked to complete a pretest. The purpose of the pre- test was to asses' current knowledge, to elicit participant's curiosity, measure written response, and determine if there were any knowledge gaps. After completion of the in-service, the participants completed a posttest that was identical to the pre-test. The purpose of the posttest was to measure learning and analyze the objectives with a goal that the learners would demonstrate an increase understanding of treatment options for CLL patients as evidenced by a score of seventy percent or greater on posttest and written assessments.

Results: The mean pretest score of the nurses was 10%, with a range from 0-100%. The pretest statistical demonstrated a knowledge deficit related to, understanding, ability to manage, awareness, side effects, comfort level and antidote for patients undergoing CART-19 therapy. Subsequently, after the in-service the posttest showed an increase in overall knowledge by 70%. There was an increase in awareness and comfort level of caring for CART-19 therapy patients by 50- 60 %, and an additional 30% of the nurses were ability to identify the signs and symptoms of Cytokine Release Syndrome (CRS) and Tumor Lysis Syndrome (TLS) per written examine. The in-service ended with a course evaluation. The overall course rating was superb with a mean of 90%. The instructor was rated as excellent at 90% for effectiveness, which shows an obvious interest in subject matter and knowledge gained in all areas.

Conclusion: Chronic lymphocytic leukemia (CLL) is the most prevalent adult leukemia in the Western world (National Cancer Institute, 2016). Of the new cases, it is probable that over twenty-four thousand people will die from leukemia (National Cancer Institute, 2016). The gold standard for CLL treatment has been chemotherapy, radiation therapy, and stem cell transplant. However, the review of literature evidently demonstrates the need for increased treatment options and nursing education on managing patients undergoing CART-19 cell therapy for CLL. For this presentation, a CLL treatment option education was developed and applied in a magnet teaching hospital in Philadelphia. The course focused

on the anatomy, physiology, etiology, mortality, morbidity, statistics, and current treatment options for CLL, as well as nursing management for patient post CART19 therapy patients. The workshop also included a PowerPoint presentation and course outline. The course was presented to ten advance beginner oncology nurses. Because this treatment is relatively new and still in the clinical trial phase, most patients are unaware of its existence. Equally, most nurses are also unaware of this treatment, therefore they are unable to share knowledge, or care for a patient who received this regimen. Hence, the goal to increase awareness was met as evidenced by posttest results. Participants in the in-service verbalized increased feeling of edification, confidence and preparedness to care for post CART-19 therapy patients, with an increased probability of sharing the eligibility criteria to CLL patient seeking a clinical trial. The learning objectives and the LNA tool were effective to gauge test questions. The statistics showed a 70% increase in nursing knowledge. As a result of this presentation the author plans to turn this presentation into a manuscript and present this treatment option to nurses around the globe increasing awareness and promoting health literacy.

References

- D Porter. (2013, December 2) . CART Therapy for CLL. Retrieved from:
https://www.youtube.com/watch?feature=player_detailpage&v=nIMh9ieG58E
- Hasserjian, R.P. (2013). Acute myeloid leukemia: advances in diagnosis and classification. *International Journal Of Laboratory Hematology*, 35(3), 358-366 doi:10.1111/ijlh.12081
- Jean, G.W.. & Comeau, J.M. (2015). Role of obinutuzumab in the treatment of chronic lymphocytic leukemia. *American Journal Of Health- System Pharmacy*, 72(11), 933-942. doi:10.2146/ajhp140282
- Kunkele, A., Grosse-Lordemann, A., Schramm, A., Eggert, A., Schulte, J.H., & Bachmann, H.S. (2013). The BCL2-938 C> A promoter polymorphism is associated with risk group classification in children with acute lymphoblastic leukemia. *BMC Cancer*, 13(1), 1-6. doi:10.1186/1471-2407-13-452
- National Cancer Institute (2016). Chronic Lymphocytic Leukemia. Retrieved October 7, 2016 from:
<https://www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=346545>

Contact

Ramramp@netzero.com

RSC PST 3 - Research Poster Session 3

Relationship Between Japanese Nursing Faculty Activities for Prevention Nursing Student's Medical Accident and Their Attributes

Wakako Sadahiro, DNSc, RN, Japan
Naomi Funashima, DNSc, RN, Japan

Abstract

Purpose: The purpose of this research is to clarify the relationship between the quality of nursing faculty activities for the prevention of nursing student's medical accidents and their personal attributes in Japan.

Conceptual Framework: The Conceptual Framework is based on a literature review for the prevention of nursing student's medical accidents during the nursing clinical practicum. It included 25 attributes of the nursing faculty as independent variables, and the quality of faculty's teaching activity for the prevention of medical accidents as the dependent variable.

Methods: Instrument: The Teaching Activities of Nursing Faculty for Prevention Medical Accidents by Nursing Students in Clinical settings –Selected version- (TAPMA-S) was used to collect data of quality of nursing faculty activities for the prevention of nursing student's medical accidents. It was a five-point Likert Scale developed based on a qualitative inductive research (Sadahiro & Funashima et al., 2013) with 40 items being grouped into 8 subscales. The total score (TAPMA-S) was ranging from 40 to 200. Higher scores indicate the perception of better teaching activity for the prevention of nursing student's medical accidents. Criterion-related validity, content validity, construction validity, internal consistency, and stability of TAPMA-S were ensured (Sadahiro, Funashima et al., 2015). Nursing Faculty Attributes Questionnaire (FAQ) were used to collect data of Attributes of Japanese nursing faculty. It consists of 26 items to measure demographic variables, attributes as a teacher, attributes as a person as a learner, and attributes as a nurse. It has adopted Self Evaluation Scale of Oriented Problem Solving Behavior in Nursing Practice (OPSN) to measure attributes as a nurse. The "OPSN" was developed based on a qualitative inductive research (Sadahiro & Funashima et al., 1997). It has 25 items with 5-point Likert scale with total scores ranging from 25 to 125. Higher scores indicate the perception of better ability of nursing practice. Validity and Reliability of OPSN was ensured through research for the Japanese Nurses (Sadahiro & Yamashita, 2002). The Construction Validity for Nursing Faculty was ensured through a factor analysis. The internal consistency was ensured by the Cronbach's coefficient alpha of 0.959. (Sadahiro & Funashima et al., 2015)

Data Collection Procedure: After obtaining the ethical approval from the Sapporo City University Ethics Committee, a total of 462 directors in nursing education who were randomly sampled from baccalaureate programs, associate degree programs, and diploma programs in Japan were asked by mail to participate in the study. The instrument packets were distributed to 2,028 nursing faculty members who belonged to nursing educational institutions and agreed to participate in the study. The instrument packets in self-addressed envelopes were returned anonymously.

Statistical Analysis: The Statistical Package for Social Science ver.20 (SPSS) was used for the analysis of data. Descriptive analysis was conducted for the background characteristics of the participants. Because the total score of the TAPMA-S did not follow the normal distribution, Spearman's correlations were employed to examine the relation with the total score of the "OPSN", the age, and the years of teaching experiences. Man Whitney U test and Kruskal-Wallis one-way analysis of variance were employed to examine other variables. The Stepwise multiple regression analysis was used to examine the extent to which the object variable TAPMA-S score was related to the explanation variable of Faculties attributes which identified the relation by univariate analysis.

Results: A total of 881(43.4%) subjects returned the instruments by mail, and 786 of them were valid and analyzed. A total of 214 subjects in BSN/ ADN and 540 in diploma programs participated. The mean age was 45.9 (SD=8.2). The mean year of teaching experiences was 9.6 (SD=7.5). The mean year of clinical experiences was 13.6 (SD=7.7). The "TAPMA-O" scores ranged from 106 to 198 points, with a mean

score of 160.5 (SD=18.8). The highest mean score of Subscale was 4.5 (SD=0.5), which was found for "VIII Self-Managing health of not only students but also teachers themselves", and the second one was 4.3(SD=0.6), which was found for "VI providing students with a learning opportunity needed for the patient safety". The lowest mean score was 3.5 (SD=0.6), which was found for I Making all necessary preparations prior to the nursing clinical practicum" and the second one was 3.7(SD=0.6), which was found for "V. Establishing a close communication with the students and the staff". Univariate analysis was performed for 9 attributes related to the score of TAPMA-S. Those are the kind of school, a qualification as a nurse, conducting the practical training in collaboration with nurses, the satisfaction with their clinical nursing practicum, the satisfaction with their role as a teacher, ability of nursing practice, perception about nursing, having/not having a mentor, and membership of Academic Societies. Step-wise multiple regression analysis was performed by using the score of TAPMA-S as objective variables and using 9 attributes as explanation variables. Three attributes were retained, resulting in an R² of 0.426 (F=32.17, p<.001) Three attributes that proved most valuable in the score of TAPMA-S were ability of nursing practice (beta=.497), the satisfaction with their clinical nursing practicum (beta=.234), and conducting the practical training in collaboration with nurses (beta=.179).

Conclusion: In this study it was suggested that nursing faculty having a high quality of teaching activity for the prevention of medical accidents by students have the following attributes. They possess a high capability in terms of nursing practice and have established a system to conduct practical trainings in cooperation with clinical instructors. In addition, they feel satisfied with their nursing clinical practicum. The followings are important to improve the quality of faculty's teaching activity for the prevention of medical accidents by students during the nursing clinical practicum: First, faculty should find the meaning of instruction in nursing clinical practicum, and maintain/improve their ability of nursing practice and cooperation with nursing colleague. Second, the quality of the faculty's ability to prevent medical accidents by students will be high, if they make their preparations before the nursing clinical practicums with the most studious care and communication with students, patients and the people involved in clinical nursing practicum during the clinical nursing practicum, including getting those abilities.

References

- Wakako Sadahiro, Naomi Funashima, Yasuhiro Matsuda.(2015).Measures and Practices for Medical Accident Prevention While Implementing Patient Safety During Nursing Clinical Practicum by Nursing Faculty.Journal of Research for Nursing Education,24(1),41-55.
- Wakako Sadahiro, Naomi Funashima, Yasuhiro Matsuda .(2015).Development of a scale to evaluate the teaching activities of nursing faculty for prevention medical accidents by nursing students in clinical settings(selected version).the 35th Academic conference of Japan Academy of Nursing Science.

Contact

w.sadahiro@scu.ac.jp

RSC PST 3 - Research Poster Session 3

One Million+ Nurses Become Second Victims Annually: Nursing Education's Role in Prevention?

Jackie H. Jones, EdD, MSN, RN, USA

Linda A. Treiber, PhD, RN, USA

Abstract

Purpose: Nurses function in fast-paced, stressful, complex, unpredictable environments. In these environments, errors are made. They are made by well-intentioned, conscientious nurses. The impact of that error-making has been likened to post-traumatic stress syndrome. There are feelings of guilt, shame, and remorse. There is loss of professional and personal self-esteem. Nurses have quit their jobs, been criminally charged, sued, deemed incompetent, been fired, committed suicide and have left their professions.

They have also become the “second victims,” of the error, a term originally coined by Dr. Albert Wu (2000). Although he applied the concept to medical residents, the term has evolved and expanded to include any “healthcare provider who is involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury and becomes victimized in the sense that the provider is traumatized by the event” (Scott et al., 2009).

The number of nurses that become second victims annually is unknown. Attempts to quantify are problematic. Second victimhood occurs as a result of error. We know that the IOM (2007) estimated that 1.5 million people are harmed each year by medication errors in hospitals. We know that preventable medical errors are now the third leading cause of death in the United States, with up to 440,000 Americans dying each year (Makary & Daniel, 2016). Every one of these error represents a potential second victim. However, because nurses who have made errors can suffer even in the absence of harm to their patients, these numbers cannot come close to representing the true number of nurses who suffer as second victims.

The literature is replete with information about the need to support healthcare professionals who become second victims. Denham (2007) developed the 5 rights of second victims. There are second victim rapid response teams, there are caring for the caregiver programs. There are peer support programs such as R.I.S.E. (Resilience in Stressful Events) (Trossman, 2016). There are recommendations, tools, programs, initiatives, white papers, and calls for a just culture. The overwhelming preponderance of these efforts have been developed and implemented at an organizational level.

The role that nursing education plays in preventing this phenomenon, or even if it has a role, is less well understood and there is an almost complete lack of information about it in the literature. These authors have researched medication errors and the second victim phenomenon for several years. This paper will present a study designed to investigate recent graduate students' opinions about medication error.

Methods: A survey was conducted in February of 2015 which surveyed graduates from the preceding 5 years from a prominent undergraduate nursing program in the southeast. The survey sought to determine the graduates' perceptions of how well the nursing program had prepared them for administering medications in the clinical environment. It also asked questions about whether they had made a medication error since becoming a nurse and, if so, to describe the circumstances and their feelings associated with the error-making. In addition to asking whether the program had prepared them for medication administration, it also asked their perceptions of how well the program taught them to advocate for patients and for themselves. Both quantitative and qualitative data were collected and analyzed.

Results: 168 graduate nurses participated in the study. Of those, 166 respondents indicated that the nursing program had prepared them adequately, well, or very well to administer medications. When asked whether they had made a medication error since becoming a nurse, 89 (56%) stated yes. Details

regarding the event, the organizational follow up, and their own feelings were elicited. There was a significant difference in the number of respondents who felt that they had been prepared to advocate for patients and advocate for self.

Conclusion: The comments provided indicate that both the errorless imperative and the second victim phenomenon were experienced by our graduates. It is also clear that these students were taught patient advocacy but much less about self-advocacy.

Ultimately, this study raised as many questions as it answered. What role does nursing education play in preventing the second victim experience? Most, if not all, nursing programs have incorporated teaching their students all the recognized safety and quality competencies. They strive to teach their students how to do it all perfectly and without error. However, have we failed to teach them how to survive in an environment that is demanding and rife with opportunity for error? What are the best practices for nursing education to prevent their graduates from becoming second victims?

References

- Denham, C. R. (2007). TRUST: The 5 rights of the second victim. *Journal of Patient Safety, 3*(2), 107-119.
- Institute of Medicine (2007). *Preventing medication errors*. Washington, DC: The National Academies Press.
- Makary, M. & Daniel, M. (2016). Medical error—the third leading cause of death in the U.S. *BMJ, 353*(2139), 1-5. Doi: 10.1136/bmj.i2139
- Scott, S.D., Hirschinger, L. E., Cox, K. R., McCoig, M., J. Brandt, & L. W. Hall (2009). The natural history of recovery for the healthcare provider “second victim” after adverse patient events. *Quality & Safety in Health Care, 18*, 325-330. doi:10.1136/qshc.2009.032870.
- Trossman, S. (2016). Second Victims: Offering peer support after adverse or stress-producing events. *The American Nurse, 48*(1), 8-9.
- Wu, A.W. (2000). Medical error; the second victim. The doctor who makes the mistake needs help too. *BMJ, 320*(7237), 726-7

Contact

jjone229@kennesaw.edu

RSC PST 3 - Research Poster Session 3

Postgraduate Student Support in Open Distance Learning: Using a Caring Curriculum Approach

Gisela H. Van Rensburg, DLittetPhil, MACur, BACur (Hons), BACur, RN, RM, RCN, RPN, RNE, RNM, RON, South Africa

Abstract

Purpose: Student support is at the core of enhancing student success. Educators who are preparing students to reach the highest academic levels are continuously faced with the question on what is required to assist students to meet their learning outcomes and become successful in their studies. Open and interactive approaches to the teaching and learning environment of postgraduate students enhance a reflective culture and develop self-directed learning. The purpose of this study was to explore a caring approach to postgraduate student support in an open distance learning context.

Methods: Features of open distance learning that reduce transactional distance, create presence, and foster engagement were explored. A qualitative design was used and data were collected by means of reflective essays and workshop feedback that was in the form of semi-structured narratives. The reflections were used to understand the support needs and the students' experiences in an open distance learning institution in a developing country. Data were analysed using the eight steps for qualitative data analysis as proposed by Tesch. The themes identified were then discussed within the theoretical context of the Nodding's model of a caring curriculum.

Results: Learning activities that create purposeful interactions within the context of a caring relationship between and among postgraduate students and their supervisors were identified. Nodding's four features of a caring curriculum was used as theoretical underpinning: modeling, practice, authentic dialogue and confirmation/affirmation. Integrating these four features with open distance learning strengthens student interaction and engagement beyond levels that are normally experienced in this context. The findings further revealed that 'caring for' and 'caring about' have become an integral part of the caring curriculum.

Conclusion: Open distance learning aims at bridging the time, geographical, economic, social, educational and communication distance between student and institution, student and academics, student and courseware and student and peers. It widens access to learning, provides for flexibility of learning provision, focuses on student centredness, and supports students by constructing learning programmes with the expectation that students can succeed. Supporting students within a caring curriculum during the postgraduate supervision journey enhances the quality of learning during research capacity development. A student-centered approach with a reflective practice paradigm provides a flexible approach to self-directedness of postgraduate students. Constructive alignment of all activities and elements of effective learning opportunities are essential in creating reflective practices that could enhance student support. These elements include authenticity, activating of existing knowledge, creating a community of learning, engaging with new learning material, demonstrating competence and applying it to the real world, all within a caring philosophy.

References

- Fenge, L. 2012. Enhancing the doctoral journey: the role of group supervision in supporting collaborative learning and creativity. *Studies in Higher Education*, 37(4):401-414.
- Herman, C. 2011. Obstacles to success – doctoral student attrition in South Africa. *Perspectives in Education*, 29(3):40-52.
- Kehm, BM. 2006. *Doctoral education in Europe and North America: a comparative analysis*. In The formative years of scholars, edited by U Teichler. Wenner-Gren International Series. 83. London: Portland Press.
- Lee, A. 2010. New approaches to doctoral supervision: implications for educational development. *Educational Developments*, 11(2):18-23.

Contact

vrengsh@unisa.ac.za

RSC PST 3 - Research Poster Session 3

Holistic Review Impacts Success of Underrepresented Minority Nursing Students: A Case Study

Joana Velasquez, MS, RN, CNOR, USA

Carleen Graham, MSN, RN, NYSAFE, USA

Sandra Ellen Bell, MSN/Ed, RN, USA

Abstract

Purpose: The purpose of this project is to increase the enrollment, retention, and graduation of individuals from disadvantaged backgrounds, including ethnic and racial minorities, in the accelerated Associate's Degree in Nursing (aADN) program at the Phillips School of Nursing at Mount Sinai Beth Israel (PSoN).

Our target populations for this initiative reflect the demographics of the five boroughs of New York City (NYC), the most populous city in the US (NYC Planning, 2014) as well as disparity in the nursing workforce in our region: 1) Latinos; 2) blacks; 3) individuals who are economically disadvantaged; and 4) individuals who are educationally disadvantaged. As the demographic data demonstrates, these populations often overlap. Hence, we anticipate that the majority of applicants identified as racial/ethnic minorities may also be economically and/or educationally disadvantaged.

Background and Significance: The nursing profession has been working towards increasing the diversity of nursing students in an attempt to keep up with changing demographics and complex healthcare systems. It is projected that racial and ethnic minorities will comprise more than half of the US population in the next 20 years; however, this prevalence is not reflected in nursing education or practice (Scott & Zerwic, 2015).

In the American Association of Colleges of Nursing (AACN) report (2016), it was noted that there was an increase in enrollment of ethnic minority groups in generic (entry-level) baccalaureate programs from 25.2% in 2006 to 31.6% in 2015. Nonetheless, recruiting and retaining more minority nurses still remains as an objective of nursing education. Nursing programs could facilitate increased minority representation in the nursing workforce by increasing recruitment and improving retention of minority nursing students (Loftin, Newman, Dumas, Gilden & Bond, 2012). Anecdotally speaking, faculty and administration have come to the realization that diversity in the classroom goes beyond ethnicity and race, and, are further realizing that this increase in diversity is also associated with many socio-cultural issues.

Culturally diverse nursing students are considered a vulnerable population due to social isolation and lack of faculty support and supportive services (Muronda, 2015). According to Degazon and Mancha (2012), the benefits of having a diverse student body are twofold: it will increase the likelihood that patients from diverse backgrounds will receive culturally congruent care and it will contribute to the development of more effective health policies. Consequently, a diverse nursing workforce will lead to narrowing of disparities in health outcomes. Numerous studies had been conducted to explore barriers and facilitators to success of minority nursing students (Loftin, Newman, Dumas, Gilden & Bond, 2012; Tabi, Thornton, Garno & Rushing, 2013). Similarly, best practices to attract and retain minority nursing students had been reviewed (Condon, Morgan, Miller, Mamier, Zimmerman & Mazhar, 2013; Dapremont, 2013; Carthon, Nguyen, Chittams, Park & Guevara, 2014).

Scott and Zerwic (2015) proposed that another strategy that can be used to diversify the nursing students is through the use of holistic admissions review. Holistic review, as described by the American Association of Medical Colleges (AAMC), is "a flexible, individualized way of assessing an applicant's capabilities by which balanced consideration is given to experiences, attributes and academic metrics and, when considered in combination, how the individual might contribute value as a medical and future physician" (Addams, Bletzing, Sondheimer, White & Johnson, 2010, p. 10). While a few nursing schools have started implementing the use of holistic review as part of the admission process, there is a gap in

the current literature on using holistic review as part of the academic progression of students throughout the program.

Methods: An innovative program initiative at PSoN has been a program of support for returning students. Few schools of nursing permit students who have dropped out to return. Given the barriers and challenges minority students in particular face, we realize that many students drop out due to unanticipated personal or family circumstances, work obligations, or financial challenges.

PSoN will implement a holistic review admissions process that comprises the four basic principles of holistic review: 1) alignment with our School's mission and goals; 2) assessment of applicants' experiences, attributes, and academic metrics in the context of social determinants; 3) individualized consideration; and 4) consideration of race and ethnicity as factors in the selection of students for admission to the aADN program.

We will adjust the current admission rubric to reflect a new scale of assessment for the pre-admission test, define with greater precision and clarity factors that may constitute non-academic criteria, redesign the application form and personal interview questions/guidelines to capture this information, as legal and appropriate, and broaden the scope of personal essay questions. In order to create a new rubric, we will review models developed by schools of nursing currently employing a holistic review process.

During the admission process, applicants who were previously enrolled in a nursing program but were unsuccessful and consider themselves as part of underrepresented minority (URM) will be identified. The project will be explained to the potential candidates and consent to participate will be obtained. A case study following the students from admission to graduation from the program will be conducted highlighting how holistic review was used throughout their academic progression.

To support a systematic, integrated, and consistent holistic review process we will create a Holistic Review Toolkit, based on current best practices (Glazer, 2016), which will include: a) rationale; b) goals and objectives; c) legal issues; d) an overview of the holistic review process; e) copies of the new application forms; f) new rubric(s); g) information on non-academic criteria; h) guidelines for personal interviews; and i) expected outcomes. Non-academic criteria may include: race/ethnicity; community of origin; first generation college student; languages spoken and level of proficiency; socioeconomic status; work status; quality and rigor of prior educational experience; breadth of the applicant's prior education, training, and experience; competence in non-traditional areas of learning; academic achievement within the context of non-academic challenges; significant personal challenges; and leadership experience.

Holistic review will also be used in following the participants' progression in the program. Final course grades, interactions with faculty, staff and peers, professionalism, as well as participation in extracurricular activities will be reviewed and documented. The Grants and Scholarships Committee will award the participants with partial scholarships and stipends. A reduction in the cost of tuition in combination with funds for basic living expenses will provide a substantive source of support for students in the initiative's target populations. Peer mentoring, Career Development and Readiness Program (i.e., boot camp) and enhanced tutoring services will be made available to the students.

Our long-term goal is to contribute to the development of a highly skilled, adept, and adaptable workforce that reflects, and is prepared to serve, the most diverse urban communities in the country, the residents of NYC. Additionally, we aim to support URM nursing students at PSoN throughout the entire educational pipeline, from enrollment through graduation, to become registered nurses (RNs) and find employment in our region.

Results: Based on the assumptions, as outlined in the Logic Model and the specific interventions we have designed to achieve our goals and objectives, we expect the initiative to result in the following outcomes: 1) Enrollment of students in the target populations will increase by 10%; 2) 100% of the participants will complete the program within 15 months of enrollment; 3) students' licensure first-time pass rate will be at or above the state and national means; 4) At least 85% of the scholarship recipients who do not enroll in the RN-BSN program will obtain employment within 12 months following RN

licensure; 5) At least 90% of the participants will be satisfied with the education they received; 6) PSoN retention rates will improve by a minimum of 5% for the target populations; 7) PSoN graduation rates will improve by a minimum of 5% for students in the target population; 8) At least one student in the cohort will enroll in the RN-BSN program following licensure.

Conclusion: Fostering a culture of diversity and inclusion is integral to our School's mission, vision, and philosophy, and aligns with our academic approach. Every course in the curriculum includes an objective related to the development of cultural competency and students are evaluated on their ability to communicate in a culturally sensitive manner and to deliver culturally-competent patient care. Creating a nursing workforce that reflects the city's unusually diverse population and is adept at inter-cultural communication and prepared to provide culturally sensitive and competent care will be critical to meeting the city's changing and increasingly complex healthcare needs.

Nursing educators are at a unique vantage point of influencing global health. Educators are able to design curricula that strengthen the teaching of health policy development, thereby, increasing nursing presence in policymaking. According to CDC, as described by Shishani, Allen, Shubnikov., Salman, LaPorte, & Linkov (2012), global/public health is not routinely taught in nursing schools; however, most nurses have basic knowledge of disease prevention strategies, which can be harnessed to improve global health . Educators can provide nursing students with introductory concepts that support global health work that transcends borders.

References

- Addams, A. N., Bletzinger, R. B., Sondheimer, H. M., White, S. E & Johnson, L. M. (2010). *Roadmap to diversity: Integrating holistic review practices into medical school admission processes*. Washington, DC: American Association of Medical Colleges. doi:10.3402/meo.v19.22919
- American Association of Colleges of Nursing. (2016). 10 Years of Race/Ethnicity Data. Retrieved from <http://www.aacn.nche.edu/research-data/EthnicityTbl.pdf>
- Carthon, J. B., Nguyen, T., Chittams, J., Park, E., & Guevara, J. (2014). Measuring success: Results from a national survey of recruitment and retention initiatives in the nursing workforce. *Nursing Outlook*, 59(2), 259-267. doi:10.1016/j.outlook.2014.04.006
- Condon, V. M., Morgan, C. J., Miller, E. W., Mamier, I., Zimmerman, G. J., & Mazhar, W. (2013). A program to enhance recruitment and retention of disadvantaged and ethnically diverse baccalaureate nursing students. *Journal of Transcultural Nursing*, 24(4), 397-407. doi:10.1177/1043659613493437
- Dapremont, J. A. (2013, February). A review of minority recruitment and retention models implemented in undergraduate nursing programs. *Journal of Nursing Education and Practice*, 3(2), 112-119. doi:10.5430/jnep.v3n2p112
- Degazon, C., & Mancha, C. (2012). Changing the face of nursing: Reducing ethnic and racial disparities in health. *Family and Community Health*, 25(1), 5-14. doi:10.1097/FCH.0b013e3182385cf6
- Glazer, G., Clark, A., Bankston, K., Danek, J., Fair, M., Michaels, J. (2016). Holistic admissions in nursing: We can do this. *Journal of Professional Nursing*, 32(4), 306-313. doi:10.1016/j.profnurs.2016.01.001
- Loftin, C., Newman, S. D., Dumas, B. P., Gilden, G. & Bond, M. L. (2012). Perceived barriers to success for minority nursing students: An integrative review. *International Scholarly Research Network Nursing*, 2012. doi:10.5402/2012/806543
- Muronda, V. C. (2015). The culturally diverse nursing student: A review of the literature. *Journal of Transcultural Nursing*, 27(4), 1-13. doi:10.1177/1043659615595867
- NYC Planning. (2014). *American Community Survey*. Retrieved from <http://www1.nyc.gov/site/planning/data-maps/nyc-population/american-community-survey.page>
- Scott, L. D., & Zerwic, J. (2015). Holistic review in admissions: A strategy to diversify the nursing workforce. *Nursing Outlook*, 63(4), 488-495.
- Shishani, K., Allen, C., Shubnikov, E., Salman, K., LaPorte, R. E. & Linkov, F. (2012). Nurse educators establishing new venues in global nursing education. *Journal of Professional Nursing*, 28(2), 132-134.
- Tabi, M., Thornton, K., Garno, M., & Rushing, A. (2013, July). Minority nursing students' perception of their baccalaureate program. *Journal of Nursing Education and Practice*, 3(9), 167-175. doi:10.5430/jnep.v3n9p167

Contact

jvelasquez@chpnet.org

RSC PST 3 - Research Poster Session 3

Faculty Collaboration for Horizontal Integration of Nursing Curriculum: Innovative Teaching Strategy

Manju Daniel, PhD, MSN, FNP-BC, USA
Jeanette Rossetti, EdD, RN, USA

Abstract

Background: Baccalaureate nursing education plays a significant role in the development of critical thinking skills. Critical thinking is a core competency that nursing students need to have so they can efficiently address simple to complex clinical situations. Attainment of critical thinking skills during the undergraduate nursing program can positively impact students' future nursing practice across a variety of in-patient and out-patient settings. The utilization of discipline-specific "teaching-learning strategies", which facilitate the development of critical thinking among nursing students, is important. Horizontal integration of an undergraduate nursing curriculum is an innovative discipline-specific "teaching-learning strategy. Horizontal integration involves fusion of nursing curriculum content across different courses within the same phase of the curriculum. Integration of knowledge that is gained throughout different nursing courses can help students to use critical thinking for developing patient-centered comprehensive nursing care plans. In addition, the horizontal integration of nursing curriculum can facilitate nursing students' competency for problem solving, development of good communication skills and team building. There is a need for innovative teaching-learning strategies that could facilitate horizontal integration of an undergraduate nursing curriculum. Collaboration among intra-professional nursing faculty is a key element for implementing horizontal integration of an undergraduate nursing curriculum.

Purpose: The purpose of the study was to examine the impact of nursing faculty collaboration for horizontal integration of a nursing curriculum on: a) students' attendance, b) student collaboration for interactive learning and critical thinking, c) course grades reflecting achievement of course goals, and d) student satisfaction with the course learning outcomes.

Methods: A mixed methodology design (descriptive quantitative and qualitative data for students' perspectives) to pilot the intervention of a horizontal integration of nursing curriculum from two undergraduate courses (nursing research and mental health nursing) was used. All undergraduate nursing students enrolled in the nursing research class, in three consecutive semesters, were recruited. The observation phase included 52 students for the first semester and 39 for the second semester. The intervention phase included 40 students for the third semester. Purposive sampling was used. Students were divided into eight groups. Mental health nursing curriculum was integrated into the nursing research class for the written assignments, as well as for the in-class group activities, such as data collection for a phenomenological study from participants suffering with bipolar disorder. Descriptive statistics (frequencies, means, and standard deviations) were calculated for the demographics, students' attendance, collaboration, and grades. Students' perspectives related to the curriculum integration were categorized into themes.

Results: The mean age of the students was 22 years and the majority were (n=428, 69.1%) Caucasians and n=78 (12.6%) were Hispanics, n=45 (7.3%) were Asians, and n=43 (6.9%) were African Americans. Findings revealed that class attendance and student collaboration improved by 60-65% for the third semester (intervention phase) students. Increased comprehension of research concepts and additional learning opportunity were two main themes for student satisfaction with the course learning outcomes.

Conclusion: Horizontal integration of a nursing curriculum with the intra-professional collaboration is an innovative teaching-learning strategy which leads to enhanced critical thinking, quality student learning outcomes, and attainment of desired course goals. The administrative teams at nursing schools should consider supporting nursing faculty collaboration to implement horizontal integration of undergraduate nursing curriculums, in order to achieve quality teaching and learning outcomes.

References

Defenbaugh, N. & Chikotas, N. (2016). The outcome of interprofessional education: Integrating communication studies into a standardized patient experience for advanced practice nursing students. *Nurse Education Practice*, 16(1), 176-181. doi:10.1016/j.nepr.2015.06.003. Epub 2015 Jun 18.

LaMartina, K. & Smith, P. (2014). Developing critical thinking skills in undergraduate nursing students: The potential for strategic management simulations. *Journal of Nursing Education and Practice*, 4(9), 155-162. doi: 10.5430/jnep.v4n9p155

Yang, K., Woomeer, G.R., & Matthewa, J.T. (2012). Collaborative learning among undergraduate students in community health nursing. *Nurse Education in Practice*, 12(2), 72-76. doi: 10.1016/j.nepr.2011.07.005.

Contact

mndaniel@niu.edu

RSC PST 3 - Research Poster Session 3

The Meaning Baccalaureate Nurse Educators Ascribe to Their Remediation Experiences: Qualitative Study

Nancy L. Sarpy, PhD, RN, USA

Abstract

Purpose: The purpose of this study was to investigate the meaning nurse educators ascribe to their experiences using remediation for at-risk, pre-licensure baccalaureate nursing students. According to the research literature on remediation, nurse educators require students to undertake some type of remediation intervention when they do not perform well academically (Corrigan-Magaldi et al., 2014; Evans & Harder, 2013). At-risk nursing students who do not receive needed academic assistance will not be successful in their nursing program or licensure exam (Lynn & Twigg, 2011). Unfortunately, remediation programs in nursing education are highly variable without evidence of what interventions work the best (Sosa & Sethares, 2015). Schnee (2014) discussed the positive impacts of remediation for academically challenged students in higher education and remediation's role in increased persistence to degree completion. Nurse educators are responsible for incorporating remediation strategies into the curricula in order to prepare at-risk nursing students to practice in today's complex healthcare settings (Lauer & Yoho, 2013). The current qualitative research study was conducted to report and analyze interview findings to understand the meaning of the experiences nurse faculty have when using remediation for at-risk pre-licensure baccalaureate students in the context of nursing education programs.

Methods: A basic qualitative methodology was used for the research study. According to Patton (2015), qualitative inquiry is conducted to understand how people engage in making meaning of their experiences. Six nurse educators from two undergraduate nursing programs in southern California volunteered to participate in this basic qualitative research study after meeting the inclusion criteria. Data were gathered from semi-structured interviews of the participants that were conducted face-to-face or via Skype/phone. Nonprobability purposive sampling was the sampling procedure that was used. Data analysis followed the thematic and constant comparative method that was first developed by Glaser and Strauss (1967).

Results: The findings from this research study revealed the following four themes that emerged from the data analysis: (a) faculty as facilitators, (b) active, individualized learning strategies, (c) issues affecting student engagement, and (d) formal versus informal faculty mentoring. Adult learning or andragogy was the theoretical framework used for this study. Implications of the findings for practice provided insight into the remediation experiences of nurse educators that guide their remediation practices. Based on the findings of this study, the main implications for nurse educators are that remediation policies and strategies need to be incorporated into the overall curriculum of baccalaureate nursing programs.

Conclusion: Recommendations for further inquiry included increasing the number of participants from different geographical areas and using a mixed methods approach to gain further insight into the research topic. Research on remediation could also be expanded to include ethical considerations for nurse educators. A further recommendation for future research included exploring faculty mentoring experiences specifically for remediation.

The findings of this study suggest the need for an organized and comprehensive faculty development and curriculum plan for nurse educators to facilitate remediation strategies for at-risk, pre-licensure baccalaureate nursing students.

References

- Corrigan-Magaldi, M., Colalillo, G., & Molloy, J. (2014). Faculty-facilitated remediation: A model to transform at-risk students. *Nurse Educator*, 39(4), 155-157. doi: 10.1097/NNE.0000000000000043
- Evans, C. J., & Harder, N. (2013). A formative approach to student remediation. *Nurse Educator*, 38(4), 147-151. doi: 10.1097/NNE.0b013e318296dd0f
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.

- Lauer, M. E., & Yoho, M. J. (2013). HESI exams: Consequences and remediation. *Journal of Professional Nursing, 29*(2S), S22-S27. Retrieved from <http://dx.doi.org/10.1016/j.profnurs.2013.01.001>
- Lynn, M. C., & Twigg, R. D. (2011). A new approach to clinical remediation. *Journal of Nursing Education, 50*(3), 172-175. doi: 10.3928/01484834-20101230-12
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Los Angeles, CA: SAGE.
- Sosa, M.E., & Sethares, K. A. (2015). An integrative review of the use and outcomes of HESI testing in baccalaureate nursing programs. *Nursing Education Perspectives, 36*(4), 237-243. doi: 10.5480/14-1515

Contact

nsarpy@llu.edu

RSC PST 3 - Research Poster Session 3

Exploring the Impact of International Field School Experiences on Nursing Students and Their International Hosts

Marlene C. Welsh, MHS, RN, Canada

Renate Gibbs, MA, RN, Canada

Lorelei Newton, PhD, RN, Canada

Catherine McDonald, MA, RN, Canada

Abstract

Purpose: International field schools have been a cornerstone of global health education within the Camosun College (Victoria, B.C. Canada) Nursing Department for over a decade. While anecdotal evidence and student feedback support International Learning Experiences (ILEs) as positive, there has been no researched-based review to clearly identify the added value of ILEs to the overall educational experience of nursing students.

Reviewing the global health and related education literature provides some guidance for ILEs (Kulbok, Mitchell, Glick and Greiner, 2012) as well as opportunities for shared educational experiences for student nurses internationally (Shishani, Allen, Shubnikov, Salman, LaPorte, and Linkov, 2012); however, there is little research exploring the student uptake of core global health concepts, the subsequent effects on future student clinical placements in their own country (Curtin, Martins, Schwartz-Barcott, DiMaria and Soler Ogando, 2015), or the perspectives of the related host country (Kulbok et al, 2012). In addition, the notion of 'global health diplomacy' has not been fully explored in terms of cultivating diplomacy in nurse educators as well as future nurses (Hunter, Wilson, Stanhope, Hatcher, Hattar, Hilfinger Messias, and Powell, 2013). Indeed, attention to global health competencies and diplomacy skills can be seen as essential to the education of the next generation of nurses (Wilson, Harper, Tami-Maury, Zarate, Salas, Farley, Warren, Mendes and Ventura, 2012).

Methods: In order to address the gaps identified above, we conducted an interpretive descriptive research study (Thorne, 2016) from April to December 2016 in two countries, New Zealand and the Philippines, where our first and second year nursing students (n=21) were hosted for their five week consolidated clinical placements. Students were placed in acute specialty areas (intensive care, emergency rooms, neonatal intensive care, labor and delivery, surgical and medical placements, pediatrics) in addition to community-based clinics and outreach work (Maori and Pacific populations in New Zealand and rural and urban scavenger communities in the Philippines).

A combination of data collection techniques were employed to analyze the impact of ILEs on host countries and nursing students to strengthen these unique international placements. Structured questionnaires (n=60) were administered to host nurses following their shifts with Canadian nursing students to gather their perspective on the benefits and detriments of the ILEs. Focus group discussions with students (4 in total) were held before and after their placements, in conjunction with in-country global health themed critical reflections (n=24) to explore personal and professional growth, motivating factors and specifically global health knowledge acquisition (based on adapted framework, Riner, 2011; Curtin, Martins, Schwartz-Barcott, DiMaria and Soler Ogando, 2015) which included health promotion, social determinants of health, and infectious disease transmission. A review of students' academic and clinical performance post-ILE was conducted to examine success rates.

Results: Rich data emerged from the study revealing student's deeper understanding of the social determinants of health and their impact on vulnerable population's morbidity and mortality. Poverty, resource allocation, culture and the divergent role of nurses in different countries were dominant themes. Cultural competency and the ethics of nursing abroad were highlighted. Health promotion was a critical dimension of this study and student's enhanced knowledge levels regarding upstream thinking and effective health education strategies; specifically related to dengue fever, diarrheal disease, lung disease (asthma, pediatric community acquired pneumonia, tuberculosis), cardiac disease and culturally appropriate diet for diabetic Maori patients.

Conclusion: Preliminary research findings will be presented along with significant lessons learned, including recommendations to inform best practice for future ILEs.

Conference participants will develop an enhanced understanding of the complexities involved when planning ILEs, the potential for rich learning related to the unique ethical and cultural differences in divergent nursing climates, and specific ways to capitalize on critical global health concepts necessary for improving population health.

References

- Curtin, A., Martins, D., Schwartz-Barcott, D., Adorno DiMaria, L. & Milagros Soler Ogando, B. (2015). Exploring the Use of Critical Reflective Inquiry With Nursing Students Participating in an International Service-Learning Experience. *Journal of Nursing Education*, 54(9), S95-S98.
- Hunter, A., Wilson, L., Stanhope, M., Hatcher, B., Hattar, M., Hilfinger Messias, D. & Powell, D. (2013). Global health diplomacy: An integrative review of the literature and implications for nursing. *Nursing Outlook*, 61(2), 85-92.
- Kulbok, P., Mitchell, E., Glick, D., and Greiner, D.(2012) International Experiences in Nursing Education: A Review of the Literature *International Journal of Nursing Education Scholarship*, 9(1) Article 7
- Riner, M. (2011) Globally engaged nursing education: An academic program framework. *Nursing Outlook* 59 (6) 308-309
- Shishani, K., Allen, C., Shubnikov, E., Salman, K., LaPorte, R. & Linkov, F. (2012). Nurse educators establishing new venues in global nursing education. *Journal of Professional Nursing*, 28(2), 132-134.
- Thorne, S. (2016). *Interpretive Description: Qualitative Research for Applied Practice*, 2nd Edition. Routledge: New York.

Contact

RGibbs@camosun.bc.ca

RSC PST 3 - Research Poster Session 3

Reducing Test Anxiety Through Mind Relaxation

Kathleen R. Ward, MSN, RN, USA
Tanya L. Smith, MSN, RN, USA
Lindsey Gordon, MS, TLMLP, USA

Abstract

Purpose: The purpose of this study is to identify the effect of a Tai Chi (mind relaxation) intervention on test anxiety.

Methods: Anxiety and stress are relative in situations that provoke feelings of “fight or flight” (Selye, 1976). These feelings are often experienced by nursing students during course exams. According to Gibson (2014, p.267), test anxiety attributes include: “administration of a test, negative subjective feelings, behavioral aspects, physical signs, and cognitive aspects”. The greater the stimulus the less effective the performance on any given task (Yerkes & Dodson, 1908). According to the Yerkes-Dodson Law (1908), low and high levels of anxiety hinder optimum performance, whereas performance is enhanced at mid-levels of arousal or anxiety. Systematic reviews and meta-analysis have shown Tai Chi to be an effective intervention for anxiety reduction and psychological well-being (Sharma & Haider, 2015; Wang et al., 2013)

Tai Chi is a form of Chinese exercise that incorporates “slow, smooth body movements to achieve a state of relaxation of both mind and body” (The Free Dictionary, n. d.). The use of Tai Chi in education is well documented. Wall (2005), conducted a study using Tai Chi and mindfulness-based stress reduction on middle school students. These results demonstrated that Tai Chi instilled “well-being, calmness, and relaxation” in middle school students. Tai chi interventions have also been incorporated into high school and college settings with mixed results. Lee et al., (2012), noted no difference in stress levels of secondary (junior) school students before and after the Tai Chi intervention. On the college level, the physical and mental health of college students were significantly improved after a Tai Chi intervention (Wang, Taylor, Pearl, & Chang, 2004).

Specific to nursing, Edelman & Ficorelli (2005) conducted a qualitative study to determine the lived experience of nursing student’s test anxiety. The analysis of the data reflected three themes; one of those being the fear of not becoming a nurse relative to not passing nursing tests, increasing test anxiety. Malinski & Todaro-Franceschi (2011) implemented a co-meditation intervention that successfully reduced anxiety in a nursing school setting. Specific to test anxiety, Prato & Yucha (2013) provided training in biofeedback-assisted relaxation intervention producing a decrease in physiological responses to stress, lacking change in subjective test anxiety scores. A Tai Chi intervention was utilized in a study by Mulcahy, Gosselin, Holland, & Pittman (2016) to determine the effect on simulation anxiety. The findings indicated that Tai Chi was effective in reducing student anxiety as well as improving simulation performance. Despite the number of studies on nursing students and the use of a Tai Chi intervention, the number of studies relative to test anxiety and nursing students is limited.

Based on this information the researchers hypothesized utilizing a Tai Chi intervention prior to nursing examinations to assess the effect on test anxiety. Approval was obtained from the University’s Institutional Review Board. At the beginning of the spring 2017 semester nursing students in the Health and Illness II course will be invited to participate in the investigation. Informed consents will be obtained. Consenting students will be randomly assigned to the control and experimental groups. Baseline anxiety levels and pulse rates will be obtained on all participating students. Baseline anxiety levels of all students will be assessed utilizing the Generalized Anxiety Disorder 7-item Scale (GAD)-7. The GAD-7 has been shown to be a valid tool for assessing Generalized Anxiety in practice and research (Spitzer, Kroenke, Willimas, & Lowe, 2006). The anxiety levels and pulse rates will be obtained prior to the Tai Chi intervention and again immediately prior to the exam. Students in the experimental group will engage in a fifteen-minute beginning Tai Chi intervention prior to each exam during the semester. The control group will continue in their normal routine prior to exams with anxiety levels and

pulse rates being obtained immediately prior to the exams. All anxiety levels during the study will be assessed utilizing the self-report Zero-to-Ten Anxiety Scale and all pulse rates will be assessed utilizing the Smart Pulse Advanced Finger Oximeter. According to Crandall, Lammers, Senders, Savedra, & Braun (2007), the Zero-to-Ten Anxiety Scale has been shown to have validity as a self-report scale to assess state anxiety in children.

Results: After the final exam in the course the data will be analyzed to answer the specific research questions for this study. Is there a difference in participants' state anxiety scores before and after the Tai Chi intervention? Is there a difference in participant's pulse rate before and after Tia Chi? Does a Tai Chi intervention reduce anxiety to a mid-level for optimum performance? Utilizing a Statistical Package for the Social Science (SPSS) software system, the projected data methods of independent and dependent t-tests will be employed to analyze the data. Findings from this study will be shared as aggregate data during the 28th International Nursing Research Congress. During the fall 2016 semester a pilot study was conducted prior to one exam utilizing a different cohort than projected for the spring 2017 semester. The pilot study only measured anxiety after eight minutes of Tai Chi. Findings demonstrated a reduction in test anxiety prior to the exam for the majority of the class. One student experienced an adverse level of test anxiety due to having to wait eight more minutes to take the test.

Conclusion: If there is a positive association between mind relaxation and a reduction of test anxiety to a level that improves student outcomes the intervention may continue to benefit students and others, in all education venues and lifetime experiences. This interprofessional collaboration of nursing and psychology conforms to the core competencies for interprofessional collaborative practice specifically: core competency TT3: Engage other health professionals—appropriate to the specific care situation—in shared patient (student)-centered problem-solving (Interprofessional Education Collaborative Expert Panel, 2011). The collaboration with psychology enhances the value of the results, as the outcomes have been analyzed by an individual within the discipline of psychology. This also emphasizes to students that nursing is an interprofessional discipline.

References

- Crandall, M., Lammers, C., Senders, C., Savedra, M., & Braun, J. V. (2007). Initial Validation of a numeric zero to ten scale to measure children's state anxiety. *Anesthesia & Analgesia*, *105*(5), 1250-1253.
- Edelman, M. & Ficarelli, C. (2005). A measure of success. *Journal for Nurses in Staff Development*, *21*(2), 55-59.
- Gibson, H. A. (2014). A conceptual view of test anxiety. *Nursing Forum*, *49*(4), 267-277.
- Interprofessional Education Collaborative Expert Panel. (2011). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington, D.C.: Interprofessional Education Collaborative.
- Lee, L. Y. K., Chong, Y. L., Li, N. Y., Li, M. C., Lin, L. N., Wong, L. Y., . . . Man, S. Y., (2013). Feasibility and effectiveness of a Chen-style Tai Chi programme for stress reduction in junior secondary school students. *Stress and Health*, *29*, 117-124.
- Malinski, V. M., & Todaro-Franceschi, V. (2011). Exploring co-meditation as a means of reducing anxiety and facilitating relaxation in a nursing school setting. *Journal of Holistic Nursing*, *29*(4), 242-248.
- Mulcahy, A., Gosselin, K., Holland, B., & Pittman, A. (2016, July). *Go with the flow: The use of movement meditation to reduce simulation anxiety in nursing students*. Paper presented at Nurse Educator's Conference in the Rookies, Breckenridge, CO.
- anxiety: A systematic review. *Journal of Evidence-Based Complementary & Alternative Medicine*, *20*(2), 143-153.
- Prato, C. A., & Yucha, C. B. (2013). Biofeedback-assisted relaxation training to decrease test anxiety in nursing students. *Nursing Education Perspectives*, *34*(2), 76-81.
- Selye, H. (1976). *The stress of life*. New York: McGraw-Hill.
- Spitzer, R. L., Kroenke, K., Williams, B. W., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder. *Archives of Internal Medicine*, *166*, 1092-1097.
- Wang, Y., Taylor, L., Pearl, M., & Chang, L. (2004). Effects of Tai Chi exercise on physical and mental health of college students. *The American Journal of Chinese Medicine*, *32*(3), 453-459.
- Wang, F., Lee, E. O., Wu, T., Benson, H., Fricchione, G., Wang, W., & Yeung, A. (2014). The effects of Tai Chi on depression, anxiety, and psychological well-being: A systematic review and meta-analysis. *International Journal of Behavioral Medicine*, *21*, 605-617.
- Yerkes, R. M., & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-formation. *Journal of Comparative Neurology and Psychology*, *18*(5), 459-482. doi:10.1002/cne.920180503

Contact

krward@fhsu.edu

RSC PST 3 - Research Poster Session 3

Development and Testing of the Global Interprofessional Therapeutic Communication Scale (GITCS®)

Suzanne H. Campbell, PhD, RN, IBCLC, Canada
Natalia Del Angelo Aredes, RN, Brazil

Abstract

Background: Simulation is a valuable tool to educate health professionals on effective communication. It also is a method that can bring educators together to create, evaluate, and test new instruments for assessment. Communication is a key component for safe, effective health care delivery and has the potential to enhance patients' experiences within the health care system, empowering them to be active partners in the process, as well as impacting patient outcomes. Researchers have identified a connection between miscommunication and adverse events/errors in clinical practice, which affects the quality of care (Fay-Hillier, Regan, & Gallagher Gordon, 2012). In order to minimize miscommunication, a variety of strategies and tools have been utilized to measure and assess health communication between practitioners, patients, and families. The Global Interprofessional Therapeutic Communication Scale (GITCS®) was developed for health educators to facilitate formative and summative evaluation of students' communication skills in simulation and clinical settings.

Purpose: To describe the development and reliability/validity testing of the GITCS®.

Methods: The GITCS® was developed using theoretical references of therapeutic communication and refined using a reiterative process of expert review. First, a panel of nursing educators with extensive teaching experience in simulation settings was convened to review existing therapeutic communication assessment tools, identify gaps, and contribute to the initial item generation for GITCS®. Second, two rounds of expert reviews by nursing and allied health sciences educators was conducted to pare down the number of items, determine corresponding constructs and domains, and craft the item statements for appropriate context and grammar. Third, to obtain psychometric data for reliability and validity, an international sample of simulation educators affiliated with nursing and allied health postsecondary institutions were invited to help test the GITCS®. The international sample is asked to log into an online portal to view videos featuring a public health nurse on a home visit, and using a digital version of the GITCS®, rate the nurse's therapeutic communication skills as she interacts with the patient. Three videos were professionally produced (professional actors, videographer/editor) depicting "bad," "good," and "mixed" communication skills. The scripts were carefully tailored based on the GITCS® items.

Results: Initial item generation included those related to active listening, empathy, empowerment, verbal and non-verbal communication, rapport and trust building, barriers, and cultural boundaries. The two rounds of expert reviews pared the scale to 43 items, identifying 4 corresponding constructs: education, empathy, power sharing and rapport/trust building. We will present results of initial reliability and validity testing of the GITCS, expounding on our chosen methods in examining construct validity, internal consistency and interrater reliability.

Conclusion: The GITCS® aims to support faculty, students and health professionals as a summative and formative assessment tool in measuring therapeutic communication outcomes during clinical practice or simulation in educational setting. Data will be shared on the reliability and validity of GITCS® as tested by an international, interdisciplinary group of health simulation educators using an online portal featuring three professionally developed videos demonstrating "good," "bad," and "mixed" therapeutic communication between a public health nurse and older female client during a home visit.

References

Fay-Hillier, T. M., Regan, R. V., & Gallagher Gordon, M. (2012). Communication and patient safety in simulation for mental health nursing education. *Issues in mental health nursing*, 33(11), 718-726.

Pagano, M. P., Shea, E. R. O., Campbell, S. H., Currie, L. M., Chamberlin, E., & Pates, C. A. (2015). Validating the Health Communication Assessment Tool (HCAT). *Clinical Simulation in Nursing*, 11, 402-410.
doi:<http://doi.org/10.1016/j.ecns.2015.06.001>
Younis, J. R., Mabrouk, S. M., & Kamal, F. F. (2015). Effect of the planned therapeutic communication program on therapeutic communication skills of pediatric nurses. *Journal of Nursing Education and Practice*, 5(8), 109.

Contact

suzanne.campbell@nursing.ubc.ca

RSC PST 3 - Research Poster Session 3

The Effect of Hybrid Team-Based Learning in a Professional Nursing Course

Hui-Chen Tseng, PhD, RN, Taiwan
Wei-Che Weng, MS, MD, Taiwan
Lih-Mih Chen, PhD, RN, Taiwan

Abstract

Purpose: We used the concept of flip-pedagogy to reform the traditional teaching model in Taiwan. The method of hybrid team-based learning (hybrid TBL) aims at the paradigm shifts of learning and teaching. The teaching behavior shifts from “sage on stage” to “guide at side”, and the responsibility for learning shifts from instructors to students. This study investigated the effectiveness of adopting hybrid TBL in a professional nursing course for Taiwanese baccalaureate nursing students.

Methods: A quasi-experimental design with experimental and control groups was used to evaluate the effectiveness of hybrid TBL method. A convenience sample of 71 Grade III nursing students participated in this study, with 40 in the experimental group and 31 in the control group. For the experimental group, 3 topics were selected for TBL out of overall 31 topics of a professional nursing course. The control group received the other professional nursing course with traditional method. We collected data from Self-Directed Learning Readiness scale and the Learning Outcome of TBL Self-evaluation before the professional course at the first time, and the second collection of data was collected after the intervention of TBL courses. The TBL method included IRT, GRT, application exercises and appeal. We examined the effect of students' learning outcomes from two scales: Self-Directed Learning Readiness scale and the Learning Outcome of TBL self-evaluation.

Results: Our study showed that nursing student increased the hours of self-directed learning from 11.2 hours to 14.3 hours every week, and got the references of study from lectures of instructors (89.2%), textbook (64.6%), internet (64.6%) and book references (41.5%). The learning behaviors of team engagement and the overall effect of TBL self-evaluation had significant statistical differences between the experimental and control groups, but the learning behaviors of learning motivation, active learning and self-directed learning readiness rarely changed.

Conclusion: TBL is a teaching method of extrinsic motivation, thence the correlation between TBL and active learning behaviors is still a debate. This study provides the evidenced data of improvement in team engagement for adopting the hybrid team-based learning method in nursing courses. The proper frequency of team-based learning methods in a professional lecture nursing course still needs more evaluation to set on.

References

- Cheng, C. Y., Liou, S. R., Tsai, H. M., & Chang, C. H. (2014). The effects of team-based learning on learning behaviors in the maternal-child nursing course. *Nurse Education Today*, 34, 25-30.
- Mennenga, H. A. (2013). Student engagement and examination performance in a team-based learning course. *The Journal of Nursing Education*, 52(8), 475-479.
- Thomas, P. A., & Bowen, C. W. (2012). A controlled trial of team-based learning in an ambulatory medicine clerkship for medical students. *Teaching and Learning in Medicine*, 23(1), 31-36.

Contact

teach.tseng@gmail.com

RSC PST 3 - Research Poster Session 3

The Development of Professional Self-Concept and Leadership Skills Among New Graduate Nurses

Sarah Elizabeth Kelly, PhD, RN, USA

Molly Naft, SN, SN, USA

Allison Bautista, SN, SN, USA

Maria LoGrippo, PhD, RN, NE-BC, USA

Abstract

Purpose: Nurses are responsible for providing holistic care to individuals and meeting their healthcare needs. Because of this responsibility, it is imperative to adequately prepare nursing students for their professional role. Leading professional nursing organizations such as the American Association of Colleges of Nursing (AACN) believe that nursing education should address appropriate competencies geared toward the professional role of nurses (AACN, 2014). Upon the point of graduation, nurses are expected to have the critical thinking skills, leadership capabilities, and problem solving abilities necessary to provide safe and effective care (Gardulf et al., 2016). New graduate nurses learn through their knowledge, skill, and attitude development during their educational experiences. Equipped with appropriate skills and clinical decision-making abilities, the professional nurse is able to provide holistic care in a challenging patient care environment (AACN, 2008). Therefore, the purpose of this study is to explore how experiences of new graduate nurses impact their professional self-concept and leadership competencies.

Methods: A descriptive exploratory study will be conducted to obtain information related to new graduate nurses' professional self-concept and leadership competencies. This is a cross-sectional non-experimental research design using a web based survey method. The participants will be asked to complete two surveys: 1) The Professional Self-Concept Nurses Instrument, a 27-item scale measuring professional practice, satisfaction, and communication; 2) The Nurse Professional Competence (NPC) Scale – leadership subscale. The NPC scale is an 88-item instrument used to measure competences among nurses. The leadership subscale is a 26-item subscale that measures leadership and development. Each survey takes approximately 15-20 minutes to complete. In addition to the two surveys, the participants will be asked to complete a demographic survey.

A convenience sample of nurses, who self-identify as a new graduate nurses were invited to participate this study. A new graduate nurse is defined as a nurse who successfully passed the National of Council Licensure Examination-Registered Nurse (NCLEX) between June 2015 and May 2016 who is currently employed as a registered nurse.

Results: The institutional review board (IRB) has been approved and the study questionnaires are currently being disseminated. At this time, we do not have any initial results to report.

Conclusion: As this study is currently ongoing and we do not have an initial analysis completed, we cannot speculate on the impact or conclusion of this study.

References

American Association of Colleges of Nursing. (2014). Accelerated Baccalaureate and Master's Degrees in Nursing. Washington, DC: Author. Retrieved from <http://www.aacn.nche.edu/media-relations/fact-sheets/accelerated-programs>.

Gardulf, A., Nilsson, J., Florin, J., Leksell, J., Lepp, M., Lindholm, C., & Johansson, E. (2016). The Nurse Professional Competence (NPC) Scale: Self-reported competence among nursing students on the point of graduation. *Nurse Education Today*, 36, 165-171.

Contact

sarah.kelly@rutgers.edu

RSC PST 3 - Research Poster Session 3

Engaging Nursing Students in the Classroom With Cell Phones and Software

Malena Jones, PhD, MS, BS, RN, CNE, USA

Abstract

Purpose: The basis of this project was to develop and implement active student learning activities in a junior level nursing research course. The specific goals of this project were to, increase student understanding of nursing research, increase student engagement, assess student perceived effectiveness and engagement with audience response software and cellular phone use.

Methods: Student comprehension of content will be evaluated with a secure, proctored, nationally-normed exam designed to assess student understanding of research and critical thinking skill. End of the semester course evaluations will examine students' perceptions of the student learning activities. Students will also be surveyed to explore their experience with audience response software and perceived engagement in the course.

Results: Preliminary results will be obtained December 2016 and will be discussed at the time of the presentation. Results will focus on the advantages and disadvantages of audience response software and cellular phone use in the classroom setting. Results will also examine student and faculty perceived engagement and comprehension of content. Results will also compare student that utilized audience response software with students that didn't use audience response software comprehension of nursing research content.

Conclusion: Engaging the millennial generation in class is a challenge that faculty face daily. Faculty are constantly competing with students on cell phones, texting and social media. Instead of competing with cell phones use in class this project attempted to utilize cell phones and audience response software to engage students. Traditional undergraduate nursing students have difficulty grasping research concepts and tend to find research intimidating. To encourage student engagement in the course, audience response software was downloaded onto their cell phones and students were encouraged to bring them to class. In class activities included mid-lecture quizzes, case studies, student and classmate polling. The software also allowed students to question or seek clarification on content without embarrassment by sending questions directly to faculty with their cell phones.

References

- Berry, J. (2009). Technology support in nursing education: Clickers in the classroom. *Nursing Education Perspectives*, 30(5), 295-298.
- DeBourgh, G. A. (2008). Use of classroom "clickers" to promote acquisition of advanced reasoning skills. *Nurse Education in Practice*, 8(2), 76-87.
- Lee, S., & Dapremont, J. (2012) Innovation CENTER: Engaging Nursing Students Through Integration of the Audience Response System. *Nursing Education Perspectives* 33, 55-57.
- Meedzan, N., & Fisher, K. (2009). Clickers in nursing education: An active learning tool in the classroom. *Online Journal of Nursing Informatics (OJNI)*, 13(2), 1-19.

Contact

mjones@niagara.edu

RSC PST 3 - Research Poster Session 3

The Creation and Implementation of a Military Veteran to Bachelor of Science in Nursing Pathway

Jene' M. Hurlbut, PhD, RN, CNE, USA

Imelda R. Revuelto, MEd, USA

Abstract

Purpose: The presentation will explain the procedures involved in creating an innovative admission pathway that facilitates veteran's abilities to obtain a Bachelor's of Science in nursing. In the summer of 2015, the nursing department at a University in the United States was awarded a three-year \$1 million HRSA grant that allowed the development and implementation of a Veteran to Bachelor of Science in Nursing Pathway (VBSN).

Methods: The VBSN pathway targets barriers that prevent veterans from transitioning into the nursing profession and accessing education. It has been estimated that over the next five years, approximately 1.5 million service members will separate from the military and will be returning to college and looking for employment (Snyder, Wick, Skillman, & Frogner, 2016). Moreover, it has been suggested that one of the top degrees sought out by veterans is a nursing degree. This is due to interest in the healthcare field and the overall demand for nurses within the job market (<http://www.bestcollegesonline.org/top-degrees-for-veterans/>). After notification of award, the necessary approvals needed to be obtained as well as the complete development of the VBSN infrastructure that included: the admission process, the awarding of credits, curriculum to support the VBSN pathway, and the development of collaborations and partnerships with internal and external constituents.

Results: The VBSN pathway developed processes that allows qualified veterans the opportunity to test out of designated courses based on demonstration of course competencies. The curriculum at this University is unique in that a block system of curricula delivery, a summative assessment paradigm, and offers veterans academic credit for experience gained during military service. An additional component of this grant was to provide faculty in-services that addressed the physical, emotional, and environmental issues affecting veterans in order to minimize barriers to their transition into the nursing profession. These in-services facilitated the development of a culture of respect for veterans returning to the University setting.

Conclusion: Given the number of veterans returning to Universities and seeking nursing degrees, it becomes imperative to share the lessons learned in creating a supportive environment for these service members.

References

Snyder, C., Wick, K., Skillman, S., & Frogner, B. (2016). Pathways for military veterans to enter healthcare careers. *Center for Health Workforce Studies University of Washington*.

Keita, M., Diaz, V., Miller, A., Olenick, M., & Simon, S. (2015). Transitioning from military medic to registered nurses. *Journal of Multidisciplinary Healthcare*, 8, 495-502.

Contact

jhurlbut@roseman.edu

RSC PST 3 - Research Poster Session 3

A Collaborative Program Between Academia and Practice Enhancing Preceptors' Teaching Efficacy

Shu-Yuan Chao, DNSc, MEd, BS, Taiwan

Abstract

Background: In Taiwan, adopting one to one clinical teaching, nurse preceptors play an influential role in the success of nurse education for undergraduate nursing students in their final clinical practice--" Last Mile Learning". However, evidence shows that inadequate preparation of formal education program for the preceptors, and lack of communication between the school and clinical teaching, hinders teaching efficacy. The necessity of establishing a clinical-academic partnership was advocated

Purpose: The purpose of this project was to develop, implement and evaluate a collaborative program for the preceptors in facilitating their clinical teaching efficacy for nursing students.

Methods: Workshops were implemented in middle Taiwan every other month, from March to September 2016. The lectures related to learning theory, the objects of clinical teaching, the methods of interacting with student nurse, and clinical evaluation method were performed in the first workshop. Then the participants were separated into small groups of 10-12 members per group to discuss expectations of each other between school and hospital, share teaching strategies and exchange experiences of how to resolve student's learning problems in the clinical practice. The groups were facilitated by a senior faculty who was also the person to contact if preceptors had teaching problems. Preceptors were encouraged to upload their experiences and share ideas online. Additionally, teaching materials taught by the faculties in the classroom are accessible online as well for the clinical preceptors' reference.

A total of 98 preceptors from 16 teaching hospitals were recruited for the program. A self-administered structural questionnaire including five dimensions, (i.e. "Recognition of clinical teaching", "Implementation of teaching", "Expression of caring behaviors", "Performance of empathy", "Empowerment for student"), was administered at the beginning and the end of the project to evaluate the effectiveness of this project.

Results: The results indicated that preceptors have significant improvements in their teaching efficacy after participating the program, and achieved statistical significance. In addition, there were 24 innovative teaching plans/strategies that were developed by the preceptors.

Conclusion: The collaborative program enhanced more communication between the academia and clinical practice, provided teaching resources and support for the preceptors in assisting their clinical teaching, which have reflected on their improvement of teaching efficacy and innovative teaching plans.

References

- Tsai, Y. M., & Lee-Hsieh, J. (2015). Reflection on nurse preceptor training courses: The Experiences of Nurse Preceptors and Preceptees. *The Journal of Nursing*, 62(3), 49.-56.
- Davidson, K.M., & Rourke, L. (2012). Surveying the orientation learning needs of clinical nursing instructors. *International Journal of Nursing Education Scholarship*, 9(1), 1-11.

Contact

curie_chao@hotmail.com

RSC PST 3 - Research Poster Session 3

Empathy, Attitude Toward Dementia, and Pain Attitudes in Dementia Patients of Nursing Students in Korea

Mihyun Lee, MSN, RN, Korea, Republic of (South)

Myonghwa Park, PhD, RN, Korea, Republic of (South)

Hyun Jeong, MSN, RN, Korea, Republic of (South)

Younghye Go, MSN, RN, Korea, Democratic People's Republic of (North)

Miri Jeong, MSN, RN, Korea, Democratic People's Republic of (North)

Abstract

Purpose: In Korea, 10% of older adults have dementia, and this percentage is expected to increase very rapidly. Dementia patients are suffering from pain associated with various diseases. Especially, patients with cognitive impairment are difficult to express about pain. Empathy ability correlates with caring for patients with pain, as well as higher sensitivity to pain response. Research on nursing students' attitude toward dementia and pain attitudes in dementia patients is very limited. No studies have examined the associations between empathy and attitude toward dementia and pain attitudes of nursing students.

This cross-sectional quantitative study aimed to assess the attitudes toward dementia and pain attitudes in dementia patients of nursing students in Korea and examine associations between empathy, the attitudes toward dementia and pain attitudes of nursing students.

Methods: A total of 362 nursing students (179 Year 1 and 2 students – no clinical experience and 183 Year 3 and 4 students – clinical experience) completed a questionnaire that included demographic information, the Interpersonal Reactivity Index (IRI), Dementia Attitudes Scale (DAS), and pain attitudes in dementia patients scale. Data analyses included descriptive statistics, correlational analyses, and t-tests.

Results: There were statistically significant differences in attitude toward dementia ($t=-2.854$ $p=.005$) between the Year 1 and 2 students ($M=87.02$, $SD=12.10$) and the Year 3 and 4 students ($M=90.54$, $SD=11.34$). Pain attitudes in dementia patients were significantly lower ($t= -4.50$ $p<.001$) in the Year 1 and 2 students ($M=27.46$, $SD=2.48$) than in that of the Year 3 and 4 students ($M=28.70$, $SD=2.73$). There were no difference in empathy between the two groups. For the Year 1 and 2 students, empathy was positively correlated with attitude toward dementia, but the correlation between empathy and pain attitudes was not statistically significant. For Year 3 and 4 students, empathy, attitude toward dementia and pain attitudes were positively correlated, and the correlations were significant.

Conclusion: The findings from this study suggest that empathy, attitude toward dementia and pain attitudes in dementia patients are the important care provider attributes that can to be enhanced by nursing students' clinical practicum experience.

References

- Bang, H. C., Park, K. C., Kim, M. H., Lee, Y. B., & Roh, H. J. (2013). Characteristics of pain threshold and pain experience in elderly patients with dementia. *Korean Journal of Psychosomatic Medicine*, 21(2), 140-146.
- Burns, M., & McIlfratrick, S. (2015). Nurses' knowledge and attitudes towards pain assessment for people with dementia in a nursing home setting. *International Journal of Palliative Nursing*, 21(10), 479-485.
- Eccleston, C. E., Lea, E. J., McInerney, F., Crisp, E., Marlow, A., & Robinson, A. L. (2015). An investigation of nursing students' knowledge of dementia: a questionnaire study. *Nurse Education Today*, 35(6), 800-805.
- Kim, J. H., & Jeong, H. S. (2013). Influencing factor on the attitudes toward elders among nurses working at geriatric hospitals: focusing on empathy. *The Journal of the Korea Contents Association*, 13(12), 840-850.
- Ryu, Y. S. & Seo, J. M. (2016). Nurses' perceptions of pain management and its performance for patients with dementia. *Global Health & Nursing*, 6(1), 40-50

Contact

miri9912@naver.com

RSC PST 3 - Research Poster Session 3

A Conceptual Framework for Nurse Educationalists and Professional Nurses to Facilitate Professionalism Amongst Learner Nurses

Portia B. Bimray, MCur, RN, South Africa

Abstract

Purpose: To facilitate professionalism amongst undergraduate learner nurses for nursing practice in the Western Cape.

Methods: A qualitative, exploratory, descriptive, contextual research design with a case study approach was used. Focus group discussions and unstructured individual interviews were held with undergraduate learner nurses, nurse educationalists and professional nurses. The data of three cases of the experiences i) learner nurses, ii) nurse educationalists and iii) professional nurses were converged in a cross-case analysis.

Results: Six themes emerged from the cross-case analysis between the three cases that informed the conceptual framework for the facilitation of professionalism amongst undergraduate learner nurses. The findings indicated that i) nurses should demonstrate their professional values during interactions with authorities, fellow colleagues, and patients, ii) interpersonal communication style by nurses with all stakeholders in the external environment should be considered, iii) there is realisation of essential role modelling in different settings, iv) there should be support mechanisms to promote professionalism in learner nurses v) all nurses should be mindful in nursing practice and vi) teaching and learning needs in theory and practice should be recognised for professional development of the new generation and historical heritage of the profession.

Conclusion: The facilitation of professionalism takes place in the academic and clinical learning environment within higher education and nursing practice. Within these contexts, consideration should be given to the diversity in cultural and socio-economic backgrounds, the new generation in the 21st century and the ethical-legal framework within which nursing care is practiced. Furthermore, there is a need for HEI and nursing education to stay abreast of the latest developments in innovation and technology and to ensure the responsible use of social media in nursing practice. Nurse educationalists and professional nurses should use their discretion when engaging with learner nurses on social media such as Facebook and BBM as the professional boundaries between nurse educator and learner nurse should be maintained. Nursing education institutions need to invest in a counselling programme specifically designed for the academic and emotional needs of undergraduate learner nurses. The programme should include a dedicated nurse councillor who will be available on campus to provide the learner nurse with support throughout the four year of the academic undergraduate training programme. There is a need for nurse educators to communicate and collaborate with nurse professionals about the progress of the learner nurse and to ensure that the learning objectives meet the nursing care needs of the health care institution. There is a need for the provision of educational opportunities to accommodate the learning needs of undergraduate learner nurses and those learner nurses from non-degree programmes. Adequate learning resources should be available to provide in the specific learning needs of the learner nurse and that will simulate a real life situation as close as possible to reality in the nursing practice environment. Mindfulness programmes for professional nurses who work under stressful conditions should be implemented in healthcare institutions so that professional nurses are better able to relate to learner nurses when they are calm and demonstrate tolerance for the shortcomings of the learner nurse in stressful work environment. Health care institutions should have structured orientation programmes in place to welcome novice learner nurses to the profession and make known what the expectations are that will facilitate professionalism amongst learner nurses. A structured orientation programme will also allow the learner nurse to feel part of the nursing team and will create a sense of "belonging". There is a need for professional nurses to display the vision, mission and goals of the health care institution and patient care wards that lead to excellence in patient care, visible to all nursing staff. In doing so the learner nurse will be better able to follow the guidelines and policies imperative for nursing practice that will guide them in their behaving professionally. The expected professional values required for professionalism have been

identified and categorised according to the three domains i.e competence domain, connection domain and character domain, of Brown and Ferrill's (2009) taxonomy and include professional capability, interpersonal compatibility and personal reliability.

References

- Brass, E. (2016). How mindfulness can benefit nursing practice. *Nursing Times*. 112(18), 21-23.
- Moll, S., Frolic, A. & Key, B. (2015). Investing in compassion: exploring mindfulness as a strategy to enhance interpersonal relationships in healthcare practice. *Journal of Hospital Administration*. 4(6), 36-45.
- Creswell, J.W. (2014). *Research Design. Qualitative, Quantitative and Mixed methods Approaches*. Fourth Edition. Sage. London
- Mannino, J. & Cotter, E. (2016). Educating nursing students for nursing practice in the 21st Century. *International Archives of Nursing and Health care*, 2(1) 1-4
- Yin, R.K. (2014). *Case Study Research. Design and Methods*, (5th ed.). USA SAGE.

Contact

pbimray@uwc.ac.za

RSC PST 3 - Research Poster Session 3

Adult Field Undergraduate Perceptions of Higher Education Involvement With Their Practice Placement Learning

Gillian Taylor, BSc, DN, RN, PGCert, United Kingdom

Abstract

Purpose: The purpose of this qualitative phenomenological study was to explore the Higher Education Institution (HEI) support adult field undergraduate nurses value whilst learning on practice placement during a three year BN Programme delivered at a Scottish University.

Methods: A small purposive sample (n=6) of final year adult field undergraduate nursing students were recruited. The purposiveness of the sampling technique was necessary to ensure that rich, relevant and current data was collected.

Gender	Male = 0 Female = 6
Age in Years	Range = 20-49 Mean = 31
Previous Undergraduate Study	Yes = 2 No = 4

In an attempt to improve validity of research findings any potential research participants who had been known to the researcher during their programme of study were excluded from participation.

The students were recruited by seeking voluntary responses to posters displayed around the university campus and a verbal presentation about the proposed study, delivered by the researcher, at a final placement learning Preparation for Practice lecture. However, difficulty recruiting research participants meant that the researcher also had to employ a form of convenience sampling with participants identifying fellow students who may consent to participate in the study. Convenience sampling continued to assure compatibility with the underlying phenomenological research methodology.

Unfortunately, no male research participants volunteered to participate in the study.

Individual, face to face voice recorded semi-structured interviews were conducted, lasting about one hour. The six interviews were conducted over a period of two months, between May 2016 and July 2016.

Face to face semi-structured interview schedules were chosen to allow for focus within the research topic whilst permitting the use of open questions with the ability to clarify specific answers and explore areas of interest more extensively.

Digital recording and individual transcription by the researcher was labour intensive but this practice enhanced and intensified the qualitative phenomenological methodology by allowing the researcher to become increasingly familiar with the data

Results: The results suggest that current models of HEI support are too reactive. This study proposes that students are reluctant to be the initiators of HEI support within the placement area and can view this as having potential negative connotations for themselves or future students.

Students view a more proactive approach to HEI support within placement learning as both personalised and supportive.

Students perceive their HEI as having overall responsibility for their learning, even within practice placement. However, adult field undergraduates are unclear about HEI academic role function within practice placement areas.

Adult field undergraduate nurses seek support from the wider clinical team and their peers rather than contacting their HEI for academic and practice placement support.

However, adult field undergraduate nurses value HEI support and re-assurance that their placement learning opportunities are valid and appropriate.

Conclusion: Initiation of HEI Support: It is evident from this small study that whilst students recognise learning contexts which are far from ideal for a variety of reasons they may choose not to initiate HEI support to resolve these issues and that this can have a negative impact for their learning.

Where students choose to initiate support for personal issues they prefer to approach their PDT or an impartial member of HEI staff.

Roles and Responsibilities: There appears to be variance in how the clinical and academic roles responsible for adult field undergraduate learning, teaching and assessment within practice placement are performed.

There may be situations where targeted proactive HEI support and re-assurance with placement learning are required dependent upon age, previous experience and position within the programme.

HEI and professional consideration needs to be given to the selection process for clinical mentors in terms of personal attributes and characteristics as well as current clinical role and potential competing demands.

Timing and Relevance: Adult field undergraduates value academic Preparation for Practice lectures but placement areas are sometimes ill-informed and ill-prepared to organise and provide suitable educational opportunities aligned with academic learning.

Ownership for Learning: All professionals involved with placement learning need to remain cognisant of the importance of the societal and contextual influences for reflexive learning.

Students appreciate their personal responsibility for effective learning but their HEI peers are also influential from an educational and supportive perspective.

Therefore, this small qualitative phenomenological study would propose further research in to targeted proactive models of HEI support for adult field undergraduate nurses during placement learning and further consideration of the who, when, what, where and how of that support.

Further research is also required to assess models of partnership learning and consider how best to allocate students to placement areas thereby maximising different models of Peer Assisted Learning and constructive alignment within the entire academic and clinical curriculum.

The further development and use of technology to enhance communities of learning and prevent feelings of isolation within placement also needs further investigation.

Responsibility for high quality placement learning needs to be a joint relationship between HEIs and service providers but effective communication between both partners requires to be enhanced. This study argues for clarity of role function for all professionals involved. Crucially, as key stakeholders and future registered practitioners, undergraduate adult field nurses need to be consulted and their views utilised to inform future models of HEI support with placement learning.

The findings from this small qualitative phenomenological research study, although not generalizable due to sample size and research methodology, could be considered transferable in terms of their depth, content and the research integrity of the study. The ultimate usefulness of this study lies in the robustness of its execution and resultant trustworthiness of the results.

References

- Forber, J., DiGiacomo, M., Davidson, P., Carter, B., and Jackson, D (2015) The context, influences and challenges for undergraduate nurse clinical education: Continuing the dialogue *Nurse Education Today* 35 1114-1118
- Holland, K., and Lauder, W (2012) A review of evidence for the practice learning environment: Enhancing the context for nursing and midwifery care in Scotland *Nurse Education In Practice* 12 60-64
- MacIntosh, T (2015) The link lecturer role; inconsistent and incongruent realities *Nurse Education Today* 35 e8-e13

Contact

g.taylor@napier.ac.uk

RSC PST 3 - Research Poster Session 3

Interprofessional Simulation in Nursing Education: An Integrative Review

Bette A. Mariani, PhD, RN, RN, USA
Jessica Doolen, PhD, MSN, BSN, ADN, APRN-C, CNE, USA
Christine Pariseault, MSN, RN, CEN, USA
Trisha Leann Horsley, PhD, RN, CHSE, CNE, USA
Jennifer O'Rourke, PhD, RN, APN-BC, FNP-BC, CHSE, USA

Abstract

Purpose: Interprofessional education provides a collaborative approach for providing safe quality care in health care; this requires shared knowledge, skills, and communication. Simulation-based experiential learning is recognized as an effective way to promote interprofessional education teamwork. The purpose of this integrative review was to provide an overview of research topics that have been well studied in interprofessional simulation involving the nursing discipline and which research topics require more investigation. The focus of the review was on qualitative, quantitative, and mixed methods interprofessional research.

Methods: Four research questions guided this systematic review of the literature from January 1, 2010 to July 1, 2016 focusing on interprofessional simulation research in nursing. The four questions were: 1) What research topics are well studied in IPE simulation involving the nursing discipline?; 2) What research topics in IPE simulation involving the nursing discipline require more investigation?; 3) What disciplines has nursing collaborated with in IPE simulation research?; 4) What outcomes have been studied in IPE simulation research involving the nursing discipline? Five researchers searched several databases for research articles that met the inclusion criteria. All articles included the three keywords: simulation, nursing, and interprofessional. Additional terms that were searched with the three keywords were: collaboration, multidisciplinary, collegial, and interprofessional education. The words quantitative and qualitative were also applied to narrow the search to include only research studies. The team explored which disciplines nursing has collaborated with on interprofessional simulation research as well as what outcomes have been studied. The Simulation Research Evaluation Rubric (SRR) was used to evaluate the final articles that met the inclusion/exclusion criteria. The articles were scored based on the SRR.

Results: The systematic search of several databases yielded a total of 1457 articles. These were narrowed down using inclusion and exclusion criteria. The final number of articles included in the review will be discussed. The Simulation Research Rubric was used to score the published research articles. The findings from the review will be reported and answers to the four research questions will be provided.

Conclusion: Implications for this nursing education and practice will be reported, and recommendations for future research will be discussed.

References

Decker, S. I., Anderson, M., Boese, T., Epps, C., McCarthy, J., Motola, I., Palaganas, J., Perry, C., Puga, F., Scolaro, K. & Lioce, L. (2015, June). Standards of best practice: Simulation standard VIII: Simulation-enhanced interprofessional education (sim-IPE), *Clinical Simulation in Nursing*, 11(6), 293-297.

Fey, M. K., Gloe, D., & Mariani, B. (2015). Assessing the quality of simulation-based research articles: A rating rubric. *Clinical Simulation in Nursing*, 11(12), 496-504.

McGaghie, W. C. (2015). Varieties of integrative scholarship: Why rules of evidence, criteria, and standards matter. *Academic Medicine*, 90, 294-302.

Contact

bette.mariani@villanova.edu

RSC PST 3 - Research Poster Session 3

Pediatric Oral Health Interprofessional Clerkship

Judith Haber, PhD, APRN, BC, FAAN, USA
Erin Hartnett, DNP, CPNP, APRN-BC, USA

Abstract

Purpose: The goal of the NYU College of Nursing Teaching Oral-Systemic Health (TOSH) Program Pediatric Oral Health Interprofessional Clerkship is to promote acquisition of the Core Competencies for Interprofessional Collaborative Practice (IPEC, 2011) and the Interprofessional Oral Health Core Clinical Competencies (HRSA, 2014) among future primary care providers by engaging family nurse practitioner (FNP), dental (DDS), and medical (MD) students in an interprofessional oral-systemic health clinical experience. The objectives of the clerkship are for students to (1) apply pediatric oral health assessment (health history, exam, risk assessment, prevention, education and referral), (2) identify the pediatric oral-systemic connection, and (3) practice a team-based approach to improve oral-systemic health outcomes.

Methods: During this interprofessional education experience at Bellevue Pediatric Dental Clinic, teams of NYU FNP, DDS, and MD students, work together with a pediatric dental resident. Team members collaborate in reviewing the patient chart, taking the patient's medical and dental history, performing an oral assessment, applying fluoride varnish, and providing education and anticipatory guidance. The pediatric dental resident then conducts a debriefing session where the team discusses the importance of interprofessional teamwork and communication skills in providing patient-centered care. The Interprofessional Collaborative Competencies Attainment Survey (ICCAS) was selected to evaluate the degree to which students, using a pre-test/post-test approach, report a change in attitude about IP competencies following the IP learning experiences.

Results: All students had an improved mean score from pre-test to post-test after the experience, and these changes were statistically significant for the FNP students ($p < 0.01$) and the medical students ($p < 0.05$). The mean change was not significant for the dental students, the smallest group of students. The mean change from pre-test to post-test for each of the six IP competency domains was statistically significant ($p < 0.01$).

Conclusion: The experience was similarly effective among FNP and medical students in increasing the students' attitudes towards IP collaboration; however, it was less possible to detect differences in pre-test to post-test scores that are not due to chance among the dental students because the number of these students was small. As this IPE experience will be an ongoing component of the NYU nurse practitioner, medical, and dental curricula, the sample size will increase making it more likely to detect an effect that is not due to chance in the dental student sample. Ultimately, the findings suggest that a clinical approach is an effective strategy for influencing the development of IP competencies.

References

- Archibald, D., Trumppower, D., & MacDonald, C. J. (2014). Validation of the interprofessional collaborative competency attainment survey (ICCAS). *Journal of Interprofessional Care*, 1820, 1–6. doi:10.3109/13561820.2014.917407
- Haber, J. (2014). Building a culture of collaboration: Interprofessional education and practice. *Journal of the Academy of Distinguished Educators*, 2(1):12-14.
- Haber, J., Spielman, A., Wolff M., & Shelley, D. (2014). Interprofessional education between dentistry and nursing: The NYU experience. *California Dental Association Journal*, 42(1):44-51.
- Haber, J., Hartnett, E., Allen, K., Hallas, D., Dorsen, C., Lange-Kessler, J., ... Wholihan, D. (2015). Putting the Mouth Back in the Head: HEENT to HEENOT. *American Journal of Public Health*, 105(3), 437–41. <http://doi.org/10.2105/AJPH.2014.302495>

Contact

hartne01@nyu.edu

RSC PST 3 - Research Poster Session 3

Mastery of Core Mental Health Concepts Through Simulation, Clinical Performance, and Interactive Practices

Kim Johnson, MSN, PMHNP-BC, NP-C, RN, USA

Abstract

Purpose: To improve student progression to mastery of core concepts in mental health through simulation, clinical performance, and reflective journaling with Undergraduate Nursing students in their first year of nursing school.

Question: Does simulation, clinical performance, group projects, and other interactive learning improve students' progression to mastery of core concepts in mental health with first year undergraduate nursing students?

A Pilot project was designed for implementation for 2 consecutive semesters:

Problem: Undergraduate nursing students will play pivotal therapeutic roles in the care of patients suffering from mental illness. Their recognition of presenting symptoms and use of evidenced-based treatment to support optimal levels of functioning emphasize the need for best practices in preparing future BSN nurse advocates. Patients suffering from mental illness are represented in an array of clinical settings, thus undergraduate students need to develop competence, compassion, and judicial understanding of presenting symptoms. Moreover, core concepts linked to relatedness, vulnerability, and integrity are difficult to master from a lecture based teaching format. Educators must employ a variety of teaching methods to assess and evaluate students' competency of these core concepts.

Theoretical Framework: Constructivism provides a basis of learning by immersing students in collaborative projects to teach essential core concepts (Alt, 2015). We will use interactive based learning to improve student understanding of mental illness concepts. To provide each student with the opportunity to assimilate concepts into practice, we will assign interactive assignments that promote adaptive learning. To determine whether students have developed understanding of core concepts and can apply their learning to practice, we will employ an efficacy survey and collect self-reflective journaling. Percentages of perceived value will be aggregated to determine learning experience impact.

Methods: Students enrolled in the NURS 3111 course will be introduced to core concepts through reading materials, lecture, and presentations. Students will have the opportunity to demonstrate understanding of the concepts in a simulation day offered once a semester, weekly clinical performances, on 4 unit exams and a final exam in the course. Students will be evaluated during clinical performance over a 10-week course during weekly debriefings and will submit weekly self-reflective journals. At the end of the 15-week semester, students will complete an efficacy survey which will measure their perceived knowledge, their commitment to use the new skills in practice, and their opinion of the value of the assignment. Written comments regarding student's perceived learning both valued and non-valued comments will be evaluated.

Results: Findings will be presented based on student's scale of efficacy and self-reflective journaling. I will provide an overview of current research regarding various learning experiences used to teach mental health concepts. I will share aggregated comments of undergraduate BSN nursing students who have participated in the identified interactive and their perceived comprehension of mental health concepts.

Conclusion: Improved student progression of the mastery of core concepts in mental health through simulation, clinical performance, and reflective journaling with Undergraduate Nursing students in their first year of nursing school improves their compassion and ability to provide care to mentally ill clients in clinical scenarios.

References

Alt, D. (2015). Assessing the contribution of a constructivist learning environment to academic self-efficacy in higher education. *Learning Environments Research*, 18(1), 47-67.

Brown, G. A., Bull, J., & Pendlebury, M. (2013). *Assessing student learning in higher education*. Routledge.

Contact

kim.johnson2@mga.edu

RSC PST 3 - Research Poster Session 3

Does a Study Aboard Program Encourage Nursing Students to Embrace Cross Cultural Experiences?

Abigail Mitchell, DHEd, MSN, RN, CNE, FHERDSA, USA
Connie Jozwiak-Shields, PhD, MSN, ANP-BC, APRN, USA

Abstract

Purpose: Today's generation of students has challenged nursing faculty to develop creative strategies and innovative methods to encourage students to experience study abroad. High School and College students in the United States have studied abroad for decades, however nursing students are often left out of these experiences due to the curriculum design and required clinical hours. The practice of studying abroad for professional development is not new and has been undertaken by scholars since medieval times, however it is a relatively new endeavor in nursing education (Edmonds, 2010). Research has shown that cultural knowledge in nursing is extremely important and the lack of it may cause deficits in practice as a result and nurses may have ethnocentric and stereotyped attitudes towards patients (Papadopoulos 2006, Takeno 2010). Globalization was first used by economists in 1981 and it refers to the development of increasingly integrated global economy, especially in trade, free flow of capital and the cheaper labor market. In nursing the globalization process has generated a need for cultural competence as nurses are required to manage multicultural patients in practice. Nursing education plays a large role in preparing students for their competent cultural care. One of the primary aims of study abroad programs is to enable student nurses to develop cultural sensitivity so that they may practice appropriately for an increasingly multicultural patient population in their own countries (Karina Martins de Oliveria & Tuohy, 2015). Madeleine Leininger is considered the founder of the theory of transcultural nursing or as known as culture of care theory. Culture is learned by each generation through both formal and informal life experiences (Leininger, 1991). Leininger guided this research study.

Methods: The purpose of this study is twofold. First the researchers will perform a systematic literature review and secondly a quantitative study will be completed. This will be accomplished by study abroad nursing students completing a 15-question survey based on their experiences. The goal of this experience is professional growth with the incorporation of new knowledge into the students' own practice, enabling them to be more culturally aware and thus provide culturally competent care (Smith & Curry, 2011). The two nursing professors incorporated study abroad opportunities linked to three courses offered in the spring 2017 semester. The courses included: Transcultural nursing for undergraduates, Adult Primary Care, and Health promotion for graduate/DNP students. This experience will take place over spring break so students will not lose time at clinical and/or class time.

Results: Are pending as the study is progress

Conclusion: Are pending

References

- Carpenter, L. J., & Garcia, A. A. (2012, March/April). Assessing Outcomes of a Study Aboard Course for Nursing Students. *Nursing Education Research*, 9(1), 7th ser., 85-89.
- Kokko, R. (2011). Future Nurses cultural competencies: What are their learning experiences during exchange and study abroad? A systematic literature review. *Journal of Nursing Management*, 19, 673-682.

Contact

mitchela@dyc.edu

RSC PST 3 - Research Poster Session 3

Research on the Effectiveness of the Nurse Staffs Training Program

Lee-Pin Wu, PhD, RN, Taiwan

Abstract

Purpose: The purpose of this study was to assess the efficacy of a modified on-board training program for new nurses with an emphasis on the mentorship program that implemented a training-for-trainers program to cultivate both skills and attitudes of clinical preceptors for the purpose of strengthening the preceptors' teaching ability and achieving better trainees' performance outcomes.

Methods: This study used a quasi-experimental design. During the first phase of the study, we modified the content of the on-board training program for new nurses which included the production of nursing skills video tapes and designed the mentorship program which included lectures, group discussion, and practice sessions. During the second phase of the study, 115 new nurses were divided into an experimental group (n = 50) and a control group (n = 65). The nurses in the experimental group learned the techniques and skills in the first month, practiced under supervision of their preceptors in the second month, practiced independently during the third month, and completed their clinical skills assessment at the end of the first 6 months. The control group received usual training program. Both groups were evaluated at the completion of the 3-month trial period for their satisfaction with clinical teaching and perceived learning outcomes.

Results: We completed mini nursing clinical assessment exercises (mini-CEX) for administration of analgesics and catheterization, nursing skills to operate observation (DOPS) evaluation forms for blood transfusion and phlebotomy. The Cronbach's Alpha values for each scorecard exceeded 0.9. The results showed that the retention rate of the experimental group was significantly higher in the experimental group than the control group; the retention rate increased by 10% compared with the previous year after the implementation of the new training program.

Conclusion: We also found the new nurses in the experimental group had higher levels of satisfaction with clinical teaching than those in the control group which could possibly explained the higher retention rate in the experimental group. The level of education of the preceptors also affect new nurses' learning outcomes. In light of ever-changing clinical environments, it is important to optimize on-board training programs for new nurses to help them mature from novices to experts.

References

- Edwards, D., Hawker, C., Carrier, J., & Rees, C. (2015). A systematic review of the effectiveness of strategies and interventions to improve the transition from students to newly qualified nurse. *International Journal of Nursing Studies*, 52, 1254-1268.
- Huybrecht, S., Loeckx, W., Quaeyhaegens, Y., De Tobel, D., & Mistiaen, W. (2011). Mentoring in nursing education: Perceived characteristics of mentors and the consequences of mentorship. *Nurse Education Today*, 31, 274-278.
- Maran-Marks, D., Ooms, A., Tapping, J., Muir, J., Phillips, S., & Burke, L. (2013). A preceptorship programme for newly qualified nurses: A study of preceptees' perceptions. *Nurse Education Today*, 33, 1428-1434.
- Muir, J., Ooms, A., Tapping, J., Maran-Marks, D., Phillips, S., & Burke, L. (2013). Preceptors' perceptions of a preceptorship programme for newly qualified nurses. *Nurse Education Today*, 33, 633-638.
- Whitehead, B., Owen, P., Holmes, D., Beddingham, E., Simmons, M., Henshaw, L., Barton, M., & Walker, C. (2013). Supporting newly qualified nurses in the UK: systematic literature review. *Nurse Education Today*, 33, 370-377.

Contact

pin@w.tmu.edu.tw

Invited Posters

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

The Effects of an Uncompleted Suicide Attempt: A Parent's Perspective

Kendal Klein, BSN, RN, USA

Abstract

The purpose of this study is to examine the needs of parents after their adolescent child makes a non-lethal suicide attempt. Suicide, the intentional act to end one's own life, is the third leading cause of death in adolescents, after accidents and homicides. Although quite uncommon in children, the frequency of suicide drastically increases during adolescence. This is a serious issue. There are numerous risk factors that increase the risk for adolescent suicide. These factors include possessing a psychiatric illness, lack of coping skills, emotional turmoil, a distorted view of life, a previous suicide attempt, substance abuse, family factors, and more. One of the biggest problems surrounding suicide is that it is often considered a forbidden topic of discussion. Suicide is a touchy subject to communicate. Many individuals avoid bringing up the topic of suicide all-together, giving researchers a major obstacle. After a child's non-successful suicide attempt, parents have many needs. Parents need to be able to effectively communicate these needs to a qualified professional. For example, these parents may live in fear that their child may make another attempt in the future.

The goal of this study is to obtain information on what issues are of most concern to parents after their child's suicide attempt. Although there has been a lot of research about suicide and its underlying psychological problems, little research has been done on the needs of parents. Before this study was put into action, a pilot study was conducted. During the pilot study, the perspective of this topic was sought from mental health professionals in rural and suburban areas. Mental health professionals were asked to complete two rounds of survey questions. These questions targeted what is most important to parents following their child's non-lethal suicide attempt as well as their needs. The pilot study revealed that the most important goal that all mental health experts agreed that is most important to parents after their child's non-lethal suicide attempt is keeping them safe. The pilot study consisted of both qualitative and quantitative data and was obtained by primary sources (mental health professionals). Our future research involves dispersing similar survey questions out to actual parents of those adolescents who made a non-lethal suicide attempt. Before these questions were dispersed to parents, they were evaluated by two mental health experts who work with adolescents who have attempted suicide. Once these experts validate these questions, 5 potential parents will be chosen to answer them during a scheduled home visit. This survey is delivered on paper after informed consent is obtained from the parents. This is just another step in the pilot study. The qualitative data gathered in the study are the parent's answers to open-ended survey questions. By studying the feelings and circumstances of parents, we could shed a light on suicide. The importance of this study is that it could assist in obtaining useful information that will, ultimately, help prevent youth suicide from occurring.

References

- Apter, A., Beautrais, A., Bertolote, J., Currier, D., Haas, A., Hendin, H., . . . Yip, P. (2005). Suicide prevention strategies a systematic review. *Clinicians Corner*, 294(16), 2064-2074.
- Barlow, C.A., & Coleman, H. (2003). The healing alliance: How families use social support after a suicide. *Omega: Journal of Death and Dying*, 47, 187-202.
- Brent, D. A., Bridge J. A., Goldstein, T. R. (2006). Adolescent suicide and suicidal behavior. *Journal of Child Psychology & Psychiatry*, 47(3/4), 372-394.
- Buus, N., Caspersen, J., Hansen, R. Stenager, E. & Fleischer, E. (2014). Experiences of parents whose sons or daughters had (had) attempted suicide. *Journal of Advanced Nursing* 70(4): 823-32.
- Cerel, J., Jordan, J., Duberstein, P. (2008) The impact of suicide on the family. *Hogrefe and Huber Publications*, 29(1), 38-44.
- Comer, R.J. (2014). *Fundamentals of Abnormal Psychology* (7th edition). Worth Publishers: New York, NY.
- Common myths about mental illness. (2010). Retrieved from http://www.mentalhealth.wa.gov.au/mental_illness_and_health/Myths_mental_illness.aspx.

Dilillo, D., Mauri, S., Mantegazza, C., Fabiano, V., Mameli, C., & Zuccotti, G. V. (2015). Suicide in pediatrics: epidemiology, risk factors, warning signs and the role of the pediatrician in detecting them. *Italian Journal Of Pediatrics*, 41(1), 1-8.

Eckert, T., Mazza, J., Miller, D. (2009). Suicide prevention programs in the schools: A review and public health perspective. *School Psychology Review*, 38(2), 168-188.

Fowler, S. B, Sweeney, J. B. (1996). Challenges in patient and family care following an unsuccessful suicide attempt. *The Journal of Neuroscience Nursing*, 28(4).

Franklin, J., Glenn, C. R., Nock, M. K. (2015). Evidence-based psychosocial treatments for self- injurious thoughts and behaviors in youth. *Journal of Clinical Child & Adolescent Psychology*, 44(1), 1-29.

Hawton, K., O'Connor, R. C., Saunders, K. E. (2012.) Self-harm and suicide in adolescents. *The Lancet*, 379(9834), 23-29.

Lindqvist. Per., Johansson. Lars., Karlsson, Urban.(2008) In the aftermath of teenage suicide: A qualitative study of the psychosocial consequences for the surviving family members. *BMC Psychiatry*.(8)26.

Murphy, K. (2005). What can you do to prevent teen suicide? *Nursing*, 35(12), 43-45.

Shain, B. (2016). Suicide and suicide attempts in adolescents. *American Academy of Pediatrics*, 138(1).

Powell, S. (2015). Dispelling myths on mental illness. *National Alliance on Mental Illness*. Retrieved from <http://www.nami.org/Blogs/NAMI-Blog/July-2015/Dispelling-Myths-on-Mental-Illness>

Stigma. (n.d.). Retrieved November 3, 2016, from <http://www.merriam-webster.com/dictionary/stigma>

Torraville, M. A. (2000). Adolescent suicidal behaviours: A phenomenological study of mothers' experiences. School of Nursing, Memorial University of Newfoundland, St. John's.

Wagner, B., Aiken, C., Mullaley, P., & Tobin, J. (2000). Parents reactions to adolescents' suicide attempts. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 429- 436.

Zhang, J., Tong, Hui Qi., Zhou. Li. (2005) The effect of bereavement due to suicide on survivors depression: a study of Chinese samples. Retrieved from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2931588/>

Contact

ktk294@gmail.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Psychological and Psychosocial Deficits Among Pediatric Survivors of Hematological Neoplasms and Their Risk Factors

Elizabeth J. Ross, BS, N/A, USA

Joseph D. Tariman, PhD, PhD, RN, ANP-BC, FAAN, USA

Jessica Bishop-Royse, PhD, N/A, USA

Abstract

Background: Pediatric cancer patients are surviving cancer and living long, relatively healthy lives due to advances in pediatric cancer therapeutics. Even with modern medical research and technology, pediatric cancer is still the leading cause of death for children and adolescents in the United States. Based on statistics from the American Cancer Society (ACS), hematological cancers, such as leukemia and lymphoma, are the leading type of non-solid malignancies in children (ACS, 2016). For decades pediatric cancer survival rates have steadily increased with an overall cure rate of over 75%.

While it is great that the survivor rate has and is steadily increasing year after year the intense curative therapy that is given to produce the high rates of survivorship can cause long-term effects on the body including psychological and psychosocial deficits. Based on the juvenile knowledge gained from previous studies, it is understood that some, but not all children with hematological malignancies develop late effect psychological and psychosocial deficits but it is unclear the exact cause of the deficits and the extent that those deficits may have on a survivor's life.

Search Process: DePaul WorldCat Local, PubMed, and CINAHL Complete databases search was performed. The following Medical Subject Heading (MeSH) terms and search details were used and the Boolean operator AND was utilized to get a highly relevant search yield: psychosocial adjustment AND hematologic neoplasms. CINAHL Complete search was completed using the following search terms: psychological AND survivor AND blood cancer. The search yielded 31 and 22 articles for PubMed and CINAHL Complete, respectively. DePaul WorldCat Local search was performed using the following search details: psychological deficit and cancer survivor and hematology. It yielded 179 articles. All abstracts were reviewed one by one independently by two researchers. Articles were included in the final analysis if they reported on psychological or social deficits and the patient population includes pediatrics, adolescents or young adults 21 years of age or below when diagnosed with a blood cancer. Year limit was between 1990 and 2016, and articles that focused on cognitive issues were excluded. Articles that reported psychological deficits in adults aged 21 years and older were also excluded. The final 34 articles used in this integrative literature review (ILR) were categorized by level of evidence according to Melnyk and Fineout-Overholt's hierarchy of evidence (2011) to appraise the strength of evidence for reported psychological and psychosocial deficit and their risk factors. Whitemore and Knafelz (2005) updated ILR methodology was strictly followed during the conduct of this review.

Results: A total of 34 papers with 17812 pediatric hematological cancer survivors who exhibits psychological and social deficits were incorporated in our ILR review. The weighted median age at diagnosis was 8.95 years. Of these 34 articles, 5 articles whose ages could not be used (due to being an open age range) and 2 are literature reviews, were also excluded for the median age calculation to avoid duplication. The mean follow-up time was not calculated at this time due to too many missing data from published papers. Data were analyzed using SPSS version 21. Incidences of depression (58.8%), Anxiety (44.1 %), Mood problems (32.3), Poor psycho-social domains in global QOL measure (32.2%), Social problems (26.4%), Attention problems (20.5%) Behavior problems (14.7%), Post-traumatic stress syndrome (11.7%), Conduct problems (11.7%), Risky behaviors (8.7%) were higher among pediatric hematological cancer survivors than in the normal population or matched controls. A comprehensive list of these deficits can be found in Table 1. The top risk factors found to be statistically correlated to psychological and social deficits among pediatric hematological cancer survivors include high intensity chemotherapy, total body radiation, cranial radiation, being a female, being younger in age, dysfunctional

family, and stem cell transplantation. Table 2 outlines all risk factors reported in the literature. Beck depression inventory and SF-36 were the most common measures used to identify psychological and social deficits.

Table 3 presents the strength of evidence for the reported psychological and social deficits is strong based on Melnyk-Fineout-Overholt's hierarchy of evidence (2001). Fifty two point nine percent (N=18 studies) of the studies were conducted using RCT, matched case control, siblings as control or population control study design. The remaining 47% percent of the studies (N=16) included single descriptive or qualitative studied. This study underscores the importance of developing effective interventions that address the psychological and social deficits among pediatric hematological cancer survivors.

References

- American Cancer Society. (2016). Cancer in children. Retrieved October 12, 2016, from <http://www.cancer.org/cancer/cancerinchildren/>
- Kalafatçılar, A. I., Tüfekçi, Ö, Ören, H., Hız, S., Gülerüz, H., Akay, A., Irken, G. (2013). Assessment of neuropsychological late effects in survivors of childhood leukemia. *Pediatric Hematology and Oncology*, 31(2), 181-193. doi:10.3109/08880018.2013.803212
- Melnyk, B.M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice* (2nd ed., p. 13). Philadelphia, PA: Lippincott Williams and Wilkins.

Contact

ejeanross1@gmail.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Combating Childhood Obesity With Provider Education: A Quantitative Study

Trina Larery, DNP, MSN, RN, FNP-C, USA

Abstract

The study included an educational program to providers and nurse practitioner students in order to evaluate whether an increase in knowledge and accuracy occurred based on knowledge of evidenced-based responses to specific indicators of childhood overweight and obesity. It assessed the providers' knowledge and sought to evaluate if increased knowledge occurred after an educational program presentation. Following the educational program, a follow-up survey was distributed via email to assess the providers self-reported perceived practice change six weeks after the education. Part one measured if an increase in knowledge of the 5210 components, correct laboratory testing, and assessment of comorbidities occurred. The 5210 components include recommendations on activity, screen time, sugary drinks, and diet from the American Academy of Pediatrics (AAP) and the Institute for Clinical Systems Improvement (ICSI). Improved accuracy in applying diagnostic criteria based on current evidenced-based practice guidelines in childhood obesity after the educational session was also evaluated. The second part of the study evaluated if a self-reported perceived practice change occurred six weeks post education.

The target population was recruited from the 4-State APN (advanced practice nurse) conference in March 2016. A pretest was given to participants followed by a power point presentation and concluded with a posttest. Once the surveys were complete, a question and answer period followed. A t-test was conducted on the pretest and posttest results. A six week follow-up study was performed utilizing comparative analysis following the education. The follow-up surveys were distributed via email. The study concluded with statistical significance ($p < 0.05$) that the education provided increased providers' knowledge of current evidenced-based practice guidelines in childhood obesity. All participants ($n=41$) had an increase in posttest scores after the education was provided. Results from part two of the study indicated an increase in usage of the 5210 guideline components with patient education and an increase in comorbidity assessment. Current practice revealed low use and documentation of BMI, even though studies have established that the use of an accurate diagnosis of obesity is one of the highest indicators of treatment. Providers that participate in obesity related continuing education (CE) were found to be more familiar with the recommendations and have better adherence to current evidence-based practice guidelines. The findings of the study indicate that many providers are not aware of the current clinical practice guidelines in childhood obesity. Although information is readily available, providers must continuously update their knowledge to improve care for overweight and obese children. This study validates the need for continued educational programs for providers in childhood obesity.

References

- Cunningham, S., Kramer, M., & Narayan, K. (2014, January 30). Incidence of childhood obesity in the United States. *The New England Journal of Medicine*, 370, 403-408. <http://dx.doi.org/10.1056/NEJMoa1309753>
- Cygan, H., Baldwin, K., Chehab, L. G., Rodriguez, N., & Zenk, S. (2014). Six to success: Improving primary care management of pediatric overweight and obesity. *Journal of Pediatric Health*, 28(5), 429-437. Retrieved from [http://www.jpeds.org/article/S0891-5245\(14\)00069-8/pdf](http://www.jpeds.org/article/S0891-5245(14)00069-8/pdf)
- Rankin, A., Chlebowy, D. O., Vorderstrasse, A., & Blood-Siegfried, J. (2015). Implementation of childhood obesity identification and prevention strategies in primary care: A quality improvement project. *International Journal of Pediatrics and Adolescent Medicine*. <http://dx.doi.org/10.1016/j.ijpam.2015.05.002>

Contact

tlarery@pittstate.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Development and Testing of Cancer Treatment Shared Decision-Making Scale for Nurses (SDMS-N)

Pamela L. Katz, BA, NA, USA

Joseph D. Tariman, PhD, PhD, RN, ANP-BC, FAAN, USA

Lisa Hartle, MSN, MS, RN, AOCN, APN, USA

Katharine Szubski, BSN, RN, USA

Abstract

Background: Shared decision-making (SDM) has emerged as the preferred model for decision-making in treatment decisions for cancer patients. Patient outcomes are maximized when this model is used since the patient is more engaged and empowered to be a part of their care. Yet, there are many barriers to participation in SDM that must be overcome from the patient, practitioner, and structural perspectives. Oncology nurses are crucial in the SDM process and tend to have a higher level of involvement relative to their counterparts in other specialties. However, many of these nurses do not feel competent or comfortable participating in SDM due to a variety of reasons such as level of training (or lack thereof), differences in communication skills and styles, and organizational environmental challenges. It is important to find a way to accurately measure nurses' competency in SDM since they are the ones spending the lion's share of time with patients and need to have an active role in the decision-making process.

Theoretical Framework: The framework for SDM has evolved over the years to encompass a greater circle of participants in the model. No longer is it just the dyad of patient and practitioner, but rather it now includes individuals such as family members, nurses, and other clinicians (e.g., occupational and physical therapists, specialists). The framework was updated to reflect current practice and reflects a dynamic process with detailed steps involved with SDM that can impact day-to-day practice (Charles, Gafni, & Whelan, 1999).

Methods: This study will utilize a descriptive online survey and the SDMS-N tool will be sent to oncology nurses who are part of the Chicago Chapter of the Oncology Nursing Society. The survey will measure 23 key variables within three domains of nursing practice: knowledge, attitudes, and skills. Thus, a convenience sample of 240 nurses will be recruited to participate to account for the minimum 10 subjects per variable and any missing responses (Kellar & Kelvin, 2012). The data will be measured with a 5-point Likert scale for each subset of questions (1 Strongly disagree to 5 Strongly agree). Participation will occur both online and in-person.

Content Validity: Six oncology nurses with content expertise have initially validated the SDMS-N scale. Each of the three subscales was graded using a 10-point Likert scale (see chart below) with higher scores representing positive measures for each category.

Expert Panel's Initial Content Validity According to Different Domains				
Domain	Clarity	Relevancy	Simplicity	Consistency
Knowledge	87.70	94.37	88.95	93.33
Attitudes	90.83	96.87	93.12	96.45
Skills	91.00	97.33	91.33	96.00

Recruitment: Recruitment of study participants will immediately begin after obtaining the DePaul IRB approval to conduct the study. We anticipate that IRB approval will be obtained no later than the end of December 2016.

Analysis: Sociodemographic data will be entered into SPSS version 19 (SPSS Inc., 2010). Descriptive statistics will be used to examine study participants' characteristics. Reliability of the online survey tool will

be tested using the results from SDMS-N Scale. The overall SDMS-N tool and its subscales will be deemed reliable in measuring the knowledge, attitudes, and skills of oncology nurses on SDM if the Cronbach's alpha = 0.7 or higher (Devellis, 2017). Additionally, exploratory factor analysis will be performed to analyze the 23 variables in SDMS-N to see if there are identifiable groups of variables that are statistically related and make conceptual sense to group together. The exploratory analytic procedure will reduce the 23 variables of SDMS-N and test whether the groupings of variables under the subscales of knowledge, attitudes, and skills will theoretically hold together. Exploratory factor analysis is widely applied to both the development of scales and to the development of theory (Kellar & Kelvin, 2012).

Results: The study will be conducted over the course of the next three to six months from January to March 2017 and it is estimated that results will be completed by mid-year 2017. The goal is to better understand nurses' understanding of SDM and their role in the process, as well as the barriers to their involvement, so as to better understand how to increase participation in SDM. Ideally, it will help identify actions that can be taken from an educational training perspective to achieve this goal. Final results will be reported at the STTI International Research Conference in Dublin, Ireland in July 2017.

References

- Kellar, S. P., & Kelvin, E.A. (2012). Exploratory factor analysis. *Munro's statistical methods for health care research* (6th ed.). Philadelphia, PA: Wolters Kluwer.
- Staveley, I., & Sullivan, P. (2015). We need more guidance on shared decision making. *British Journal of General Practice*, 65(641), 663-664. doi: 65/641/663 [pii]10.3399/bjgp15X688045
- Tariman, J. D., Mehmeti, E., Spawn, N., McCarter, S. P., Bishop-Royse, J., Garcia, I., et al. (2016). Oncology nursing and shared decision making for cancer treatment. *Clinical Journal of Oncology Nursing*, 20(5), 560-563. doi: 10.1188/16.CJON.560-563

Contact

pamkatz821@gmail.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Harm Reduction in Nursing Practice: Compassionate Care for Persons With Addiction

Audrey Catherine Killarney, BS, N/A, USA
Michelle Esther Neuman, MSN, RN, PPCNP-BC, USA

Abstract

Substance abuse and overdose deaths are increasing at profound rates in the United States. Nurses and clinicians must evaluate their response to this growing epidemic. Harm Reduction is an alternative therapy for rehabilitation and was traditionally used in tobacco cessation, and to control the spread of HIV and HCV. The concept of harm reduction can be described as accepting the possibility that individuals will abuse harmful substances, and the goal of treatment is to reduce the harm associated with the addictive behavior; ultimately, this treatment nurtures a non-judgmental environment that facilitates a therapeutic nurse-patient relationship. Much of the literature regarding harm reduction in nursing is isolated to Canada and parts of Europe. However, the 6-fold increase in heroin overdose deaths in the United States from 2001-2013, has prompted lawmakers, parents, and clinicians to explore alternatives to standard rehabilitation practices (National Institute on Drug Abuse, 2015).

This integrative literature review sought to explore current uses of harm reduction, evaluate their efficacy, and examine harm reduction for inclusion into nursing practice in the United States. The following nursing databases were utilized for provision of literature: CINAHL complete and PubMed. Databases were searched using the following terms and Boolean phrases: “harm reduction & nurs*,” and “harm reduction & addiction,”. Articles were chosen if the language was in English, published within the last 10 years (2006-2016), published in an academic peer-reviewed journal, and were primary sources. Of the 99 articles retrieved, 10 will be analyzed in the integrative literature review. The remaining 89 articles were excluded due to the following parameters: duplicate article, application of harm reduction to alternate health disparities (fall prevention, smoking cessation, or cardiovascular disease), no clear relationship to nursing practice, or a position piece.

Results of the literature review yielded 6 studies identifying current uses of harm reduction, and 4 studies focusing on clinician perspectives about providing harm reduction therapy. Selected literature was rated using the Melnyk Fineout-Overholt Hierarchy of Evidence (2011) (Appendix A). Analysis of the literature regarding clinician perspectives revealed common themes such as: harm reduction as a bridge to abstinence; harm reduction’s ability to address the patient as a holistic being; and harm reduction as honoring a patient’s autonomy. A research matrix was created to holistically analyze and categorize the body of selected literature. Studies regarding current use of harm reduction found positive results in patients’ self-reported advocacy, self-esteem, and ability to navigate social services. Patients also experienced a decrease in problems associated with drug and alcohol use, as well as a decrease in money spent on drugs or alcohol. In addition to the evidence-based successes, the ethical components of harm reduction align with much of the nursing code of ethics. Patient autonomy, and trust in a patient’s ability to make health related decisions, is one of the key tenants of Pender’s Health Promotion Model; both perceived self-efficacy and perceived barriers to action greatly influence a patient’s commitment to action, and ultimately the adoption of a health promoting behavior (Alligood, 2013). While it is unlikely that stand-alone facilities modeled under harm reduction will be created in the United States, there are elements of harm reduction that can be readily integrated, and may be unknowingly permeating, current nursing practice.

Appendix A.

<i>Melnky Fineout-Overholt Heirarchy of Evidence Rating</i>	<i>Frequency</i>	<i>Cumulative Percentage</i>
Level 1: Systematic review & meta-analysis of randomized control trials (RCT) or evidence-based clinical practice guidelines	1	10%

Level 4: Case control & cohort studies	3	40%
Level 6: Single descriptive or qualitative study	4	80%
Level 7: Expert opinion	2	100%
Totals	10	100%

References

Alligood, M. R. (2013). Nursing Theorists and Their Work. St. Louis, MO: Elsevier.

Melnyk, B.M., & Fineout-Overholt, E. (2011). Evidence-based practice in nursing and healthcare: A guide to best practice (2nd ed., p. 13). Philadelphia, PA: Lippincott Williams and Wilkins.

National Institute on Drug Abuse. (2015). Trends and Statistics. Retrieved from <https://www.drugabuse.gov/related-topics/trends-statistics>

Contact

akillarney@gmail.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Common Adverse Effects of Novel Therapies for Multiple Myeloma (MM) and Their Self-Management Strategies

Anndria D. Cluster, BS, RN, USA

Joseph D. Tariman, PhD, PhD, RN, ANP-BC, FAAN, USA

Abstract

Background: Myeloma is a chronic B cells malignancy that affects differentiated plasma cells resulting to multiple organ damage (Dowling, Kelly, & Meenaghan, 2016). Over the past decade, there has been a surge of novel therapies to treat MM. This surge began with the introduction of intravenous proteasome inhibitor (PI), bortezomib in 2003, and has come as far as the introduction of the first oral PI, ixazomib (Moreau et al., 2016). This integrative literature review aims to describe the common adverse effects that patients may experience through treatment using the novel therapies. A secondary goal of the review is to appraise the strength of evidence of self-management strategies that have been reported to ameliorate these adverse effects. It is of utmost importance that nurses provide evidence-based patient education on self-management strategies in order to maintain and promote a good quality of life.

Theoretical framework: Orem's self care deficit theory (Orem, 1959) was utilized as the guiding framework for this integrative review given that the nurse will often be the one to provide care when a patient has a deficit in ability or knowledge. It is necessary, according to Orem, that the nurse not only provides care but also gives education to the patients on how to manage their disease state on their own.

Search Process: PubMed and CINAHL Complete databases search was performed. The following Medical Subject Heading (MeSH) terms and search details were used and the Boolean operator AND was utilized to get a highly relevant search yield: *Multiple Myeloma (MM) AND novel therapy AND adverse effects AND management*. CINAHL Complete search was completed using the following search terms: *Multiple Myeloma AND adverse effects AND management*. The search yielded 66 and 101 articles for PubMed and CINAHL Complete, respectively. Articles were included in the final analysis if they focused on MM, novel therapies, and reported adverse effects and self-management strategies. Year limit was between 2003 and 2016, and articles that focused on adverse effects of supportive therapies such as bisphosphonates or growth factors were excluded. Four articles were located utilizing the ancestry method, allowing the location of the most relevant literature. The final 36 articles used were categorized by level of evidence according to Melnyk and Fineout-Overholt's hierarchy of evidence (2011) to appraise the strength of evidence for reported self-management strategies.

Results: This integrative review included 36 articles that revealed novel treatment regimens utilized to treat MM have resulted in several common adverse effects reported by the patients. They include peripheral neuropathy, GI adverse effects (e.g., nausea, vomiting, constipation, and diarrhea), steroid-related adverse effects (e.g., mood alterations, insomnia, heartburn, and hiccups), sedation, thrombocytopenia, thromboembolism, anemia, neutropenia, myelosuppression, cutaneous rash, fatigue, infusion drug reactions, renal and cardiopulmonary complications, which are listed in Table 1.

There are many self-management strategies that correspond to the specific adverse events listed in Table 1. The majority (N=32 articles out of 34) of the self-management strategies reported to ameliorate the common adverse effects is based on single descriptive studies, review papers, or expert opinions in the form of a consensus statement from myeloma specialists, which are in the lowest levels in the hierarchy of evidence at Level 6 and 7, respectively. The use of aspirin, warfarin, and enoxaparin for VTE prophylaxis is the only strategy supported by level 2 evidence based on data from more than one randomized controlled trials. The use of antiemetic drugs, anti-diarrheal, laxative, blood transfusions, Erythrocyte Stimulating Agents, antibiotics, anti-virals, treatment dose adjustments and dose delays, monitoring and immediate reporting of adverse events such as peripheral neuropathy to health care team

are frequently used self-management strategies. Randomized controlled trials (RCTs) are lacking in the area of interventions for self-management strategies.

The findings from this ILR underscore the need for nursing interventions designed to prevent and treat adverse effects of novel therapies. These interventions need rigorous testing in the bedside. Providing an individualized evidence-based patient education to patients based on the treatment protocol is a vital component of providing care to those affected by MM. While the medications to treat MM have been revolutionized, treatment can only be considered successful if the patients undergoing the therapy are able to manage adverse effects successfully and continue to maintain and promote their own quality of life.

References

- Dowling, M., Kelly, M., & Meenaghan, T. (2016). Multiple myeloma: Managing a complex blood cancer. *British Journal of Nursing, 25*(16). doi:10.12968/bjon.2016.25.s18
- Melnyk, B.M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice* (2nd ed., p. 13). Philadelphia, PA: Lippincott Williams and Wilkins.
- Moreau, P., Masszi, T., Grzasko, N., Bahlis, N. J., Hansson, M., Pour, L., . . . Richardson, P. G. (2016, April 28). Oral Ixazomib, Lenalidomide, and Dexamethasone for Multiple Myeloma. *New England Journal of Medicine, 374*(17), 1621-1634. doi:10.1056/nejmoa1516282
- Orem, D. (1959). *Guides for developing curriculum for the education of practical nurses*. Washington, DC: U.S. Government Printing Office.
- Whittemore R., & Knaf, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing, 52*(5), 546–553.

Contact

andiclustergmail.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Exploring Staff Nurses' Perceptions of Specialty Certification at a Large Urban Academic Medical Center

Jennifer J. Clair, MS, RN, CNS-BC, USA

Abstract

Background: The Institute of Medicine's study on medical errors, *To Err is Human: Building a Safer Health System*, recommends that health professions implement periodic reexaminations and relicensing of providers (Institute of Medicine, 2000). While Registered Nurse (RN) licensure provides entry-level competence, specialty certification provides a platform to consistently validate specialty experience, knowledge, experience, and skills (Altman, 2011).

Certification of staff nurses is also an important component of Magnet designation. Magnet status indicates that a hospital is recognized by the American Nurses Credentialing Center (ANCC) for demonstrating excellence in patient care across the organization (American Nurses Credentialing Center, 2016). The large, urban academic medical center in this study is a Magnet hospital and supports and encourages nurses to become certified. However, nurse leaders express challenges getting staff to sit for specialty certification exams.

The Perceived Value of Certification Tool© (PVCT) is an existing valid and reliable survey tool that assesses nurses' perceived value of certification. The PVCT has been used in seventeen studies since 2003, totaling over 25,000 respondents.

Reliability of the tool has been shown through three psychometric studies. Sechrist, Valentine, & Carter (2006) performed factor analysis of the tool and found a two factor analysis, labeled intrinsic and extrinsic value, that explained 59.2% of the total variance; Cronbach's alpha was .94 for the measure as a whole, suggesting high inter-correlation between the subscales (Sechrist et al., 2006).

Aims: The purpose of this scholarly project is to assess staff nurses' perceived value of specialty certification at a large urban academic medical center; with a goal to better educate nursing leadership on potential facilitators and barriers that could in turn affect the number of nurses that obtain specialty certification.

Methods: Design-A quantitative descriptive design method was used.

Sample and Setting-A convenience sample was obtained by administering the web-based survey to approximately 4,000 staff nurses via email. Inclusion criteria was English-speaking staff nurses with access to hospital email that are able to read and complete an online survey. Exclusion criteria included advanced practice nurses and nurse administrators.

Permission to use the PVCT was obtained by the Competency and Credentialing Institute and all requirements of this permission adhered to throughout the project. The tool contains eighteen questions that use a five point Likert rating scale, and was modified to include basic demographic questions. The PVCT questions and demographic questions were placed into Research Electronic Data Capture (REDCap), a secure web application for building and managing surveys and databases.

The survey was sent via email to a nurse director distribution list, the directors then deployed the survey using their staff distribution lists. Reminder emails were sent twice at week two and week four using the same method. Participants were given six weeks to complete the survey.

Data Analysis-Data collection is currently in progress for this project. The survey's response rate will be determined by calculating the number of nurses the survey was sent to and the number of surveys that

were completed, reported as a percent. Descriptive statistics will also be used to summarize survey results, and chi-square analysis will be used to make comparisons.

Ethical Considerations: Institutional review board (IRB) approval by the hospital and university were obtained prior to project implementation.

Implications for Practice: Having staff nurses' baseline perception of certification will help guide intervention efforts to increase the number of certified nurses. Negative perception outcome data can reveal the barriers to certification that require intervention. Sharing this data with administration and staff nurses could lead to removal of these barriers. Additionally, positive perception outcome data can offer tools that administration and staff nurses can use for education and support of certification for nurses.

References

- Altman, M. (2011). Let's get certified: Best practices for nurse leaders to create a culture of certification. *AACN Advanced Critical Care*, 22(1), 68-75 8p. doi:10.1097/NCI.0b013e3182057772
- American Nurses Credentialing Center. (2016). *ANCC Magnet Recognition Program*.
<http://www.nursecredentialing.org/Magnet>
- Fischer-Carlidge, E., & Mahon, S. (2014). Increasing certification through unit-based education. *Clinical Journal of Oncology Nursing*, 18(2), 215-220 6p. doi:10.1188/14.CJON.215-220
- Institute of Medicine. (2000). *To Err is Human: Building a Safer Healthcare System*. Washington DC: National Academic Press.
- Messmer, P. R., Hill-Rodriguez, D., Williams, A. R., Ernst, M.E., & Tahmooressi, J. (2011). Perceived value of national certification for pediatric nurse. *Journal of Continuing Education for Nursing* 42(9), 421-432.
- Sechrist, K. R., Valentine, W., & Berlin, L. E. (2006). Perceived value of certification among certified, noncertified, and administrative perioperative nurses. *Journal of Professional Nursing* 22 (4), 242-247.
- Wilkerson, B.L. (2011). Specialty Nurse Certification Effects Patient Outcomes. *Plastic Surgical Nursing* 31(2), 57 – 59.

Contact

jennifer.clair.1@gmail.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Predictors of Anti-Müllerian Hormone, a Biomarker of Ovarian Reserve: A Systematic Review of the Literature

Theresa M. Hardy, BSN, RN, USA

Donna O. McCarthy, PhD, RN, FAAN, USA

Abstract

Purpose: Anti-Müllerian hormone (AMH) is a novel biomarker of ovarian reserve, or the size of the ovarian follicle pool. Follicle stimulating hormone (FSH) and inhibin B have been the gold standard measures of ovarian reserve. However, changes in FSH and inhibin B levels are not detectable in serum until there is a significant reduction in the follicle pool (Steiner, 2013), making timely detection and intervention challenging. Several studies have explored the influence of both reproductive and lifestyle determinants on AMH concentrations (Dolleman et al., 2013; Freeman et al., 2007; La Marca et al., 2010; La Marca, Stabile, Arsenio, & Volpe, 2006; Malhotra, Bahadur, Singh, Kalaivani, & Mittal, 2013; Nelson, Stewart, Fleming, & Freeman, 2010; Steiner, Stanczyk, Patel, & Edelman, 2010; Tsepelidis et al., 2007). A systematic review of factors associated with AMH levels has not been conducted. A high level summary of the evidence is needed to evaluate the usefulness of AMH as a biomarker of ovarian reserve.

Ovarian reserve is established during fetal life. At birth, the number of primordial follicles is estimated at 1 million. This number decreases steadily during a female's lifespan and is reduced to approximately 300,000-500,000 at menarche. Throughout a female's reproductive years, follicles are recruited from the primordial pool and progress through the various stages of follicular growth. At the start of each menstrual cycle, one dominant follicle is selected for ovulation (Visser, de Jong, Laven, & Themmen, 2006). While it has proven challenging to quantify ovarian reserve, a new biomarker, anti-Müllerian hormone (AMH), has shown considerable promise (Dewailly et al., 2014). AMH is secreted by growing follicles, and is therefore reflective of the size of the primordial follicular pool. Measurable in serum, AMH offers a promising non-invasive marker of ovarian reserve. In addition, AMH levels are the earliest detectable change that occurs in the sequence of events associated with ovarian aging (Sills, Alper, & Walsh, 2009). The hormone is also ideal as a research and clinical measure because concentrations do not fluctuate across the menstrual cycle, and are independent of FSH, LH, and E₂ levels (La Marca et al., 2010; Shaw et al., 2011; Tran, Cedars, & Rosen, 2011).

While ovarian reserve naturally declines with age, age alone is not predictive of ovarian age or reproductive status. The decline of ovarian reserve is primarily due to apoptotic loss of oocytes (programmed cell death) rather than ovulation (Tremellen, Kolo, Gilmore, & Lekamge, 2005). Thirty-four percent of the variation in AMH concentrations is due to age, meaning that the remaining 66% is due to other factors (Kelsey, Wright, Nelson, Anderson, & Wallace, 2011). Identifying these factors may help to elucidate predictors of reproductive dysfunction and disease. Understanding factors that influence AMH levels in normo-ovulatory women will also help to establish reliable normative age ranges for use in clinical practice and research. While numerous studies have examined factors associated with AMH concentrations, the sensitivity of the biomarker depends on an understanding of the complex interplay of factors that influence its concentrations. The purpose of this systematic review is to provide a high level summary of the evidence on the factors associated with AMH concentrations and to develop a conceptual model based on the strengths of association for future hypothesis testing.

Methods: This systematic review will be conducted according to the PRISMA guidelines. A comprehensive literature search will be conducted using "anti-Müllerian hormone" as the search term in PubMed. Studies will be included if they meet the following criteria: 1) published in the last 10 years, 2) human subjects research, 3) research conducted with healthy females. Reference lists of selected studies will also be searched in order to identify any relevant studies missed in the primary search.

Results: Two researchers will read and independently judge all selected studies. Studies will be grouped by the factors that emerge from the systematic review. Once all relevant factors have been reviewed, a conceptual model will be developed based on the strengths of association. If there is contradicting evidence, several potential models may be proposed.

Conclusion: The conceptual models developed through this systematic review will provide the foundation for future hypothesis testing, and may improve the usefulness of AMH as a biomarker of ovarian reserve.

References

- Dewailly, D., Andersen, C. Y., Balen, A., Broekmans, F., Dilaver, N., Fanchin, R., ... Anderson, R. a. (2014). The physiology and clinical utility of anti-Mullerian hormone in women. *Human Reproduction Update*, 20(3), 370–85. <http://doi.org/10.1093/humupd/dmt062>
- Dolleman, M., Verschuren, W. M. M., Eijkemans, M. J. C., Dolle, M. E. T., Jansen, E. H. J. M., Broekmans, F. J. M., & Schouw, Y. T. Van Der. (2013). Reproductive and Lifestyle Determinants of Anti- Müllerian Hormone in a Large Population-based. *Journal of Clinical Endocrinology and Metabolism*, 98(5), 2106–2115. <http://doi.org/10.1210/jc.2012-3995>
- Kelsey, T. W., Wright, P., Nelson, S. M., Anderson, R. a, & Wallace, W. H. B. (2011). A validated model of serum anti-müllerian hormone from conception to menopause. *PLoS One*, 6(7), e22024. <http://doi.org/10.1371/journal.pone.0022024>
- Malhotra, N., Bahadur, A., Singh, N., Kalaivani, M., & Mittal, S. (2013). Does obesity compromise ovarian reserve markers? A clinician's perspective. *Archives of Gynecology and Obstetrics*, 287(1), 161–6. <http://doi.org/10.1007/s00404-012-2528-7>
- Shaw, C. M., Stanczyk, F. Z., Egleston, B. L., Kahle, L. L., Spittle, C. S., Godwin, A. K., ... Dorgan, J. F. (2011). Serum antimüllerian hormone in healthy premenopausal women. *Fertility and Sterility*, 95(8), 2718–21. <http://doi.org/10.1016/j.fertnstert.2011.05.051>
- Steiner, A. Z. (2013). Biomarkers of ovarian reserve as predictors of reproductive potential. *Seminars in Reproductive Medicine*, 31(6), 437–42. <http://doi.org/10.1055/s-0033-1356479>
- Tran, N. D., Cedars, M. I., & Rosen, M. P. (2011). The role of anti-müllerian hormone (AMH) in assessing ovarian reserve. *The Journal of Clinical Endocrinology and Metabolism*, 96(12), 3609–14. <http://doi.org/10.1210/jc.2011-0368>

Contact

theresa.hardy@marquette.edu

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Evaluation of a Novel Evidence-Based Practice Mentorship Program in a Pediatric Quaternary Care Setting

Paul David Schuler, DNP, RN, CPNP-AC/PC, USA

Abstract

Purpose: Evidence Based Practice (EBP) integrates, synthesizes, and utilizes evidence from research, quality improvement initiatives, theoretical models or frameworks, expert opinion, clinical experience, and patient preferences and values, to inform clinical decision making. Informed clinical decision making is essential for the delivery of high quality care, has the potential to reduce healthcare costs, and has a greater likelihood of achieving optimal patient outcomes. Despite these known benefits, a 2012 institution-wide survey, using the Quick-EBP-VIK, revealed opportunities for improvement in the areas of knowledge and implementation of EBP. In response to these findings, the Evidence-Based Practice Subcommittee of the Nursing Research Council was charged with addressing this institutional need. The result was the development of a novel evidence-based practice mentorship program, or EBPMP.

EBPMP is a self-directed program that requires participants carry out an EBP project that addresses an important clinical practice question. Throughout the twelve-month program, participants move through the steps of the EBP process and are exposed to many EBP resources available from within and outside of their institution. The curriculum includes a step-by-step instructional workbook and ten internet-based educational modules that are designed to quickly guide the learner through the steps of EBP. The modules are presented in a standardized, easy to follow format, and are meant to take no longer than 30 minutes to complete. Suggested readings are made available to the learner to expand their knowledge, and each participant is aligned with an expert mentor to help guide and support them through the process. Upon completion of the program, the participant disseminates their work and is encouraged to serve as a resource to others by promoting EBP in their clinical environment. Key features of EBPMP include its flexible, economical and self-directed approach. EBPMP has the potential to create a self-sustaining group of EBP mentors to foster an institutional culture of mentorship and clinical inquiry.

The purpose of this research project was to evaluate the effect of the EBPMP on nurse participants' value, implementation and knowledge of EBP, as well as their mentorship experience, using a mixed methods design. The specific aims of this project were 1. To describe demographic and nursing characteristics for the first cohort of EBPMP participants, 2. To describe the change in nurse participants' value, knowledge, and EBP implementation pre- post EBPMP using Quick-EBP-VIK, 3. To understand the participant's experience with EBPMP through qualitative content analysis of individual and group interviews conducted midway through the EBPMP, and 4. To understand the participants experience with EBPMP and rationale for withdrawal from the program through individual interviews.

Methods: This study employed a mixed methods design including: Quantitative analysis of pre and post EBPMP using Quick-EBP-VIK survey results; Qualitative content analysis of EBPMP using individual or group interviews midway through the EBPMP, and individual interviews of participants who elect to withdraw from the program.

Results: This study is ongoing.

Conclusion: Findings from this study will inform stakeholders about the benefits of EBPMP and the potential need for program modifications.

References

Breckenridge-Sproat, S., Throop, M., Raju, D., Murphy, D., Loan, L., Patrician, P. (2015). Building a unit-level mentored program to sustain a culture of inquiry for evidence-based practice. *Clinical Nurse Specialist*, 29(6), 329–337. DOI: 10.1097/NUR.000000000000161.

Christenbery, T., Williamson, A., Sandlin, V., Wells, N. (2016). Immersion in evidence-based practice fellowship program: A transforming experience for staff nurses. *Journal for Nurses in Professional Development*, 32(1), 15-20. DOI: 10.1097/NND.0000000000000197.

Connor, L., Dwyer, P., Oliveira, J. (2016). Nurses' use of evidence-based practice in clinical practice after attending a formal evidence-based practice course: A quality improvement evaluation. *Journal for Nurses in Professional Development*, 32(1), p E1-E7. doi: 10.1097/NND.0000000000000229.

Melnyk, B. (2016). Culture eats strategy every time: What works in building and sustaining an evidence-based practice culture in healthcare systems. *Worldviews on Evidence-Based Nursing*, 13(2), 99-101. DOI: 10.1111/wvn.12161.

Paul, F., Connor, L., McCabe, M., Ziniel, S. (2016). The development and content validity testing of the Quick-EBP-VIK: A survey instrument measuring nurses' values, knowledge and implementation of evidence-based practice. *Journal of Nursing Education and Practice*, 6(5), 118-126. Doi:10.5430/jnep.v6n5p118.

Contact

paul.schuler@childrens.harvard.edu

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1 Readmission Factors of Patients With Type II Diabetes

Veronica Santos Timple, MS, BS, RN, CCRN, USA

Abstract

Purpose: The purpose of this study is to identify the factors associated with 30-day hospital readmissions in patients with type II diabetes.

Methods: This retrospective descriptive correlational study involves abstracting 500 samples from the 2014-2015 electronic health records (EHRs) located in a Southern California urban hospital. Inclusion criteria are as follows: (1) hospitalized patients and who are at least 65 years and older; (2) discharged from the acute inpatient setting with a type II diabetes regardless of their admitting diagnosis; and (3) were readmitted within 30 days. Exclusion criteria include: (1) patients who were admitted and discharged in less than 24 hours; (2) patients who were admitted due to trauma; and (3) patients readmitted within 24 hours post discharge.

Data abstracted from the EHRs include demographic characteristics (age, gender, and race); hospital discharge disposition (home, skilled nursing facility, or rehabilitation center); clinical biomarker (Hemoglobin A1C), diabetes medications (oral versus insulin therapy); disease management (whether the patient received diabetes education or was seen by an Endocrinologist); length of stay; and comorbidities. Descriptive statistics will be used to describe the characteristics of the population. Correlation statistics will be employed and multivariate analysis using logistic regression will be performed in order to determine if the data fit a model that will explain the variance in readmission.

Results: The study is currently in data collection phase, but it is expected to be completed in May 2017; results should be available for dissemination at the time of the conference.

Conclusion: Understanding the factors associated with hospital readmissions among older patients with type II diabetes will assist healthcare organizations to create and implement targeted protocols that could prevent these costly, and potentially harmful readmissions. In addition, if the factors are identified and interventions are made, there is the potential for reduced morbidity and mortality rates in patients with type II diabetes.

References

- American Diabetes Association (2014). Statistics About Diabetes. Retrieved from <http://www.diabetes.org/diabetes-basics/statistics/>
- Dungan, K. (2012). The effect of diabetes on hospital readmissions. *Journal of Diabetes Science Technology*, 6 (5), 1045-1052.
- Pantalone, K., Hobbs, T., Ells, B., Kong, S., Kattan, M., Bouchard, J., Yu, C., Sakurada, B., Millinovich, A., Wend, W., Baumna, J., & Zimmerman, R. (2015). Clinical characteristics, complications, comorbidities and treatment patterns among patients with type 2 diabetes mellitus in a large integrated health system. *British Medical Journal*, 15 (3), 1-9.

Contact

vsimple@sandiego.edu

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

The Association of Kangaroo Mother Care, Energy Conservation, Procedural Pain, and Bonding in Preterm Neonates

Dorothy Evadne Forde, PHDc, RNC-NIC, CNS, USA

Danilo Boskovic, PhD, USA

Eileen K. Fry-Bowers, PhD, JD, RN, CPNP, USA

Danilyn Mag-akat Angeles, PhD, RN, USA

Douglas D Deming, MD, FAAP, F-ATS, USA

Raylene Phillips, MD, MA, FAAP, FABM, IBCLC, USA

Abstract

Purpose: To examine the association of kangaroo mother care (KMC) on energy utilization and procedural pain as evidenced by altered biochemical markers of adenosine triphosphate (ATP) degradation, (hypoxanthine (Hx), xanthine (Xa), and uric acid (UA) and oxidative stress (allantoin).

Background: Premature infants admitted to the NICU are at a high risk of suffering the consequences of early maternal separation due to their physiological and metabolic immaturity. Bonding processes of mother and infant may also be at risk from early maternal separation. Consequently, infants become vulnerable to a myriad of internal and external events that increase energy loss. Three main factors that may negatively influence the infant's ability to meet the energy needs after birth are inadequate glycogen stores, immature glucose metabolism and increased ATP degradation due to procedural pain. Processes mediating energy conservation have not been adequately investigated.

Kangaroo mother care (KMC) has been identified as an intervention that activates mechanisms of energy preservation in this population. Direct effects of KMC are improved mortality and morbidity, by stabilization of breathing, thermal regulation, oxygen saturation, heart rate, improved breast-feeding and better parent bonding. Other notable effects are rapid quieting in the infant and analgesic properties. Kangaroo mother care mimics the relaxation found in utero, minimizes dyad separation, and maximizes a battery of physical, physiological, and behavioral effectors that are energy-conserving, and mediated by several different central and peripheral mechanisms. This study links KMC to hypothesized findings of energy conservation as measured by reduced biochemical markers of ATP degradation and oxidative stress. This is the first study that will link physiological biochemical data to the theorized physiological effects of KMC on the infant's growth, development and response to painful procedures.

Methods: A prospective randomized controlled trial design will be used to test the hypothesis that exposure to KMC will significantly alter biochemical markers of ATP utilization, oxidative stress and cell injury. The study will be conducted at a Level III neonatal intensive care unit in Southern California. The NICU is a tertiary care unit, caring for inborn and out born patients with an average daily census of 84 babies. Potential subjects are premature infants 28-34 weeks gestation who are medically stable as determined by a SNAPPE_II score of less than 9 (Score for Neonatal Acute Physiology- Perinatal extension SNAPPE –II), who have medically required heel lance. Treatment allocation is 1:1. The PI and treatment providers will not be blinded to the treatment due to the nature of this study.

PI will simultaneously collect urine at 3 different intervals for the intervention and the control groups. For the intervention group, urine will be collected on Day 3 at Time 0 - before KMC, Time 1- 3 hours after KMC, and Time 2- 6 hours post KMC. For the control group, urine concentrations of Hx, Xa, and UA will also be collected on Day 3 at Time 0 – before standard NICU incubator care, Time 1- 3 hours after incubator care, and Time 2- 6 hours post incubator care and measured using high performance liquid chromatography (HPLC 100% accuracy) and allantoin will be quantified using gas chromatography/ mass spectroscopy. The effect of KMC on procedural pain (heel lance) will be analyzed from urine samples obtained at Time 0 and Time 1-3 hours after the painful procedure. Subjects randomized to the control

(no KMC group) will receive the current standard of care for procedural pain (Sweet-Ease or 24% sucrose).

Bonding will be measured using The Mother-to-Infant Bonding Scale (MIBS). It is a self-report instrument by the mother that has been tested for its psychometric properties in the general and NICU population. It was first devised to screen the general population for postnatal difficulties relating to the maternal emotional behavior towards her baby in the first days (48-72h) postpartum. A principal components and reliability analysis demonstrated an alpha score of 0.71. The instrument is composed of 8 items (adjectives) describing feelings mothers have toward their babies in the first weeks after they are born. The items are scored from 0 to 3 with a total score ranging from 0 to 24 and high scores indicating disturbance in the mother-infant bond. The instrument is a simple questionnaire to administer. In a study validation in the NICU population MIBS satisfactorily detected difficulties in mother child bonding: The area under the ROC curve was 0.93 with a sensitivity of 0.9 and a specificity of 0.8 for a threshold score ≥ 2 . The positive predictive value for this threshold was 40.9% (IC95% (20.36-61.45) and the negative predictive value was 98.1% (IC 95% (89.93-99.95). This is a reliable instrument that generates valid data in the NICU population. Mothers of both the intervention and control groups will be assessed using the MIBS self-rating instrument 72 hours postpartum at 1 hour after incubator care or 1 hour post KMC intervention.

Inclusion and Exclusion criteria: Potential subjects are premature infants 28- 34 weeks gestation and less than 1 day of age postnatal and are medically stable as determined by a SNAPPE_II score of less than 9. All attempts will be made to enroll subjects before DOL 3.

Exclusion criteria will include: 1) requirement for surgery; 2) intraventricular hemorrhage (IVH) $>$ or equal to grade 3; 3) neonates on medication such as morphine, fentanyl, versed, muscle relaxants, phenobarbital, or Dilantin; 4) renal injury (plasma creatinine $>$ 1mg/dl; 5) severe cyanotic heart disease or severe respiratory distress; 6) known abdominal wall or intestinal anomaly or injury (NEC); 7) chromosomal anomaly; and 8) facial anomaly.

Sample size calculation: A convenient sample of 68 potential subjects of premature infants 28-34 weeks gestation will be alternately randomized 34 to the control group and 34 to the intervention group. We expect 25% change in purines to be clinically significant and a SD of 0.5, which would yield an effect size of 0.5, and would require a sample size of approximately 34 subjects in each group. For this ANCOVA approach, we calculated the power to detect differences in purine levels among premature infants 28-34 weeks gestation in terms of a moderate effect size of 0.5. The calculations assumed a single outcome, a Type I error rate (α) of .05, a Type II error rate (β) of .20 (power of .80), and a two-tailed statistical test, as is appropriate for research purposes. With 68 participants per condition and no effective covariate, this study could detect an effect size of .57. We believe this effect size is small enough that the intervention can produce these differences between conditions, but not so small as to be clinically and statistically irrelevant.

Statistical Approach: To examine the primary research question, a repeated-measures analysis of covariance (ANCOVA) will be conducted to determine whether significant differences in purine levels (energy expenditure/conservation) exist. Descriptive analysis of all ratio level measurements will be performed to characterize the study sample. All dependent measures will be examined and tested for assumptions of normalcy. Additional tests related to equality of error variances, homogeneity of regression slopes, and multicollinearity will also be conducted. Primary factors in the ANCOVA include time and treatment. Potential covariates and confounders include age, gestational age, ethnicity, FIO₂, method of oxygen support, weight, severity of illness, and medications. Appropriate post hoc comparisons will be conducted if warranted. All tests of hypotheses will be two-sided and conducted at an alpha level of 0.05.

Results: Pending

Significance: This study examines the potential biologic mechanism for KMC efficacy through measuring infant energy utilization biomarkers in urine (hypoxanthine, xanthine, and uric acid, and allantoin).

Knowledge linking biochemical evidence with physiologic benefits of KMC will further support spread of its practice. Given the prevalence, associated disability and impairment to the premature infant, and the economic burden to both health organizations and families, rigorous measures and assessment of the benefits of kangaroo mother care is imperative.

Implications: To further inform the use of kangaroo mother care in research and clinical settings.

Conclusion: This study will supply the physiological data to further support the benefits of energy conservation from KMC which would allow for recovery, repair, growth and maturation in neonates, and hopefully supply further incentive for NICU nurses to adopt KMC as the primary modality for caring for premies.

References

- Bienfait, M., Maury, M., Haquet, A., Faillie, J.-L., Franc, N., Combes, C., ... Cambonie, G. (2011). Pertinence of the self-report mother-to-infant bonding scale in the neonatal unit of a maternity ward. *Early Human Development*, 87(4), 281–287. <https://doi.org/10.1016/j.earlhumdev.2011.01.031>
- Chi Luong, K., Long Nguyen, T., Huynh Thi, D. H., Carrara, H. P. O., & Bergman, N. J. (2016). Newly born low birthweight infants stabilize better in skin-to-skin contact than when separated from their mothers: a randomised controlled trial. *Acta Paediatrica*, 105(4), 381 -390 <https://doi.org/10.1111/apa.13164>
- Esiaba, I., Angeles, D. M., Holden, M. S., Tan, J. B. C., Asmerom, Y., Gollin, G., & Boskovic, D. S. (2016). Urinary Allantoin Is Elevated in Severe Intraventricular Hemorrhage in the Preterm Newborn. *Translational Stroke Research*, 7(2), 97–102. <https://doi.org/10.1007/s12975-015-0405-y>
- Holden, M. S., Hopper, A., Slater, L., Asmerom, Y., Esiaba, I., Boskovic, D. S., & Angeles, D. M. (2014). Urinary Hypoxanthine as a Measure of Increased ATP Utilization in Late Preterm Infants. *Infant, Child & Adolescent Nutrition*, 6(4), 240–249. <https://doi.org/10.1177/1941406414526618>
- Nyqvist, K. H., Anderson, G. C., Bergman, N., Cattaneo, A., Charpak, N., Davanzo, R., ... Widström, A.-M. (2010). Towards universal Kangaroo Mother Care: recommendations and report from the First European conference and Seventh International Workshop on Kangaroo Mother Care. *Acta Paediatrica (Oslo, Norway: 1992)*, 99(6), 820–826. <https://doi.org/10.1111/j.1651-2227.2010.01787.x>
- Peng, N.-H., Bachman, J., Chen, C.-H., Huang, L.-C., Lin, H.-C., & Li, T.-C. (2014). Energy expenditure in preterm infants during periods of environmental stress in the neonatal intensive care unit. *Japan Journal of Nursing Science*, 11(4), 241–247. <https://doi.org/10.1111/jjns.12025>
- Slater L, Asmerom Y, Boskovic DS, Bahjri K, Plank MS, Angeles KR, Phillips R, Deming D, Ashwal S, Houglund K, Fayard E, Angeles DM. Procedural pain and oxidative stress in premature neonates. *J Pain*. 2012 Jun;13(6):590-7. doi: 10.1016/j.jpain.2012.03.010
- Victoria, C. G., Requejo, J. H., Barros, A. J. D., Berman, P., Bhutta, Z., Boerma, T., ... Bryce, J. (2015). Countdown to 2015: a decade of tracking progress for maternal, newborn, and child survival. *Lancet (London, England)*. [https://doi.org/10.1016/S0140-6736\(15\)00519-X](https://doi.org/10.1016/S0140-6736(15)00519-X)

Contact

dorothyeforde@sandiego.edu

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1 Analyzing Influenza-Like Illness With Unsupervised Machine Learning

Monique J. Bouvier, MSN, RN, ARNP, C-PNP, USA

Mary Barger, PhD, MPH, RN, CNM, FACNM, USA

David D'Ambrosio, PhD, N/A, USA

John C. Arnold, MD, CAPT, MC, USN, USA

Abstract

Disclosure: The views expressed herein are those of the authors and do not reflect the official policy or position of the Department of the Navy, Department of Defense, or the United States Government.

Purpose: The World Health Organization reports acute respiratory infections continue to be the leading cause of global infectious disease morbidity and mortality with almost 4 million deaths annually. An acute respiratory infection is caused by an infectious agent, bacterial or viral, with a wide spectrum of symptom presentation. There are over 200 viruses that can cause influenza-like illnesses (ILI), a sub-type of acute respiratory infection, and there is developing research to understand the symptomatic differences between the virus types. However, symptom experience is very subjective, so it is difficult to determine which of the 200 viruses is causing the ILI without laboratory viral testing.

Symptoms are experiences stimulating changes in a person's feelings and biopsychosocial factors; therefore, biological, psychological, and social factors may contribute to a person's symptom experience. Several ILI symptom studies have examined the symptom experience in order to predict the diagnosis of influenza from the other causes of ILI, but did not yield satisfactory results. Other studies examining influenza symptom severity used dichotomous or linear sum analysis with few looking at symptoms over time.

Unsupervised machine learning is an approach that identifies patterns in datasets with minimal human input. Clustering is a common method of unsupervised machine learning where data are grouped together based on similarity. Recently, several studies have used clustering in medical applications such as predicting the recurrence of breast cancer or detection of Alzheimer's disease.

Studies examining patient reported ILI symptoms to predict virus type are limited, especially related to virus types other than influenza. Additionally, most research focuses on the influenza virus and its symptoms, and not the other common viruses identified as sources of ILI. The purpose of this study is to identify if symptom presentation over the course of influenza-like illness (ILI) can predict virus type using unsupervised machine learning. Additionally, we sought to identify sub-populations with similar symptom experience.

Methods: A secondary analysis of data from a prospective longitudinal study conducted by the Acute Respiratory Infection Consortium was performed. The data was collected from 2009 to 2014 at five US military medical institutions across the United States. The population was otherwise healthy active duty military members, dependents, and retirees, age 0-65 years, who presented to the clinic with influenza-like illness symptoms. A nasopharyngeal sample was collected for virus identification. Subjects reported their symptom severity at enrollment and follow-up visit days 3, 7, and 28 on an instrument designed for this study. The instrument had subjects rate their symptom severity on a 4-point nominal scale for 20 symptoms associated with influenza-like illness.

The sample used for this study was limited subjects with complete symptom severity data on days 0, 3, and 7, and no viral co-infections. The unsupervised machine learning approach, k-means clustering, was used to analyze the symptom data. For the initial analysis subjects were clustered by their individual symptom severity scores for all visits. The clusters were examined to identify if any of them represented a specific virus or group of viruses. Because it was unknown how the different viruses' symptoms were expressed, clustering was run with *k* values 5-10. The secondary analyses clustered subjects with specific

viral diagnoses, influenza A, rhinovirus, or coronavirus by symptom expression. Subject attributes of: sex, military status, age, BMI, smoking, and ethnicity, were compared amongst the clusters to identify how specific groups may experience the specified virus.

Results: The initial analysis was unable to predict virus type based on the individual symptom severity scores using a variety of scoring approaches. Only k=7 clustering revealed some promising differences, but detailed analysis identified that the clusters were not significantly different ($p>0.05$) than the overall population with the exception of one cluster. One cluster had a higher coronavirus percentage compared to the overall population. However, this cluster had eight total virus types, therefore, it is not specific for diagnostic purposes.

The secondary analyses of subject attributes for the rhinovirus (n=101), influenza A (n=107), and coronavirus (n=51) groups generated favorable results. At least one symptom cluster in each group yielded statistically significant difference based on subject attributes using one-way ANOVA or chi-square testing. The clustered rhinovirus data exhibited statistically significant differences ($p<.000$) in five out of the six attributes: sex, BMI, age, smoking history, and military status. The clustered influenza A data had statistically significant difference the attribute sex ($p<.000$), and approached significance in the military status attribute. The clustered coronavirus data only showed statistically significant differences in sex ($p<.000$), which was expected as the data set was well distributed. Overall the patients in the different virus clusters experienced symptoms differently compared to the total population for virus type.

Conclusion: Although, virus type could not be predicted based on physical symptom score, some differences in symptoms among virus types were anecdotally observed. Additionally, the results showed people with the same virus infection experience physical symptoms differently. Moreover, the secondary analyses reinforced the fact that a person's attributes may result in different physical symptom presentation. For that reason, future research should consider utilizing a symptom severity instrument that measures more than physical symptoms, and captures psychological, environmental, and other aspects as conceptualized by the symptom management theory.

Nurses track and follow the care of a patient closely, and are typically the first to see a change in a patient's status. It is important for nurses to be able to recognize a change in symptom severity and how different attributes may affect symptom presentation. A slight change in a patient's symptom presentation can be the beginning of a worsening of the illness.

Additionally, unsupervised machine learning could become a useful technique to help identify patterns in research with large data. Its technique could open new avenues of patient data analysis and may reveal knowledge and factors that may not be obvious using traditional statistical approaches. This novel approach needs to be tested against other approaches to more fully understand its usefulness.

References

- Belciug, S., Salem, A. B., Gorunescu, F., & Gorunescu, M. (2010, November). Clustering-based approach for detecting breast cancer recurrence. In 2010 10th International Conference on Intelligent Systems Design and Applications (pp. 533-538).
- Chen, W., Arnold, J.C., Fairchok, M.P., Danaher, P.J., McDonough, E.A., Blair, P.J.,..., Millar, E.V. (2015). Epidemiologic, clinical, and virologic characteristics of human rhinovirus infection among otherwise healthy children and adults. *Journal of Clinical Virology*, 64, 74-82.
- Coates, A., & Ng, A. Y. (2012). Learning feature representations with k-means. In *Neural Networks: Tricks of the Trade* (pp. 561-580). Springer Berlin Heidelberg.
- Dodd, M.J., Janson, S., Facione, N., Faucett, J., Froelicher, E.S., Humphreys, J..., Taylor, D. (2001). Nursing theory and concept development or analysis: Advancing the science of symptom management. *Journal of Advanced Nursing*, 33(5), 668-676.
- Eccles, R. (2005). Understanding the symptoms of the common cold and influenza. *Lancet Infectious Diseases*, 5, 718-725.
- Escudero, J., Zajicek, J. P., & Ifeachor, E. (2011, August). Early detection and characterization of Alzheimer's disease in clinical scenarios using Bioprofile concepts and K-means. In 2011 Annual International Conference of the IEEE Engineering in Medicine and Biology Society (pp. 6470-6473). IEEE.

VanWormer, J.J., Sundaram, M.E., Meece, J.K., & Belongia, E.A. (2014). A cross-sectional analysis of symptom severity in adults with influenza and other acute respiratory illness in the outpatient setting. *BMC Infectious Diseases*, *14*(231), 1-10.

World Health Organization. Infection prevention and control of epidemic- and pandemic-prone acute respiratory infections in health care. Geneva, Switzerland: World Health Organization; 2014.

Contact

mbouvier@sandiego.edu

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Side Effects and Dysfunction in Patients With Gastrointestinal Stromal Tumor (GIST) Receiving Targeted Therapy

Kai-Lin You, MS, RN, Taiwan
Yeur-Hur Lai, PhD, RN, Taiwan
Ching-Yao Yang, PhD, MD, Taiwan

Abstract

Background: The five year survival time of Gastrointestinal Stromal Tumor (GIST) has dramatically improved with effective target therapy. Patients with high risk or metastatic GIST are suggested to receive oral targeted therapy for at least three years or even a lifespan after their surgery. However, long-term oral targeted therapy might also increase patients' distress from side effects and affect their daily function.

Specific Aims: This study aims to examine the perceive side effects and dysfunction for GIST patients receiving targeted therapy.

Methods: This is a cross-sectional study to recruit GIST patients from a medical center in Taiwan. Eligible subjects are those who are (1) adult and diagnosed with GIST, (2) receiving oral targeted therapy, and (3) no communication barriers. Patients with GIST are assessed of their symptom severity related to the disease or oral targeted therapy and dysfunction of cognitive, physical, and psychosocial status. The above variables are measured by Symptom Severity Scale (SSS), Karnofsky Performance Status Index (KPS) and World Health Organization Disability Assessment Scale (WHODAS). Patients were recruited in a gastrointestinal surgical outpatient clinic by a trained master research nurse.

Results: There were 70 subjects were recruited. The overall KPS is 89.3 (SD=6.29). In general, patients reported to have mild to moderate side effects. The most distressful side effects as their descending order of mean are: Pale skin, muscle cramps, fatigue, periorbital edema, sleep problems, absent minded, facial edema, lack of concentration, muscle soreness, and diarrhea. Patients reported to have mild dysfunction in their life. The top five dysfunction as the descending order of the mean scores are: (1) Emotionally affected by health condition, (2) Time spend on health condition or its consequences, (3) Levels of health been a drain on the financial resources, (4) Problem cause on family because of (your) health problems, and (5) decreasing sexual activities.

Conclusion & Discussion: Assessment and care for GIST patients' side effects from targeted therapy is important for increasing their life quality. Individualized patients' education and care with different side effects are strongly recommended.

References

- Chiu TY, Yen CF, Chou CH, Lin JD, Hwang AW, Liao HF, & Chi WC. (2014). Development of traditional Chinese version of World Health Organization Disability Assessment Schedule 2.0 36--item (WHODAS 2.0) in Taiwan: Validity and reliability analyses. *Research in Developmental Disabilities, 35*(11), 2812-2820. doi: 10.1016/j.ridd.2014.07.009
- Duijts SF, van Egmond MP, Spelten E, van Muijen P, Anema JR, & van der Beek AJ. (2014). Physical and psychosocial problems in cancer survivors beyond return to work: a systematic review. *Psychooncology, 23*(5), 481-92. doi: 10.1002/pon.3467.
- Given BA, Spoelstra SL, & Grant M. (2011). The challenges of oral agents as antineoplastic treatments. *Seminars in Oncology Nursing, 27*(2), 99-103.
- Goetsch CM. (2011). Genetic tumor profiling and genetically targeted cancer therapy. *Seminars in Oncology Nursing, 27*(1), 34-44.

Contact

kailinyou@icloud.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Improving Nursing Care in Infants With Neonatal Abstinence Syndrome

Laura Ruth Watson, MSN, RNC-OB, USA

Abstract

Purpose: The purpose of the project is to improve the nursing care of infants with neonatal abstinence syndrome (NAS) through staff education and peer assessment.

Objectives: The project objective is to provide education for the healthcare staff at two Midwestern hospitals to ensure consistent care is provided to NAS infants. By providing consistent care, NAS infants will be made more comfortable and improve quicker, decreasing their length of stay.

Expanded Content Outline: Sublett (2013), identifies since 1980 the incidence of the NAS has increased by 300%. Literature has shown that infants with neonatal abstinence syndrome (NAS) encounter serious medical complications resulting in prolonged hospital stays and expensive interventions. The average hospital stay for these neonates is 22-26.1 days (Lind et al., 2015).

NAS is a collection of multi-systems withdrawal signs and symptoms experienced by the neonate due to exposure in utero to substance use and dependency by the pregnant mother. Once the infant is born, the substance is no longer available, placing the infant at risk for withdrawal. The central nervous, respiratory, gastrointestinal, and autonomic systems are negatively affected in infants with NAS. Differentiation of care may affect the progression of the NAS infant (Lucas & Knoble, 2012).

In a three year study the cumulative hospital cost at a hospital in Gainesville, Florida for 40 infants diagnosed with NAS was 1.1 million dollars for the first year. By the third year the cost was 1.8 million for 63 diagnosed infants. For infants not diagnosed with NAS, by the third year of life, 63 infants' average healthcare cost was \$109,998. That is a total variance of \$1,691,325 (Hall et al, 2014). Literature confirms that by instituting and adhering to clinical practice guidelines, a decrease in the length of hospital stay may be noted, thereby, decreasing the cost of care for the infants (Hall et al., 2014; Patrick et al., 2012).

Improvement of infant care will occur through educating staff about neonatal abstinence syndrome and the standard of care required by NAS infants. Education focusing on the value of inter-observer reliability/peer assessment will be provided. The project will lead to the development and adoption of evidence-based practice and policies recognizing the special needs of infants with NAS. Upon completion of the project, analyses will be performed to ensure the project objectives are being met and maintained. Length of hospital stay will be evaluated one year before, and one year following project implementation. Data will be collected from nursing staff to determine true effectiveness of staff education.

Evidence recommends strict care guidelines be adopted in institutions caring for NAS infants (Hall et al., 2014). The outcome for this study is to institute guidelines for the care of NAS infants admitted to nurseries of two Midwestern hospitals, with the goal to expand the project to other healthcare systems providing care to NAS infants.

References

- Hall, E. S., Wexelblatt, M. A., Crowley, M., Grow, T. L., Tasin, L. R., Klebanoff, M. A. ...Walsh, M. C. (2014). A multicenter cohort study of treatments and hospital outcomes in Neonatal Abstinence Syndrome. *Pediatrics*, *134*(2), e527-e534.
- Lind, J. N., Peterson, E. E., Lederer, P. A., Phillips-Bell, G. S., Perrine, C. G., Li, R. ... Anjohrin, S. (2015). Infant and maternal characteristics in neonatal abstinence syndrome-selected hospitals in Florida, 2010-2011. *Morbidity and Mortality Weekly Report*, *64*(8), 213-216.
- Lucas, K., & Knoble, R. B. (2012). Implementing practice guidelines and education to improve care of infants with Neonatal Abstinence Syndrome. *Advances in Neonatal Care*, *12*(1), 40-45.

Patrick, S. W., Schumacher, R. E., Benneyworth, B. D., Krans, E. E., McAllister, J. M., & Davis, M. M. (2012). Neonatal abstinence syndrome and associated health care expenditures: United States, 2000-2009. *Journal of the American Medical Association*, 307(18), 1934-1940. doi: 10.1001/jama.20123951

Sublett, J. (2013). Neonatal Abstinence Syndrome therapeutic interventions. *The American Journal of Maternal/Child Nursing*, 38(2), 102-107.

Contact

lwatson1@eagles.usi.edu

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1 Irritable Bowel Syndrome and Probiotics: Effective or Not?

Andrea L. Morris, BSN, RN, VA-BC, USA

Abstract

Purpose: Purpose of this study is to explore the effect of irritable bowel syndrome in relationship to body systems and evaluate the benefit of adding probiotic therapy to the treatment plan.

Methods: One hundred thirty-three articles initially identified, of which 32 met the inclusion criteria. The selected articles included four Level I meta-analysis and systematic reviews of Randomized Control Trials (RCT) totaling 144 studies, seven Level II RCTs totaling 992 patients, and one Level IV, an observational study.

Results: Irritable bowel syndrome (IBS) is one of the most common gastroenterological diseases affecting 15-20 % of the Western population, and disturbance in the gastrointestinal microbiota may be implicated, according to Urgesi, Casale, Pistelli, Rapaccini, & de Vitis (2014). Diagnostic criteria utilized by physicians and clinics effect the variance in prevalence, as the looser the criteria, the higher the prevalence. The criteria may be reported utilizing the Rome II, Rome III, Manning, or other criteria. Irritable bowel syndrome is a chronic gastrointestinal disorder that effects a large percent of the population, and is costly to the medical profession and the business world (Zhang et al., 2016).

Irritable bowel syndrome is a gastrointestinal condition characterized by abdominal pain or discomfort and other various types of symptoms, which vary in type and severity including bloating, and alterations of bowel function, singularly or in any combination (Park, Byung-Hee, & Hyangsook, 2013). According to Ford et al. (2014), evidence suggests visceral hypersensitivity, disturbances in gastrointestinal (GI) flora, and chronic activation leading to a low-grade mucosal inflammation have an effect on intestinal flora. Faghihi, Agah, Masoudi, Ghafoori, & Eshraghi (2015) reported changes in the microflora of the intestine, such as recent intestinal illnesses, have been a significant factor in the search for pathogenesis of the illness. Sisson, Ayis, Sherwood, & Bjarnason (2014) shared that extra-intestinal symptoms include genitourinary, musculoskeletal (fibromyalgia, arthralgia, backache), headaches and fatigue, menstrual and sexual dysfunction, and anxiety and mood disorders are frequently present.

Traditional treatments have not been effective for long-term benefit and use of alternative therapy is increasing as patients seek answers and relief from the symptoms. Choi et al. (2015) indicated irritable bowel syndrome affects a patient physically, and may have social, mental and emotional ramifications resulting in a disruption in the quality of life for many patients. Research by Begtrup, de Muckadell, Kjeldsen, Christensen, & Jarbol (2013) suggested improving IBS symptoms may positively affect a patient's quality of life.

In 2001, the Food and Agriculture Organization of the United Nations (FAO) convened a multinational expert group of scientist who defined probiotics as "live microorganisms which, when administered in adequate amounts, confer a health benefit on the host" (Saez-Lara, Gomez-Llorente, Diaz, & Gill, 2015). Probiotics are bacteria and yeasts that are good for a person's health, especially the digestive system. Urgesi et al. (2014) reported probiotics help maintain the natural balance of organisms (microflora) in the intestines and may be beneficial for patients suffering with IBS. Choi and associates (2015) stated the gut microbiota effects many systems including the auto-immune, musculoskeletal, genitourinary, sexual dysfunction, mood and anxiety disorders, thought processes, and may generate low-grade chronic inflammation. To assist patients improve their health status and quality of life is the goal of every nurse. To be proactive and address a solution to the problem, not treat the symptoms, should be the plan. Hung, Kang, Bollom, Wolf, & Lembo (2015) indicated research into alternative modalities for those solutions may be beneficial in the treatment of IBS.

Irritable bowel syndrome is a chronic, complex gastrointestinal disorder that is usually very hard to manage. The microbiota of the gastrointestinal tract is less stable in an adult with IBS in comparison to a healthy adult, and in recent years, a closer focus has been on the gut microbiota (Begtrup et al., 2013). According to Yoon et al. (2014), the pathophysiology of IBS is not clearly understood and may involve many factors, including gut motor dysfunction, post-infection bowel changes, psychological factors, and visceral hypersensitivity. There has been a renewed interest in recent years into understanding the pathophysiological mechanisms and etiology of IBS. Mezzasalma et al. (2016) stated the role of intestinal microbiota is significant in human health and disease as the microbial community resides in the gut of the host. Research data reported by Begtrup et al. (2013) indicated probiotics can modify the gut microbiota, and may be beneficial for the treatment and prevention of IBS and other intestinal diseases. Individual strains and species of probiotics vary significantly in composition, and affect the gut microbiota differently (Ford et al., 2014); therefore, prescribing the correct strain of probiotic is important for the patient to achieve a therapeutic benefit.

Patients with IBS have a fecal flora difference from healthy clients, and may harbor bacterial overgrowth. Urgesi et al. (2014) suggested probiotics are noted to normalize the GI microflora, thus restoring gut epithelial function and the mucosal immunological barrier. As noted by Yoon et al. in 2013, it is known that the effect of probiotics is species-specific, but it remains unclear which probiotic organisms induce the change in intestinal microbiota. The possible mechanisms of action of different probiotic strains include effects on intestinal motility, visceral hypersensitivity, secretion of interleukins (e.g. IL-10) and increases in anti-inflammatory T-cell populations (Sisson et al., 2014). What does seem to be clear from the literature is that the efficacy of individual probiotics depends both on the strain(s) of bacteria and the formulation of the preparations and/or delivery methods used (Mezzasalma et al., 2016; Yoon et al., 2013; and Choi et al, 2015). This has resulted in new insights, which highlight the importance of interactions between the host and intestinal luminal microbial and nonmicrobial constituents.

Begtrup et al. (2013) signified the role of intestinal microbiota is significant in human health and disease as microbial community resides in the gut of the host, and Ford et al. (2014) believed that probiotics can modify the gut microbiota, and may be beneficial for the treatment and prevention of IBS and other intestinal diseases. Mezzasalma et al. (2016) indicated individual strains and species of probiotics vary significantly in composition, and affect the gut microbiota differently. Research conducted by Hung et al. (2015) suggested successful treatment involves understanding the benefits and effects of medications, including complementary and alternative medicine.

Conclusion: Research indicates irritable bowel syndrome affects many people, and traditional treatment is for the symptoms, not the root of the disease. Patients suffering from IBS are assessing alternative treatment modality options and are willing to try non-traditional and non-pharmaceutical means of treatment. Research further indicates probiotics may be beneficial for the IBS patient, with the evidence of diminished symptoms and increased quality of life. Various studies have not given consistent findings for conclusively validating a reason to make a change in treatment to a universal algorithm (Yoon et al., 2014). As the data suggests, future studies to assess the benefits of probiotics in multi-species combinations and in combination with other medications to understand their effect on the gastrointestinal microbiota are needed.

References

- Begtrup, L. M., de Muckadell, O. S., Kjeldsen, J., Christensen, R. D., & Jarbol, D. E. (2013). Long-term treatment with probiotics in primary care patients with irritable bowel syndrome - a randomised, double-blind, placebo controlled trial. *Scandinavian Journal of Gastroenterology*, 48(10), 1127-1135. doi:10.3109/00365521.2013.825314
- Choi, C. H., Kwon, J. G., Kim, S. K., Myung, S., Park, K. S., Sohn, C., & ... Park, H. (2015). Efficacy of combination therapy with probiotics and mosapride in patients with IBS without diarrhea: a randomized, double-blind, placebo-controlled, multicenter, phase II trial. *Neurogastroenterology And Motility: The Official Journal Of The European Gastrointestinal Motility Society*, 27(5), 705-716. doi:10.1111/nmo.12544
- Faghihi, A. H., Agah, S., Masoudi, M., Ghafoori, S. S., & Eshraghi, A. (2015). Efficacy of Probiotic Escherichia coli Nissle 1917 in Patients with Irritable Bowel Syndrome: a Double Blind Placebo-controlled Randomized Trial. *Acta Medica Indonesiana*, 47(3), 201-208.

Ford, A. C., Quigley, E. M., Lacy, B. E., Lembo, A. J., Saito, Y. A., Schiller, L. R., . . . Moayyedi, P. (2014). Efficacy of prebiotics, probiotics, and synbiotics in irritable bowel syndrome and chronic idiopathic constipation: Systematic review and meta-analysis. *American Journal of Gastroenterology*, 109(10), 1547-1561. doi:10.1038/ajg.2014.202

Hung, A., Kang, N., Bollom, A., Wolf, J., & Lembo, A. (2015). Complementary and alternative medicine use is prevalent among patients with gastrointestinal diseases. *Digestive Diseases & Sciences*, 60(7), 1883-1888. doi:10.1007/s10620-014-3498-3

Mezzasalma, V., Manfrini, E., Ferri, E., Sandionigi, A., La Ferla, B., Schiano, I., & ... Di Gennaro, P. (2016). A Randomized, Double-Blind, Placebo-Controlled Trial: The Efficacy of Multispecies Probiotic Supplementation in Alleviating Symptoms of Irritable Bowel Syndrome Associated with Constipation. *Biomed Research International*, 1-10. doi:10.1155/2016/4740907

Park, J. W., Byung-Hee, L., & Hyangsook, L. (2013). Moxibustion in the management of irritable bowel syndrome: Systematic review and meta-analysis. *BMC Complementary & Alternative Medicine*, 13(1), 247-260. doi:10.1186/1472-6882-13-247

Saez-Lara, M. J., Gomez-Llorente, C., Plaza-Diaz, J., & Gil, A. (2015). The role of probiotic lactic acid bacteria and bifidobacteria in the prevention and treatment of inflammatory bowel disease and other related diseases: A Systematic Review of Randomized Human Clinical Trials. *Biomed Research International*, 2015, 1-15. doi:10.1155/2015/505878

Sisson, G., Ayis, S., Sherwood, R. A., & Bjarnason, I. (2014). Randomized clinical trial: A liquid multi-strain probiotic vs. placebo in the irritable bowel syndrome-a 12 week double-blind study. *Alimentary Pharmacology & Therapeutics*, 40(1), 51-62. doi:10.1111/apt.12787

Urgesi, R., Casale, C., Pistelli, R., Rapaccini, G. L., & de Vitis, I. (2014). A randomized double-blind placebo-controlled clinical trial on efficacy and safety of association of simethicone and Bacillus coagulans (Colinox®) in patients with irritable bowel syndrome. *European Review For Medical And Pharmacological Sciences*, 18(9), 1344-1353.

Yoon, J. S., Sohn, W., Lee, O. Y., Lee, S. P., Lee, K. N., Jun, D. W., . . . Seo, J. (2014). Effect of multispecies probiotics on irritable bowel syndrome: A randomized, double-blind, placebo-controlled trial. *Journal of Gastroenterology & Hepatology*, 29(1), 52-59. doi:10.1111/jgh.12322

Zhang, Y., Lixiang, L., Chuanguo, G., Dan, M., Bingcheng, F., Xiuli, Z., . . . Li, Y. (2016). Effects of probiotic type, dose and treatment duration on irritable bowel syndrome diagnosed by Rome III criteria: A meta-analysis. *BMC Gastroenterology*, 161-11. doi:10.1186/s12876-016-0470-z

Contact

missann_54@yahoo.com

RSG STR 1 - Rising Stars of Research and Scholarship Invited Student Poster Session 1

Is Cancer-Related Fatigue Related to Levels of Physical Activity and Body Weights in HNC Survivors?

Yuan-Yuan Fang, MS, RN, Taiwan
Yeur-Hur Lai, PhD, RN, Taiwan

Abstract

Purpose: In cancer survivors, fatigue frequently attacks and impact patients' daily life, but is usually underreported. Physical activity can decelerate the disease progress and decreases the impact of fatigue, but in head and neck cancer (HNC) patients there were few literatures and without combining the issue of body weight loss or obesity after treatment. The purposes of this study were to explore the relationship between physical activity, body weight status, and cancer-related fatigue.

Methods: This was a cross-sectional study design research and 144 HNC patients were recruited in outpatients center in medical center in Northern Taiwan after complete the treatment. Using Fatigue Symptom Inventory (FSI) and Godin Leisure-Time Exercise Questionnaire (GLTEQ) to be the interments and assessing by the senior nurses after agree to participant in the study.

Result: Most patients had good KPS (83.8 ± 7.76) and were average completed the treatment 17.2 (± 13.8) months, but only 20.8% were in met the public health exercise recommendation. Even after the treatment, nearly 80% of patients still suffer from fatigue, and first three fatigue daily interference were "general level of activity" (1.6 ± 2.1), "normal work activity" (1.4 ± 2.0), and "mood" (1.3 ± 2.1). The patients met exercise recommendation (in activity group) with normal BMI (18 to 25) were had significant lower fatigue intensity ($P = .01$) and fatigue interferences ($P = .002$) than sedentary. The trend showed that the sedentary patients in normal weight or overweight had worst fatigue intensity, inference, and duration. With BMI < 25, the patients had worst fatigue intensity, inference and duration than other participants.

Conclusion: Our study showed that the sedentary patients had worse fatigue than the patients with exercise, and the patients with BMI < 18 may have worst fatigue than the other participants. We recommend the health care givers encourage the patients have regular exercise behavior after the treatment and long-term follow up their body weight to give specific practical nutritional intervention.

References

- Adamsen, L., Quist, M., Andersen, C., Moller, T., Herrstedt, J., Kronborg, D., . . . Rorth, M. (2009). Effect of a multimodal high intensity exercise intervention in cancer patients undergoing chemotherapy: randomised controlled trial. *Bmj*, 339, b3410. doi: 10.1136/bmj.b3410
- Aghili, M., Farhan, F., & Rade, M. (2007). A pilot study of the effects of programmed aerobic exercise on the severity of fatigue in cancer patients during external radiotherapy. *European journal of oncology nursing*, 11(2), 179-182. doi: S1462-3889(06)00066-4 [pii] 10.1016/j.ejon.2006.03.005
- Arbane, G., Tropman, D., Jackson, D., & Garrod, R. (2011). Evaluation of an early exercise intervention after thoracotomy for non-small cell lung cancer (NSCLC), effects on quality of life, muscle strength and exercise tolerance: randomised controlled trial. *Lung Cancer*, 71(2), 229-234. doi: S0169-5002(10)00215-1 [pii] 10.1016/j.lungcan.2010.04.025 [doi]
- Aynehchi, B. B., Obourn, C., Sundaram, K., Bentsianov, B. L., & Rosenfeld, R. M. (2013). Validation of the Modified Brief Fatigue Inventory in head and neck cancer patients. *Otolaryngol Head Neck Surg*, 148(1), 69-74. doi: 10.1177/0194599812460985
- Berger, A. M., & Higginbotham, P. (2000). Correlates of fatigue during and following adjuvant breast cancer chemotherapy: a pilot study. *Oncology Nursing Forum*, 27(9), 1443-1448.
- Blaney, J., Lowe-Strong, A., Rankin, J., Campbell, A., Allen, J., & Gracey, J. (2010). The cancer rehabilitation journey: barriers to and facilitators of exercise among patients with cancer-related fatigue. *Physical therapy*, 90(8), 1135-1147. doi: 10.2522/ptj.20090278

Charlier, C., Van Hoof, E., Pauwels, E., Lechner, L., Spittaels, H., & De Bourdeaudhuij, I. (2013). The contribution of general and cancer-related variables in explaining physical activity in a breast cancer population 3 weeks to 6 months post-treatment. *Psychooncology*, 22(1), 203-211. doi: 10.1002/pon.2079

Chaukar, D. A., Walvekar, R. R., Das, A. K., Deshpande, M. S., Pai, P. S., Chaturvedi, P., . . . D'Cruz, A. K. (2009). Quality of life in head and neck cancer survivors: a cross-sectional survey. *Am J Otolaryngol*, 30(3), 176-180. doi: 10.1016/j.amjoto.2008.05.001

Courneya, K. S., Friedenreich, C. M., Quinney, H. A., Fields, A. L., Jones, L. W., Vallance, J. K., & Fairey, A. S. (2005). A longitudinal study of exercise barriers in colorectal cancer survivors participating in a randomized controlled trial. *Annals of behavioral medicine*, 29(2), 147-153. doi: 10.1207/s15324796abm2902_9

De Sousa, A. (2008). Psychological issues in oral and maxillofacial reconstructive surgery. *Br J Oral Maxillofac Surg*, 46(8), 661-664. doi: 10.1016/j.bjoms.2008.07.192

Duffy, S. A., Khan, M. J., Ronis, D. L., Fowler, K. E., Gruber, S. B., Wolf, G. T., & Terrell, J. E. (2008). Health behaviors of head and neck cancer patients the first year after diagnosis. *Head and Neck*, 30(1), 93-102. doi: 10.1002/hed.20665

Fang, F. M. (2003). *The Investigation of Health Related Quality of Life for Head-and-Neck Cancer Patients*. (Doctor degree), Kaohsiung Medical University, unpublished.

Fialka-Moser, V., Crevenna, R., Korpan, M., & Quittan, M. (2003). Cancer rehabilitation: particularly with aspects on physical impairments. *J Rehabil Med*, 35(4), 153-162.

Godin, G., Jobin, J., & Bouillon, J. (1986). Assessment of leisure time exercise behavior by self-report: a concurrent validity study. *Canadian Journal of Public Health. Revue Canadienne de Sante Publique*, 77(5), 359-362.

Godin, G., & Shephard, R. J. (1985). A simple method to assess exercise behavior in the community. *Canadian Journal of Applied Sport Sciences. Journal Canadien des Sciences Appliquees Au Sport*, 10(3), 141-146.

Hann, D. M., Denniston, M. M., & Baker, F. (2000). Measurement of fatigue in cancer patients: Further validation of the Fatigue Symptom Inventory. *Quality of Life Research*, 9(7), 847-854.

Hann, D. M., Jacobsen, P. B., Azzarello, L. M., Martin, S. C., Curran, S. L., Fields, K. K., . . . Lyman, G. (1998). Measurement of fatigue in cancer patients: development and validation of the Fatigue Symptom Inventory. *Quality of Life Research*, 7(4), 301-310.

Herrero, F., San Juan, A. F., Fleck, S. J., Balmer, J., Perez, M., Canete, S., . . . Lucia, A. (2006). Combined aerobic and resistance training in breast cancer survivors: A randomized, controlled pilot trial. *Int J Sports Med*, 27(7), 573-580. doi: 10.1055/s-2005-865848

Jackson, W., Alexander, N., Schipper, M., Fig, L., Feng, F., & Jolly, S. (2014). Characterization of changes in total body composition for patients with head and neck cancer undergoing chemoradiotherapy using dual-energy x-ray absorptiometry. *Head Neck*, 36(9), 1356-1362. doi: 10.1002/hed.23461

Kim, C. J., Kang, D. H., Smith, B. A., & Landers, K. A. (2006). Cardiopulmonary responses and adherence to exercise in women newly diagnosed with breast cancer undergoing adjuvant therapy. *Cancer Nurs*, 29(2), 156-165. doi: 00002820-200603000-00013 [pii]

Lokker, M. E., Offerman, M. P., van der Velden, L. A., de Boer, M. F., Pruy, J. F., & Teunissen, S. C. (2013). Symptoms of patients with incurable head and neck cancer: prevalence and impact on daily functioning. *Head Neck*, 35(6), 868-876. doi: 10.1002/hed.23053

Luctkar-Flude, M. F., Groll, D. L., Tranmer, J. E., & Woodend, K. (2007). Fatigue and physical activity in older adults with cancer: a systematic review of the literature. *Cancer Nursing*, 30(5), E35-45. doi: 10.1097/01.NCC.0000290815.99323.75 [doi] 00002820-200709000-00018 [pii]

Matthews, C. E., Wilcox, S., Hanby, C. L., Der Ananian, C., Heiney, S. P., Gebretsadik, T., & Shintani, A. (2007). Evaluation of a 12-week home-based walking intervention for breast cancer survivors. *Support Care Cancer*, 15(2), 203-211. doi: 10.1007/s00520-006-0122-x [doi]

Mock, V., Atkinson, A., Barsevick, A. M., Berger, A. M., Cimprich, B., Eisenberger, M. A., . . . Piper, B. F. (2007). Cancer-related fatigue. Clinical Practice Guidelines in Oncology. *Journal of the National Comprehensive Cancer Network*, 5(10), 1054-1078.

Mustian, K. M., Peppone, L., Darling, T. V., Palesh, O., Heckler, C. E., & Morrow, G. R. (2009). A 4-week home-based aerobic and resistance exercise program during radiation therapy: a pilot randomized clinical trial. *J Support Oncol*, 7(5), 158-167.

Mutrie, N., Campbell, A. M., Whyte, F., McConnachie, A., Emslie, C., Lee, L., . . . Ritchie, D. (2007). Benefits of supervised group exercise programme for women being treated for early stage breast cancer: pragmatic randomised controlled trial. *BMJ*, 334(7592), 517. doi: bmj.39094.648553.AE [pii] 10.1136/bmj.39094.648553.AE [doi]

National Comprehensive Cancer Network [NCCN]. (2009). NCCN Clinical Practice Guidelines in Oncology: Head and Neck Cancers. Retrieved September 20, 2009 http://www.nccn.org/professionals/physician_gls/PDF/head-and-neck.pdf

Osthus, A. A., Aarstad, A. K., Olofsson, J., & Aarstad, H. J. (2011). Health-related quality of life scores in long-term head and neck cancer survivors predict subsequent survival: a prospective cohort study. *Clin Otolaryngol*, 36(4), 361-368. doi: 10.1111/j.1749-4486.2011.02342.x

- Pourel, N., Peiffert, D., Lartigau, E., Desandes, E., Luporsi, E., & Conroy, T. (2002). Quality of life in long-term survivors of oropharynx carcinoma. *Int J Radiat Oncol Biol Phys*, 54(3), 742-751.
- Rogers, L. Q., Courneya, K. S., Robbins, K. T., Malone, J., Seiz, A., Koch, L., & Rao, K. (2008). Physical activity correlates and barriers in head and neck cancer patients. *Supportive Care in Cancer*, 16(1), 19-27. doi: 10.1007/s00520-007-0293-0
- Rogers, L. Q., Courneya, K. S., Robbins, K. T., Malone, J., Seiz, A., Koch, L., . . . Nagarkar, M. (2006). Physical activity and quality of life in head and neck cancer survivors. *Support Care Cancer*, 14(10), 1012-1019. doi: 10.1007/s00520-006-0044-7
- Scott, D. A., Mills, M., Black, A., Cantwell, M., Campbell, A., Cardwell, C. R., . . . Donnelly, M. (2013). Multidimensional rehabilitation programmes for adult cancer survivors. *Cochrane Database Syst Rev*, 3, Cd007730. doi: 10.1002/14651858.CD007730.pub2
- Shun, S. C., Beck, S. L., Pett, M. A., & Berry, P. H. (2006). Psychometric testing of three Chinese fatigue instruments in Taiwan. *J Pain Symptom Manage*, 32(2), 155-167. doi: 10.1016/j.jpainsymman.2006.02.011
- So, W. K., Chan, R. J., Chan, D. N., Hughes, B. G., Chair, S. Y., Choi, K. C., & Chan, C. W. (2012). Quality-of-life among head and neck cancer survivors at one year after treatment--a systematic review. *Eur J Cancer*, 48(15), 2391-2408. doi: 10.1016/j.ejca.2012.04.005
- Stone, P., Richardson, A., Ream, E., Smith, A. G., Kerr, D. J., & Kearney, N. (2000). Cancer-related fatigue: inevitable, unimportant and untreatable? Results of a multi-centre patient survey. Cancer Fatigue Forum. *Annals of Oncology*, 11(8), 971-975.
- Tung, W. C., Gillett, P. A., & Pattillo, R. E. (2005). Applying the Transtheoretical Model to physical activity in family caregivers in Taiwan. *Public Health Nursing*, 22(4), 299-310. doi: PHN220405 [pii] 10.1111/j.0737-1209.2005.220405.x
- Wagner, L. I., & Cella, D. (2004). Fatigue and cancer: causes, prevalence and treatment approaches. *British Journal of Cancer*, 91(5), 822-828. doi: 10.1038/sj.bjc.6602012 [doi] 6602012 [pii]
- Wang, Y. J., Boehmke, M., Wu, Y. W., Dickerson, S. S., & Fisher, N. (2011). Effects of a 6-week walking program on Taiwanese women newly diagnosed with early-stage breast cancer. *Cancer Nurs*, 34(2), E1-13. doi: 10.1097/NCC.0b013e3181e4588d [doi]
- Watson, T., & Mock, V. (2003). Exercise and cancer-related fatigue: a review of current literature. *Rehabilitation Oncology*, 21(1), 23-30.

Contact

d01426002@ntu.edu.tw

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2

Influence of Comorbidities on Symptom Severity in Cancer Patients

Eric A. Vachon, BSN, RN, USA

Barbara A. Given, PhD, RN, FAAN, USA

Abstract

Background & Purpose: The increasing use of oral oncolytic agents (OOA) and the rising incidence of multimorbidity have combined to create a population with increased needs. Cancer patients that have been prescribed OOAs and have other comorbid conditions, are at risk for poor management of their cancer and comorbidities. Oral oncolytic agents comprise more than 30% of all prescribed chemotherapy. Over 50% of Medicare beneficiaries over age 65 with cancer have four or more additional chronic conditions that require some form of medical management. Oral oncolytics administered in the home, require cancer patients to self-manage the symptoms and side effects associated with cancer and treatment. The competing demands of OOAs and multimorbidity often have the potential to culminate in increased symptom burden for the patient who has a need for symptom management strategies. The purpose of this work is to examine the impact of comorbid conditions on symptom severity among cancer patients who were newly prescribed oral oncolytic agents.

Methods & Design: Data were collected from a sample of 272 cancer patients newly-prescribed oral oncolytics (136 males, 136 females) at baseline (initiation of OOA) and 4 weeks in a multi-site RCT testing symptom management strategies, using an adapted Dodd symptom-management framework. Telephone interviewers collected medication information, comorbid conditions, and severity (range: 1-10) of 18 symptoms using the Symptom Experience Scale, among other variables. Patients were randomized into control (n=135) and experimental (n=137) groups after baseline, and the experimental group was given a toolkit and instructed to refer to it when symptom severity was $\geq 4/10$. Data were analyzed through descriptive statistics and multiple linear regression models, using STATA/IC 14.0. Baseline and 4-week symptom severity was examined in relation to sex, age, OOA drug class, treatment group, recruitment center, and number of comorbid conditions.

Results: Patients had a mean age of 61 years and presented with an average of 3.38 comorbidities, in addition to their cancer. At baseline, symptom severity was 21.7, and at 4 weeks, it was 22.1. Age was the only significant predictor of baseline symptom severity ($p < .05$). For each each increase in age by 1 year, symptom severity decreased by .22. Although not a significant predictor of baseline symptom severity, with each additional comorbid condition, symptom severity increased by 1. The only significant predictor at 4 weeks was the difference in symptom severity between two OOA classes, cytotoxics and sex hormone inhibitors (SHI). Cytotoxics's mean symptom severity was 11.6 higher than SHIs. Comorbidities were not a significant predictor of 4-week symptom severity, only increasing by 0.69 with each increase in number of comorbid conditions.

Conclusions & Implications: Comorbid conditions have the potential to impact the clinical outcomes and quality of life for cancer patients prescribed oral oncolytic agents. Although not a significant predictor, with each increase in number of chronic conditions, comorbidities increase a patient's overall symptom severity. However, after being on the new oral oncolytic treatment for 4 weeks, the effect of comorbidities is diminished. Age was a significant baseline predictor of symptom severity, but opposite of the typically observed trend. This increase in symptom severity in younger patients may be related to the harsh nature of cancer in younger adults. After being on the OOA for several weeks, drug class is the driving force of increased symptom severity. This work suggests the need for comprehensive management of both patients' cancer and their other comorbid conditions, and concern for the changes over time.

References

Sarfati, D., Koczwara, B., & Jackson, C. (2016). The impact of comorbidity on cancer and its treatment. *CA Cancer J Clin*, 66(4), 337-350. doi:10.3322/caac.21342

Williams, G. R., Mackenzie, A., Magnuson, A., Olin, R., Chapman, A., Mohile, S., . . . Holmes, H. (2016). Comorbidity in older adults with cancer. *J Geriatr Oncol*, 7(4), 249-257. doi:10.1016/j.jgo.2015.12.002

Contact

eric.vachon@hc.msu.edu

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2 Professional Development of Nursing Leaders: A Case Study of Canadian Nurses Association Presidents (CNA)

Laura Jane Colley, BScN, RN, Canada

Sonya Grypma, PhD, RN, Canada

Magdalena Theron, DCur, RN, Canada

Abstract

Nursing leadership is important across every domain of the nursing profession. However, nursing leadership development is not well understood or documented. This study addresses this gap in the literature by turning to an overlooked source of leadership knowledge – presidents of the Canadian Nurses Association (CNA). The CNA has had exceptional leaders during its 108-year history. Many have influenced nursing practice, changed the perception of nursing, and improved healthcare. Yet, little is known about how they became such outstanding leaders. Using a qualitative design, this study aims to inspire and inform current and future nurses by exploring the experiences and leadership journeys of CNA presidents.

Altogether, seven nurses who have held the title of President of the CNA were interviewed, face-to-face, by Skype or by telephone. These interviews focused on the participants personal experiences and perspectives about their leadership journey. Their definitions, philosophies, and motivations for pursuing this particular leadership role were also explored. Through interpretive description methodology the following six themes were identified: Embracing Opportunities, Relentless Incrementalism, a Service Mindset, Taking the Long View, Enduring Heartbreak and Taking a Seat at the Table.

The findings of this study provide a deeper understanding of how and why nursing leaders became CNA Presidents and how they contribute to the nursing profession. The findings also inform how leadership is seen and developed in all nurses as leaders. Therefore, current and future nursing leaders will benefit from the wisdom of the participants in this study as a source for ongoing development of their leadership skills. However, continuing study of high level nursing leadership development is recommended in a variety of settings. This is important for a deeper understanding of the characteristics and nuances of nursing leadership development in order to ensure empowered and effective nurses direct the profession in the years to come.

References

- Bernard, N. (2014). Who's Next? Developing High Potential Nurse Leaders for Nurse Executive Roles. *Nurse Leader* 12(5), 56-61.
- Erickson, J.I. (2013). Reflections on Leadership Talent: A Void or an Opportunity? *Nursing Administration Quarterly* 37(1), 44-51.
- Grossman, S.C. & Valiga, T.M. (2013). *The New Leadership Challenge: Creating the Future of Nursing*. Philadelphia: F.A. Davis Company.
- Yoder-Wise, P.S. (2015). *Leading and Managing in Canadian Nursing*. Toronto: Elsevier

Contact

laura.colley@fraserhealth.ca

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2

A Comparison of Fatigue Among Resectable Colorectal and Pancreatic Cancer Patients

Hsuan-Ju Kuo, MSN, RN, Taiwan
Shiow-Ching Shun, PhD, RN, Taiwan

Abstract

Purpose: Both colorectal and pancreatic cancer patients suffer from gastrointestinal associated symptoms that cause nutrition insufficiency. Under impaired nutritional status, cancer patients are prone to experience fatigue. However, there is currently no study that compares fatigue status between colorectal cancer and pancreatic cancer patients. Therefore, the aim of this study was to compare the perceived fatigue among patients with colorectal cancer and pancreatic cancer; and to explore the associated factors among demographic and clinical characteristics, functional lower extremity strength, and grip strength for fatigue in overall patients.

Methods: A cross-sectional research design was conducted. Data were collected using a structured questionnaire including demographic and clinical characteristic form, and the Chinese version of the Fatigue Symptom Inventory (FSI). Grip strength was tested by the Jamar^R plus+ digital hand dynamometer. Functional lower extremity strength was evaluated with the 30-second chair stand test. A total of 64 preoperative cancer patients, including 32 with colorectal cancer and 32 with pancreatic cancer, were recruited from a medical center in northern Taiwan. The generalized estimating equation (GEE) was used to examine the significant associated factors with fatigue for overall patients.

Results: There were no significant differences in demographic factors in the two groups. However, the disease characteristics including functional status ($p=.005$), cancer stage ($p=.005$), body mass index ($p=.020$), regular exercise habit ($p=.001$), and having comorbid chronic illness ($p=.003$) demonstrated significant statistical differences. Furthermore, there were significant differences in fatigue between the two preoperative cancer groups; and pancreatic cancer patients had higher FSI score than colorectal cancer patients. However, the statistical significance of cancer types disappeared after adjustment for functional status, cancer stage, body mass index, regular exercise habit, and having comorbid chronic illness. The significant associated factor with fatigue was functional status measured by Karnofsky Performance Status Scale (KPS). Patients who had lower KPS score ($\beta=-.976$, $p=.018$) reported higher score in FSI. There were no significant statistical differences in the 30-second chair stand test and grip strength between the two groups.

Implication for practice: Healthcare providers should pay extra attention and assess potential fatigue conditions for cancer patients with lower preoperative functional status. Nursing education regarding fatigue management may be indicated for both cancer populations who experience impaired functional status. Further research with larger sample size should be done to examine fatigue characteristics among both groups and intervention should also be developed accordingly.

References

- England, N. (2015). Quality of Life of colorectal cancer survivors in England. *Public Health England*, 1-39.
- Finsterer, J. M., S.Z. (2014). Fatigue in healthy and diseased individuals. *American Journal of Hospice & Palliative Medicine*, 31(5), 562-575.
- National Comprehensive Cancer Network. (2015). NCCN Guidelines version 2.2015 Cancer-related Fatigue. Retrieved from <http://www.NCCN.org>
- Sun, J. L., & Lin, C. C. (2015). Relationships among daytime napping and fatigue, sleep quality, and quality of life in cancer patients. *Cancer Nursing*, 4(1), 1-10.
- Zhang, Q., Zeng, L., Chen, Y., Lian, G., Qian, C., Chen, S., . . . Huang, K. (2016). Pancreatic cancer epidemiology, detection, and management. *Gastroenterology Research and Practice*, 14(2), 1-10.

Contact

r04426005@ntu.edu.tw

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2

Depression Screening and Glycated Hemoglobin Levels: Diabetes Follow-Up Measures

Kristel Rosemarie McGhee, BSN, RN, CNRN, USA
Katherine Kenny, DNP, RN, ANP-BC, FAANP, FAAN, USA

Abstract

Diabetes and depression often co-exist. This combination may exacerbate the progression of diabetes; therefore, diagnosis and treatment of depression may improve diabetes management. In addition to routine monitoring of glycated hemoglobin (A1C) levels, diabetic patients should receive an annual depression screen to facilitate treatment and referral. Yet in the outpatient setting, depression screening is an underutilized tool. The overarching purpose of this project is to address and treat the depression in patients with diabetes, and to decrease A1C levels and ultimately improve chronic disease outcomes.

A literature review explored interventions to improve chronic disease outcomes in adults. Selected studies revealed common themes that impacted outcomes in diabetic patients and included missed appointments, elevated A1C levels with co-existing depression, and missed depression diagnosis.

This project explored outcomes associated with implementation of scheduled depression screening for patients with diabetes age 18 to 64 in an urban community internal medicine clinic. All diabetic patients were screened with the Patient Health Questionnaire-9 (PHQ-9) at follow-up appointments over a 4-week period. Demographic data and the severity of depression measured by the PHQ-9 score will provide descriptive analysis of the screened populations. Measures of central tendency and spread will also be analyzed. The measurable outcomes include the following: number of diabetic patients who were not being treated for depression at the time they completed the questionnaire, and whose responses to the PHQ-9 would support a diagnosis of depression.

Consistent screening will support treatment and referral of diabetic patients whose PHQ-9 result indicates depression. This cost-effective intervention may reduce complications of diabetes, and help patients manage their A1C levels.

At community internal medicine practices internationally, there is room for improvement in diabetes follow-up care. Additional monitoring strategies may lessen emergency department visits and hospital readmission for all patients with diabetes. The goal is to identify these high-risk patients, screen for depression, and ensure follow-up care. Given the minimal effort and cost of depression screening, outpatient clinics internationally may consider routinely screening patients with diabetes for depression.

References

- Bogner, H. R., Morales, K. H., de Vries, H. F., & Cappola, A. R. (2012). Integrated management of type 2 diabetes mellitus and depression treatment to improve medication adherence: A randomized controlled trial. *Annals of Family Medicine*, 10(1), 15-22. doi:10.1370/afm.1344
- Bot, M., Pouwer, F., de Jonge, P., Tack, C. J., Geelhoed-Duijvestijn, P. H. L. M., & Snoek, F. J. (2013). Differential associations between depressive symptoms and glycaemic control in outpatients with diabetes. *Diabetic Medicine*, 30(3), 115-122. doi:10.1111/dme.12082
- Moriarty, A. S., Gilbody, S., McMillan, D., & Manea, L. (2015). Screening and case finding for major depressive disorder using the patient health questionnaire (PHQ-9): A meta-analysis. *General Hospital Psychiatry*, 37(6), 567-576. doi:10.1016/j.genhospsych.2015.06.012

Contact

kristel.mcghee@asu.edu

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2 Is Less More? Pediatric Intractable Migraine and OnabotulinumtoxinA Treatment

Tara Ayn Pezzuto, APRN, RN, MSN, PCNS-BC, USA

Abstract

Objectives: The objective of this study was to analyze pediatric and adolescent chronic daily migraine response rates to modified doses of onabotulinumtoxinA.

Background: Chronic migraine occurs in about three percent of pediatric headaches. Some children and adolescents are intractable to two or more preventive medications. OnabotulinumtoxinA, 155-200 units every three months was approved by the US Food and Drug Administration for the use of chronic migraine in adults in 2010. Data on effectiveness and tolerability in the pediatric population is very limited. Standard dosing is not established for children.

Methods: A retrospective chart review of forty-four patients' between 11 and 21 years of age who had 15 or more headache days a month and had been intractable to at least two different prevention medication treatments for chronic daily headache prior to receiving OnabotulinumtoxinA . There were 35 female patients and 9 male patients. Those who received onabotulinumtoxinA for treatment of chronic migraine in a pediatric headache center from February of 2014 to March of 2016 were analyzed. OnabotulinumtoxinA is offered to any pediatric or adolescent patient coming to the clinic for chronic migraine if they fail two or more preventive medications. Dosing was based on location of pain and tolerance of the procedure. Injection sites were outlined based on adult standard dosing suggestions. The review analyzed age, sex, diagnosis, location of pain reported, doses of onabotulinumtoxinA tried, quantity of injection sets, and response to treatment.

Results: Seventy percent of this population decreased their headache frequency and/or intensity by at least fifty percent. Forty-eight percent had less than two headaches a month. Ninety four percent of those that responded positively did so with less than one hundred and ten units of onabotulinumtoxinA.

Conclusions: This suggests that "less is more" in the pediatric and adolescent dosing of onabotulinumtoxinA for treatment of chronic daily migraine.

References

- Ahmed, K., Hall, k., Oas, K., Mack, J., Garza, I. (2010) Experience with botulinum Toxin Type A in Medically Intractable Pediatric Chronic Daily Headache. *Pediatric Neurology*. 43;5, 316-319.
- Chan, V.W., McCabe, E.J., MacGregor, D.L. (2009). Botox Treatment for migraine and Chronic Daily Headache in adolescents. *Journal of Neuroscience Nursing*. 41(5): 235-243.
- Kabbouche, M., Obrien, H., Hershey, A. (2012). OnabotulinumtoxinA in Pediatric Chronic Daily Headache. *Curr Neurol Neuroscience Rep* 12: 114-117
- Lipton, R.B. et al. (2011). OnabotulinumtoxinA improves quality of life and reduces impact of chronic migraine. *Neurology*. 77:1465-1472.

Contact

tap005@jefferson.edu

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2 Evolving Attitudes Toward Research in Undergraduate Nursing Honors Students

Shana Porter, BSN, RN, USA

Paige Mocek, BSN, RN, USA

Desiree Hensel, PhD, RN, PCNS-BC, CNE, USA

Abstract

Purpose: While there is a growing body of literature that supports the use of undergraduate research to capture student interest and to create enthusiasm that leads to higher levels of engagement, there are many unanswered questions about what models lead to best student learning outcomes. Q methodology, or Q for short, is a set of philosophical principles, data collection techniques, and statistical procedures to study subjectivity that can be used to generate theory, test theory, or evaluate program outcomes (Hensel, 2016a; Ramlo, 2015; Ramlo, 2016). When used for undergraduate research, Q is thought to contribute to positive student and faculty outcomes (Hensel, 2016b). The purpose of this project was to evaluate changes in attitudes about research among a cohort of five nursing students who conducted Q methodology studies as part of an undergraduate honors program.

Methods: Institutional Board Review (IRB) was obtained to conduct this Q methodology study. The five nursing honors students generated a set of statements, referred to as the concourse, which reflected both positive and negative beliefs about undergraduate research. Statements from the literature research supplemented the naturalist concourse. After reviewing all statements for range and repletion, 36 statements were retained and printed individually on a deck of cards for sorting. The 5 nursing research honors course students were asked to rank order their level of agreement and disagreement on a -4 to +4 sorting sheet with each statement based under two conditions of instructions. First they sorted the items based on their current attitudes about research, after having participated in one semester of the nursing honors program. During this semester students had completed their literature review, designed their Q study and submitted their proposal to IRB. One student had collected data, but not yet analyzed it. Next students completed a second sort based on how they felt about research before they began the honors program. Data analysis, including principal component factor analysis, was completed using a standard process described by Watts and Stenner (2012) with Ken Q software.

Results: Participants generally disagreed with the statement "research isn't important for my career." A 2-factors final solution explained 70% of the variance. Factor 1 explained 42% of the variance and was characterized by the statements "undergraduate research could distinguish me among other graduates," and "doing undergraduate research could help me get into advanced education programs, like graduate school." Seven sorts loaded on Factor 1, including all sorts completed under the current attitudes conditions of instructions. Factor 2 was characterized by the statements "undergraduate research is intimidating" and "I don't have enough time to participate in undergraduate research." This factor explained 28% of the variance with 3 positive loading of sorts done based on attitudes before engaging in the honors program.

Conclusion: This is the first study to look at outcomes from using Q methodology for undergraduate nursing honors research. This study found that while students had overall positive attitudes toward the importance of research, it was intimidating to some. After engaging in one semester of an honors program and designing a Q study all students strongly believed that they benefited professionally from participation in the program. The structured processes associated with doing a Q study are thought to support meaningful research that can be completed by undergraduates (Hensel, 2016), but what role study design played in the shifting of three students' perspectives is unclear. Future research is needed to understand how research design impacts student success in undergraduate research.

References

1. Hensel, D. (2016a). Using Q methodology to assess learning outcomes following the implementation for a concept-based curriculum. *Nurse Educator*, doi: 10.1097/NNE. 0000000000000357

2. Hensel, D. (2016b). Q-Methodology: An alternative design for undergraduate nursing honors research. *Journal of Nursing Education*, *55*(11), 659-662.
3. Ramlo, S. E. (2015). Q methodology as a tool for program assessment. *Mid-Western Educational Researcher*, *27*(3), 207.
4. Ramlo, S. (2016). Mixed method lessons learned from 80 years of Q methodology. *Journal of Mixed Methods Research*, *10*(1), 28-45.
5. Watts, S., & Steiner, P. (2012). *Doing Q methodological research: Theory, method & interpretation*. Sage.

Contact

shamport@indiana.edu

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2 Nurse Manager Perspectives on Internationally Educated Nurses (IENs) and Hiring Practices in Long-Term Care

Katrina Haynes, BSN, RN, Canada
Barbara Astle, PhD, RN, Canada
Margery Hawkins, PhD, RN, Canada

Abstract

Internationally Educated Nurses (IENs) are an integral part of Canada's nursing workforce. However, when nurses immigrate to Canada they often encounter many barriers, from being a newcomer to successfully practicing nursing in the Canadian context. These barriers have been well documented and include hurdles at every step of the process of becoming a Registered Nurse (RN) in Canada, for example, with immigrating; obtaining nursing certification, which may involve taking a language test, writing the RN Licensing exam, or upgrading their skills and taking additional courses, prior to finding employment; and lastly, with successfully integrating into a new workplace. Much of the literature about IENs focuses on the various issues they encounter from their perspective; however, there is a gap in the literature that fails to address the hiring practices of Nursing Managers. A better understanding of the hiring practices of Nursing Managers may benefit IENs and nurse educators by making them aware of employers' expectations. A qualitative study using Interpretive Description was used to explore the perceptions and experiences that influence the hiring practice decisions of Nursing Managers in long-term care settings who employ IENs with Canadian RN licensure. Semi-structured interviews were conducted with seven Nursing Managers in long-term care settings in Western Canada. Thematic analysis guided interpretation of the emerging themes. The three themes are 1) *Acknowledging the Complexities*, 2) *Finding the Right Fit*, and 3) *Navigating Differences*. The results will be discussed as they relate to the hiring practices of Nursing Managers of IENs in long-term care settings, as well as, the application of the findings to other practice settings, nursing education, professional nursing organizations, and immigrant serving organizations that assist IENs with their transition to nursing employment. Gaining insight into the hiring practices of Nursing Managers may provide better support for IENs finding gainful employment and ensure their successful transition into the workplace. Implications for nursing and recommendations for further research related to understanding the hiring practices of IENs by Nursing Managers in other settings will be discussed.

References

- Canadian Health Human Resources Network (2013). *Internationally Educated Health Care Professionals*. Ottawa, ON: Author. Retrieved December 31, 2015 from http://www.hhr-rhs.ca/index.php?option=com_content&view=article&id=352:internationally-educated-health-care-professionals&catid=149:mobility-migration&Itemid=144&lang=en
- Covell, C.L., Neiterman, E., & Bourgeault, I.L. (2014). A Scoping Review of the Literature on Internationally Educated Nurses in Canada: Mapping a Research Agenda. *CJNR*, 46(3), 26-45.
- Hawkins, M. & Rodney, P. (2015). A precarious journey: Nurses from the Philippines seeking RN licensure and employment in Canada. *CJNR*, 47(4), 97-112.
- McGillis Hall, L., Jones, C., Lalonde, M., Strudwick, G., & McDonald B. (2015). Not very welcoming: A survey of internationally educated nurses employed in Canada. *Journal of Nursing and Health Care*, 2(2), 60-65. doi: 10.5176/2010-4804_2.2.78.
- Salma, J., Hegadoren, K.M., & Ogilvie, L. (2012). Career advancement and educational opportunities: Experiences and perceptions of internationally educated nurses. *Nursing Leadership*, 25(3), 56-69.
- Thorne, S. (2016). *Interpretive description*. Walnut Creek, CA: Left Coast Press.

Contact

Katrina.Vance@mytwu.ca

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2

Use of a Wellness Coaching Model Among Urban-Dwelling, Low-Income Older Adults

Bertha Lee, BSN, RN, USA

Abstract

Older adults, age 65 years or over, currently represent 14.5% of the United States (U.S.) population. This value is projected to more than double to 98 million by 2060 (AoA, 2015) as an increasing number of older adults, both rich and poor, are living longer in the presence of chronic disease and illness symptoms (National Center for Health Statistics (US) & National Center for Health Services Research, 2012). Compared to younger individual, older adults are more likely to experience repeated hospitalizations and/or unplanned visits to their health care provider, and face increased costs to manage their health (Lehnert et al., 2011). Prolonged life, desired by many, brings new challenges. Older adults often struggle to maintain quality of life and independence in the presence of complex, chronic diseases and prevailing illness symptoms; for low-income elders with limited access to a resourceful, supportive environment, these challenges are even more profound (Huguet, Kaplan, & Feeny, 2008).

Partnering with the Boston Housing Authority (BHA), this pilot project implemented a wellness coaching model consisting of a comprehensive, geriatric assessment, an individualized healthy aging plan, and continued coach contacts to increase health self-management. Troutman's theory of successful aging, that supports individual determination of successful aging and an action plan to achieve life goals provided the theoretical foundation. Troutman's theory of successful aging involves three coping processes: 1. functional performance mechanisms, 2. intra-psycho factors, and 3. spirituality (Topaz, Troutman-Jordan, MacKenzie, 2014). Functional performance mechanisms refer to the use of conscious awareness and choice as an adaptive response to physiologic and physical aging. Intrapsychic factors are the innate features that contribute to the person's ability to adapt to change and solve problems. Spirituality consists of the person's beliefs and views that relates to something greater than self. Each of the three processes contribute to the complex process of gero-transcendence and, ultimately, successful aging.

The primary purpose of this study was to determine if low-income older adults who participate in a personalized wellness coaching model will have increased self-management behaviors (i.e. physical activity) as compared to a wait-list control group. The study sample included minority older adults residing in one of two BHA sites. Fifteen participants (5 females and 10 males, mean age 77.4 ± 7.9 years) were assigned to the intervention group and 13 older adults (7 females and 6 males, mean age 75.8 ± 9.1 years) from another BHA site made up the control group, crossing over to the intervention six months later. Assessment tools used were interRAI's Health & Social Check-up and the Lifestyle Survey.

Independent and paired t-tests ($p < 0.05$) were calculated to compare baseline and follow-up results. There was statistical improvement of physical activity in both Amory Groups 1 ($p < 0.02$) and 2 ($p < 0.016$) and the PAM score ($p < 0.05$) in Amory Group 2. Self-reported quality of life statistically decreased in the control group at Holgate.

References

- Administration on Aging (AoA), Administration for Community Living, U.S. Department of Health and Human Services. (2015). A Profile of Older Americans: 2015. Retrieved from https://aoa.acl.gov/Aging_Statistics/Profile/2015/docs/2015-Profile.pdf.
- Topaz, M., Troutman-Jordan, M., & MacKenzie, M. (2014). Construction, deconstruction, and reconstruction: The roots of successful aging theories. *Nursing science quarterly*, 27(3), 226-233.

Contact

lee.ber@husky.neu.edu

RSG STR 2 - Rising Stars of Research and Scholarship Invited Student Poster Session 2

The Prevalence and Perceived Benefit of Prescribed Anti-Anxiety Medications Used by BSN Students in Virginia

Lauren M. Atkins, SN, SN, USA

Abstract

There is no published literature that addresses the prevalence of prescribed anti-anxiety medications used by nursing students, nor are there any published studies that reveal the perceived benefit of prescribed anti-anxiety medications used by nursing students to alleviate the stress of nursing school. However, nursing students self-report widespread stress and anxiety related to the nursing education environment and the use of prescribed anti-anxiety medications to help alleviate the stress.

The literature does address the prevalence of stress in the nursing education environment and the detrimental effects of this stress on nursing students including their ability to effectively learn. There is also published literature among associated professional fields including medicine, social work, pharmacy and dental students, all addressing the negative impact of stress on the learning of students in these environments. Sources of stress include the clinical environment, tests and exams, interactions with faculty, social isolation, and simulation exercises. Interventions typically advocated for use include meditation, exercise, reflection, counseling, journaling, mindfulness and yoga. Use of prescribed medications is not typically advocated, but is thought to be in widespread use.

The purpose of this study was to begin to understand how wide-spread the use of prescribed anti-anxiety medications is among BSN students in Virginia, and to determine the perceived benefit of the medications to the nursing students. This was a descriptive study and participants were nursing students in attendance at the Virginia Nursing Students Association annual meeting.

Students completed a survey that was distributed at registration at their annual student nursing conference. The survey form asked about their experiences with nursing program related anxiety and methods they commonly use to manage the anxiety, including the use of prescribed anti-anxiety medications. Responses were tallied and descriptive statistics will be reported. Survey responses show that participants in the study overwhelmingly listed sources of stress requiring anti-anxiety management including prescriptions to manage stress associated with clinical learning, simulation experiences, assignments, exams, faculty interactions and social isolation.

References

- Dagistani, A., Al Hejaili, F., Binsalih, S., Al Jahdali, H., & Al Sayyari, A. (2016). Stress in Medical Students in a Problem-Based Learning Curriculum. *International Journal Of Higher Education*, 5(3), 12-19.
- Ford, K. C., Olotu, B. S., Thach, A. V., Roberts, R., & Davis, P. (2014). Factors Contributing to Perceived Stress among Doctor of Pharmacy (PharmD) Students. *College Students Journal*, 48(2), 189-198.
- Khalaila, R. (2014). The relationship between academic self-concept, intrinsic motivation, test anxiety, and academic achievement among nursing students: Mediating and moderating effects. *Nurse Education Today*, 35(3), 432-438. doi:10.1016/j.nedt.2014.11.001
- Ongel, K., Balci, U. G., Simsek, Y., Ileri, H., & Kucuk, E. F. (2015). Anxiety among University Students and Its Effects on Nutrition. Online Submission,
- Papazisis, G., Nicolaou, P., Tsigas, E., Christoforou, T., & Sapountzi-Krepia, D. (2013). Religious and spiritual beliefs, self-esteem, anxiety, and depression among nursing students. *Nursing & Health Sciences*, 16(2), 232-238. doi:10.1111/nhs.12093

Contact

lauren.atkins@live.longwood.edu

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3 Sexual Decision-Making of Rural Men Who Have Sex With Men

Jessica A. Lecea, BSN, RN, USA

Peri L. Kane, BSN, RN, USA

Greg A. Carter, MSN, BSN, RN, CNS, USA

Desiree Hensel, PhD, RN, PCNS-BC, CNE, USA

Abstract

Background: According to the Centers for Disease Control and Prevention ([CDC], 2016b), men who have sex with men (MSM) experience greater rates of sexual transmitted infections (STIs) and sexual health disparities compared to heterosexual individuals. Sexual-orientation based discrimination, violence and stigma contributes to this issue by building larger barriers to access and utilization of sexual health services (Hubach, 2015; Satcher, Hook, & Coleman, 2015). In order to access sex without provoking physical assault, jeopardizing communal ties or creating intrapsychic dissonance, some rural MSM utilize venues and practices that are linked to flawed risk reduction behaviors and the contraction of STIs (Hubach et al., 2015; Lewnard & Berrang-Ford, 2014). While representing four percent of the national population, the MSM rate of newly diagnosed HIV cases is forty-four times that of heterosexual males (CDC, 2016a). This disproportionately affected group lacks medical treatment with only 39% of MSM living with HIV receiving care (CDC, 2016a). The World Health Organization ([WHO], 2016) released a call to action to provide comprehensive and effective interventions aimed at HIV prevention and treatment of MSM in all countries regardless of income. Previous research stresses the importance of not viewing the MSM community as a homogenous group, but rather recognizing the existence of MSM subcultures and crafting interventions based on their individual beliefs and behaviors (Prestage et al., 2015). Yet, current literature has not fully explored factors that influence sexual decision making of rural MSM.

Purpose: The purpose of this study is to explore which factors in sexual decision making are most important to men that have sex with men from rural communities.

Method: The research study uses Q methodology, a mixed methods approach that uses a set of philosophical principles, data collection techniques and statistical procedures to quantitatively study subjective beliefs and attitudes in regards to a particular topic (Ramlo, 2016; Watts & Stenner, 2012). Q methodology begins by populating the concourse, which is a complete set of opinions a group may say or think about a specific topic (Watts & Stenner, 2012). The concourse for this study was derived from previously conducted in-depth qualitative interviews with rural MSM and extant literature on sexual decision making patterns of rural MSM. The statements reflected sexual decisions based in social/intrapsychic safety, such as "I feel as though I would be physically attacked if I was found engaging in sex with men in a rural area" and sexual health risks, such as "I am not concerned with STIs because they can be treated". After inspection of range and repletion, a subset of 44 subjective statements were retained to create the Q sample. The Q sample was reproduced on individual cards to be used in the sorting process. The recruited sample consisted of no more than 20 men that are 18 years of age or older, have resided in a rural area during childhood (ages 3-18), and has engaged in sexual activities with men. The Index of Relative Rurality will be used to determined rurality. Eligible participants will be asked to complete a demographic questionnaire and Q sort. The Q sort involves each participant reviewing and ranking the statements based on his level of agreement and disagreement to factors in sexual decision making. Each participant will record his rankings on a -5 to +5 distribution sorting sheet. Two follow-up questions will be used to obtain deeper insight of participants' top rankings. The study was approved through the Indiana University Institutional Review Board (IRB).

Results: This research study is ongoing. The results of this study will reveal which factors related to sexual decision making are most important to rural men that have sex with other men. Data will be analyzed using a standard process through principle component factor analysis and varimax rotation followed by calculating factor scores (Watts & Stenner, 2012). Data analysis will be completed using KenQ web-based software. The factor array will be used to identify common factors and viewpoints. This

information will be interpreted through the lens of Simon and Gagnon's sexual scripting theory in context of the demographic questionnaires and the follow-up questions.

Discussion: The results gathered from this study will inform the development of targeted sexual health-based interventions tailored to this at-risk population. As a frontline provider addressing health disparities, nurses are essential to intervening on this pressing issue. In order to do so, nurses must be informed of the STI/HIV epidemic and able to identify underlying decision-making factors perpetuating the ongoing outbreak. By engaging nurses in the care of at-risk populations to address one of the most significant and devastating epidemic in recent history, healthcare professionals will be able to optimize the health of this disproportionately affected group on a global level.

References

- Centers for Disease Control and Prevention. (2016a). HIV Among Gay and Bisexual Men. Retrieved November 9, 2016 from <https://www.cdc.gov/nchhstp/newsroom/docs/factsheets/cdc-msm-508.pdf>
- Centers for Disease Control and Prevention. (2016b). Sexually Transmitted Disease Surveillance 2015. Retrieved October 31, 2016, from <http://www.cdc.gov/std/stats15/default.htm>
- Hubach, R. D., Dodge, B., Li, M. J., Schick, V., Herbenick, D., Ramos, W. D., & ... Reece, M. (2015). Loneliness, HIV-Related Stigma, and Condom Use Among a Predominantly Rural Sample of HIV-Positive Men Who Have Sex With Men (MSM). *AIDS Education & Prevention*, 27(1), 72-83. doi:10.1521/aeap.2015.27.1.72
- Prestage, G., Brown, G., Wit, J., Bavinton, B., Fairley, C., Maycock, B., ... Zablotska, I. (2015). Understanding Gay Community Subcultures: Implications for HIV Prevention. *AIDS & Behavior*, 19(12), 2224-2233. doi:10.1007/s10461-015-1027-9
- Ramlo, S. (2016). Mixed method lessons learned from 80 years of Q methodology. *Journal of Mixed Method Research*, 10 (1), 28-45. doi: 10.1177/1558689815610998
- Satcher, D., Hook, E. W., & Coleman, E. (2015). Sexual Health in America. *Jama*, 314(8), 765. doi:10.1001/jama.2015.683
- Watts, S., & Stenner, P. (2012). *Doing Q methodological research: theory, method and interpretation*. Thousand Oaks, CA: Sage.
- World Health Organization. (2016). Men who have sex with men. Retrieved December 5, 2016, from <http://www.who.int/hiv/topics/msm/about/en/>

Contact

jessicalecea@gmail.com

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3

Association Among Cachexia Syndrome, Symptom Distress, and Quality of Life in Pancreatic Cancer Patients

Yun-Jen Chou, MS, RN, Taiwan
Shiow-Ching Shun, PhD, RN, Taiwan

Abstract

Background: Cachexia syndrome is common in pancreatic cancer patients, and it will increase the mortality rate and decrease quality of life (QoL). However, there is no study with longitudinal design to explore the relationship among cachexia syndrome, symptom distress and QoL. Therefore, this study was to explore if the cachexia syndrome pre-operation was the significant factors to predict the longitudinal QoL after operation.

Methods: A longitudinal design was used in this study, and the data collected at 1–2 weeks before operation (T0), 2 months (T1), 3 months (T2), and 6 months (T3) after operation. Patients who scheduled to operate were recruited from surgery clinics at a medical center in Taipei. A structured questionnaire with Fatigue Symptom Inventory, Symptom Severity Scale, and Functional Assessment of Cancer Therapy-General Scale were used to collect patients' fatigue, symptom distress and QoL, respectively. In addition, the questionnaire included patients' demographic and clinical characteristic. In this study, cachexia syndrome was defined as patients' total body weight loss > 5% over the past 6 months. The generalized estimating equation (GEE) was used to examine the significant associated factors with QoL after operation.

Results: Totally, 45 pancreatic cancer patients participated in this study. Among patients, 64.6% (N=29) was recognized as cachexia syndrome. Patients with cachexia syndrome had more percentage to accept chemotherapy ($\chi^2=9.504$; $p=.002$), suffer from fistula after operation ($\chi^2=5.237$; $p=.022$), and had higher level of fatigue intensity ($t= -2.889$; $p=.06$) and duration ($t=-2.363$; $p=.023$) than those with non-cachexia syndrome. In the GEE analysis, the patients with higher level of symptom distress had lower level of QoL ($\beta = -.323$, $p < .0001$) after control the significant different factors at baseline between the two groups.

Conclusions: This study found that cachexia syndrome wasn't a significant associated factor with QoL. In addition, symptom distress was the significant factor affecting longitudinal QoL in pancreatic cancer patients. Therefore, healthcare providers should pay more attention and assist pancreatic cancer patients to manage symptom distress since they diagnosed to increase the level of QoL.

References

1. Bye, A., Jordhoy, M. S., Skjogstad, G., Ledsaak, O., Iversen, P. O., & Hjermstad, M. J. (2013). Symptoms in advanced pancreatic cancer are of importance for energy intake. *Support Care Cancer*, 21(1), 219-227. doi:10.1007/s00520-012-1514-8
2. Ozola Zalite, I., Zykus, R., Francisco Gonzalez, M., Saygili, F., Pukitis, A., Gaujoux, S., . . . Lyadov, V. (2015). Influence of cachexia and sarcopenia on survival in pancreatic ductal adenocarcinoma: a systematic review. *Pancreatology*, 15(1), 19-24. doi:10.1016/j.pan.2014.11.006

Contact

ecksky6@gmail.com

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3

Decisions of Chinese Dialysis Patients and Caregivers About Care Priorities at Final Stage of Life

Paul Chi-wai Lee, MSocSc, MHA, BN, RN, FHKAN, Australia

Glenda Parmenter, PhD, RN, MRCNA, MAAG, Australia

Yoni Luxford, PhD, GradDipPHC, GradCertTertTeach, BSW, CertMidwifery, CertNurs, RN, Australia

Abstract

Background: End-stage renal disease involves progressive and irreversible kidney damage leading to permanent loss of renal function. The progression of the underlying disease, emergence of complications, and gradual decline in functional status and quality of life leads many patients to withdraw from dialysis, and in Hong Kong, this withdrawal is a common cause of death (28.5%) (Hong Kong Renal Registry, 2013). Despite this high mortality rate, the decision-making process about care priorities at end-of-life (EOL) has not been stressed within this dialysis population (Bristowe et al., 2015; Ceccarelli, Castner, & Haras, 2008; Haras, 2008). Traditionally, death and dying that has long been a taboo in Chinese culture and patients and health care professionals avoid discussion of the topic (Leung, 2010). Therefore, healthcare professionals and the patients' family members often encounter dilemmas when patients undergoing dialysis reach the terminal phase of their disease but have never discussed their end-of-life care priorities or made decisions related to withdrawal of life-sustaining therapy (Baharoon et al., 2010; Davison, 2012; Kurella Tamura, Goldstein, & Perez-Stable, 2010). In addition, the mixed Eastern and Western culture in Hong Kong as it was the British colony for over 150 years, might affect the thought and belief of the local population towards the decision-making process at end-of-life.

Purpose: Given that few studies have explored the decision-making processes of dialysis patients and their carers regarding end-of-life care, especially in the Chinese context, the purpose of this study was to fill this research gap. This study also aimed to explore the effect of culture on communication about the decision-making process, to learn more about a previously hidden topic in Hong Kong. The findings of this study will also inform healthcare professionals about strategies for communication with Chinese renal dialysis patients concerning decision-making at the patient's final stage of life.

Methods: A mixed methods, sequential, explanatory design was adopted and purposive sampling was used to recruit dialysis patient and carer informants in a regional renal dialysis centre in Hong Kong. The quantitative, descriptive data were analysed and Spearman's rho correlation was applied to test the associations between the characteristics of dialysis patients and their carers as well as the variables of decision-making. The results were used to guide the formulation of the questions to be asked in subsequent focus group interviews. As the researcher adopted a qualitative driven mixed methods design in this study, by applying the ethn nursing qualitative research method, the researcher identified the domain of inquiry, formulated the research questions, reviewed the literature to distinguish gaps related to the domain of inquiry, and developed the research plan and method of data analysis. Likewise, the qualitative data were analysed according to the Leininger's phases of ethn nursing data analysis. Themes were synthesised to inform the renal speciality practice.

Results and findings: Of the 121 dialysis patients and 61 carers informants who participated in this research project, 86% of patients and 80.3% of carers preferred their family members to make treatment decisions when reaching the terminal phase of their disease. However, majority of the patient informants had not discussed their preferences or care priorities with anyone. While 42.1% of dialysis patients reported knowledge of the end-of-life care, the majority (81.8%) were not aware of advance directives but 83.5% of them claimed would adopt advance directives if it were available. Comparing with the dialysis patients, it seems carers had more knowledge on end-of-life care (50.8%) and advance directives (36.1%). Whereas, 90.2% of carers were willing to make an advance directive if it were available. Both groups expressed their opposition to life-sustaining measures, such as mechanical ventilation, in the event of terminal illness. However, they felt constrained from asking or talking to medical professionals

about EOL care during the clinic consultations. Based on the findings from the focus group interviews, the patient informants considered communication barriers, Chinese cultural norm and dying in dignity were the major themes in the decision-making process at their EOL domain. Whereas, personalising care, normalising life, sharing burdens and carer's plight were expressed and delineated from the carer informants.

Discussions: There are universalities and diversities in the findings between the present study and the current literature. As shown, majority of the dialysis patient and carer informants preferred their families to make the decision of EOL care for them that is similar to other local studies (Chu et al., 2011; Mok, Ting, & Lau, 2010; Wong et al., 2012). In fact, the majority of the American dialysis patients chose to make the decision themselves (Davison, 2012). As reflecting in the collectivistic Chinese culture that families should make important medical decision for the patients; contrary, patients with the belief of individualism from the Western culture grasp their autonomy in the decision-making process. Commonly, dialysis patients seldom discuss EOL care preferences with others (Davison, 2010; Janssen et al., 2013; Miura et al., 2006). Whenever there are discussions on the preferences of care, the majority of the patients and carers in this study would like to involve the families as first priority, comparing with some oversea studies that doctors would be primarily involved (Lockett et al., 2014; Morton, Tong, Howard, Snelling, and Webster, 2010). In the present study, the interrelated effects of communication barriers, family dynamics, sharing burdens and existential distress were formulated from the emic views of the informants. The central philosophy of the decision-making process of care priority at the final stage of life for dialysis patients is established as "dying with dignity". The end-of-life communication allows patients to express their preferences for life-sustaining treatments, knowing and respecting the end-of-life wishes can improve the patients' sense of control as well as preparing for good death. Efficient and honest communication among patients, carers and healthcare professionals not only can enhance the independency and autonomy in making medical decision but also can facilitate the family-centred system for the purpose of shared decision-making. Importantly, it should be acknowledged that the dialysis patients and carers always have tension and struggle in the decision-making process, shifting between Eastern and Western culture in the context of Hong Kong. Moreover, the family relationship and filial piety are the major components of the traditional Chinese culture although there is growing demand for the western autonomy system from the patient informants. By knowing the specific cultural pattern in Hong Kong, healthcare professionals can be more understandable from the emic & etic views of care priorities at dialysis patients' final stage of life. Hence, the decision outcomes are perceived as individualised, situational, and contextual in which culture plays a central influence.

Implications for practice: Throughout the research process, informants in the quantitative and qualitative strands were surely stimulated and affected by the survey questions or the questions asked in the focus group interviews. In fact, strategies have to be developed to enhancing the communication channel among dialysis patients, carers and healthcare professionals; and facilitating shared decision-making for the patients at their final stage of life. It helps to focus on the discussions about the dialysis patients' understanding of their illness, personal experiences with death, their goals and values towards the final stage of life. Further, service innovation project is recommended to develop culturally oriented advance care planning at the time of commencing the dialysis and in consultation with patients and carers.

Conclusions: The overarching influence of culture supports the main findings from the study and answers the research questions derived from the domain of inquiry. Findings from the quantitative or qualitative strand could articulate the aim of this study, and they inform healthcare professionals about the culture related, perspectives of care priorities for dialysis patients. Moreover, the dialysis patients should have understood their physiological and psychological needs to face the changes in the trajectory of the disease process so as to prepare and plan appropriately and accordingly. Obviously, advance care planning should be promoted for the patient's body and mind. Let them have a sense of integrity and ready to die. Crucially, every dialysis patient should have the right to leave the world in the manner of dying with dignity.

References

- Bristowe, K., Horsley, H. L., Shepherd, K., Brown, H., Carey, I., Matthews, B., . . . Murtagh, F. E. (2015). Thinking ahead--the need for early Advance Care Planning for people on haemodialysis: A qualitative interview study. *Palliative Medicine*, 29(5), 443-450.
- Chu, L. W., Luk, J. K., Hui, E., Chiu, P. K., Chan, C. S., Kwan, F., . . . Woo, J. (2011). Advance directive and end-of-life care preferences among Chinese nursing home residents in Hong Kong. *Journal of the American Medical Directors Association*, 12(2), 143-152.
- Davison, S. N. (2012). The ethics of end-of-life care for patients with ESRD. *Clinical Journal of American Society of Nephrology*, 7(12), 2049-2057.
- Janssen, D. J., Spruit, M. A., Schols, J. M., van der Sande, F. M., Frenken, L. A., & Wouters, E. F. (2013). Insight into advance care planning for patients on dialysis. *Journal of Pain Symptom Management*, 45(1), 104-113.
- Lockett, T., Sellars, M., Tieman, J., Pollock, C. A., Silvester, W., Butow, P. N., . . . Clayton, J. M. (2014). Advance care planning for adults with CKD: a systematic integrative review. *American Journal of Kidney Disease*, 63(5), 761-770.
- Wong, S. Y., Lo, S. H., Chan, C. H., Chui, H. S., Sze, W. K., & Tung, Y. (2012). Is it feasible to discuss an advance directive with a Chinese patient with advanced malignancy? A prospective cohort study. *Hong Kong Medical Journal*, 18(3), 178-185.

Contact

pleecw2003@gmail.com

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3 Screening for Palliative Care Patients By Utilizing Clinical Decision Support Within the Electronic Health Record

Tanja Baum, PhD, RN, USA
Ruth A. Bush, PhD, MPH, USA
Caroline Etland, PhD, RN, USA
Cynthia D. Connelly, PhD, RN, FAAN, USA

Abstract

Purpose: Approximately \$1.3 million annually can be saved when 500 palliative care consults are completed within the acute care setting. With 90 million Americans, of whom 20% are Medicare recipients that suffer from chronic medical conditions, 500 consults are not a distant number. The electronic clinical decision support and utilization of triggers to identify individuals who might benefit from palliative care using an algorithm within the electronic health record (EHR) can enable the multidisciplinary team to facilitate palliative care services.

The purpose of this feasibility study was to utilize variables available in the EHR of palliative care patients receiving palliative care services (PCS) in the acute care setting.

Aim 1) Characterize EHR data related to palliative care consultations among severely and chronically ill patients in the acute care

Aim 2) Examine relationships between the list of clinical EHR data, and select demographics (age, gender, race, ethnicity, religion), in a sample of palliative care patients

Methods: A descriptive, correlational study using de-identified retrospective data, collected from January 1, 2013 to December 31, 2015. An institutionally derived list of variables was used to provide a foundation for clinical decision support and patient identification integrated into the Cerner EHR system. Data were derived from three hospitals of a large multi-community healthcare system in San Diego County, California (USA). Descriptive and inferential statistical analyses conducted using SPSS version 23.

Results: A randomized sample yielded 694 palliative care patients seeking acute care treatment at one of the three hospitals. Significant associations were found between patients' race/ethnicity and code status ($X^2= 11.26, p .16$), and language and the presence of an advance directive or physician orders for life-sustaining treatment (POLST) ($X^2= 13.845, p .008$).

Conclusion: Using a large sample, a number of statistically significant demographic, physiologic, and clinical variables were found. Integrating the EHR system to its fullest can not only aid nursing, but the entire interdisciplinary team in enhancing quality of life of palliative care patients and their families. Documents such as the advance directive or the POLST can be saved electronically and are readily available throughout the entire hospital system. Furthermore, multiple translated versions may be available for the patient, decreasing language barriers that could prevent patients from making their wishes known. Further research is needed to include the entire hospital population and to extend beyond a single healthcare system to increase diversity.

References

Abernethy, A. P., Wheeler, J. L., & Bull, J. (2011). Consumer health informatics: Development of a Health Information Technology-Based Data System in Community-Based Hospice and Palliative Care. *American Journal of Preventive Medicine, 40*(Supplement 2), S217-S224. doi:10.1016/j.amepre.2011.01.012

Aldridge, M. D., Hasselaar, J., Garralda, E., van der Eerden, M., Stevenson, D., McKendrick, K., . . . Meier, D. E. (2016). Education, implementation, and policy barriers to greater integration of palliative care: A literature review. *Palliative Medicine, 30*(3), 224-239. doi:10.1177/0269216315606645

Callaway, C. (2012). Timing is everything: When to consult palliative care. *Journal of the American Academy of Nurse Practitioners*, 24(11), 633-639 637p. doi:10.1111/j.1745-7599.2012.00746.x

Ford, D. W. (2014). Palliative care consultation needs in United States intensive care units. Another workforce shortage? *American Journal of Respiratory And Critical Care Medicine*, 189(4), 383-384. doi:10.1164/rccm.201401-0039ED

Grudzen, C. R., Hwang, U., Cohen, J. A., Fischman, M., & Morrison, R. S. (2012). Characteristics of Emergency Department Patients Who Receive a Palliative Care Consultation. *Journal of Palliative Medicine*, 15(4), 396-399 394p. doi:10.1089/jpm.2011.0376

Hocker, J. D., Khan, A., Singh, M., Hook, M. L., Simpson, M., Malsch, A., . . . Malone, M. L. (2015). Can the Electronic Health Record Identify Vulnerable Older Adults in Need of a Palliative Care Assessment in the Hospital Setting? *Journal of the American Geriatrics Society*, 63(7), 1479-1481 1473p. doi:10.1111/jgs.13547

Moja, L., Kwag, K. H., Lytras, T., Bertizzolo, L., Brandt, L., Pecoraro, V., . . . Bonovas, S. (2014). Effectiveness of Computerized Decision Support Systems Linked to Electronic Health Records: A Systematic Review and Meta-Analysis. *American Journal of Public Health*, 104(12), e12-e22. doi:10.2105/AJPH.2014.302164

Contact

tanjabaum@sandiego.edu

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3

Using Participatory Action Research to Develop Culturally Appropriate Aboriginal and Torres Strait Islander Health Resources

Rachel Margaret Peake, SN, RN, Australia

Kim Usher, PhD, MNSt, AM, RN, BADipAppSc (Nsg), FACN, FACMHN, Australia

Jackie Lea, PhD, MN (Hons), BN, RN, Australia

Debra Jackson, PhD, RN, FACN, United Kingdom

Abstract

Nationally, cardiovascular disease is responsible for 27% of the gap in fatal burden between Australian Indigenous and non-indigenous people. Improving Aboriginal and Torres Strait Islander health in Australia is thus a high priority (AIATSIS, 2012; Mikhailovich, Morrison, & Arabena, 2007).

One way to improve health is to have adequate health resources. Traditionally, Aboriginal and Torres Strait Islander communities educate their people through stories and art and the lived experience of people in their community. Health literacy for Australian Aboriginal and Torres Strait Islander people needs to be developed using these approaches to make the resource more culturally appropriate.

The purpose of the study was to evaluate the process of developing culturally appropriate localised Aboriginal and Torres Strait Islander health promotion resources that are acceptable and sustainable for Aboriginal and Torres Strait Islander community of the Gamilaraay/Gomeri people in the Peel and Mehi Sector of Hunter New England Local Health District. Thus gaining an understanding of the processes and collaborative approach involved in developing stroke health resources for the Gomeri/Gamilaraay people.

The community wanted a research project that could plan for change by acting then reflecting on what they found and observing the consequences, to inform further action and change. The community used the analogy of the ever changing river system, never static always moving changing and evolving to make sense of what they wanted from the research project.

Participatory Action Research (PAR) was used to guide the development of culturally appropriate educational resources. It was considered a collaborative and safe way to uncover vital information and concepts to underpin the development of health resources. PAR reflects the way Aboriginal people embrace learning through action, collective decision-making and empowerment, which occurs via group activity over time. The mutual inquiry and learning experience in this study was aimed at reaching agreement and mutual understanding of the situation, resulting in an unforced consensus about what to do and what can be achieved together (Kemmis & McTaggart, 2005, p. 577).

The paper will discuss the adoption of the PAR approach and describe how PAR helped to promote self-determination, self-reliance and the creation of a useful, localised health resource that is relevant to the community involved.

References

Barnett, L., & Kendall, E. (2011). Culturally appropriate methods for enhancing the participation of Aboriginal Australians in health-promoting programs. *Health Promotion Journal of Australia*, 22(1), 27-32. doi:

<http://dx.doi.org/10.1071/HE11027>

AIATSIS, A. I. o. A. a. T. S. I. S. (2012). *Guidelines for Ethical Research in Australian Indigenous Studies* Canberra, Australia: Australian Institute of Aboriginal and Torres Strait Islander Studies 2012 Retrieved from ISBN 9780987135360.

Kemmis, S., & McTaggart, R. (2005). Participatory Action Research: Communicative Action and the Public Sphere. In N. Denzin, K & Y. Lincoln, S (Eds.), *The Sage Handbook of Qualitative Research* (Third ed., pp. 559-603). Thousand Oaks, California: Sage Publications.

Mikhailovich, K., Morrison, P., & Arabena, K. (2007). Evaluating Australian Indigenous community health promotion initiatives: a selective review *The International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy*, 7:746, 1-18.

Bessarab, D., & Ng'andu, B. (2010). Yarning About Yarning as a Legitimate Method in Indigenous Research. *International Journal of Critical Indigenous Studies*, 3(1), 37-50.

Kovach, M. (2010). Conversation Method in Indigenous Research. *The First Peoples Child & Family Review* 5(1), 40-48.

McCalman, J., Tsey, K., Bainbridge, R., Rowley, K., Percival, N., O'Donoghue, L., Judd, J. (2014). The characteristics, implementation and effects of Aboriginal and Torres Strait Islander health promotion tools: a systematic literature search. *BMC Public Health*, 14(1), 712.

McCalman, J., Tsey, K., Clifford, A., Earles, W., Shakeshaft, A., & Bainbridge, R. (2012). Applying what works: A systematic search of the transfer and implementation of promising Indigenous Australian health services and programs. *BMC Pub Health*, 12(600).

Wise, M., Angus, S., Harris, E., & Parker, S. (2012). Scoping Study of Health Promotion Tools for Aboriginal and Torres Strait Islander people (U. R. C. f. p. H. C. a. E. U. o. N. Centre for Health Equity Training and Evaluation, Trans.) (pp. 1-48). *University of New South Wales Australia: The Lowitja Institute*.

Contact

Rachel.Peake@hnehealth.nsw.gov.au

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3

Impact of Motivational Workshops on Lifestyle Modification to Increase Physical Activity

Manju Daniel, PhD, MSN, FNP-BC, USA

Gagandeep Singh, BSN, N/A, USA

Courtney Crutchfield, BSN, N/A, USA

Abstract

Background: More than 68% of the people in all racial categories in the United States are either overweight (BMI 25-29.9) or obese (BMI 30+). Overweight and obesity are two significant risk factors for type 2 diabetes and heart disease (National Institute of Diabetes and Digestive and Kidney Disease, 2012). Approximately 29 million people have diabetes in the United States. Heart disease is one of the serious complications associated with diabetes. More than 70% of the people diagnosed with diabetes were found to have hypertension. In addition, the cardiovascular disease death rates were about 1.7 times higher in adults with diabetes (Centers for Disease Control and Prevention, 2012). About five million adults age 35 years and older with diabetes in the United States also have coronary heart disease (Centers for Disease Control and Prevention, 2017 a). Heart disease is the leading cause of death for both men and women. More than 600,000 people die of heart disease in the United States every year. Coronary heart disease is the most common type of heart disease and about 370,000 people die of coronary heart disease in the United States every year. The number of people getting first heart attack is even higher (about 525,000) in the United States every year (Centers for Disease Control and Prevention, 2017 b). These chronic health issues can have a negative impact on a person's quality of life and can add undue financial burden to the healthcare system in the United States. Routine physical activity component as a part of one's daily routine activities, can help lower one's risk of coronary heart disease, blood pressure and cholesterol level (National Institutes of Health, 2016). Regular physical activity, which includes participation in moderate and vigorous physical activities, is important to lower the risk of such chronic illnesses and to maintain as well as improve the health and quality of life (United States Department of Health and Human Services, 2008). Despite being aware of the benefits of physical activity, many people fail to prioritize incorporating physical activity into their daily routine. More than 80 percent of adults fail to meet the recommend physical activity guidelines (at least 150 minutes a week of moderate-intensity, or 75 minutes a week of vigorous-intensity aerobic activity, or an equivalent combination of moderate- and vigorous- intensity aerobic activity) in the United States (Office of Disease Prevention and Health Promotion, n.d., United States Department of Health and Human Services, 2008). Therefore, there is a need for creative strategies that could motivate people to find ways be more physically active to meet the recommended physical activity guidelines. Motivational workshops that focus on physical activity could help people to learn how to prioritize routine physical activity as one of their daily lifestyle activities.

Purpose: The purpose of this study was to perform an integrative review to identify and analyze the existing research literature on motivational workshops to increase physical activity.

Methods: A literature review was performed by searching computerized databases, including Medline, Medline Science, ProQuest, and Cumulative Index of Nursing and Allied Health (CINAHL), focusing on social cognitive theory, motivational workshops and physical activity. The literature review included the studies published within the last ten years. Using the keywords motivational workshops and social cognitive theory, a total of 810 published studies were found (2 CINAHL, 787 ProQuest, 2 Medline and 19 Medline Science). Using the keywords motivational workshops, social cognitive theory, and physical activity, a total of 610 published studies were found (1 CINAHL, 601 ProQuest, 1 Medline and 7 Medline Science). Using the keywords motivational workshops, social cognitive theory, and physical activity, and restricting by English only total of 608 published studies were found (1 CINAHL, 599 ProQuest, 1 Medline and 7 Medline Science). Using the keywords motivational workshops, social cognitive theory, and physical activity, and restricting by English and adults only total of 60 published studies were found (1

CINAHL, 51 ProQuest, 1 Medline and 7 Medline Science). Further, the studies that were duplicate and that focused on areas other than physical activity such as mental health issues, addictions, pain management, infections were excluded. Thus, a total of eight interventional studies that focused on motivational workshops for physical activity were included in the final review. The physical activity framework for South Asian Indian Immigrants and Bandura's social cognitive theory guided the development of data collection tools. The data collection tools included background and intrapersonal characteristics. The measures of background characteristics included current health, social interaction, and anthropometric measurements. The measures of intrapersonal characteristics included motivational workshops. In addition, the measures of physical activity included subjective and objective measures. The subjective measures of physical activity included self-reported number of days and time spent in physical activity and the objective measures included pedometers and accelerometers. In addition, the measure of six step approach was used to evaluate the impact of motivational workshops on lifestyle modification to increase physical activity.

Results: The main components of motivational workshops were onsite physical activity sessions and telephone counseling sessions. All studies reported that lifestyle modification workshops resulted in increased aerobic physical activity. In addition, the motivational workshops had a positive impact on background correlates of physical activity including decreased body weight, decreased blood pressure, decreased blood sugar level, increased quality of life, increased physical functioning, and increased social interaction. Similarly, the motivational workshops had a positive impact on intrapersonal correlates of physical activity that included increased self-efficacy for physical activity and increased motivation to be more physically active.

Conclusion: Motivational workshops have a positive impact on lifestyle modification for increasing physical activity. Motivational workshops need to focus on personal as well community awareness about the positive impact of lifestyle modification for lowering the risk of chronic preventable illnesses, healthy weight management, mental and emotional wellbeing. Six-step approach that focuses on creativity in incorporating physical activity in a person's daily routine, is found to be effective for the motivational workshops in successfully resulting in positive lifestyle behavior modification in increasing physical activity and healthy nutrition. The six-step approach includes: a) building a partnership, b) negotiating an agenda, c) assessing resistance and motivation, d) enhancing mutual understanding, e) implementing a plan, and f) following through. Healthcare professionals need to change their professional approach from giving information and advice to acting as a motivational guide for patients. Findings from these studies will be utilized in designing the motivational workshops for the clinical settings for lowering the risk of cardiovascular disease, diabetes, and obesity.

References

Olson, E. A., & McAuley, E. (2015). Impact of a brief intervention on self-regulation, self-efficacy and physical activity in older adults with type 2 diabetes. *Journal of behavioral medicine*, 38(6), 886-898.

National Institute of Diabetes and Digestive and Kidney Disease. (2012). Overweight and Obesity Statistics. Retrieved from <https://www.niddk.nih.gov/health-information/health-statistics/Pages/overweight-obesity-statistics.aspx>

Centers for Disease Control and Prevention. (2017 a). Diabetes Public Health Resource: Number (in Millions) of People with Diabetes Aged 35 Years or Older with Self-Reported Heart Disease or Stroke, United States. Retrieved from <https://www.cdc.gov/diabetes/statistics/cvd/fig1.htm>

Contact

singhgagan2012@gmail.com

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3

Fear of Cancer Recurrence: Experiences and Related Factors in Early Stage Lung Cancer Patients

Yu-Ying Chou, MS, RN, Taiwan
Yeur-Hur Lai, PhD, RN, Taiwan

Abstract

Background: In recent years, early lung cancer became the most common cancer in the worldwide and most of them have psychological problems (anxiety and depression). However, few study was discussed about fear of cancer recurrence (FCR) in the patients after surgery.

Objective: The aim of this study was to explore experiences and related factors of FCR in early stage lung cancer patients in Taiwan.

Methods: A cross-sectional correlation study was conducted and total 200 early stage (stage I-3A) lung cancer patients were recruited in outpatient center after post-surgery. We measured by the structure questionnaire including the Karnofsky performance score (KPS), Hospital Anxiety and Depression Scale (HADS), and Fear of Cancer Recurrence Inventory-Short Form (FCRI-SF, range: 0-36). Using independent t-test, one-way ANOVA, and Pearson's correlation coefficient to identify the significant factors were related to FCR.

Results: Mean age was 59.4(SD=11.7) years and more than half of patients were male (59.5%), low income (51.5%), non- smoker (71%), unemployment (60.5%), good of pulmonary (FVC=95.6±15.4), and well physical function (KPS>90=70%).

The results revealed most of patients without anxiety or depression problems (mean score:3.8±4.1, 3.8±3.9, respectively) but underwent mild to moderate levels of FCR (mean score: 13.0±6.0). The top severe item in FCRI-SF was "When I think about FCR, other unpleasant thoughts or images come to mind (death, suffering, consequences for my family)". Younger age, higher education level, anxiety, and depression were significant associated with more serious of FCR. The most use of coping strategy was "I try to convince myself that everything will be fine or I think positively." Female, has religious belief, non-smoker, and good pulmonary function were significant related to better of FCR coping strategies.

Conclusions: Age, education, and psychological status (anxiety and depression) were the important factors were associated with FCR, but most patients even had well psychological status not mean that they without FCR problem. In future, the rapid of convenience and brief assessment have to develop and practice in clinical practice, and giving efficient intervention to the patients with higher levels of FCR.

References

- Butow, P. N., Bell, M. L., Smith, A. B., Fardell, J. E., Thewes, B., Turner, J., . . . Mihalopoulos, C. (2013). Conquer fear: protocol of a randomised controlled trial of a psychological intervention to reduce fear of cancer recurrence. *BMC Cancer*, 13, 201. doi:10.1186/1471-2407-13-201
- Fardell, J. E., Thewes, B., Turner, J., Gilchrist, J., Sharpe, L., Smith, A., . . . Butow, P. (2016). Fear of cancer recurrence: a theoretical review and novel cognitive processing formulation. *J Cancer Surviv*, 10(4), 663-673. doi:10.1007/s11764-015-0512-5
- Smith, A., Thewes, B., Turner, J., Gilchrist, J., Fardell, J., Sharpe, L., . . . Butow, P. (2015). Pilot of a theoretically grounded psychologist-delivered intervention for fear of cancer recurrence (Conquer Fear). *Psychooncology*, 24(8), 967-970. doi:10.1002/pon.3775
- Thewes, B., Butow, P., Zachariae, R., Christensen, S., Simard, S., & Gotay, C. (2012). Fear of cancer recurrence: a systematic literature review of self-report measures. *Psychooncology*, 21(6), 571-587. doi:10.1002/pon.2070

Contact

d02426001@ntu.edu.tw

RSG STR 3 - Rising Stars of Research and Scholarship Invited Student Poster Session 3

Comparative Analysis of Nursing Faculty and Student Measures of Entitlement, Narcissism, and Perceptions of Support

Peyton Marie O'Kain, BSN, SN, USA

Abstract

Purpose: Internationally, attrition of nurses and nursing faculty is well-documented (Aiken, Sloane, Bruyneel, Van den Heede, Sermeus, & RN4CAST Consortium, 2013; Van den Heede, Florquin, Bruyneel, Aiken, Diya, Lesaffre, & Sermeus, 2013). Intergenerational antagonism between the millennial generation of nursing students who are entering practice and older generations of nurses and nursing faculty may lead to high professional attrition and therefore, poor patient outcomes due to the lack of dedicated, young nurses who feel supported by those who should be mentoring them for the future. Vast generational differences exist between the upcoming cohorts of nurses, i.e. "Millennials" entering practice and those who educate, supervise, and design these millennials' education and career pathways. Older generations of nurses and nursing faculty often view students and younger nurses as entitled and unprofessional, yet the evidence supporting these assumptions and perceptions is virtually nonexistent.

The scope and purpose is to globally disseminate the results of this innovative nursing research that generated new knowledge of entitlement and narcissism plus organizational support as perceived by intergenerational nursing faculty and student participants. Investigating generational divides between faculty and students is imperative, as such divisions exist in nursing academia, research, and practice. This study demonstrated that students, particularly undergraduate, feel less supported than what faculty believe they provide in supportiveness. Millennial nursing students likely have vastly different expectations of support than previous generations (Goldman & Martin, 2016); anecdotally, such expectations are often perceived by nursing faculty as unbridled entitlement. This generational disconnect between nursing students and faculty can cause tension, miscommunication, and possibly obstruct learning and effective teaching. Exhaustive review of extant literature revealed little-to-no investigation of the relationships between perceived support and measures of entitlement and narcissism in nursing students.

Methods: After institutional review board (IRB) approval, 329 participants were recruited via email and social media; total participants were 110: 56 undergraduate students, 29 graduate students, and 25 faculty. Using psychometrically superb instruments such as the perceived organizational support scale (POSS) (Kottke & Sharafinski, 1988) and the Narcissistic Personality Inventory (NPI) (Ackerman, Donnellan, & Robins, 2012), participants responded anonymously after granting informed consent. The POSS has high internal consistency with a Cronbach's alpha of .97; the NPI has a high Cronbach's alpha of .84.

Results: Multivariate analyses revealed significant differences and predictions of generational perceptions between nursing faculty, undergraduate, and graduate students. We also ran nonparametric analyses (Kruskal-Wallis) to confirm results among the three groups of median scores. Perceptions of support, plus measures of narcissism and entitlement, differed significantly between groups and categories ($p < .05$; .01; .005; .0005). Despite nursing practice experience and presumed maturity, perceived support, entitlement, and narcissism differed significantly between nursing student groups and nursing faculty. Generational assignment does not appear to influence entitlement as heavily as hypothesized. Faculty feel they are supportive beyond what students reported. There were also strong disparities between participant beliefs regarding what elements of student performance should be factored into grades.

Conclusions: Despite pervasive cultural stereotypes of millennials, all participants plus categorical designations scored differently than hypothesized on measures of entitlement and narcissism. These new results from this innovative research are supported by previous investigation indicating that millennial

learners have different expectations of faculty than older or previous generations (Johanson, 2012). Faculty must begin to consistently examine their own generational characteristics and understand how that influences teaching and students (Roberts, Newman, & Schwartzstein, 2012). Students feel more supported by faculty when interpersonal initiatives bridge generational gaps (Roberts et. al, 2012), such as incorporated technology (Montenery, Walker, Sorensen, Thompson, Kirklin, White, & Ross, 2013). This research should be presented internationally to educate nurse scientists and educators to improve intergenerational relationships in nursing education and throughout the workforce.

References

- Ackerman, R., Donnellan, M., & Robins, R. (2012). An item response theory analysis of the narcissistic personality inventory. *Journal of Personality Assessment, 94*(2), 141-155.
- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Sermeus, W., & RN4CAST Consortium. (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies, 50*(2), 143-153.
- Goldman, Z., & Martin, M. (2016). Millennial students in the college classroom: adjusting to academic entitlement. *Communication Education, 65*(3), 356-376.
- Johanson, L. (2012). Teaching the millennial generation considerations for nurse educators. *Nurse Educator, 37*(4), 173-176.
- Kottke, J., & Sharafinski, C. (1988). Measuring perceived supervisory and organizational support. *Educational and Psychological Measurement, 1075-1079*.
- Montenery, S., Walker, M., Sorensen, E., Thompson, R., Kirklin, D., White, R., & Ross, C. (2013). Millennial generation student nurses' perceptions of the impact of multiple technologies on learning. *Nursing Education Perspectives, 34*(6), 405-409.
- Pardue, K., & Morgan, P. (2008). Millennials considered: a new generation, new approaches, and implications for nursing education. *Nursing Education Perspectives, 29*(2), 74-79.
- Reeve, K., Shumaker, C., Yearwood, E., Crowell, N., & Riley, J. (2012, November 15). Perceived stress and social support in undergraduate nursing students' educational experiences. *Nurse Education Today, 419-424*.
- Roberts, D., Newman, L., Schwartzstein, R. (2012). Twelve tips for facilitating millennials' learning. *Medical Teacher, 34*(4), 274-278.
- Van den Heede, K., Florquin, M., Bruyneel, L., Aiken, L., Diya, L., Lesaffre, E., & Sermeus, W. (2013). Effective strategies for nurse retention in acute hospitals: a mixed method study. *International Journal of Nursing Studies, 50*(2), 185-194.

Contact

ksd575@mocs.utc.edu

Evidence-Based Symposia

D 01 - A Collaborative Curricular Response to Rehabilitative Challenges in a Global Setting

Development of a Collaborative Relationship With a Baccalaureate Nursing Program in a Developing Country

Barbara A. Ihrke, PhD, RN, USA

Abstract

After the 2010 earthquake in Haiti, teams from Indiana Wesleyan University (IWU) participated in various service projects on the Island of La Gonave. The fledgling nursing school on La Gonave, Wesleyan University of Haiti Division of Nursing Sciences (WUH), and the IWU School of Nursing, developed a collaborative relationship. It includes resource sharing, curriculum development, common didactic and clinical learning experiences, and mentoring. Since there are 3.5 nurses per 10,000 Haitians compared to 111.4 per 10,000 Americans (Pan American Health Organization, 2005), there is a shortage of nurse educators, nurse clinicians, and nurse researchers.

The collaborative relationship was developed following several on-site visits and focused on educational and clinical experiences. Goals of the collaboration are to increase the number of professional nurses in Haiti, empower the local health providers, and support the improvement of health outcomes.

Resources unavailable locally are transported as requested, for example supplies for dissection during anatomy labs. Mannequins from the IWU nursing simulation laboratory were donated and transported to the new nursing program per request of the Haitian nursing school.

Nurse educators from IWU provide lectures during each visit to La Gonave. Doctoral students from IWU gain global healthcare experiences, teaching opportunities and develop training sessions for traditional birth attendants. Haitian nursing students gain English skills, study transcultural nursing, and translate for IWU sophomore semester aboard students. Students develop friendships, study together, and learn from each other. The richness of the experiences is invaluable for all students.

DeSanti's counterpart concepts were used to evaluate the collaborative partnership (George & Meadows-Oliver, 2013). The partnership supports visiting professors, works to develop capacity of local nurses/nursing students, examines cultural and economic factors, and ascertains that all participants are full partners. The partnership is relatively new but the goal is for long-term involvement. Future goals include interprofessional research projects, conducting community needs assessments, and leadership development activities for future nurse educators.

References

George, E. K., & Meadows-Oliver, M. (2013). Searching for collaboration in international nursing partnerships: A literature review. *International Nursing Review*, 60(10), 31-36. doi: 10.1111/j.1466-7657.2012.01034.x
Pan American Health Organization. (2016). Core indicators. Retrieved October 16, 2016.
<http://www.paho.org/data/index.php/en/indicators/health-systems-core-en/411-hr-en.html>

Contact

barbara.ihrke@indwes.edu

Adapting Rehabilitative Activities to Improve Clinical Outcomes in a Limited Resource Setting

Connie J. Crump, DPT, PT, USA

Abstract

Researchers have presented evidence which has correlated the early onset of physical activity, postural control, and exercise with improved functional outcomes and physical activity (Veerbeek et al., 2014). As soon as medically safe and feasible to do so, patients should be assisted with exercise and mobility to prevent the loss of strength and function. In resource-limited areas such as La Gonave, Haiti, the most readily available health professionals are nurses. Therefore, the inclusion of several key components of physical therapy practice were integrated into nursing education at La Gonave, thus providing rehabilitative activities to neurologically impaired individuals who would not have access to therapist-provided services.

Mobilizing medically stable patients as early and as frequently as possible has the potential to stimulate recovery from neurological diagnoses like stroke, traumatic brain injury, spina bifida, and cerebral palsy in addition to diminishing complications from conditions such as microcephaly. Early assessment and implementation of rehabilitative activities to maintain or gain strength following neurological conditions can greatly impact the eventual level of independence and function throughout the recovery and rehabilitation period. The significance of educating patients and caregivers to assist with mobilization and positioning to protect against spasticity and contractures cannot be understated. Utilizing client-centered instruction for patients and caregivers regarding the appropriate use of adaptive equipment and energy conservation strategies has been linked to higher clinical and functional outcomes for patients of all ages (Pollock, St. George, Fenton, & Firkins, 2014).

Following illness or disability, one of the foremost problems acknowledged among both patients and health care professionals has been injuries resultant from unsafe patient handling techniques. The American Physical Therapy Association (2012) has endorsed physical therapists as leaders in interprofessional training for safe patient handling programs. Collaboration between physical therapists and nurse educators during the curriculum planning and didactic implementation resulted in baccalaureate nursing students using evidence-based techniques for strengthening, transferring, ambulating, and utilization of adaptive equipment or adaptive techniques fostering safety in function for patients and caregivers.

References

- American Physical Therapy Association (APTA) (2012). *The role of physical therapy in safe patient handling*. Alexandria, VA: author. Retrieved from http://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/Practice/SafePatientHandling.pdf
- Pollock, A., St. George, B., Fenton, M., & Firkins, L. (2014). Top 10 research priorities relating to life after stroke—consensus from stroke survivors, caregivers, and health professionals. *International Journal of Stroke*, 9(3), 313-320. doi: 10.1111/j.1747-4949.2012.00942
- Veerbeek, J.M., van Wegen, E., van Peppen, R., van der Wees, P., Hendriks, E., Rietberg, M., & Kwakkel, G. (2014). What is the evidence for physical therapy poststroke? A systematic review and meta-analysis. *PLoS One*, 9(2), e87987. doi:10.1371/journal.pone.0087987

Contact

connie.crump@indwes.edu

The Integration of Rehabilitative Practices in a Baccalaureate Nursing Curriculum in Haiti

Janice L. Cotrone, DNP, RN, USA

Abstract

Patients in Haiti needing rehabilitative services are often unable to access quality healthcare thus not achieving expected and desired outcomes. A four-year baccalaureate program of nursing developed and integrated numerous nurse-appropriate rehabilitative treatment modalities in collaboration with doctorally prepared physical therapists. Rehabilitative practices for infants with spina bifida, cerebral palsy, and zika-related complications, young and middle-aged adults with injuries secondary to athletic and motorcycle injuries, and older adults with stroke were developed. Interprofessional collaboration supported the integration of rehabilitative therapy into the nursing curriculum. Students learned and

practiced skills and techniques in the care of hospitalized patients and in outpatient arenas. Physiotherapy and rehabilitative techniques focused on “early mobilization, task-oriented exercises related to daily activities, and preparing individuals with different disabilities for optimal capacity and physical function” (Langhammer & Verheyden, 2013, p. 67) from admission to discharge.

First-year nursing students studied the physiology of disease pertaining to the concepts of disability, impairment, and handicap. Fundamentals of Nursing included basic bedside care of patients with functional disabilities. Second-year students studied treatments for patients with illness and injury requiring rehabilitative therapies. Skills taught included assessment of functional mobility, range of motion, and specific muscle-strengthening techniques (Hafsteinsdóttir, et al., 2012). Such techniques were taught to caregivers as well. Third-year studies focused on transitioning from the acute care setting to the home setting. Restorative practices began on the first day of hospitalization and continued throughout the restoration process, regardless of whether the disability was mild, moderate, or severe. The goal of restorative care is to improve the physical performance of the patient, enhancing the ability to perform activities of daily living as independently as possible. Frequent evaluation and re-evaluation of patients resulted in the revision of the plan of care. Additionally, students assessed home and community environments, evaluating the presence or absence of resources. As students enter the fourth year of baccalaureate nursing studies, the focus broadens to include public health models. Village health fairs and school-based education provided opportunities to explain how to prevent and decrease injuries and thus disability with the ultimate goal of offering hope to patients and families.

Opportunities for further research include measuring levels of progression (or regression) and evaluating caregiver knowledge of rehabilitative practices post-teaching sessions. Rehabilitative practices will help overcome the challenges of the disability.

References

Hafsteinsdóttir, T., Varekamp, R., Rensink, M., van Linge, R., Lindeman, E., & Schuurmans, M. (2012). Feasibility of a nursing rehabilitation guideline for patients with stroke: Evaluating the use by nurses. *Disability and Rehabilitation*, 35(11), 939-949. <http://dx.doi.org/10.3109/09638288.2012.721049>

Langhammer, B., & Verheyden, G. (2013). Stroke rehabilitation: Issues for physiotherapy and physiotherapy research to improve life after stroke. *Physiotherapy Research International*, 18(2), 65-69. <http://dx.doi.org/10.1002/pri.1553>

Contact

mjcotrone@totalhighspeed.com

D 02 - The Doctor of Nursing Practice: Reflections on the Past and the Vision for the Future

The Doctor of Nursing Practice: Reflections on the Past and Visions for the Future

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN, USA

Abstract

The rapid expansion of DNP programs in the United States has resulted in great variability in curriculum and the final DNP project. However, the principles upon which the DNP was endorsed by the American Colleges of Nursing remain unchanged and include: (1) advanced competencies for increasingly complex clinical, faculty and leadership roles; (2) enhanced knowledge to improve nursing practice and patient outcomes; (3) advanced leadership skills; (4) parity with other health professionals; (5) increased faculty for clinical instruction; (6) improved image (AACN, 2004, p.7). As outlined by the DNP Essentials document, the objective of the DNP is not to conduct rigorous research (AACN, 2006). The DNP prepared nurse is a healthcare leader with expertise in translating research into practice to improve health care quality and patient outcomes (Melynk, 2013; Melynk, 2016).

Many DNP programs continue to require their DNP students to conduct research as their final scholarly project. This has resulted in increasing confusion among both academic institutions and health care systems. This issue is in part perpetuated by the fact that many nursing faculty are new to evidence-based practice (EBP), having never had formal education and skill development in EBP. Faculty cannot teach what they themselves do not know (Melynk, 2013). Improving DNP curricula will require that nursing colleges invest in EBP education for their faculty including EBP skill building workshops so the faculty is best positioned to mentor and advise DNP students (Melynk, 2013).

Administrators in the service setting must also have a clear understanding of the preparation of the DNP nurse so that they can align role responsibilities to the practice/service setting. This includes providing career advancement opportunities such as clinical ladders.

PhD prepared nurses and DNP prepared nurses have great opportunities to transform healthcare through collaborative efforts steeped in their combined expertise: the PhD as the generator of external evidence from rigorous research; and the DNP as the best generator of internal evidence from quality improvement, outcomes management, and evidence-based projects (Melynk, 2013; Melynk, 2016). This model of PhD-DNP collaboration offers tremendous opportunities for nursing science as we move forward in closing the gap of moving research from the academic sphere into the practice setting.

References

- American Association of Colleges of Nursing (2006). *The essentials of doctoral education for advanced nursing practice*. Retrieved from <http://www.aacn.nche.edu/publication/position/DNPEssentials.pdf>
- Melynk, B. (2013). Distinguishing the preparation and roles of the PhD and DNP graduate: National implications for academic curricula and healthcare systems. *Journal of Nursing Education, 52*(8), 442-448.
- Melynk, B. (2016). The doctor of nursing practice degree=evidence based practice expert. *Worldviews of Evidence-Based Nursing, 13*(3), 183-184.

Contact

Melnyk.15@osu.edu

Integrating the Doctor of Nursing Practice in Practice Settings: Implications for Clinical Outcomes and Scholarship

Mary G. Nash, PhD, MSN, MBA, BSN, RN, FAAN, FACHE, USA
Esther M. Chipps, PhD, MS, BSN, NEA-BC, USA

Abstract

The Doctorate of Nursing Practice (DNP) has now moved into its' first decade of existence. Early discussions among nursing thought leaders were focused on promoting the development, assessment and evaluation of DNP curriculums to meet the American Associations of the Colleges of Nursing (AACN) recommendations (Melnyk, 2013). As the profession of nursing has gained experience with the DNP graduates, we are entering the next phase of discussion; the integration and operationalization of the role within healthcare systems. Nurse leaders in academic and practice settings have the opportunity to collaborate on ways to identify and measure the impact of this new level of education on the outcomes that matter most in today's health care delivery system. To date, there is still a gap in demonstrating the outcomes of the DNP in patient care and healthcare delivery system transformations.

As a result of our increased collaboration with our College of Nursing, our academic medical center has experienced a rapid increase in the number of DNP prepared staff. The DNP roles in our health care system have crossed all areas of nursing practice including senior and mid-level nurse leaders, advanced practice nurses, and nurse educators. To effectively measure the difference that the addition of DNP nurses made we examined the best practices and strategies to determine what outcomes were potentially impacted, and what difference moving to a more doctorally influenced nursing practice environment had on staff.

One best practice was the formulation of a DNP workgroup open to all DNP prepared nurses in our health system. The goal of this group was to complete a gap analyses and make recommendations to enhance roles and practice to the Chief Nurse Executive's Council. The DNP workgroup aimed to: (1) examine the AACN DNP competencies in relation to our job descriptions/roles and to our working environment; (2) examine the impact of DNP prepared nurses in rapid translation of research findings and the implementation of evidence; (3) examine how our organization can increase nursing scholarly output and maximize nursing's' contribution to our academic medical center and the nursing community at large; (4) increase our collaborative efforts in evidence-based practice and research with the College of Nursing and; (5) increase job satisfaction among doctorally prepared staff. To achieve this, we did a crosswalk comparing the current job descriptions of our DNP prepared nurse leaders, nurse practitioners, clinical nurse specialists and nurse educators with the core competencies of *The Essentials of Doctoral Education for Advanced Nursing Practice*. Working in smaller subgroups by job title, the following questions were examined for each of the eight AACN DNP competencies: (1) What are we currently accomplishing within our current job descriptions/roles?; (2) What could we potentially accomplish?; and (3) What strategies could we apply to enhance our accomplishments and maximize our contributions to the organization? After reviewing the work of each subgroup, we identified eight major themes. Using these themes, we reviewed the literature and prepared recommendations for the Chief Nurse Executive's Council.

References

- American Association of Colleges of Nursing (2006). *The essentials of doctoral education for the advanced practice nurse*. Washington DC. Retrieved from October 11 from <http://www.aacn.nche.edu/dnp/Essentials.pdf>.
- Dunbar-Jacob, J., Nativio, D., & Khalil, H. (2013). Impact of the doctor of nursing practice education in shaping health care systems for the future. *Journal of Nursing Education, 52*(8), 423-427.
- Melnyk B. (2013). Distinguishing the preparation and roles of the doctor of philosophy and doctor of nursing practice graduates: national implications for academic curricula and health care systems. *Journal of Nursing Education, 52*(8), 442-448.
- Tehaar, M. and Sylvia, M. (2015). Scholarly work products of the doctor of nursing practice: one approach to evaluating scholarship, rigour, impact and quality. *Journal of Clinical Nursing 25*, 163-174.

Contact

Mary.nash@osumc.edu

Improving Care Coordination: Impact of a Doctorate of Nursing Practice Prepared Clinical Nurse Specialist

Deborah Francis, DNP, RN, MS, ACNS-BC, USA

Abstract

Transformations in healthcare have challenged organizations to control costs while continuing to provide high quality care. Simultaneously, patients continue to present with higher acuities and increased complexity of healthcare needs. These organizational challenges have provided an opportunity for the doctorate of nursing practice (DNP) prepared advance practice nurse to utilize the core competencies outlined by the American Association of Colleges of Nursing (AACN) to improve quality of patient care (AACN, 2006).

Consistent with the 2010 Institute of Medicine Report, *The Future of Nursing: Leading Change, Advancing Health*, we identified opportunities for improvements in the coordination of care (Institute of Medicine, 2010). Our organization concentrated its' efforts on re-examining our model for delivering patient care. After conducting an extensive literature review, the project goal was established: to create, implement and evaluate an innovative new nursing role, the Clinical Coordinator. This new role focused on patient-centered care and overall facilitation of care coordination. To initiate this major transformation in care delivery, our newly DNP prepared Clinical Nurse Specialist (CNS), was identified as the individual who possessed both the knowledge and skills to lead the interdisciplinary team in this major initiative.

Utilizing *The Essentials of Doctoral Education for Advance Nursing Practice* (AACN, 2006) as the guiding framework with a focus on organizational and systems leadership, inter-professional collaboration, and advanced nursing practice, the DNP prepared CNS began the project. The overarching project goals and outcomes were selected. A role description for the Clinical Coordinator was developed which included core competencies, ideal attributes, and key responsibilities. Three medical-surgical units were initially selected to pilot the transformation. Specific measureable project outcomes selected included length of stay, hospital readmissions, and select patient satisfaction scores. Staff RN's who were interested in the new role were interviewed and then selected. This was followed by targeted educational and on-boarding programs for the entire staff. The outcomes of the initial pilot were successful demonstrating improvement in patient satisfaction, and decrease in length of stay with adoption of the new role Clinical Coordinator role. Based on these outcomes, the program was extended to five other medical surgical units at our organization.

Our DNP prepared CNS continues to lead this initiative by expanding this program throughout our organization with a focus on refining and individualizing the Clinical Coordinator role based on specific unit needs and metrics. This effort provides an excellent exemplar of the added benefit of a DNP prepared CNS with respect to the management of quality initiatives and the ability to respond to health care policy challenges (Melynk, 2013).

References

- American Association of College of Nursing (2006). *The essentials of doctoral education for the advanced practice nurse*. Washington DC. Retrieved October 11 from <http://aacn.nche.edu/dnp/essentials.pdf>
- Hajewski, C., & Shirey, M.R. (2014). Care coordination. a model for the acute care hospital setting. *Journal of Nursing Administration*, 44(1), 577-585.
- Institute of Medicine (2010). *The future of nursing: leading change, advancing health*. Retrieved June 8, 2015 from <http://iom.edu/Reports/2010/The-Future-of-Nursing-Leading-Change-Advancing-Health.aspx>
- Melnyk, B. (2013). Distinguishing the preparation and the roles of doctor of philosophy and doctor of nursing practice graduates: national implications for academic curricula and health care systems. *Journal of Nursing Education*, 52(8), 442-448.
- Pruitt, Z., Sportsman, S. (2013). The presence and roles of nurse navigators in acute care hospitals. *The Journal of Nursing Administration*, 43, 592-596.

Contact

Deborah.Francis@osumc.edu

D 03 - Supporting the Needs of Low-Income Families to Improve Parent and Child Outcomes

Perceived Benefits of a Mindfulness-Based Intervention Among Homeless Women and Young Children

Jeanne L. Alhusen, PhD, FNP-BC, RN, USA

Abstract

Introduction: Family homelessness remains a significant public health issue associated with negative physical and mental health outcomes for those impacted. The impact of homelessness on children, particularly young children, includes an increased risk of poor mental health, socio-emotional problems, and cognitive delays.¹ Homeless women experience disproportionately high rates of adverse physical and mental health outcomes including higher rates of depression.² Compounding this issue is that services for homeless families are often directed toward housing and other essential services, and few resources are available to address the mental health needs of homeless mothers and their children. There is an urgent need for evidence-based programs to support homeless families, particularly those with young children. Mindfulness practice has been increasingly incorporated into the treatment of chronic diseases, with promising results noted in the management of depression, stress and pregnancy-specific stress, overall physical function, and quality of life.³⁻¹² Yet, to our knowledge no study has examined the benefit of mindfulness on the mother-infant relationship. The purpose of this mixed methods study is to describe the perceived benefits of a mindfulness intervention that was implemented in a Therapeutic Nursery (TN) serving homeless children under the age of three and their caregivers in an urban setting in the United States.

Method: Mothers of young children participating in an 8-week, group-based, Mindfulness Based Stress Reduction (MBSR) intervention were recruited from an urban TN to participate in post-intervention qualitative interviews to explore perceived benefits of MBSR. Quantitative data on maternal depression (via the Center for Epidemiologic Studies Depression Scale: CES-D), was collected pre-and post-intervention. The in-depth qualitative interview narratives were analyzed using conventional content analysis. After all transcripts were coded, the data within each code was examined and ultimately organized into a hierarchical structure and assessed to provide context and further understanding of the influence of MBSR on maternal and child outcomes.

Results: Seventeen mothers participated in the qualitative interviews, and maternal age ranged from 24-44 (M=30.9). The majority of the mothers were African American, single, and reported receiving less than a high school education. At the time of the interview, the majority of mothers (65%) were living in shelters, and the remaining mothers reported being in unstable housing (17.5%) or transitional housing (17.5%). On average, women attended 6.8 mindfulness sessions (85% of sessions) and 100% of mothers participated in at least 5 of the 8 sessions. At baseline, 82% of mothers exceeded the cut-off score for depressive symptomatology pre-intervention. Post-intervention, 53% of mothers exceeded the cut-off score for depressive symptomatology demonstrating a 35% reduction in high rates of depression. Four themes were derived from the data regarding the perceived benefits of the mindfulness program including. Participants described now establishing “me” time, “...instead of reacting right away when [child] does something wrong, I take a minute to myself. Instead of yelling ‘leave mommy alone’ I say ‘give mommy a couple minutes to get herself together.’” Maternal self-regulation was another identified theme, with one participant noting, “I don’t stress about the things I can’t change and control like I used to. It’s more like this is a test, this is a trial, let’s figure it out.” Related to the mother-child relationship, dyadic connectedness was another identified theme with one participant commenting “I’m opening my arms rather than pushing away,” linking her change in behavior to a significant decrease in her child’s outbursts. Finally, child well-being was a theme identified by participants who uniformly noted improvements in their children’s behavior and well-being through their own participation in MBSR. One participant commented, “I showed her [child] other ways of how to get my attention without having to throw stuff at me or kick me or force her toys on me...and it worked!”

Conclusion: The parent-child relationship is the most salient moderator of the relationship between children experiencing homelessness and early childhood outcomes. Thus, interventions to reduce stress thereby improving the parent-child relationship are needed, particularly for very young children. Findings from the current study suggest mindfulness as a promising strategy to support maternal mental health, and subsequently, the socioemotional development of young children. The concept of self-compassion is particularly important for homeless mothers who are confronted with many stressors that often take precedence over their own well-being. By giving mothers the opportunity to practice these skills with their child within the weekly relationship-based program at the TN, the quality of the parent-child interaction is enhanced. Further, mothers are supported in incorporating these same skills in their activities outside of the TN. If young children are exposed to supportive, nurturing relationships, the deleterious effects of homelessness and its related indicators may be attenuated. Our research demonstrates that a mindfulness intervention may foster the development of positive parent-child interaction.

References

1. Shinn, M., Samuels, J., Fischer, S. N., Thompkins, A., & Fowler, P. J. (2015). Longitudinal impact of a family critical time intervention on children in high-risk families experiencing homelessness: A randomized trial. *American Journal of Community Psychology*, 56(3-4), 205-216. doi:10.1007/s10464-015-9742-y [doi]
2. Bassuk, E. L., & Beardslee, W. R. (2014). Depression in homeless mothers: Addressing an unrecognized public health issue. *The American Journal of Orthopsychiatry*, 84(1), 73-81. doi:10.1037/h0098949 [doi]
3. Dimidjian S, Goodman SH, Felder JN, Gallop R, Brown AP, Beck A. An open trial of mindfulness-based cognitive therapy for the prevention of perinatal depressive relapse/recurrence. *Arch Womens Ment Health*. 2015;18:85-94.
4. Falsafi N. A Randomized Controlled Trial of Mindfulness Versus Yoga: Effects on Depression and/or Anxiety in College Students. *J Am Psychiatr Nurses Assoc*. 2016.
5. Franca RD, Milbourn B. A meta-analysis of Mindfulness Based Interventions (MBIs) show that MBIs are effective in reducing acute symptoms of depression but not anxiety. *Aust Occup Ther J*. 2015;62:147-148.
6. Gatchel RJ, Licciardone JC. Mindfulness-Based Stress Reduction vs Cognitive Behavioral Therapy for Chronic Low Back Pain. *JAMA*. 2016;316:663.
7. Guardino CM, Dunkel Schetter C, Bower JE, Lu MC, Smalley SL. Randomised controlled pilot trial of mindfulness training for stress reduction during pregnancy. *Psychol Health*. 2014;29:334-349.
8. Khoury B, Sharma M, Rush SE, Fournier C. Mindfulness-based stress reduction for healthy individuals: A meta-analysis. *J Psychosom Res*. 2015;78:519-528.
9. Norton AR, Abbott MJ, Norberg MM, Hunt C. A systematic review of mindfulness and acceptance-based treatments for social anxiety disorder. *J Clin Psychol*. 2015;71:283-301.
10. Woolhouse H, Mercuri K, Judd F, Brown SJ. Antenatal mindfulness intervention to reduce depression, anxiety and stress: a pilot randomised controlled trial of the MindBabyBody program in an Australian tertiary maternity hospital. *BMC Pregnancy Childbirth*. 2014;14:369-014-0369-z.
11. Gotink RA, Chu P, Busschbach JJ, Benson H, Fricchione GL, Hunink MG. Standardised mindfulness-based interventions in healthcare: an overview of systematic reviews and meta-analyses of RCTs. *PLoS One*. 2015;10:e0124344.
12. Ludwig DS, Kabat-Zinn J. Mindfulness in medicine. *JAMA*. 2008;300:1350-1352.

Contact

ila7e@virginia.edu

Baby Beep: A Tele-Health Intervention for Depressed, Low-income Mothers

Linda Bullock, PhD, RN, FAAN, USA

Emily Evans, PhD, RN, USA

Abstract

Introduction: The link between stress and antepartum depression (APD) is well established, with as many as 20 % of all pregnant women and 47 % of rural, low-income, pregnant women in the United States reporting symptoms. Depressed women are less likely to obtain adequate health care and more likely to engage in poor health behaviors such as abusing drugs, cigarettes, or alcohol, and to experience postpartum depression. Many of these women go on to have difficulty providing the type of care-giving necessary for normal child-development to occur. Rural women who are depressed and living on low-

incomes have many economic, social and logistical barriers to overcome in obtaining treatment. These barriers include lack of insurance or other ways to pay for care, inability to afford missed time at work, limited childcare options, lack of public or private transportation in addition to the social stigmas associated with seeking psychiatric help. One economical and feasible way to provide care to this vulnerable group is to deliver nursing care via tele-health. The Baby BEEP study provides a model for a well-received, workable nursing intervention where low-income women living in a rural setting received nursing care through weekly telephone support calls from a registered nurse. The interactions that occurred during these phone calls reflected Peplau's theory of Interpersonal Relations. Peplau was an early nurse theorist who described and identified roles and phases of the nurse-patient interaction that are core to nursing care and essential in providing psychiatric nursing care. Using Peplau's theory as a framework, and Miles and Huberman's qualitative methodology to characterize the nursing care provided by the Baby BEEP nurses, this study reports on the differences in nurse-patient interactions between two groups of women who began their pregnancies with scores indicative of depression on the Mental Health Index-5. The first group experienced a rapid improvement in mental health scores, while the second group experienced a more gradual improvement. By the end of the tele-health intervention, both groups who had consistently interacted with nurses on the phone had mental health scores in the range of normal.

Methods: A secondary mixed methods data analysis was conducted using original data from a randomized controlled trial (NR05313: Nursing Smoking Cessation Intervention during Pregnancy: Baby BEEP). As part of the Baby BEEP study, 695 low-income, rural, pregnant women were recruited from the rural Midwestern United States. Of these women, 345 were randomized to a telephone social support intervention delivered by baccalaureate prepared registered nurses. The purpose of the weekly telephone support intervention was to use "empathetic listening skills and provide social, emotional and/or informational support". The nurses kept detailed records of every phone contact they made with women in their caseload throughout pregnancy and up to six-weeks post-partum. Over 3,000 pages of single spaced notes detailing the interactions between nurse and patient were generated. The initial sampling strategy for this secondary analysis was purposive, ensuring a sample of women who began the study with MHI-5 scores indicative of depression and then split into two subgroups based on scores at the end of pregnancy. Consideration was also given to obtaining an unbiased sample by equal sampling from each of the six nurses who provided the intervention.

Results: A total of 24 women's telephone logs were analyzed. All women in this study were similar in age (mean = 23 years), marital and education status. The group whose mental health status improved more rapidly over the course of pregnancy (referred to as the "non-depressed group") received 21 calls during the study period and had an average improvement in mental health scores of 17 by the end of pregnancy. Women whose mental health scores did not improve as rapidly (referred to as the "depressed group") received 18 calls and showed an average improvement of 8 over the same time. Although mental health scores differed significantly at the onset of the study, by the end, there was no statistically significant difference between groups in mental health scores. The minutes/call was nine minutes for the non-depressed group versus 11 minutes for the depressed group. Total minutes of support provided throughout the study was 2338 minutes for the non-depressed group versus 2348 minutes for the depressed group.

Evidence of all Peplau's roles (stranger, surrogate, resource, teacher, counselor and leader) were found in the data, but most nursing care occurred as nurses acted as a resource, teacher and counsellor. Direct quotes from the logs will be presented to illustrate that as a counselor the nurses addressed the woman's emotional and psychological state by restating, reframing, probing and pointing out the woman's personal successes. Additionally, evidence of Peplau's phases (orientation, identification, exploitation and resolution) were found. Both groups of women moved from the orientation to identification phase of the relationship quickly, but the amount of time spent in the identification phase varied. For those who were longer in this phase, the time seemed to be spent trying to reach a point of mutual alignment, trust and readiness to work. The women in the depressed group took longer to progress during this phase. However, when the depressed women could progress through these two phases and moved into the exploitation phase, the length of the weekly telephone calls became longer with the nurse having to use more roles during the call than she did with women in the non-depressed group.

Conclusions: Although Peplau's Theory of Interpersonal Relationships has been applied to nursing care in more traditional clinical settings, this study makes explicit what a tele-health therapeutic relationship "looks and sounds like". This type of counselling intervention can be used in delivering nursing care to depressed rural, low-income women who may only have access to health care for their depression via a telephone. Women who are depressed may require more time talking to the nurse and the nurse may have to initiate more of Peplau's nursing roles with these women. The telephone support provided by the Baby BEEP nurses provides a model of a type of nursing intervention aimed at alleviating depressive symptoms in an extremely vulnerable and hard to reach population that have little or no current systems in place for depression treatment.

References

- Bogen, D. L., Sit, D., Mcshea, M., Hughes, C., Rizzo, D., Confer, A., ... Wisniewski, S. W. (2013). Does Fetal Exposure to SSRIs or Maternal Depression Impact Infant Growth? *American Journal of Psychiatry*, 170(5), 485–493.
- Bullock, L., Everett, K. D., Mullen, P. D., Geden, E., Longo, D. R., & Madsen, R. (2009). Baby BEEP: A randomized controlled trial of nurses' individualized social support for poor rural pregnant smokers. *Maternal and Child Health Journal*, 13(3), 395–406. doi:10.1007/s10995-008-0363-z
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., & Burda, B. U. (2016). Primary Care Screening for and Treatment of Depression in Pregnant and Postpartum Women Evidence Report and Systematic Review for the US Preventive Services Task Force. *Journal of American Medical Association*, 97227(315), 388–406. doi:10.1001/jama.2015.18948
- Senn, J. F. (2013). Peplau's theory of interpersonal relations: application in emergency and rural nursing. *Nursing Science Quarterly*, 26(1), 31–5. doi:10.1177/0894318412466744

Contact

bullock@virginia.edu

Using Condition Cash Transfer Programs for Engaging Low-Income Parents in Health Promoting Programs

Deborah Gross, DNSc, RN, FAAN, USA

Amie Bettencourt, PhD, USA

Abstract

Introduction: To boost participation rates in health promotion/prevention interventions, researchers typically pay participants cash incentives for enrolling, attending, or completing assessments. Cash incentives help meet recruitment targets and maintain statistical power. But they diminish external validity when under-resourced agencies cannot offer the same incentives for attaining comparable parent participation and adherence rates. Indeed, research shows that under real-life conditions, most parents invited to participate in parenting programs do not attend, limiting the impact and cost-effectiveness of evidence-based programs. The purpose of this study is to examine the feasibility, acceptability, sustainability, and impact of a conditional cash transfer (CCT) program for raising parent participation rates in a 12-session parenting skills training program, called the Chicago Parent Program, offered in Baltimore City schools serving low-income families. CCT programs use a behavioral economics model and provide cash incentives conditioned on completing a set of desired activities. CCT programs have been used in over 30 low resource countries and shown to improve a range of child health outcomes. However, they are rarely used in the United States to promote healthy behavior in low-income communities.

Method: Parents of 4-year old pre-kindergarten (preK) children in 9 Baltimore City Public Schools serving a low-income families (>92% low-income; 96% African American or Latino) were given a bank issued debit card and offered up to \$230 to participate in the parenting groups at their child's school; \$15 for each 2 hour session attended and \$5 for each weekly skill building "homework" assignment completed and submitted. These amounts were based on prior research estimating the opportunity costs for parents

to attend a 2-hour parent group session. Group leaders submitted weekly attendance and “homework” completion records electronically within 24 hours of the parenting sessions; incentives were loaded electronically onto parents’ debit cards within 48 hours of the session. Data were collected on attendance, homework assignment completion, quality of parent engagement in the parenting sessions, parents’ motivations for enrolling in the program, importance of cash incentives on their decision to enroll and attend the program, and how cash incentives were used. Parent reports of child behavior problems were also obtained at baseline and post-intervention (3 months later) using the Eyberg Child Behavior Inventory, a standardized measure of child behavior problems. Results were compared with participation rates previously obtained in published validation studies conducted with comparable parent samples.

Results: To date, 213 parents of 4-year old preK students have enrolled in the parenting skills training program (56.5% single-parent households; 70% African American; 67% report annual household incomes <\$20,000). Across schools, 80% of parents who enrolled attended at least one parent group session (M attendance= 65% of sessions) and 60% completed weekly homework assignments; a four-fold increase in homework completion rates without CCTs. Although 68% of parents reported that the debit cards influenced their decision to enroll, the most important reasons parents cited for signing up were to “learn better ways to manage my child’s behavior” (94%) and “always looking for ways to be a better parent” (96%). At baseline, 42% of the preschool children had behavior problems in the “clinical range” (defined as scores greater than 1 SD above the mean). At post-intervention, 22% of the children had behavior problems in the “clinical range,” representing a 48% decline in child behavior problems ($p<.001$). Parents who identified the CCTs as an important motivator for signing up for the program tended to have higher attendance rates ($F=2.8$, $p=.07$). The most common reason for not attending parent groups (53.3%) was a change in their work schedule that conflicted with the time of the group session. Observed quality of parent participation during group sessions was high and comparable to results obtained when no CCT’s were provided. Parents used debit cards for food, clothing, gas, school supplies, medicine, and other basic necessities.

Conclusion: The importance of a responsive and nurturing caregiving environment may never be more important than during the first 5 years life when children’s brain architecture is first developing and when most of what children learn centers on the home environment. Promoting healthy caregiving environments, particularly among families struggling with the stress of raising young children in poverty, is an important role for nurses. However, even the most effective interventions cannot work if parents do not participate. The results of this study suggest that CCT programs are feasible, acceptable, and useful for improving parent participation rates in health promoting programs in low-income communities. However, CCT’s remain controversial in the U.S. Features of high impact CCT programs and efforts for sustaining CCT programs in schools will be discussed.

References

- Fernald, L.C., Gertler, P.J., Neufeld, L.M. (2008). Role of conditional cash transfer programmes for child health, growth, and development. *Lancet*, 371, 828-837.
- Garvey, C., Julion, W., Fogg, L., Kratovil, A., & Gross, D. (2006). Measuring participation in a prevention trial with parents of young children. *Research in Nursing & Health*, 29, 212-222.
- Gross, D., Garvey, C., Julion, W., Fogg, L., Tucker, S., & Mokros, H. (2009). Efficacy of the Chicago Parent Program with low-income African-American and Latino parents of young children. *Prevention Science*, 10, 54-65.
- Gross, D., Johnson, T., Ridge, A., Garvey, C., Julion, W., Brusius, A., Breitenstein, S., & Fogg, L. (2011). Cost-effectiveness of childcare discounts on parent participation in preventive parent training in low-income communities. *Journal of Primary Prevention*, 21, 283-298.
- National Academies of Sciences, Engineering, and Medicine (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press.

Contact

debgross@jhu.edu

D 04 - Career Transitions: Capitalizing on Your Leadership Competencies

The Phases of Leadership and Your Leadership Brand

Beth A. Brooks, PhD, RN, FACHE, USA

Abstract

Health care today as an industry looks nothing like it did even 10 years ago—it is not merely changing, it is being fundamentally transformed. Traditional leadership roles are continuously being redefined, which means that new possibilities are being created and new opportunities are emerging. For nurse leaders, this transformational new reality is opening doors beyond the traditional hospital and health care system roles. But all too often nurse leaders are unsure about how to begin to move into these non-traditional leadership roles, an increasing number of which are outside hospital settings.

Leaders pass through six phases of leadership (Charan, Drodder & Noel, 2000). Required during each phase is emphasizing and capitalizing on different competencies, in addition to modifying how you act and are perceived as a leader; i.e. your leadership brand. Your brand is your executive presence—from a stylish haircut, to fashionable attire, to having read the latest industry news—nurse leaders have to work on how they are perceived by others. This is not the time to passively sit back and wait to be recognized for all your hard work, which tends to be a very common approach for nurses to engage in. A more effective alternative is a proactive and appropriate use of social media, which provides a means of showcasing how you are ready for a leadership role that would otherwise be offered to a leader outside nursing. But there are also cautions as to how leaders should use social media, because it could just as easily hinder and hurt your leadership brand. Finally, it is important for leaders to maintain a work life balance and to effectively manage stress, since simply being a leader can take a toll on your health. New research suggests that extra pounds and a larger waistline can actually undermine perceptions of leadership abilities. Being confident in how you look and feel is essential for successful networking. In this symposium, three senior health care executives with a unique combination of skills in personal branding, career coaching and one who herself has moved to the very top of the leadership hierarchy, will provide insights, recommendations and time-tested strategies on how to successfully navigate the phases of leadership to claim the corner office.

References

- Brooks, B.A. (2016). Preparing nurses for emerging roles. *Health Progress*, 97(1), 19-23.
Carrigan, T.M., & Brooks, B.A. (2016). Q: How Will We Achieve 20% by 2020? A: Men in Nursing. *Nurse Leader*, 14(2), 115-119.

Contact

brooksbe@comcast.net

Moving Up the Leadership Ladder: Using a Career Coach

Paul T. Skiem, MBA, LCS, USA

Abstract

Nurses have learned a great deal through their educational and clinical experiences and that knowledge has served them well as they perform their clinical responsibilities. Those with a desire to move up the leadership ladder need to develop a knowledge base and skill set that is wider than what they obtained as undergraduates or even in graduate school. Sophisticated nurse leaders are aware of and know how to capitalize on their competencies, and how to adapt to changes to job search and interviewing strategies needed to move up the leadership ladder. In particular, emphasizing and capitalizing on different competencies become vital when attempting to secure a leadership role outside of those in the traditional, acute-care hospital setting.

Are you curious about how some nurse leaders have been able to successfully transition from a traditional role to a new role that was, at least at first glance, outside their comfort zone? More often than not these nurse leaders are in constant consultation and dialogue with mentors, either inside or outside of nursing (or both), have worked with an executive recruiter (a head hunter), or are engaged with an outplacement firm or with a career coach. Working with a career coach can assist nurse leaders in the process of “repackaging” their expertise, experience and competencies for a desired role that is outside their comfort zone. Career coaching prepares and supports nurses so they make informed decisions about their career development and trajectory. Solution-oriented career coaching involves taking concrete steps—résumés, cover letters, Skype interview preparation, developing employment contracts and change of control agreements—all designed to help meet career trajectory goals. A career coach can assist a nurse leader in ensuring that you have the essential career evidence that reflect your readiness and fit for the new role—not just focusing on what you accomplished in the past.

Career coaching can be helpful at every point of a nurse leader’s professional path, from the early career years, to helping explore strategic options for graduate school or when exploring career options outside their traditional comfort zone. A nurse leader’s career path of today is not as direct as it has been in previous generations, nor will it prepare that nurse leader for the key leadership careers of tomorrow.

References

Thompson, R., Wolf, D.M., & Sabatine, J.M. (2012). Mentoring and Coaching: A Model Guiding Professional Nurses to Executive Success *Journal of Nursing Administration*, 42, 536-541.
Westcott, L. (2016). How coaching can play a key role in the development of nurse managers. *Journal of Clinical Nursing*, 25, 2669–2677, doi: 10.1111/jocn.13315

Contact

paulskiem@comcast.net

The Ultimate Leadership Suite: The Corner Office

Therese A. Fitzpatrick, PhD, RN, FAAN, USA

Abstract

There is a quiet revolution underway as the initials “RN” are appearing on corner office doors. The impact of our astounding talents is shaping corporations, health systems, and public policy across the nation. Smart, bold, and exceedingly talented nurses are blazing trails into domains once considered unheard of for nurses. Nurse leaders are running companies and health systems, becoming successful entrepreneurs and leading universities. These nurses are embracing their valuable nursing knowledge base and their unique perspectives on health and health care. Nurses possess the greatest breadth and depth of health care experience in hospitals, clinics, long-term care and the home. Nurses are a tremendous source of information on how to lower costs and raise the quality of care. They are leveraging this expertise in pursuit of the most strategic and powerful positions in government, academia, businesses, and health care organizations. There are valuable lessons to be learned from the storied careers of these leaders, in particular advice and candid accounts of both successes and failures.

The executive corner office nurses consistently report that their business and financial knowledge, skills, and perspectives positioned them well for their senior leadership or entrepreneurial roles. Their successes require study and analysis so that we can better understand what it takes to succeed in these positions of strategic importance. Leading an enterprise suggests that nurses should claim their rightful place on governance boards, a role which requires a deep understanding of our fiduciary and organizational performance responsibilities. As we rise through the levels of leadership, an evolving skill set is required to assume these sophisticated roles which require strategic insights and bold action. This session will share stories of executive nurse leaders who have demonstrated resiliency, capitalized on the power of their professional network, were keenly aware of their value, knew how to “talk the talk,” found the leadership role best aligned with their values, and leveraged their leadership brand.

References

Curran, C. & Fitzpatrick, T. (2013). Claiming the corner office: Executive leadership lessons for nurses. Indianapolis: Sigma Theta Tau International Press.

Curran, C.R, & Fitzpatrick, T. A. (2014) Could This Be the Year to Claim the Corner Office? Nursing Economics, 32(1), 49-50.

Contact

ThereseAFitzpatrick@gmail.com

D 06 - Strategies for Educating Nursing Students to Address Social Justice and the Social Determinants of Health

Culturally Sensitive Teaching Strategies to Improve Health for Refugees in San Antonio, Texas

Rebekah J. Salt, PhD, MN, RN, USA

Abstract

It is well known that social determinants of health (SDH) affect health. In the United States, researchers are challenged to focus attention on social and economic factors related to health and to investigate the links between SDH and vulnerable populations. Refugees in the United States are a vulnerable population and at risk for poor health and social outcomes due to past and present circumstances. In 2015, the United Nations High Commissioner for Refugees reported that of the 65.3 million persons forcibly displaced worldwide, an estimated 21.3 million of those were refugees. The United States remains a world leader in refugee resettlement and is expected to admit 85,000 refugees in Fiscal Year 2016 with at least 10,000 of those from Syria. Texas is a national leader in refugee arrivals and provides culturally sensitive comprehensive health assessments and referrals during the resettlement process.

Resettlement can be stressful as refugees may have suffered life-threatening circumstances prior to flight from their countries. Shortly after reaching the United States, refugees face the difficult tasks of learning to speak English, finding employment, and knowing whom to ask for help. Researchers have reported four reoccurring barriers that can affect refugees' transition to the United States: 1) Culture, as health beliefs and social norms vary from country to country; 2) Language issues around verbalizing their needs; 3) Discrimination and stigmatization specifically related to mental health, religious or regional stigma; and 4) Logistical concerns around transportation, finding housing, and navigating the health care system. These internal and structural issues can create barriers to care and contribute to health disparities in this population.

In the Population-Focused Health course at the University of Texas Health Science Center at San Antonio, School of Nursing, students are introduced to social determinants of health and social justice at the community level through a community assessment process. Each clinical group is required to complete a windshield survey, analyze public health data, conduct key informant interviews and focus health promotion within specific census tracts. The Center for Refugee Services (CRS) is an independent 501(c)3 nonprofit agency that was established in 2010 and is run by volunteers who provide educational and support resources to the refugee community in Northwest San Antonio. At the CRS, the students learn about primary and secondary prevention strategies within the context of cultural sensitivity and safety. A student project may consist of a health fair, screenings, or health education presentations based on refugee request and need. In the planning and implementation of these projects, the students have to frame the message around health promotion, identify internal and structural barriers, and plan for logistics such as working with interpreters and translators. This community partnership has been transformational for both the refugees and students. The refugees appreciate the collaboration with the University of Texas Health Science Center and the students share that they can translate the concepts of social justice and cultural sensitivity and safety into their care of vulnerable populations in acute and community settings.

References

- Szjana, A., & Ward, J. (2014). Access to health care by refugees: A dimensional analysis. *Nursing Forum* doi: 10.1111/nuf.12051
- Texas Department of State Health Services. (2014). *Refugee program arrivals to state and counties*. Retrieved from https://www.dshs.state.tx.us/idcu/health/refugee_health/statistics
- United Nations High Commissioner for Refugees (UNHCR). (2015). *Global trends. Forced displacement in 2015*. Retrieved from <http://www.unhcr.org/en-us/statistics/unhcrstats/576408cd7/unhcr-global-trends-2015.html>
- U.S. Department of State (2016). *FY15 Refugee admissions statistics*. Retrieved September 30, 2016 from <http://www.state.gov/j/prm/releases/statistics/251285.htm>

Contact
salt@uthscsa.edu

Impacting Practice: Using a Poverty Simulation to Develop Leadership Skills in Baccalaureate Nursing Students

Adelita G. Cantu, PhD, RN, USA

Abstract

Social determinants of health (SDH) combine in many ways to impact the health and health outcomes of individuals and communities. One of the most significant SDH is poverty. Based on a meta-analysis of nearly 50 studies, researchers found that many social factors, including poverty accounted for over a third of total deaths in the United States in a year. Thus it is mission critical that we prepare the future healthcare workforce with the attitude, knowledge and skills that prepare them to integrate SDH into their practices so as to have a positive impact on health outcomes.

Simulation is a technique for practice and learning that has been applied to nursing education. Simulation-based learning can be a way to develop health professionals' knowledge, skills, and attitudes, providing a valuable tool in learning resolve practical dilemmas. This abstract will describe how a School of Nursing integrates a poverty simulation in an undergraduate nursing population health clinical course to build knowledge about SDH and inform practice relative to the pathways of SDH that determine health and health outcomes.

For the last four years at our institution, undergraduate baccalaureate-nursing students have participated in a poverty simulation during the first day of their clinical rotation for population health. The simulation requires that each student is a member of a family that lives a month within the confines of a low-income household. During the month, they are responsible for paying their bills, dealing with challenges that arise suddenly and work to not be evicted from their home by the end of the month. The critical component is the debriefing after the simulation, which allows for discussion about SDH and their impacts on health.

After the simulation, the remainder of Population Health clinical has numerous clinical activities that are designed to reinforce the knowledge that students gained from the poverty simulation. The activities include a doing a community assessment, a public transportation day, working with a homeless transition center, understanding how food deserts impact health and how community gardens and a food bank can positivity change health outcomes. After each activity, students reflect on their experiences and one of the questions is *"Describe any nursing strategies (communication, health education, etc) that you used this week that were influenced by the awareness and knowledge gained from the poverty simulation."*

Approximately 500 answers to that question have been reviewed for common themes Three themes emerged: 1) the importance of communication and active listening; 2) the influence SDH has on how community residents prioritize behaviors, particularly health behaviors, and 3) the importance of nurses being aware of community resources and how residents can access resources. In this presentation, narratives will be shared that highlight how students engaged in nursing strategies that were influenced by these themes. Also and more importantly, students have expressed how they will use this knowledge to inform their practice as a nursing professional. Other implications for how this has social justice impact on nursing practice will be discussed.

References

- Marmot, M., & Allen, J. J. (2014). Social determinants of health equity. *American Journal of Public Health, 104* (Suppl. 4), S517-S519.
- World Health Organizations. (2016). *Social determinants of health*. Retrieved February 2, 2016 from http://www.who.int/topics/social_determinants/en
- Allen, M., Allen, J., Hogarth, S. and Marmot, M. (2013). *Working for health equity: The role of health professionals*. London, UK: University College of London Institute of Health Policy.

Contact

Upstream Healthcare: Values Training for Low-Income Children Using Baccalaureate Nursing Students and Community Youth

Martha Martinez, MN, RN, USA

Socorro Escandon, PhD, MSN, BSN, RN, USA

Abstract

Evidence now supports the idea that social determinants of health (SDH) are the biggest factors in influencing population and community health. Addressing one or more of these factors can have a positive impact on health. Efforts and investments should be directed at root causes of health disparities to improve health outcomes. One of the core principles of Upstream Health Care is to focus beyond the walls of acute care settings and extend into the communities and collaborating agencies to address the root causes of health problems/issues including SDH. Community settings can provide an environment that supports and fosters character building and core values such as courage, good judgement, integrity, honesty, self-discipline and service. Focusing on SDH as part of nursing education and promoting healthcare at the community level enables nursing students to develop an expanded perception of nursing care that includes vulnerable populations. Students completed their Population-Focused Health clinical rotation at Jireh House, a faith-based community agency that provides services to residents living within a government subsidized low-income housing property. This area is known for increased health and educational disparities in San Antonio, Texas.

Moral qualities are valued by individuals, parents, and educators and are likely to benefit society as a whole. Experiences during childhood play a role in shaping an individual's life and outcomes. Providing positive learning opportunities, supporting positive relationships and teaching core values to improve health outcomes. Children, as early as two years of age, demonstrate kindness and begin to develop collaboration and teamwork abilities which increase throughout early childhood. Community settings can provide an environment that supports and fosters character building and core ethical values such as courage, good judgement, integrity, honesty, self-discipline and service. Given that experiences during childhood play a big role in shaping future life outcomes, providing positive learning opportunities, supporting positive relationships, and teaching core values may improve health outcomes. Children relate to puppets from a very early age and puppet shows provide a way to use a story format to portray a variety of situations related to misconceptions, conflicts, and coping skills. The purpose of the *Values Training Puppet Project* was to provide senior nursing students, in their Population-Focused Health clinical rotation, the opportunity to develop mutually beneficial relationships with community service organizations in San Antonio, Texas. Nursing students worked side-by-side with youth ages 13-17 at Jireh House to create and produce puppet shows for school age children who lived in the nearby low-income housing. The goal was to foster citizenship and leadership skills for the nursing students and volunteer youth through character building activities and shared development of a values training project using puppet shows for school age children attending a youth program at Jireh House.

Prior to the beginning of the project, both the nursing students and volunteer youth at Jireh House completed the *Values in Action Inventory (VIA)* Survey of Character Strengths to identify their own personal strengths and values prior to implementing values training to the children. The VIA is a self-report questionnaire designed to identify individual strengths within six virtue clusters. One focus is to identify and strengthen moral core values that will guide life experiences and decisions. Before implementing the puppet shows, the students and community youth met separately to address their VIAs and discuss perceptions of the benefits of community collaboration. The two groups then met to share reflections from their VIAs. These reflections informed The Values Training Puppet Project which focused on: 1) Engagement, active participation, and positive learning experiences and 2) the concepts of honesty, self-control and integrity. The nursing students and youth volunteers worked together to introduce creativity and imagination and engagement into three different puppet shows. For example, one group incorporated music prior to the show. At the request of the children, the groups repeated two of the puppet shows twice.

At the conclusion of the project, the nursing students were again asked to reflect on their VIA identified strengths and relate them to their work during the project. Three themes emerged: 1) Strength of teamwork, 2) Fairness, and 3) Leadership. The students used their character strengths to inform their work with the volunteer youth group, the creation and implementation of the puppet shows and how to mentor youth. The students also discussed how this experience related to growth and development theory of young adolescents and their need to be creative, yet held accountable for their work. Using innovative teaching strategies to promote character building, mentorship, and values training for at risk youth and children is one approach to upstream health care and has the potential to decrease health disparities and improve health outcomes.

References

- Gillham, J., Adams-Deutsch, Z., Werner, J., Reivich, K., Coulter-Heindl, V., Linkins, M., Winder, B.,... Seligman, M. E. P. (2011). Character strengths predict subjective well-being during adolescence. *The Journal of Positive Psychology*, 6(1), 31-44.
- Jain, R. (2013). *What's right with this picture? Teaching kids character strengths through stories*. United States: GoStrengths LLC.
- Via Institute on Character. (2016). *Find your pathway to positive*. Retrieved November 29, 2016 from <https://www.viacharacter.org/www/>
- Williams, D. R., Costa, M. V., Odunlami, A. O. Mohammed, S. A. (2008). Moving upstream: How interventions that address the social determinants of health can improve health and reduce disparities. *Journal of Public Health Management and Practice*, 14(Suppl), S8-17.

Contact

Martinezm44@uthscsa.edu

D 17 - Simulation Research: Informing Best Practices in Nursing Education

Integrating Virtual Simulation into the Curriculum: An Exploratory Study

Susan Forneris, PhD, RN, CNE, CHSE-A, USA

Abstract

Simulation can take many forms, including human patient simulation using manikins and/or standardized patients, virtual and computer based simulations, simulation done to teach psychomotor skills, or role play (Society for Simulation in Healthcare, 2015). Simulation is grounded in the use of story. The many and varied patient simulation scenarios capture unique, time limited, clinical encounters within the context of nursing practice. Learning in simulation allows for situated cognition – or learning in context –and has a greater chance of being recalled and then transferred to new learning situations (Forneris & Peden-McAline, 2006).

Virtual simulation provides a unique learning opportunity for nursing students to interact with a patient in a safe, realistic environment that is available anytime, anywhere. Virtual simulation engages students through the evolving clinical stories of patient encounters. The problems encountered in these patient stories focus the student on the *process of thinking* as opposed to the process of learning factual knowledge. Contextualizing practice focuses student attention on the patient – a strategy that keeps students' thinking open and curious (Benner, Sutphen, Leonard, Day, 2010). Simulation as a teaching strategy is based on the theory of deliberate practice and thus engages students with the opportunity to repeat an activity continually to achieve mastery. The literature supports that simulation-based education with deliberate practice is effective in achieving specific clinical goals (McGaghie, Issenberg, Cohen, Barsuk, & Wayne, 2011).

Learning in context is a concept at the forefront of contemporary educational reform. Passive learning approaches are being replaced by experiential learning, i.e., active learning approaches whereby students become the center of the teaching and change from mere consumers of education to engaged active learners (Jeffries & Clochesy, 2012). The National Council of State Boards of Nursing (NCSBN) landmark, multi-site, longitudinal, study explored the role and outcomes of simulation in pre-licensure clinical nursing education in the United States (Hayden, Smiley, Alexander, Kardong-Edgren & Jeffries, 2014). The study concluded that there is substantial evidence that simulation can be substituted for up to 50 percent of traditional clinical experiences under conditions comparable to those described in the study. Simulation as an active learning teaching strategy is informing nursing education on the direction needed for educational transformation

Unique challenges exist for today's nurse educators to devise and thoughtfully integrate teaching strategies that move from highly structured to self-directed learning and reactive thinking to critically reflective proactive thinking. Contextualized learning brings classroom and clinical together; simulation engages learners with diverse perspectives to reflect and reframe the understanding of practice, bringing thinking and doing together. Thoughtful and intentional use of simulation across the curriculum, thus encompassing virtual simulation, holds great promise in moving nursing education forward transforming the way students learn and faculty teach.

This paper will discuss the findings of an exploratory study on the use of virtual simulation with faculty from a variety of programs of nursing. The focus of the study was to determine how faculty used and integrated a trial period of virtual simulation in their nursing curricula. Findings from this exploratory study inform nursing education best practice emphasizing the importance of 1) the use of context in the teaching-learning process; 2) active learning that shifts the teaching from a cognitive to a relational approach, where learners and faculty construct knowledge, attitudes, and skills collaboratively (Cheng et al., 2015). The findings from this study were used in the development of faculty curriculum implementation guides; a National League for Nursing evidence-based resource to assist faculty in

acquiring the foundational knowledge needed to ensure thoughtful integration of virtual simulation across the curriculum and engage in education best practices.

References

- Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). *Educating nurses: A call for radical transformation*. San Francisco, CA: Jossey-Bass.
- Cheng, A., Morse, K., Rudolph, J., Brydges, R., Arab, A., Runnacles, J., & Eppich, W. (2015). *Strategies for conducting learner-centered debriefing for simulation-based education: Lessons for faculty development*. Calgary, Alberta, Canada: T.S. University of Calgary.
- Forneris, S. G. & Peden-McAline C.E. (2006). Contextual Learning: A reflective learning intervention for nursing education. *International Journal of Nursing Education Scholarship*, 3(1, Article 17), 1-18.
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). Supplement: The NCSBN National Simulation Study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5(2), C1-S64.
- Jeffries, P. R., & Clochesy, J. M. (2012). Clinical simulations: An experiential, student-centered pedagogical approach. In D. M. Billings & J. A. Halstead (Eds). *Teaching in nursing: A guide for faculty* (4th ed., pp. 352-368). St. Louis, MO: Elsevier Health Sciences.
- McGaghie, W. C., Issenberg, S. B., Cohen, M. E. R., Barsuk, J. H., & Wayne, D. B. (2011). Does simulation-based medical education with deliberate practice yield better results than traditional clinical education? A meta-analytic comparative review of the evidence. *Academic Medicine*, 86(6), 706.
- Society for Simulation in Healthcare (2015). About simulation. Retrieved from <http://www.ssih.org/About-Simulation>

Contact

sforneris@nl.org

Using Simulation to Enhance Clinical Reasoning During Medication Administration: A Multi-Site Qualitative Study

Diana Odland Neal, PhD, MS, BSN, RN, PHN, USA

Abstract

Patient safety and quality care are issues of major concern worldwide and are significant challenges facing healthcare systems, clinical practice, and nursing education. The Quality and Safety Education for Nurses (QSEN) project, funded by the Robert Wood Johnson Foundation, has been pivotal in engaging nursing faculty in the important work of assuring that graduates are able to demonstrate quality and safety competencies. The purpose of the QSEN project is to prepare nurses who will improve the quality and safety of the healthcare system and individual performance. To promote quality and safety in nursing care, QSEN developed core competencies in knowledge, skills, and attitudes (KSAs) that are essential for pre-licensure nursing students. Medication administration is a common and necessary core competency in nursing care. Patient safety is especially at risk during medication administration as medication incidents are a leading cause of patient injury.

Nursing educators face many challenges ensuring that students have the knowledge and abilities to safely administer medications to patients. The simulation nursing lab is a safe environment to teach medication administration. Repetition and rote memory have traditionally been used heavily by students to acquire nursing skills such as medication administration. Although the procedure of administering medications appears to be simple and straightforward from a psychomotor domain, the student nurse's thought processes and critical judgments may contribute to medication errors.

The thought processes of student nurses during medication administration related to prevention of patient harm or errors or promoting therapeutic responses are not well known. Nursing students may be focused more on the rules and procedures rather than anticipatory problem solving, and concurrent patient teaching that occurs with practicing nurses. The QSEN project provides nursing faculty with a framework to assure that graduates are able to demonstrate quality and safety competencies, including that of medication administration.

Simulation and debriefing is gaining momentum as an active learning teaching strategy that is successfully impacting student thinking along the learning continuum. The direct effect of simulation and debriefing on learner performance and clinical reasoning is not well studied. Nurse educators continue to seek new teaching and learning strategies with the goal of engaging students in thinking that goes beyond the boundaries of memorization. With a focus on developing sound critical thinking and clinical reasoning skills, contemporary nursing education is focused on teaching students to think like a nurse (Tanner, 2006).

This paper will discuss the findings of a multi-site qualitative study, which examined student nurses' reported thinking during medication administration in a simulated experience involving care of a post-operative patient reporting pain. Forty-eight students from five baccalaureate-nursing programs in Minnesota, USA participated in a simulation with a standardized post-operative patient. Ten, second year advanced diploma student nurses at Tumbani University Kilimanjaro Christian Medical College in Moshi, Tanzania participated in a subsequent replicated study. In both studies, students independently completed a patient assessment and administered pain medication from a variety of options. Following the simulation, semi-structured debriefing interviews containing 9 open-ended questions were conducted and audiotaped.

Students administered a variety of pain medication during the simulation. Analysis of transcriptions revealed five themes including 1) safety, 2) clinical reasoning, 3) uncertainty and need for validation, 4) lessons learned, and 5) perception of realism. Safety was the most predominant theme that emerged from the data.

Students must be able to more fully understand clinical decision-making around medication administration (e.g., best practice, individual experiences with pain, patient preferences, patient conditions, etc.). Implementing teaching strategies that integrate opportunities for several valid nursing interventions encourage students to move away from a linear perspective to examine their thinking and the complexity of clinical practice. Findings will inform faculty relative to curricular design, pedagogy, and evaluation in educating nursing students to become safe and competent nurses.

References

- Briggs, C. L. (2010). What were they thinking? Nursing students' thought processes underlying pain management decisions. *Nursing Education Perspectives*, 31(2): 84-88.
- Cooper, E. (2014). Nursing student medication errors: A snapshot view from a school of nursing's quality and safety. *The Journal of Nursing Education*, 53(3): S51-S54.
- Krautscheid, L., Orton, V., Chorpenning, L., & Ryerson, R. (2011). Student nurse perceptions of effective medication administration education. *International Journal of Nursing Education Scholarship*, 8(1): 1-15.
- Sears, K., Goldsworthy, S., & Goodman, W. (2010). The relationship between simulation in nursing education and medication safety. *Journal of Nursing Education*, 49(1): 52-55.
- Tanner, C. (April, 2014). The new imperative in nursing education research: Impact on patient safety and quality of care. Keynote presentation at the STTI/NLN Nursing Education Research Conference, Indianapolis, IN.
- Vaismoradi, M., Jordan, S., Rurunen, H., & Bondas, T. (2014). Nursing students' perspectives of the cause of medication errors. *Nursing Education Today*, 34: 434-440.

Contact

neal@stolaf.edu

Using Virtual Simulation to Enhance Student Learning: A Case-Based Approach

Jone Tiffany, DNP, RN, CNE, CHSE, ANEF, USA

Abstract

The topics of inclusivity, diversity, cultural awareness, and patient-centered care coordination are difficult to adequately explore in a traditional classroom setting. Innovative educational strategies are needed to better prepare nurses to succeed in complex healthcare environments where quality and safety are paramount. Virtual reality software and environments such as Second Life (SL) hold potential as part of

the solution by providing innovative and interactive platforms for educational experiences that simulate real world situations. These platforms offer opportunities to utilize the virtual world to expose nursing students to learning in a new way.

This presentation will describe how the virtual platform of Second Life was utilized for simulated role-play experiences. In addition, the literature surrounding the use of virtual platforms for simulated nursing education will be presented. Advances in virtual education have created an environment that presents new opportunities to help foster positive student learning and exploration. Such innovations can be implemented to aid in teaching about many concepts, including patient-centered care coordination and inclusivity.

The use of the virtual platform of Second Life (SL) afforded a unique opportunity to use virtual role-play simulation to experience what it is like to walk in another's shoes. In one study, fifteen graduate nurse educator students enrolled in a course titled "Inclusivity in Nursing Education" and were randomly assigned a customized avatar, representing a marginalized person for use in a role-play simulation in the virtual world of SL. Students indicated they increased their own capacity to understand, appreciate, and relate to people different from themselves.

In another study, a virtual ambulatory care clinic was built in Second Life and students created online avatars and engaged in an experience where they discussed concerns that accompanied clinic visits; including heart failure, diabetes, and depression. Student preparation for the virtual experience took place via a simulated electronic health record. The process of the virtual role-play simulation itself, including the facilitator's role will be discussed during this presentation. The virtual simulation role-play experience also gave students the opportunity to practice their phone-triage skills through the use a virtual role-play experience where they handled a patient phone call situation. Students found this experience to enhance the professional nursing role of patient educator. At the end of their experience, students completed a teaching plan, which further expanded the learning about the role of patient educator. Focus group discussions of the use of this technology reported enhanced learning.

Although future research is needed to determine the full extent to which virtual platforms can be used effectively in nursing education, these studies demonstrated that valuable learning regarding complex topics can take place in the virtual world.

References

- Tanner, C. (April, 2014). The new imperative in nursing education research: impact on patient safety and quality of care. Keynote presentation at the STTI/NLN Nursing Education Research Conference, Indianapolis, IN.
- Tiffany, J. M., & Hoglund, B. A. (2016). Using virtual simulation to teach inclusivity: A case study. *Clinical Simulation in Nursing*, 12(4), 115-122. <http://dx.doi.org/10.1016/j.ecns.2015.11.003>.
- Tilton, K., Tiffany, J., & Hoglund, B. (2016). Non-acute care virtual simulation: Preparing students to provide chronic illness care. *Nursing Education Perspectives*.

Contact

jone-tiffany@bethel.edu

F 01 - Innovative Evidence-Based Strategies for BSN Education

Evidence-Based Educational Strategies That Promote Handoff Effectiveness: Connecting the Dots Between Senders and Receivers

Christine A. Sump, DNP, MSN, RN, CNE, USA
Donna L. Rose, MSN, RN, USA

Abstract

Ineffective communication has long been recognized as a barrier to safe patient care (James, 2013). The World Health Organization (2007), Joint Commission (2011), and the Agency for Healthcare Research and Quality (Westat et al, 2016) have identified communication failures during handoff as a national and international challenge to safe patient care. Fifty-three percent of the approximately 447 thousand respondents in The Agency for Healthcare Research and Quality's 2016 Hospital Survey on Patient Safety Culture deemed that important patient care information is often lost during shift changes. Forty-seven percent of the respondents indicated that shift changes were problematic for patients in their respective hospital (Westat et al, 2016). The Joint Commission Center for Transforming Healthcare (2011) estimates that 80% of medical errors result from breakdowns in communication when patients are "handed off" during change of shift report. Problems with patient handoffs are an international concern. According to the World Health Organization (2007), "hand-over (handoff) problems are rooted in the way that healthcare providers are educated or not educated (in team training and communication skills)". The WHO World Alliance for Patient Safety has developed patient safety solutions focused on communication during patient handoffs. They call for educators to incorporate training on effective handoff communication into the educational curricula.

Handoff education requires thoughtful preparation and planning to maximize attainment of program outcomes and minimize potential risks while ensuring integration of best practices in the clinical setting. However, formal instruction on handoff is not typically taught in undergraduate nursing programs (Kerr, Lu, McKinlay, & Fuller, 2011). Additionally, the literature provides very little information on handoff instruction and evaluation in undergraduate nursing education. The purpose of this presentation is to discuss evidence-based educational strategies to improve effective handoff delivery and reception to maximize patient safety.

Multiple teaching and learning strategies have been incorporated into the curriculum of a midsize university's school of nursing. Strategies that promote effective handoff delivery are implemented and evaluated in the classroom, health assessment lab, simulation, and clinical settings during the first semester of nursing school and continued throughout the curriculum. A flipped classroom is initially used to introduce the handoff process. A flipped classroom is an evidence-based method to support clinical education and increase critical thinking skills, which are crucial for safe patient care (Burns, 2012; Yu, Zhang, Xu, Wu, & Wang, 2013). The students then practice handoffs using case study scenarios, and role play, using the Situation, Background, Assessment, Recommendation (SBAR) format. Case studies promote critical thinking and decision making by cultivating the connection between didactic content and clinical learning experiences (Pupil, 2011; West, Usher & Delaney, 2012). Role-playing using the SBAR format is a strategy that promotes effective handoff communication skills using a standardized method recommended by the Joint Commission and Agency for Healthcare Research and Quality (Wang, Blazek, & Greene, 2015). In health assessment and simulation labs, students have more opportunities to practice patient handoff after completing physical assessments on manikins and standardized patients. Repetition of simulated handoffs is a safe, risk-free method for students to repeat skills, receive feedback, and learn from their errors (Lee, Mast, Humbert, Bagnardi, & Richards, 2016). The Handoff CEX tool (Horwitz, 2012) is used to evaluate handoff competence after the students complete a simulated patient scenario. Handoff setting, organization, communication skills, content, judgment, and professionalism are evaluated using a nine-point Likert scale. The tool enables the faculty to provide standardized and detailed feedback on the students' handoffs.

Although researchers agree that the transmission of accurate information is vital (Cohen, Hilligoss, & Kajdacsy-Balla, 2012; Young, Wachter, O'Sullivan, & Irby, 2016) it is imperative that the receiver of the handoff is able to process the information to form necessary clinical judgments. Clinical judgment following handoff is crucial and the ability to make sound clinical judgments has been identified as an essential skill for practicing nurses and is a hallmark of professional nursing. The nurse must understand the overall patient condition in order to plan care, which involves determining priorities of care based on the actual and potential patient situation. A literature search revealed no studies in undergraduate nursing education that focus on students being the sender **and** receiver of handoff. To connect the dots and provide students an opportunity to practice *receiving* patient handoff, fourth semester students participate in a handoff simulation experience. Simulation is an effective, evidence-based (Hayden, Smiley, Alexander, Kardong-Edgren & Jeffries, 2014) experiential learning strategy that can be used to help students gain a sense of salience as well as improve clinical competence in a risk-free environment. High-fidelity simulation has been repeatedly identified as one educational strategy to improve clinical judgment in novice nurses and help bridge the practice-education gap (Dreifuerst, 2012; Lasater, 2011). Jeffries (2012) included fidelity, or realism, as a necessary component of a simulation design as well as a component of the NLN/Jeffries Simulation Framework. To increase the fidelity of the experience, students receive bedside handoff from a practicing nurse, with the use of an electronic medical record (EMR). Standardized patients are used to further create a realistic scenario. The clinical scenario is based on standardized, tested, NLN/Laerdal® simulation scenarios owned by the school of nursing. Students are allowed up to 10 minutes after the handoff to use available resources such as the patient's EMR, a nursing drug handbook and a medical-surgical textbook. Clinical competence is measured using the Crieghton Competency Evaluation Instrument (C-CEI®, Hayden et al. 2014) from a remote viewing room. The C-CEI® focuses on 23 general nursing behaviors divided into four categories: assessment, communication, clinical judgment, and patient safety.

Despite longstanding identification of the relationship between communication breakdowns during end-of-shift handoff and patient safety, errors are still occurring globally (Johnson, Barach, & Arora, 2011). Insufficient handoff education is identified as a root cause of ineffective handoff and thus patient care errors (The Joint Commission Center for Transforming Healthcare, 2011). Nurse educators must develop and validate educational strategies to address handoff deficiencies in nursing students so that they will have the knowledge and skills needed to provide safe, consistent, and person-centered care. The implementation of a variety of evidence-based handoff educational strategies throughout the curriculum uniquely encompasses handoff delivery and reception. These strategies are implemented to increase nursing students' proficiency and confidence as well as enhance clinical judgment needed for effective handoffs. This in turn, will potentially bridge the practice-education gap related to handoff communication, and promote patient safety as students transition into practice, and advance in their professional careers.

References

- Burns, J. (2012) Critical care in the age of the duty hour regulations: Circadian-based scheduling, standardized handoffs, and the flipped classroom? *Critical Care Medicine*, 40(12), 3305-3306
- Cohen, M., Hilligoss, B., & Kajdacsy-Balla Amaral, A. C. (2012). A handoff is not a telegram: an understanding of the patient is co-constructed. *Critical Care*, 16, 303.
- Dreifuerst, K. T. (2012). Using debriefing for meaningful learning to foster development of clinical reasoning in simulation. *Journal of Nursing Education*, 51, 326-333.
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). Supplement: The NCSBN national simulation study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5(2), C1-S64.
- Horwitz, L., Dombroski, J., Murphy, T., Farnan, J., Johnson, J., & Arora, V. (2012). Validation of a handoff assessment tool: the handoff CEX. *Journal of Clinical Nursing*, 22, 1477-1486
- James, J. (2013). A new, evidence-based estimate of patient harms associated with hospital care. *Patient Safety*, 9(3), 122-128.
- Jeffries, P. R. (2012). *Simulation in nursing education: From conceptualization to evaluation* (2nd ed.). New York, NY: National League for Nursing.
- Johnson, J., Barach, P., & Arora, V. (2011). Global challenges in communication strategies to ensure high reliability during patient handovers. *Healthcare Systems Ergonomics and Patient Safety*.
- Joint Commission Center for Transforming Healthcare. (2011). *Project detail: Hand-off communications*. Retrieved from <http://www.centerfortransforminghealthcare.org/projects/detail.aspx?Project=1>

Kerr, D., Lu, S., McKinlay, L., Fuller, C. (2011). Examination of current handover practice: Evidence to support changing the ritual. *International Journal of Nursing Practice*, 17, 342-350

Lee, J., Mast, M., Humbert, J., Bagnardi, M., & Richards, S. (2016). Teaching handoff communication to nursing students: a teaching intervention and lessons learned. *Nurse Educator*, 41(4), 189-193.

Lasater, K. (2011). Clinical judgment: The last frontier for evaluation. *Nurse Education in Practice*, 11, 86-92.

Lee, J., Mast, M., Humbert, J., Bagnardi, M., & Richards, S. (2016). Teaching handoff communication to nursing students: a teaching intervention and lessons learned. *Nurse Educator*, 41(4), 189-193

Pupil, I (2011). Promotion of critical thinking by using case studies as a teaching method. *Nurse Educator Today*, 31(2), 204-207

Pupil, I (2011). Promotion of critical thinking by using case studies as a teaching method. *Nurse Educator Today*, 31(2), 204-207.

Wang, W., Liang, Z., Blazeck, A., & Greene, B. (2015). Improving Chinese nursing students' communication skills by utilizing video-stimulated recall and role-play case scenarios to introduce them to the SBAR technique. *Nurse Education Today*, 35(7), 881-887.

West, C., Usher, K. & Delaney, L. (2012). Unfolding case studies in pre-registration nursing education: Lessons learned. *Nurse Educator Today*, 32, 576-580.

Westat, R. Famolaro, T., Yount, N. D., Flashner, E., Liu, H., and Sorra, J. (2016). *Hospital survey on patient safety culture: 2016 user comparative database report* (AHRQ Publication No. 16-0021-EF). Prepared for Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services, Rockville, MD.

World Health Organization. (2007). *Communication during patient hand-overs*. Retrieved from <http://www.who.int/patientsafety/solutions/patientsafety/PS-Solution3.pdf>

Young, J., Wachter, R. ten Cate, O., O'Sullivan, P., & Irby, D. (2016). Advancing the next generation of handover research and practice with cognitive load theory. *BMJ Quality and Safety*. 25. 66-70

Yu, D., Zhang, Y., Xu, Y., Wu, J. & Wang, C. (2013). Improvement in critical thinking dispositions of undergraduate nursing students through problem-based learning: a crossover-experimental study. *Journal of Nursing Education*, 52(10), 574-581.

Contact

csump@odu.edu

Using Service Learning to Enhance Cognitive Development of Nursing Research for Complex Social Issues

Linda K. Bennington, PhD, MSN, BSN, BS, MS, RN, USA

Abstract

Service-learning is loosely defined as a structured educational experience that links classroom knowledge to community engagement. At its best, it accommodates student growth via self-examination to find those qualities within that enable a successful transition for the common good of a community. At its worst, it may stymie association with others, be they student peers or members of a diverse culture within the community. The overall objective is to serve as an initiation into the concrete world of the lives of those rarely encountered by the student nurse in his/her typical setting in order to provoke self-reflection, compassion, selflessness, social awareness and, above all, cognitive development and insight. The succinct substance of service learning is that the combination of the two adds value to each and transforms both.

Since service learning exposes students to various situations and organizations, this provides them with the means to see firsthand the various social injustices and cultural barriers that exist in local communities. This, in turn, will hopefully produce students who are better prepared to deal with the complex social issues that plague our global populace. Although service learning has been incorporated into baccalaureate programs for at least the past 20 years, there has been little standardization as to its implementation. Actual student involvement seems to range from rigorous community participation with close integration into academic study to one week intensive service activities that are essentially unrelated to classroom concepts. Our BSN program has chosen to implement the concept through a one-year (two semester) community health course that involves assigning groups of students to various organizations within our community. These groups range from faith-based to drug court to assisted living to pregnant teens, breastfeeding promotion and prenatal education. Each group is directed by a faculty member who only serves as a resource. It is up to each group of students to assess their aggregate,

make diagnoses that are indicated from the assessment and then plan and implement their choices. This process introduces students into communal regions of which they personally have little knowledge, i.e., addicts in drug court and pregnant teenage girls.

The measure of a community's needs can often be determined through the infant mortality rate as it reflects the quality of prenatal and birth care available to both children and mothers and is a critical indicator of the overall health and welfare of a nation. Our state's infant mortality rate is higher than the national average at 6.8/1000 and the highest rate is within our own community at 9.1/1000 (Virginia.gov, 2014a). Introducing nursing students to this culture and population can serve to challenge their assumptions and bring stereotypical preconceptions to the surface. Working within and interacting with this population serves to present alternative viewpoints of issues that may conflict with what the experts profess. This revelation has provided a stimulus for the students to search the literature and nursing research to justify and compare what they observe from what they read. It has also instilled within many of them a need to be socially and politically active. The key, however, to obtaining this understanding comes with continuing faculty/student interactions through verbal 'logs' and persistent questioning. Activities that have been enhanced and developed from this group have included teaching prenatal classes at a local health clinic and high school as well as developing teen father support and educational groups. Many of the activities were developed by the students themselves after perceiving a need and discussing it with the aggregate.

Willingness to change and adapt together with somewhat informal faculty/student meetings has provided the majority of these students with the ability to establish a positive attitude toward civic engagement and a better understanding of complex social issues. This was achieved by providing a quasi-structured environment through various local organizations that play a specific role within the respective community. To summarize a few of the objectives, these students achieved the ability to analyze the complexity of a problem and devise solutions rather than focus on individual deficiencies which resulted in cognitive development.

References

- Adegbola, M. (2013). Relevance of service learning to nursing education. *Association of Black Nursing Faculty*, Spring 24(2): 39.
- Mengel, A., & McLaughlin, B. (2012). Caring for our community: Service learning in the nursing curriculum. *Diversity and Democracy: Association of American Colleges and Universities*, 15 (3): Retrieved: <https://www.aacu.org/publications-research/periodicals/caring-our-community-service-learning-nursing-curriculum>

Contact

lbenning@odu.edu

The Use of Condition Mapping to Teach Situational Awareness

Amy M. Wagner, MSN, RN, CNE, USA

Amy Hower Lee, MSN, RN, USA

Abstract

Prelicensure clinical education (PCE) is constantly evolving and increasingly challenging. Globally, Nurse Educators (NEs) strive to deliver the Advanced Beginners the professional workplace now expects by ensuring basic tenets of Situational Awareness (SA) and Clinical Reasoning (CR) are in place. NEs must develop and refine techniques to promote Student Nurse (SN) learning and teach effective SA.

SA and CR are not topics with standardized didactic content which complicates the effective delivery of this content and development of these skills (Ashley & Stamp, 2014; Cohen, 2013; Darcy Mahoney, Hancock, Iorianni-Cimbak, & Curley, 2013; Edozen, 2015; Foote, 2013; Fore & Sculli, 2013; Gu, Ha, & Kim, 2015; Jewell, 2013; Martin & Wilson, 2011; Robert, Tilley & Peterson, 2014; Stubbings, Chaboyer, & McMurray, 2012). A further complication of ensuring effective PCE is that SNs learn differently (Jewell, 2013; Turner & Keeler, 2015). NEs must find ways to promote each style, each motivator, for each SN.

Traditional Preclinical Preparation (TPP) has come into question with regard to efficient and practical use of time and thought processes of SNs (Turner & Keeler, 2015; Spadaccini & Esteves, 2014). TPP encourages everyone into a standard format not allowing for individuality or specificity, for the SN or for the patient. A common observation that seasoned nurses share is that new graduate nurses are spending hours at the start of their shift to gather patient information which then delays patient care. Starting assessments and medication administration an hour and a half into a shift is less than ideal. This is the pattern NE are perpetuating with TPP. Also, the lack of availability and accessibility of the Electronic Medical Record (EMR) for SNs and in some instances, faculty, adds to the difficulty of effective PCE (Brady, 2014; Bowers et al., 2011; Brooks & Erickson, 2012; Gardner & Jones, 2012; Koch et al., 2013).

A more productive preclinical preparation methodology that better utilizes SNs time and decreases stress by allowing SNs to come to clinical prepared but not burdened with non-applicable information is recommended. Condition Mapping (CM) was developed as an alternative to TPP. SNs were given the admitting diagnosis of their assigned patient and were then expected to research textbook parameters regarding definition, pathophysiology, diagnostics and medications. SNs presented to clinicals with a plan of care for their assigned patient and were able to individualize assessment and diagnostic data to trend for their patient as opposed to collecting a standardized set of data on each patient and then determine applicability to patient care.

SNs were able to present to clinical with basic textbook information which allowed for decreased anxiety with a sense of being prepared. SNs were then able to correlate real time data as it relates to their patient's condition resulting in individualized patient care management. SNs, prompted by the self-directed desire to know, were more integrated into the healthcare team. SNs collaborated with bedside staff who were readily able to access the EMR and quickly locate information as staff responded to SN concerns. An additional benefit of the CM approach to preclinical preparation was more effective use of preclinical prep time allowing SNs to present to clinical well-rested with a sense of preparation for what is to come.

The use of CM to facilitate the development of SA and CR proved effective to SNs and faculty. CM promotes organization and prioritization, two skills essential for effective patient care management and SA as well as attaching itself to the internal motivators for each SN. CM also addressed the time laden TPP and EMR accessibility concerns which in turn decreased the effect of these stressors on SNs. SNs were able to identify patterns and potential risks and readily plan to intervene to promote positive patient outcomes which is the basic foundation of SA and CR. CM allows SNs that need structure to proceed with a relatively standardized format for gathering patient information while allowing for individuality with the application to patient care. Ensuring that new graduate nurses are able to function as Advanced Beginners will improve healthcare delivery and patient outcomes across the globe.

References

- Ashley, J., & Stamp, K. (2014). Learning to think like a nurse: The development of clinical judgment in nursing students. *Journal of Nursing Education*, 53(9), 519-525.
- Bowers, A. M., Kavanagh, J., Gregorich, T., Shumway, J., Campbell, T., & Stafford, S. (2011). Student nurses and the electronic medical record: a partnership of academia and healthcare. *CIN: Computers, Informatics, Nursing*, 29(12), 692-697. doi:10.1097/NCN.0b013e31822b8a8f
- Brady, P. W., & Goldenhar, L. M. (2014). A qualitative study examining the influences on situation awareness and the identification, mitigation and escalation of recognised patient risk. *BMJ Quality & Safety*, 23(2), 153-161. doi:10.1136/bmjqs-2012-001747
- Brooks, C. L., & Erickson, L. K. (2012). What is the solution for clinical nurse educators and the electronic medical record? *Teaching & Learning in Nursing*, 7(4), 129-132. doi:10.1016/j.teln.2012.06.003
- Cohen, N. L. (2013). PATIENT SAFETY. Using the ABCs of situational awareness for patient safety. *Nursing*, 43(4), 64-65. doi:10.1097/01.NURSE.0000428332.23978.82
- Darcy Mahoney, A. E., Hancock, L. E., Iorianni-Cimbak, A., & Curley, M. A. Q. (2013). Using high-fidelity simulation to bridge clinical and classroom learning in undergraduate pediatric nursing. *Nurse Education Today*, 33(6), 648-654. doi:10.1016/j.nedt.2012.01.005
- Edozien, L. C. (2015). Situational awareness and its application in the delivery suite. *Obstetrics & Gynecology*, 125(1), 65-69. doi:10.1097/AOG.0000000000000597
- Foot, J. M. (2013). Time is the Essence: A Grounded Theory Study of Registered Nurse's Experiences with Clinical Reasoning. (Ed.D.), University of St. Thomas (Minnesota). Retrieved from <http://proxy.lib.odu.edu/>

Fore, A. M., & Sculli, G. L. (2013). A concept analysis of situational awareness in nursing. *Journal of Advanced Nursing*, 69(12), 2613-2621. doi:10.1111/jan.12130

Gardner, C. L., & Jones, S. J. (2012). Utilization of Academic Electronic Medical Records in Undergraduate Nursing Education. *Online Journal of Nursing Informatics*, 16(2), 31-37.

Gu, M. O., Ha, Y., & Kim, J. (2015). Development and validation of an instrument to assess knowledge and skills of evidence-based nursing. *Journal of Clinical Nursing*, 24(9/10), 1380-1393. doi:10.1111/jocn.12754

Jewell, A. (2013). Supporting the novice nurse to fly: A literature review. *Nurse Education in Practice*, 13(4), 323-327. doi:10.1016/j.nepr.2013.04.006

Koch, S. H., Weir, C., Westenskow, D., Gondan, M., Agutter, J., Haar, M., . . . Staggers, N. (2013). Evaluation of the effect of information integration in displays for ICU nurses on situation awareness and task completion time: A prospective randomized controlled study. *International Journal of Medical Informatics*, 82(8), 665-675 611p. doi:10.1016/j.ijmedinf.2012.10.002

Martin, K., & Wilson, C. B. (2011). Newly Registered Nurses' Experience in the First Year of Practice: A Phenomenological Study. *International Journal for Human Caring*, 15(2), 21-27.

Miller, K., Riley, W., & Davis, S. (2009). Identifying key nursing and team behaviours to achieve high reliability. *Journal of Nursing Management*, 17(2), 247-255. doi:10.1111/j.1365-2834.2009.00978.x

Robert, R. R., Tilley, D. S., & Petersen, S. (2014). A Power in Clinical Nursing Practice: Concept Analysis on Nursing Intuition. *MEDSURG Nursing*, 23(5), 343-349 347p.

Spadaccini, J., & Esteves, J. E. (2014). Intuition, analysis and reflection: An experimental study into the decision-making processes and thinking dispositions of osteopathy students. *International Journal of Osteopathic Medicine*, 17(4), 263-271. doi:10.1016/j.ijosm.2014.04.004

Stubbings, L., Chaboyer, W., & McMurray, A. (2012). Nurses' use of situation awareness in decision-making: an integrative review. *Journal of Advanced Nursing*, 68(7), 1443-1453 1411p. doi:10.1111/j.1365-2648.2012.05989.x

Turner, L., & Keeler, C. (2015). Should We Prelab? A Student-Centered Look at the Time-Honored Tradition of Prelab in Clinical Nursing Education. *Nurse Educator*, 40(2), 91-95. doi:10.1097/NNE.0000000000000095

Contact

awagners@odu.edu

Innovative Pedagogical Approaches to Undergraduate Nursing Research: Avoiding the Cursory Critique

Jamela M. Martin, PhD, RN, CPNP, USA

Abstract

Upon entry into practice, BSN-prepared nurses are expected to contribute towards improvements in nursing practice and patient outcomes, partially through participation in evidence translation. The American Association of Colleges of Nursing's *Essentials of BSN Education* states that professional nursing practice is grounded in the translation of evidence into practice. *Essential Three: Scholarship for Evidence-based Practice* incorporates nine specific outcomes expected of BSN-prepared nurses. Yet, multi-factorial barriers to knowledge translation in practice persist. One of the key factors that facilitates EBP adoption in healthcare centers is a clinician's strong foundation of knowledge and skills, which is often cited as a prominent personal barrier. Much of the recent focus on improvements in knowledge translation have focused on interventions in the workplace. However, EBP courses in nursing education programs are an equally influential piece of the puzzle that must be explored. There is a lack of evidence that our strategies to teach research and evidence based practice concepts adequately prepare our new graduates to meet key stakeholder expectations. Nursing programs often employ lecture-based, content delivery methods to prepare nurses with basic knowledge of the research process with limited focus on application. Mastery of information at lower cognitive levels enables mastery of skills in the higher levels of the taxonomy (Bloom, 2001). Yet bachelor's prepared nurses are often prepared with only a cursory understanding of research methods (level 1 cognitive process), while still being expected to perform accurate, detailed critiques of the literature (level 4 cognitive process). For the BSN graduate, this direct, yet limited, approach translates into a lack of confidence to participate in evidence translation. Our pedagogical approaches to research and evidence-based practice must more comprehensively focus on how research is planned, conducted, and disseminated *before* expecting new nurses to accurately critique and implement findings. An alternative and potentially more effective approach to teaching difficult research concepts is constructionism: a prevailing cognitive learning theory that advocates student-

centered, discovery learning where students use information they already know to acquire more knowledge. The purpose of this presentation is to discuss the success of a project-focused, evidence-based education strategy that has been implemented into traditional undergraduate and RN-BSN nursing research courses. This strategy engages students in a hands on, experiential learning opportunity that makes nursing research more stimulating, palatable, and attainable; teaches concepts of the research process from a constructionist approach; and prepares new graduate nurses to critically analyze and implement evidence with confidence as well as collaboratively engage in the development of research proposals. Closing the know-do gap may be possible in the future, but current attempts to narrow the gap must include an examination of the role of nursing educators in preparing nurses for knowledge translation in practice.

References

- American Association of Colleges of Nursing. (2008). The essentials of baccalaureate education for professional nursing practice. Washington, DC: AACN.
- Campbell, L., Novak, I., McIntyre, S., & Lord, S. (2013). A KT intervention including the evidence alert system to improve clinician's evidence based practice behavior-a cluster randomized controlled trial. *Implementation science*, 8, 132.
- Davis D., Evans M., Jadad A., Perrier L., Rath D., Ryan D.,...& Zwarenstein M. (2015). The case for knowledge translation: shortening the journey from evidence to effect. *The BMJ*, 327, 33-35. DOI: 10.1136/bmj.327.7405.33.
- Harvey, G., Marshall, R.J., Jordan, Z. & Kitson, A.L. (2015). Exploring the hidden barriers in knowledge translation. *Qualitative Health Research*, 25(11), 1506-1517.
- Holtzman, M. & Menning, C. (2015). Integrating experiential learning and applied sociology to promote student learning and faculty research. *College Teaching*, 63(3), 112-118.
- Jackson, N. (2016). Incorporating evidence-based practice learning into a nurse residency program: Are new graduates ready to apply evidence at the bedside? *The Journal of Nursing Administration*, 46(5), 278-283.
- Kolb, A. Y., & Kolb, D. A. (2012). Experiential learning theory. In *Encyclopedia of the Sciences of Learning* (pp. 1215-1219). Springer US.
- Majid, S., Foo, S., Luyt, B., Zhang, X., Theng, Y. L., Chang, Y. K., & Mokhtar, I. A. (2011). Adopting evidence-based practice in clinical decision making: nurses' perceptions, knowledge, and barriers (EC). *Journal of the Medical Library Association*, 99(3), 229.
- McNeish, S.G. The lived experience of students in an accelerated nursing program: Intersecting factors that influence experiential learning. *Journal of Nursing Education*, 50(4), pp.197-203.
- Melnyk, B. M., Fineout-Overholt, E., Gallagher-Ford, L., & Kaplan, L. (2012). The state of evidence-based practice in US nurses: Critical implications for nurse leaders and educators. *Journal of Nursing Administration*, 42(9), 410-417.
- Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The establishment of evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings: proficiencies to improve healthcare quality, reliability, patient outcomes, and costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5-15.
- National League for Nursing (NLN). (2013). Competencies for Nursing Education. Retrieved from: http://www.nln.org/facultyprograms/competencies/graduates_competencies.htm.
- Sangestani, G., & Khatiban, M. (2013). Comparison of problem-based learning and lecture-based learning in midwifery. *Nurse education today*, 33(8), 791-795.
- Shin, I. S., & Kim, J. H. (2013). The effect of problem-based learning in nursing education: a meta-analysis. *Advances in Health Sciences Education*, 18(5), 1103-1120.
- Yardley, S., Teunissen, P. W., & Dornan, T. (2012). Experiential learning: transforming theory into practice. *Medical teacher*, 34(2), 161-164.

Contact

jm1marti@odu.edu

Using Evidenced-Based Educational Practices to Improve Graduation Rates for RN-BSN Students From Disadvantaged Backgrounds

Janice E. Hawkins, PhD, RN, USA

Lynn L. Wiles, PhD, MSN, BSN, RN, CEN, USA

Karen A. Karlowicz, EdD, RN, USA

Kimberly Adams Tufts, ND, RN, WHNP-BC, FAAN, USA

Abstract

A diverse and highly educated nursing workforce is essential to improve access to quality healthcare across the globe. The purpose of this presentation is to describe an educational model employing evidence-based educational practices to improve graduation rates of nursing students from socially and economically disadvantaged backgrounds. This model was developed with funding from the United States (U.S.) federal government via a nursing workforce diversity grant. The purpose of the grant project is to increase the number and diversity of baccalaureate-educated nurses from a resource limited community in the rural southern U.S. Structural, environmental and social supports are incorporated to facilitate student academic success.

Structural support is provided through several mechanisms. The students are admitted to the program as a single cohort. The single cohort format is a proven method to reduce attrition of RN-BSN nursing students (Davidson, Metzger, & Lindgren, 2011). Individualized advising, tuition assistance, and flexible scheduling provide further structural support. Because registered nurses report a lack of assistance with advising and enrollment procedures as barriers to returning to school for a baccalaureate degree (Altmann, 2011), one evidence-based strategy employed is individualized advising to assist students with degree planning and course enrollment navigation. Further evidence suggests that structural support such as tuition assistance, flexible scheduling and academic coaching are vital to the successful academic progression of registered nurses returning to school (Altmann, 2011; Davidson, Metzger, & Lindgren, 2011; Kern, 2014; Megginson, 2008). In our model, financial support is provided in the form of grant funded scholarships and tuition assistance from the hospital partner. Courses are delivered via an online distance-learning format that allows for course scheduling that does not conflict with work schedules and does not require travel to attend class. Additionally, access to tutors and online writing support provides students with academic support to help them succeed.

Environmental support is provided through office space for the faculty mentor and a dedicated study space for students, both of which are maintained within the hospital system. The study space contains a complete set of printed course textbooks and computers with a reliable Internet connection to ensure that students have access to the online university library and other online resources. Computer labs and library resources have been identified as factors that positively impact retention of RN-BSN students (Jeffreys, 2007; Kern, 2014). The study space also provides a convenient location for students to engage with each other as well as with faculty and peer mentors.

Social support is another factor identified by Jeffreys (2007) and Kern (2014) to reduce attrition in RN-BSN students. Formal social support includes a dedicated on-site faculty mentor as well as assigned peer mentors. The literature is replete with evidence of the impact of mentorship on positive academic progression and student achievement (Aponte, 2015; Millett, Stickler, & Wang, 2015; Murray, 2015; Tabloski, 2016).

Providing structural, environmental and social support for nurses continuing their education contributes to their success and ultimately results in advancing the nursing profession. The early evaluation of this educational model is positive. Enrollments and diversity of students from the targeted community have increased with current retention rates that are promising. Highly educated nurses from socially and economically disadvantaged backgrounds contribute to a more culturally aligned nursing workforce and better patient outcomes. Therefore, developing an evidence-based educational model to increase the number and diversity of baccalaureate-educated nurses in the workforce helps to advance the nursing profession and the healthcare needs of the global community.

References

- Altmann, T. K. (2011). Registered nurses returning to school for a bachelors degree in nursing: Issues emerging from a meta-analysis of the research. *Contemporary Nurse: A Journal For The Australian Nursing Profession*,39(2), 256-272.
- Aponte J., Figueroa, B. N., Madera, M., Campos-Dominguez, G., Panora, E., & Jaramillo, D. J. (2015). Mentoring Hispanic undergraduate and graduate research assistants: building research capacity in nursing. *The Journal of Nursing Education*, 54(6), 328-34. doi: 10.3928/01484834-20150515-03.

Davidson, S. C, Metzger R, & Lindgren, K. (2011). A hybrid classroom-online curriculum format for RN-BSN students: Cohort support and curriculum structure improve graduation rates. *Journal of Continuing Education in Nursing, 42*(5): 223-32.

Jeffreys, M. (2007). Nontraditional students' perceptions of variables influencing retention: A multisite study. *Nurse Educator, 32*(4), 161-167.

Kern, B. (2014). Factors that restrict or support retention among RN-to-BSN nursing students: A replication study. *Open Journal of Nursing, 4*(4), 296-302. doi:10.4236/ojn.2014.44034

Meggison, L. A. (2008). RN-BSN education: 21st century barriers and incentives. *Journal of Nursing Management, 16* (1), 47-55.

Millett, C. M., Stickler, L. M., & Wang, H. (2015). *Accelerated nursing degree programs: Insights into teaching and learning experiences* (Research Report No. RR-15-29). Princeton, NJ: Educational Testing Service. <http://dx.doi.org/10.1002/ets2.12078>

Murray, T. (2015). Factors that promote and impede the academic success of African American students in prelicensure nursing education: An integrative review. *Journal of Nursing Education, 54*(9), S74-81.

Tabloski, P. (2016). Setting the stage for success: Mentoring and leadership development. *Journal of Professional Nursing, doi:10.1016/j.profnurs.2016.03.003*

Contact

jhawkins@odu.edu

F 02 - Improving Nursing Care and Outcomes for Mother-Infant Dyads Impacted by Opioid Use Disorders

The Impact of Kangaroo Mother Care on Mother-Infant Dyads Affected by Neonatal Abstinence Syndrome

Lisa M. Cleveland, PhD, RN, PNP-BC, IBCLC, NTMNC, USA

Abstract

Background and Significance: Opioid use, both licit and illicit, is a growing public health concern in the United States (NIDA, 2016). Heroin use has increased among both men and women of all ages and across all socio-economic groups. Further, rates of heroin use have doubled in U.S. women (CDC, 2016). These national trends are reflected in the rising number of women who use opioids while pregnant. Between the year 2000 and 2009, the use of opioids during pregnancy increased fivefold (Patrick, et al., 2012). As a result, national rates of neonatal abstinence syndrome (NAS) have tripled since 2000 resulting in one U.S. child now being born every 25 minutes with this syndrome (NIDA, 2016). NAS is a withdrawal syndrome experienced by infants who are prenatally exposed to addicting substances, most commonly opioids, and is associated with inconsolable crying, sleep disturbance and seizures (Cleveland, in press). No universally agreed upon standard of care exists for infants impacted by NAS. Treatment is typically focused on symptom management using medications, such as morphine, and soothing techniques. Medications may alleviate some NAS symptoms; however, medication use prolongs an infant's length and cost of hospital stay (Bio, et. al, 2011; Jansson, L., 2011). Soothing techniques are nonpharmacologic comfort measures and are considered the first line in the clinical management of infants with NAS. These techniques include swaddling, providing a quiet environment and skin-to-skin mother-infant holding [kangaroo mother care] (Sublett, 2013; Valez, 2008). Of these techniques, kangaroo mother care (KMC) is unique because it offers the potential to benefit both the mother and her infant (Ludington-Hoe & Swinth, 1996). While KMC is often recommended for infants with NAS, no empirical evidence exists to support its use.

Study Purpose and Specific Aims: The purpose of this study was to determine the impact of KMC on attachment and stress-reactivity in mother-infant dyads impacted by NAS.

Methods: Institutional Review Board approval was obtained prior to the onset of data collection. All participants provided written consent to participate in this study. We used a sequential, embedded, mixed-methods design to conduct this study. Our participants were recruited prenatally from a non-residential treatment facility for pregnant and parenting women with opioid use disorders. They were enrolled in the study following informed consent and a brief educational intervention on KMC. The women then contacted our study personnel following delivery and we met with them during two separate sessions of KMC. Maternal attachment was assessed using the Maternal Attachment Inventory (MAI) at baseline and following the 2nd KMC session. Stress was measured using the Parental Stressor Scale: Neonatal Intensive Care Unit (PSS: NICU). We also assessed mother and infant heart rate and salivary cortisol levels prior to and during each session of KMC. Qualitative interviews were conducted with the mothers following discharge of their infant from the hospital. All interviews were audio-recorded, transcribed verbatim and analyzed line by line using thematic analysis.

Findings: As of October 2016, 76 women have been enrolled in the study. Forty-nine mother-infant dyads have completed data collection; 14 women are still pending delivery and 13 have been lost to follow-up. Our target sample size is 60 complete data sets and we anticipate this study to be complete no later than spring of 2017. To date, the mean age of our study participants was 27 years and 79% self-identified as Latina. Sixty-three percent of the women were married and 71% indicated that their infant's father was actively involved in their lives. Most women (67%) did not work outside of the home and 35% reported having an annual household income of less than \$9,999. Further, 46% of the women reported have a previous mental illness diagnosis. The average gestational age for the infants who participated in

this study was 38 weeks and the average birth weight was 2700 grams. Infants spent an average of 28 days on medications for management of their NAS symptoms.

Scores on the MAI indicated a high level of maternal attachment across both time points. Results from the PSS: NICU showed high scores on the "Relationship and Parental Role" subscale. The items scored as most stressful were: (a) being separated from my baby, (b) not being able to hold my baby when I want, (c) feeling helpless and unable to protect my baby from pain and painful procedures, and (d) feeling helpless about how to help my baby during this time. Further, a paired samples t-test revealed a significant decrease in mother's heart rate, from an average of 76.41 ($SD = 10.31$) beats per minute prior to engaging in KMC, to an average of 70.62 ($SD = 12.58$) beats per minute during KMC; $t(33) = 3.67, p < .01$. Infant heart rate also decreased significantly from pre-KMC at an average of 144.76 ($SD = 17.24$) beats per minute to an average of 137.79 ($SD = 18.11$) beats per minute during KMC; $t(33) = 2.33, p < .05$. Both maternal and infant saliva analysis for cortisol are underway and will be completed by Spring of 2017.

To date, our qualitative findings indicate that KMC was very meaningful to the mothers. Thematic analysis revealed the following themes: (a) Barriers to KMC, (b) In our own world, (c) Healing together, and (d) Preparing to go home. Barriers to KMC reflected the busy and often crowded environment of the intensive care nursery as well as staff attitudes and stigma surrounding addiction. Yet mothers described feeling as though they were in their own world with their infant while doing KMC in spite of this environment. They also explained how they felt they and their infant were healing together during KMC and that their infant was "forgiving" them. Finally, the mothers described preparing to go home and how many of them continued to do KMC with their infants following hospital discharge.

References

- Bio, L.L., et al. (2012). *Update on the Pharmacologic Management of Neonatal Abstinence Syndrome*. *Journal of Perinatology*. 31: 692-701.
- Centers for Disease Control and Prevention [CDC]. *Today's Heroin Epidemic*. Retrieved 29 October 2016 from: <http://www.cdc.gov/vitalsigns/heroin/>
- Cleveland, L. M. (accepted/in press) *Newborn Abstinence Syndrome*. The North American Nursing Diagnosis Association-International.
- Jansson, L.M., & Velez, M.L. (2012) *Neonatal Abstinence Syndrome*. *Current Opinion Pediatrics*. 24 (2) 252-8. doi: 10.1097/MOP.0b013e32834fdc3a.
- Ludington-Hoe, S.M. & Swinth, J.Y. (1996). *Developmental aspects of kangaroo care*. *Journal of Obstetrics Gynecology and Neonatal Nurses*; 25(8): 691-703.
- National Institute on Drug Abuse [NIDA]. *America's Addiction to Opioids: Heroin and Prescription Drug Abuse*. Retrieved 29 October 2016 from: <https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2016/americas-addiction-to-opioids-heroin-prescription-drug-abuse>.
- Patrick, Stephen W., et al. (2012). *Neonatal Abstinence Syndrome and Associated Healthcare Expenditures*. *Journal of the American Medical Association* 307(18): 1934-40.
- Sublett, J. (2013) *Neonatal Abstinence Syndrome: Therapeutic Interventions*. *MCN: The American Journal of Maternal Child Nursing*. 38 (2) 102-107.
- Velez, M.L., & Jansson, L.M.. (2008) *The Opioid Dependent Mother and Newborn Dyad: Non-Pharmacologic Care*. *Journal of Addiction Medicine*. 2 (3) 113-120.

Contact

clevelandl@uthscsa.edu

Infant Feeding Decisions Among Mothers Receiving Medication Assisted Treatment for an Opioid-Use Disorder

Kelly S. McGlothen, BSN, RN, IBCLC, NTMNC, USA
Lisa M. Cleveland, PhD, RN, PNP-BC, IBCLC, NTMNC, USA
Frank Puga, PhD, USA

Abstract

Background and Significance: A growing number of women of childbearing age are affected by opioid use disorders (OUD). In 2009, more than 23,000 pregnant women in the U.S. were reportedly using opioids when they delivered; a 475% increase from 2000.¹ Currently, medication assisted treatment (MAT) with methadone or buprenorphine is the standard of care for pregnant women who are dependent on opioids. The Academy of Breastfeeding Medicine recommends breastfeeding for women receiving MAT who have no other contraindications to breastfeeding.² Further, breastfeeding offers multiple benefits for infants that may be of specific significance to opioid-exposed infants such as a reduced rate of sudden infant death syndrome (SIDS), a reduction in infections in childhood, a decreased risk of neglect, and modified NAS symptoms and length of stay.^{2,3,4,5,6} In addition to health benefits and the desire to bond with their infant, mothers reported that breastfeeding helped them to atone for the guilt they felt for their infants experiencing withdrawal.⁵

Despite the known benefits and recommendations for breastfeeding, women receiving MAT often face challenges. This may be due to misconceptions about the effects of MAT on the infant and the stigma associated with addiction. According to the CDC (2012), rates of breastfeeding initiation among women receiving MAT are approximately 24-46%.⁷ This rate is low in comparison to an overall national breastfeeding initiation rate of 77%.⁷ Further, for women receiving MAT who do initiate breastfeeding, more than half discontinue within one week.⁵

In general, women make infant feeding decisions based on their perceptions of a woman's role as a mother, life experiences, and perceptions of societal response and support.^{8,9,10} While women may view infant feeding as an important part of their mothering role, multi-level, contextual factors influence the way in which women receiving MAT navigate this role. Little research exists to explain how women receiving MAT make infant feeding decisions. Therefore, the purpose of this qualitative pilot study was to explore the contextual factors that influence the infant feeding decisions of women receiving MAT.

Research Questions: How do mothers who are receiving MAT for an OUD make infant feeding decisions?

Methods: This pilot study was part of a larger study focused on the impact of kangaroo mother care on mother-infant dyads impacted by opioid use. Institutional review board approval was obtained prior to the onset of any data collection. Participants received an information sheet and provided verbal consent at enrollment. A qualitative descriptive design was used. Data were collected through semi-structured, individual, audio taped interviews with eight mothers in the early postpartum period (no more than six months post-delivery). All women were receiving MAT for an OUD at the time of the interview. Each woman was interviewed once in a private room in the hospital or the addiction treatment center where they were receiving recovery care. The interviews lasted approximately 30-60 minutes and were transcribed verbatim using a professional transcription service. We used qualitative content analysis to analyze all data.

Findings: Our data analysis revealed three common categories: 1) what I heard about breastfeeding and MAT, 2) who/what influenced my infant feeding decision, and 3) how I made my decision.

Our findings highlight the need for greater support of women who are receiving MAT during the infant feeding decision making process. In the category *what I heard about breastfeeding*, mothers reported receiving conflicting information regarding their ability to breastfeed while receiving MAT. The women also described the negative attitudes that they felt they received from healthcare providers, family members, and peers surrounding breastfeeding and MAT. One mother stated, "My dad keeps telling me about the methadone going through my milk. He's real rude about it too. He's like, I don't even know why you're pumping... you're just going to get the baby hooked."

Multiple factors contributed to the second category of *who/what influenced my infant feeding decision*. For most mothers, the knowledge of the benefits of breastfeeding for infants largely influenced their infant feeding choice. Most mothers decided to breastfeed because they wanted to, "...do anything to relieve their infant's withdrawal symptoms." Several mothers said that breastfeeding was a way for them to atone for the guilt they felt about their infants' withdrawal.

"I wasn't going to breastfeed at first. But I see all the withdrawal symptoms and I feel bad. I feel like I'm helping him and I feel better knowing that he has milk here when I'm at home and I'm not with him. He has milk here that's going to help him feel better."

In the last category, *how I made my decision*, the women reported typical breastfeeding concerns including: the embarrassment of breastfeeding in public, insufficient milk supply, maternal nutrition and health, and pain with breastfeeding. They reported that the benefits of breastfeeding were a strong contributing factor to their decision to breastfeed; however, the mothers felt that the information they received regarding the safety of breastfeeding while receiving MAT influenced their ultimate decision to breastfeed or formula feed. Additionally, the women felt that their love for their infants encouraged them to continue breastfeeding when they wanted to give up.

"But now she's home, I know what drugs I'm taking and what I'm not so I am feeding her breastmilk. Yeah, because she's my daughter and she's home with me now. So, I don't have to ask nobody anymore. I'm doing the best that I can for her."

The findings from this study contribute to the body of knowledge surrounding infant feeding decision making in mothers receiving MAT. This knowledge provides a basis for developing and testing effective and sustainable interventions to improve infant feeding outcomes in this population of mothers and infants.

References

1. Moyer, C. (2012, May 21). More infants showing ill effects of maternal opioid use. American Medical Association.
2. Reece-Stremtan, S., Marinelli, K. A., & the Academy of Breastfeeding Medicine (2015). ABM clinical protocol #21: Guidelines for breastfeeding and substance use or substance use disorder, revised 2015. *Breastfeeding Medicine*, 10(3), 135-141. <http://dx.doi.org/10.1089/bfm.2015.9992>
3. Welle-Strand, G. K., Skurtveit, S., Jansson, L. M., Bakstad, B., Bjarko, L., & Ravndal, E. (2013, July 31). Breastfeeding reduces the need for withdrawal treatment in opioid-exposed infants. *Acta Paediatrica*, 102(), 1060-1066. <http://dx.doi.org/10.1111/apa.12378>
4. Pritham, U. (2013, Sept-Oct). Breastfeeding promotion for management of neonatal abstinence syndrome. *Journal of Obstetrics and Gynecological and Neonatal Nursing*, 42(5), 517-526. <http://dx.doi.org/10.1111/1552-6909.12242>. Epub 2013 Sep 4.
5. Demirci, J., & Bogen, D. (2014). Breastfeeding and Methadone therapy: The maternal experience. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. <http://dx.doi.org/10.1080/08897077.2014.902417>
6. Hauck, F. R., Thompson, J. M., Tanabe, K. O., Moon, R. Y., & Vennemann, M. M. (2011, July). Breastfeeding and reduced risk of sudden infant death syndrome: A meta-analysis. *Pediatrics*, 128(1), 103-110. <http://dx.doi.org/10.1542/peds.2010-3000>. Epub 2011 Jun 13
7. Ten facts about breastfeeding. (2015, July 1). Retrieved December 7, 2015, from <http://www.who.int/features/factfiles/breastfeeding/en/> 3
8. Carter, S. K., & Anthony, A. K. (2015). Good, bad, and extraordinary mothers: Infant feeding and mothering in African American mothers' breastfeeding narratives. *Sociology of Race and Ethnicity*, 1-15. <http://dx.doi.org/10.1177/2332649215581664>
9. Elliott, H., Gunaratnam, Y., Holloway, W., & Phoenix, A. (2009). *Meaning, practices, and identity change in the transition to becoming a mother*. London: Palgrave.
10. Wambach, K., Williams Domain, E., Page-Goertz, S., Wurtz, H., & Hoffman, K. (2016). Exclusive breastfeeding experiences among Mexican American women. *Journal of Human Lactation*, 32(1), 103-111.

Contact

mcglouthen@livemail.uthscsa.edu

Building an Inter-Professional, Community-Informed, County-Wide Neonatal Abstinence Syndrome Collaborative

Frank Puga, PhD, USA

Lisa M. Cleveland, PhD, RN, PNP-BC, IBCLC, NTMNC, USA

Abstract

Background and Significance: Effective healthcare quality improvement and patient centered outcomes research requires meaningful engagement of patients, community members and stakeholders in identifying research priorities, developing comparative effectiveness studies, and disseminating research findings. Community and patient engagement in the systematic evaluation of health outcomes is particularly important in health conditions that disproportionately affect specific populations, such as with Neonatal Abstinence Syndrome (NAS). Recent reports highlight the persistence of poor healthcare quality and patient outcomes in specific populations (low income; racial and ethnic minorities; individuals living in rural areas; and lesbian, gay, bisexual, and transgender populations). In addition to health inequity, these patient populations are disproportionately not engaged in research. Reports from the Agency for Healthcare Research and Quality (AHRQ), National Institutes of Health (NIH) and the Patient Centered Outcomes Research Institute (PCORI) stress the need to engage underserved populations in the research process in order to effectively address healthcare disparities in the nation; however, there are few venues where underrepresented patient populations can build capacity for research, connect with professionals and engage in discussions about the implications of research findings. There is an opportunity for community engaged research collaboratives to enhance capacity for patients, community members, clinicians, researchers and other stakeholders to engage in comparative effectiveness research (CER) to improve health outcomes for underrepresented populations.

Purpose: The purpose of this Tier 1 Patient Centered Outcomes Research Institute (PCORI) project is to establish a Bexar County Neonatal Abstinence Syndrome Collaborative. Rates of NAS in the United States have tripled since 2000. Bexar county, Texas, the San Antonio area, has been disproportionately affected, accounting for one third of NAS cases reported annually in the state. The goal of this collaborative is to identify community-driven research priorities and develop patient-centered CER studies to reduce NAS rates and improve care in Bexar County.

Methods: During a nine-month project period, the Bexar County NAS Collaborative focused on the following activities: 1) Enhance capacity for patients, community members, clinicians, researchers and other stakeholders for a comparative effectiveness research (CER) study focused on NAS, 2) Establish a research question and 3) Develop a CER study to compare interventions for reducing NAS rates and improving outcomes. These activities were facilitated through the establishment of an advisory council and development of a social media campaign to expand community engagement. The Advisory Council included partners that represented various stakeholders including patients and family members, state government organizations, clinicians, and researchers. These individuals guided the governance structure, decision making, and planning of community forums. A social media campaign was developed as a means for disseminating information about NAS and the collaborative, recruiting community stakeholders to participate in community forums, and facilitating active communication. Finally, the collaborative planned two community forums (December 2016 and March 2017) to identify community driven priorities to improve NAS outcomes in Bexar County.

Findings and Future Directions: This 9-month project began in August of 2016 and will be completed by May 2017. To date the Bexar County NAS Collaborative has established an advisory board and governance structure. Implementation of the social media campaign is currently in progress. Implementation is being guided by stakeholder input. Results from the community forum will be finalized in May 2017 and will be used to guide the development and implementation of a NAS related CER study in the Bexar County community.

References

1. 2014 National Healthcare Quality & Disparities Report. April 2015. Agency for Healthcare Research and Quality, Rockville, MD. Web. 16 April 2016. <http://www.ahrq.gov/research/findings/nhqdr/nhqdr14/old-index.html>
2. Hasnain-Wynia, R., & Beal, A. C. "Role of the Patient-Centered Outcomes Research Institute in Addressing Disparities and Engaging Patients in Clinical Research." *Clinical Therapeutics*, 36.5 (2014). 619–23.
3. PCORI (Patient-Centered Outcomes Research Institute) Methodology Committee (2013). "The PCORI Methodology Report." <http://www.pcori.org/assets/2013/11/PCORI-Methodology-Report.pdf>

4. Concannon, T. W., Meissner, P., Grunbaum, J. A., McElwee, N., Guise, J. M., Santa, J., ... & Leslie, L. K. (2012). A new taxonomy for stakeholder engagement in patient-centered outcomes research. *Journal of general internal medicine*, 27(8), 985-991.
5. Fall-Krzenski et al. "Mapping a Research Agenda for the Science of Team Science." *Research Evaluation*, 20.2. (2011): 145-158. Web. 16 April 2016.
6. Deverka, P. A., Lavalley, D. C., Desai, P. J., Esmail, L. C., Ramsey, S. D., Veenstra, D. L., & Tunis, S. R. (2012). Stakeholder participation in comparative effectiveness research: defining a framework for effective engagement.
7. Texas Department of State Health Services. Recovery, Restoration, Resilience: Mommies and Babies Overcoming Neonatal Abstinence Syndrome. Presented at the Behavioral Health Institute. Austin, Texas. July 2015. Web. 8 June 2015.
8. Moyer, Christine S. "More Newborns Showing Ill Effects of Maternal Opioid Use." *American Medical Association*, 21 May 2012. Web. 13 May 2015.

Contact

pugaf@uthscsa.edu

F 03 - Leading Change Through Collaborative Partnership: Implementation of a Statewide Cultural-Competence Initiative in the United States

Leading Change: The Power of Vision and Collaborative-Partnership

Rita K. Adeniran, DrNP, RN, CMAC, NEA-BC, FAAN, USA

Sarah Hexem, JD, Esq., USA

Elizabeth W. Gonzalez, PhD, APRN, BC, USA

Abstract

Healthcare organizations and clinicians recognize the importance of cultural competency as a safety and quality variable in healthcare; however, practice varies among health professionals, and across healthcare organizations (Douglas et al., 2014; Gill, Kuwahara, & Wilce, 2016). Factors that contribute to variations in the practice of culturally competent care include the degree of personal desire to deliver culturally competent services and clinicians' knowledge, skills, and attitudes, along with an appreciation of the impact of cultural competency on optimizing health outcomes. Availability and limitations of organizational resources in the form of infrastructures, human resources, and policies also contribute to the variations in practice (Laskowski-Jones, 2012). Leadership is crucial to understanding and disentangling the complex reasons for these differences (Dauvrin & Lorant, 2015; Hisam et al., 2016). A systematic assessment of the state of cultural competency in the state of Pennsylvania was necessary to reveal opportunities and provide direction for advancing and standardizing cultural competence practices across the state of PA and beyond.

As a Robert Wood Johnson Foundation Executive Nurse Fellow with funding to complete an advanced leadership project of choice, along with the vision and passion for cultural competency, I sought the support of thought leaders across the nation, including members of the Pennsylvania Action Coalition's Nursing Diversity Council (NDC). The project's goal is to enhance the provision of culturally competent care across the state of Pennsylvania. Stakeholders who joined forces to work on this project included clinicians and non-clinicians; all shared a vision for Healthy Pennsylvania through Nursing. These leaders are primarily driven by a passion for quality healthcare for vulnerable populations. As a team, we set direction, created alignment and gained significant commitment to conduct the project. Also, the team adopted a gracious space philosophy. Team members worked collaboratively in a gracious space environment where differences, diversity of thoughts and ideas were welcomed and celebrated; members trusted enough to be vulnerable and successfully led the completion of the statewide cultural competence education and awareness survey of Pennsylvania Registered Nurses. Survey data was analyzed, and findings were used to guide development of education and training to address identified gaps. The outcome of the project underscores the value of visionary leadership in leading change by inspiring stakeholders to engage in meaningful ways for a greater cause!

References

- Dauvrin, M., & Lorant, V. (2015). Leadership and Cultural Competence of Healthcare Professionals. *Nursing Research*, 64(3), 200-210. doi:10.1097/NNR.0000000000000092
- Douglas, M. K., Rosenkoetter, M., Pacquiao, D. F., Callister, L. C., Hattar-Pollara, M., Lauderdale, J., . . . Purnell, L. (2014). Guidelines for Implementing Culturally Competent Nursing Care. *Journal of Transcultural Nursing*, 25(2), 109-121. doi:10.1177/1043659614520998
- Gill, S., Kuwahara, R., & Wilce, M. (2016). Through a Culturally Competent Lens: Why the Program Evaluation Standards Matter. *Health Promotion Practice*, 17(1), 5-8. doi:10.1177/1524839915616364
- Hisam, B., Zogg, C. K., Chaudhary, M. A., Ahmed, A., Khan, H., Selvarajah, S., . . . Haider, A. H. (2016). From understanding to action: interventions for surgical disparities. *Journal Surgical Research*, 200(2), 560-578. doi:10.1016/j.jss.2015.09.016
- Laskowski-Jones, L. (2012). Let's take cultural competence to another level. *Nursing*, 42(3), 6-6. doi:10.1097/01.NURSE.0000411429.97892.57

Contact

State of the Evidence, Making Sense of the Data: Culturally Competent Nursing Practices in Pennsylvania

Rita K. Adeniran, DrNP, RN, CMAC, NEA-BC, FAAN, USA

Diana Jones, EdD, MS, RN, USA

Anand Bhattacharya, MHS, USA

Abstract

Substantial evidence suggests vulnerable and traditionally under-represented racial and ethnic patients experience poorer clinical outcomes compared to the general population in the United States. The differences in the incidence, prevalence, mortality and burden of disease and other adverse health conditions that exist among specific population groups in the United States is reported as health and healthcare disparities (Fink, 2009; Hebert, Sisk, & Howell, 2008). The etiologies of health and healthcare disparities are complex and multifactorial. It includes but is not limited to environmental, systemic, and organizational level factors, along with social-cultural, patient, family, and provider-level factors (Baillie & Matiti, 2013; Betancourt, Corbett, & Bondaryk, 2014; Padela & Punekar, 2009; Purnell et al., 2016). Cultural competence is identified as a strategy to mitigate health and healthcare disparities, improve patient outcomes through increased healthcare access and full engagement of patients and families in their health and healthcare. Culturally competent clinicians appreciate the uniqueness of each patient within the context of their illness, communicate respectfully, build trust, and maintain therapeutic relationships that promote optimal health outcomes.

Healthcare organizations play a vital role in facilitating cultural competence by providing resources, infrastructures, and policy that promotes cultural competency. This project was undertaken to determine opportunities for enhancing cultural competence practices by registered nurses in the state of Pennsylvania. Goals of this project include ascertaining opportunities for improve competent cultural practices among registered nurses in the state of Pennsylvania (PA) and to develop education and training to address identified gaps. Specifically, the objective of this project was to determine the level of cultural competence education/training, sources and availability of cultural competence information, access to cultural competence resources and extent to which culturally competent care is currently provided by RNs across the state of PA. A statewide survey of Registered Nurses in the state of PA was conducted from September 15, 2014, through March 31, 2015. The project asked for information about the respondents' socio-demographic characteristics, sources of availability of cultural competency information, self-reported levels of cultural competency preparedness and education, and level of culturally competent care provided by the RNs. Findings were summarized using descriptive statistics including means, frequencies, and percentages.

Results: A total of 1209 RN responses were received from survey participants. The majority of the respondents were females (92%), Caucasian (85%) and baccalaureate prepared (80%). The percentage of nurses who indicated speaking English as the primary and only language was 85%. Two out of every three participants came from a Magnet designated hospital. Just over half the respondents (57%) indicated receiving formal education in the area of cultural competency, while every three out of four nurses received cultural competency education as part of their professional development. 91% saw cultural competency as essential or crucial to their career performance, yet reported lack of time, resources and incentives surrounding cultural competency performance as significant barriers in being able to provide culturally competent care. Despite availability of language interpreters, 22% indicated they never use language interpreters, while another 31% only use it a few times a year. Two out of four RNs expressed their work did not provide cultural competency teams to help with patients, while 36% of the staff was unsure where to find such resources.

Discussion/Conclusion: While just over half of survey participants reported receiving formal education and training regarding cultural competency, participants reported a strong desire to provide culturally competent healthcare services. Registered Nurses underscored cultural competency as an essential skill

to their professional performance, but on the same token, reported lack of time, resources and incentives as sources of significant barriers to providing culturally competent care. The need for additional and ongoing education and training for nurses to enhance culturally competent services was evident, as well as healthcare organizations' responsibility to provide necessary resources to facilitate cultural competence. The findings of the survey were used to guide statewide educational interventions to address gaps and bolster RNs' cultural competence practices across the state of Pennsylvania.

References

- Baillie, L., & Matiti, M. (2013). Dignity, equality and diversity: an exploration of how discriminatory behaviour of healthcare workers affects patient dignity. *Diversity & Equality in Health & Care*, 10(1), 5-12.
- Betancourt, J. R., Corbett, J., & Bondaryk, M. R. (2014). Addressing Disparities and Achieving Equity: Cultural Competence, Ethics, and Health-care Transformation. *CHEST*, 145(1), 143-148. doi:10.1378/chest.13-0634
- Fink, A. M. (2009). Toward a new definition of health disparity: a concept analysis. *Journal of Transcultural Nursing*, 20(4), 349-357. doi:10.1177/1043659609340802
- Hebert, P. L., Sisk, J. E., & Howell, E. A. (2008). When does a difference become a disparity? Conceptualizing racial and ethnic disparities in health. *Health Affairs*, 27(2), 374-382.
- Padela, A. I., & Punekar, I. R. (2009). Emergency medical practice: advancing cultural competence and reducing health care disparities. *Academic Emergency Medicine*, 16(1), 69-75. doi:10.1111/j.1553-2712.2008.00305.x
- Purnell, T., Calhoun, E., Golden, S., Halladay, J., Krok-S, Appelhans, B., & Cooper, L. (2016). Achieving Health Equity: Closing The Gaps In Health Care Disparities, Interventions, And Research. *Health Affairs*, 35(8), 1410-1415. doi:10.1377/hlthaff.2016.0158

Contact

rka32@drexel.edu

Fostering Cultural Competency: The Pennsylvania Action Coalition's Exemplar

Sarah Hexem, JD, Esq., USA

Rita K. Adeniran, DrNP, RN, CMAC, NEA-BC, FAAN, USA

Diana Jones, EdD, MS, RN, USA

Abstract

Demographic trends, multiculturalism, pluralism, human, cultural, and system diversity are some of the dynamics that are changing the profile of the America populace to a more diverse society (Like, 2011). This reality presents opportunities for all leaders in the nation. Visionary leaders committed to making a positive difference, must see the transformation from these dynamics as opportunities rather than threats. Leaders can initiate programs to promote equity, improve quality, reduce and ultimately eliminate the long-standing disparities in health and healthcare. For example, in the United States, evidence suggest that blacks, when compared to their white counterparts, had higher death rates from cancer, stroke and heart disease, and experience twice the incident of infant mortality (Rossen & Schoendorf, 2014). These statistics at minimum are disturbing, deserving leadership attention and plan for sustainable solutions. Cultural competence has gained national and international attention as a strategy to eliminate racial and ethnic disparities in health and healthcare; accentuating the importance of providers' training and the recruitment of culturally diverse health professionals to achieve optimal outcomes (Henry, 2011). The benefits of increasing numbers of traditionally underrepresented racial and ethnic minorities in the medical profession is also identified as a strategy to reduce healthcare disparities. A higher proportion of traditionally underrepresented racial and ethnic professionals in the healthcare workforce increase the likelihood of concordance between patients and providers, a phenomenon proven to improve patients' adherence to treatments. Further, cultural competence training programs for all health care providers enhances their appreciation of the influence of cultural patients' ethnomedical beliefs, world views, culturally prescribed values, religion, gender specific status and roles on health care and treatment adherence (Delgado et al., 2013; Donaldson & Vacha-Haase, 2016).

Recognizing that health and healthcare disparities remain a challenge in the United States, the Nursing Diversity Council (NDC) of the Pennsylvania Action Coalition (PA-AC) that comprised of leaders in and outside of healthcare are working collaboratively to mitigate disparities. The PA-AC NDC's mission is to

increase diversity throughout healthcare and the nursing profession, endeavoring to ensure that “all Americans have access to high-quality, patient-centered care in a health care system where nurses contribute as essential partners in achieving success.” Members of the NDC are driven by their conviction to advance healthcare for ALL in Pennsylvania and guided by the Institute of Medicine’s *Future of Nursing* report recommendations. Strategies employed to achieve the NDC mission include the development and adoption of an overarching diversity and cultural competence strategic plan to guide program implementation. To date, several aspects of the strategic plan have been implemented, of note are:

- Creation and adoption of a gracious space philosophy to guide members’ work relationships
- Analysis and report of findings of the Pennsylvania Registered Nurses demographic profile that revealed opportunities for increasing gender, racial and ethnicity diversity of RNs in the Pennsylvania nursing workforce
- Development of a variety of videos that showcased individual nurse reflections on nursing from different vantage points; and nurse-led care as well as videos that specifically target recruitment of traditionally underrepresented minority youths and adults to choose nursing as a profession or second career
- Partner with philanthropic organizations and other stakeholders to raise funds to support mentoring for nursing students and leaders from traditional underrepresented minority groups
- Partner with individual leaders with funding to conduct statewide assessment that ascertained RNs desire, levels of cultural competency preparedness and education, and the availability or lack of resources in Pennsylvania healthcare organizations to provide culturally competent care
- Implementation of a statewide cultural competence education and training program delivered by nationally and regionally recognized experts in the field of cultural competency

Nurses, the single largest segment of healthcare professionals, have the unique opportunity to make sustainable change that improves the overall health care of society. The PA-AC NDC has been working conscientiously to improve quality healthcare for ALL Pennsylvania by bolstering the nursing workforce to reflect the diversity of the communities we serve, as well as enhancing the knowledge, skills, and attitudes of nurses through cultural competence education and training programs

References

- Delgado, D., Ness, S., Ferguson, K., Engstrom, P., Gannon, T., & Gillett, C. (2013). Cultural Competence Training for Clinical Staff: Measuring the Effect of a One-Hour Class on Cultural Competence. *Journal of Transcultural Nursing*, 24(2), 204-213. doi:10.1177/1043659612472059
- Donaldson, W. V., & Vacha-Haase, T. (2016). Exploring Staff Clinical Knowledge and Practice with LGBT Residents in Long-Term Care: A Grounded Theory of Cultural Competency and Training Needs. *Clinical Gerontologist*, 39(5), 389-409. doi:10.1080/07317115.2016.1182956
- Henry, K. R. (2011). Partnering with the Community to Address the Shortage of Underrepresented Minorities in the Health Professions. Retrieved from <https://www.downstate.edu/healthdisparities/pdf/Policy-Brief-on-Minorities-in-Health-Professions-.pdf>
- Like, R. C. (2011). Educating clinicians about cultural competence and disparities in health and health care. *Journal of Continuing Education in the Health Professions*, 31(3), 196-206. doi:10.1002/chp.20127
- Rossen, L. M., & Schoendorf, K. C. (2014). Trends in Racial and Ethnic Disparities in Infant Mortality Rates in the United States, 1989–2006. *American journal of public health*, 104(8), 1549-1556. doi:10.2105/AJPH.2013.301272

Contact

shexem@nncs.us

F 04 - Ethical Considerations of Veteran- and Military Family-Focused Academic and Research Initiatives

Development of an Evidence-Based Online Veteran Healthcare Course

Dianne Morrison-Beedy, PhD, MSN, BSN, RN, WHNP-BC, FNAP, FAANP, FAAN, USA

Alicia Gill Rossiter, DNP, FNP, PCPNP-BC, FAANP, USA

Rita F. D'Aoust, PhD, ANP-BC, CNE, FAANP, FNAP, USA

Abstract

Over 2 million Americans have served in the military since 9/11. These numbers include Active Duty, Reservists and those in the National Guard. When they retire or return to their civilian lives, military service becomes far less visible. However, the time in the military has created varied, and at times, significant health risks that require special screening and monitoring. Often civilian healthcare providers are these veterans only or primary source of health care. Many civilian providers lack knowledge regarding the military, the military culture, and the effect of military service on the overall mental and physical health of veterans. This can leave the veteran at a significant disadvantage in regards to their overall healthcare needs.

The Joining Force campaign developed by First Lady Michelle Obama and Dr. Jill Biden challenged colleges of nursing around the country to work to improve the healthcare of our veterans. To date over 660 nursing programs in all 50 states have joined forces to included veteran centric healthcare issues into nursing and advanced practice nursing curriculum with several colleges including specific needs of military families in their curriculum. In 2012, the authors developed the first online "Introduction to Military and Veteran Health" course aimed at educating nurses to care for veterans in the civilian healthcare arena.

Nurses are on the frontlines of healthcare often working in clinics, hospitals, and community agencies, and may be the first to encounter a veteran in crisis or experiencing physical and/or psychological comorbidities secondary to their military service. Due to the potential correlation between military service and physical and psychological health comorbidities, it is imperative for all healthcare providers to screen veterans for a history of military service and to be educated on how to provide appropriate care to this vulnerable population. In addition, knowledge regarding resources and referrals available to veterans in the community is critical to meeting the needs of veterans and their families. Prompt identification and treatment is imperative in order to decrease the deleterious health consequences related to military service and to improve healthcare outcomes of veterans receiving in the civilian sector.

The "Introduction to Military and Veteran Health" course is an eight module online course that helps bridge the knowledge gap of civilian providers by addressing military culture, the Veteran Administration healthcare system, conflict specific risk factors and co-morbidities as well as knowledge regarding referral sources/resources in the community, physical and psychological wounds of war, impact of military service on military families, and women veteran specific healthcare needs to include military sexual trauma. Students who have taken the course indicate an awareness in the need to ask all patients if they have served in the military and an increase in knowledge and comfort level regarding addressing military service related healthcare risk factors and comorbidities as well as increase knowledge of resources and referral sources in the community.

References

- Brown, J. L. (2013). The unasked question. *Journal of the American Medical Association*, 308(18), 1869-1870.
- Collins, E., Wilmoth, M., & Schwartz, L. (2013). "Have you ever served in the military?" campaign in partnership with the joining forces initiative. *Nursing Outlook*, 61(5), 375-376. doi:10.1016/j.outlook.2013.07.004.
- Convoy, S. & Westphal, R. J. (2013). The importance of developing military cultural competence. *Journal of Emergency Nursing*, 39(6), 591-594. doi:10.1016/j.jen.2013.08.010

Fredricks, T. R. & Nakazawa, M. (2015). Perception of physicians in clinical medical practice on veterans' issues related to health care, *Journal of the American Osteopathic Association*, 115(6), 360-368.

Contact

arossite@health.usf.edu

Improving Health Outcomes of Military Children Through Research and Policy Initiatives

Margaret C. Wilmoth, PhD, FAAN, USA

Alicia Gill Rossiter, DNP, FNP, PCPNP-BC, FAANP, USA

Abstract

Approximately 2.2 million Active Duty, National Guard, and Reserve members have been tasked for upward of 3.3 million deployments since the onset of military action in Iraq and Afghanistan. Roughly 40,000 Active Duty servicemembers are married—58% of servicemembers have families and approximately 40% have at least two children. The majority of military children are in early and middle childhood—78% of the children of Active Duty parents are under the age of 11 years and 80% of reserve component children are under 15 years of age.

With the increased operations tempo, the risk for abuse and neglect among military children has increased. Historically, the healthcare needs of military children have been unrecognized outside of military healthcare settings. Military children are at higher risk for abuse and neglect, substance use, and suicide when compared with non-military connected children; stress and depression related to parental deployment or post deployment physical/psychological injuries; behavior and academic issues secondary to emotional distress, frequent moves or a parental deployment; and anxiety that can lead to changes in appetite, disrupted sleep patterns, and impaired immune response which can impact overall physical and psychological health. Upwards of 33% of military children have experienced maltreatment and/or abuse. Sadly, at least 19,000 children have experienced the wounding of a parent and over 2,200 have experienced the death of a parent secondary to military service in Iraq or Afghanistan, which can have long-term physical and psychological health implications for military children.

Research and policy initiatives aimed at identifying and decreasing the long-term effects of parental deployment, minimizing the physical and psychological sequelae, and identifying educational ramifications on children is almost nonexistent. This presentation will discuss the gaps in research and policy and provide guidance as to how to reduce barriers to access, decrease knowledge deficits of healthcare providers, and/or improve consistency in healthcare delivery to this underserved population that is the most vulnerable to aftermath of war—military children.

References

- Department of Defense (2010). Report on the impact of deployment of members of the armed forces on their dependent children. Retrieved from: <http://www.militaryonesource.mil/12038/MOS/Reports/Report-to-Congress-on-Impact-of-Deployment-on-Military-Children.pdf>
- Johnson, H. L. & Ling, C. G. (2013). Caring for military children in the 21st century. *Journal of the American Association of Nurse Practitioners*, 25, 195-202.
- Rossiter, A. G., D'Aoust, R. F., & Shafer, M. R. (2016). Military serving at what cost? The effects of parental service on the wellbeing of our youngest military members. *Annual Review of Nursing Research*, 34(1), 109-117. doi: 10.1891/0739-6686.34.109. PMID: 26673379
- Rossiter, A. G., Dumas, M. A., Wilmoth, M. C., & Patrician, P. A. (2016). I serve 2: Meeting the needs of military children in civilian practice. *Nursing Outlook*. 2016 Sep-Oct;64(5):485-90. doi: 10.1016/j.outlook.2016.05.011. Epub 2016 Jun 9. PMID: 27477834
- White House (2011). Strengthening our military families: Meeting America's commitment. Retrieved from: http://www.defense.gov/home/features/2011/0111_initiative/strengthening_our_military_january_2011.pdf

Contact

arossite@health.usf.edu

Conducting Ethical Research With Veterans

Catherine G. Ling, PhD, FNP-BC, FAANP, USA
Heather Johnson, DNP, FNP-BC, FAANP, USA

Abstract

Background: Considered a vulnerable and underserved population, veterans have a unique relationship with research. While on active duty, they are subject of constant data collection. Most of that data is collected and maintained within the Department of Defense and is not for public use. This creates a unique Federal big data repository. The unique nature of the repository lies in the contextual homogeneity of the participants e.g. all are employed, have a minimum of a high school education with additional training and consistent access to health care, food and housing. Finally, all are expected to maintain physical fitness standards. Very little information on working with veterans exists outside of this Federal system.

The 22 million US veterans have experienced military training, deployments, and they speak with a unique lexicon. Ethos, duty, and commitment to mission are lived values. This background does not get packed away when the individual leaves the service. Given that only 7% of the American population has served in the military, it is reasonable to assume that many researchers do not have an exposure to the lived experience of military life. That lack of exposure can lead to flawed assumptions that can skew findings. Additionally, barriers exist to veteran involvement in research. Those barriers include but are not limited to incentive issues, concerns regarding repercussions, bureaucracy, maintaining security clearance status and post military employment.

A way to involve veterans in research while addressing potential ethical conflicts draws from community based research methods. These principles hold several key components for ethical conduct with populations from different backgrounds. The primary principle would be to utilize military veterans as partners in all phases of design and analysis. Consider using KBA format:

Know where your expertise (real and contextual) ends

Be specific in your question and purpose

Ask Recruit Involve veterans.

With that format and the principles of Beneficence, Justice and Respect for Persons. Starting with the research question, think through the impact and meaning to veteran(s), beneficiary or current active duty. The design, implementation and analysis of research should respect dignity while avoiding undue exposure and coercion. Working with veterans can create a more ethical and robust expansion of science that benefits all of society.

References

45 CFR 46

Braun, L. A., Kennedy, H. P., Sadler, L. S., & Dixon, J. (2015). Research on U.S. Military Women: Recruitment and Retention Challenges and Strategies. *Military Medicine*, 180(12), 1247–1255. <https://doi.org/10.7205/MILMED-D-14-00601>

Emanuel, E. J. (2000). What Makes Clinical Research Ethical? *JAMA*, 283(20), 2701. <https://doi.org/10.1001/jama.283.20.2701>

Emanuel, E. J., & Menikoff, J. (2011). Reforming the Regulations Governing Research with Human Subjects. *New England Journal of Medicine*, 365(12), 1145–1150. <https://doi.org/10.1056/NEJMs1106942>

Foglia, M. B., Pearlman, R. A., Bottrell, M., Altemose, J. K., & Fox, E. (2009). Ethical Challenges Within Veterans Administration Healthcare Facilities: Perspectives of Managers, Clinicians, Patients, and Ethics Committee Chairpersons. *The American Journal of Bioethics*, 9(4), 28–36. <https://doi.org/10.1080/15265160802716795>

Habets, M. G., van Delden, J. J., & Bredenoord, A. L. (2014). The social value of clinical research. *BMC Medical Ethics*, 15(1). <https://doi.org/10.1186/1472-6939-15-66>

Hudson, K. L., & Collins, F. S. (2015). Bringing the Common Rule into the 21st Century. *New England Journal of Medicine*, 373(24), 2293–2296. <https://doi.org/10.1056/NEJMp1512205>

Newman, E., & Kaloupek, D. (2009). Overview of research addressing ethical dimensions of participation in traumatic stress studies: Autonomy and beneficence. *Journal of Traumatic Stress*, n/a–n/a. <https://doi.org/10.1002/jts.20465>

Whittle, J., Fletcher, K. E., Morzinski, J., Ertl, K., Patterson, L., Jensen, W., & Schapira, M. M. (2010). Ethical Challenges in a Randomized Controlled Trial of Peer Education among Veterans Service Organizations. *Journal of Empirical Research on Human Research Ethics*, 5(4), 43–51. <https://doi.org/10.1525/jer.2010.5.4.43>

Contact

cgling@health.usf.edu

F 06 - Family-Centered Care or Child-Centered Care? Evidence and Ethics

Family-Centred Care or Child-Centred Care: Generating the Evidence and Ethics

Linda Shields, MD (Rsch), PhD, FAAN, FACN, MAICD, Australia
Veronica D. Feeg, PhD, RN, FAAN, USA

Abstract

Family-centered care (FCC) has been considered a cornerstone of pediatric health care since the 1970s, but evidence of its effectiveness is lacking (Coch rev). Qualitative research about its implementation demonstrates that problems exist in its interpretation and applicability in health services. A new model, child-centered care (CCC), is emerging and it needs debate, philosophical argument (Coyne, Soderb, Halls) and ultimate testing to ensure it can be more effectively implemented than family-centered care. Some argue that child-centeredness cannot be done without the context of family; others believe that families, particularly parents, are called upon to participate in FCC in hospitals that is predicated on their parental roles that may be unlike their normal expectations in the home and fail to take into consideration the child's emerging autonomy.

To this end, an international collaboration comprising 18 paediatric nursing clinicians and academics has been formed to engage in discourse around the similarities and differences in their approaches to family and child-centered care. The countries to date are Australia, Iceland, Ireland, Jordan, Sweden Turkey, the UK and USA. The group has begun to dialogue via internet across oceans to develop a common ground of understanding that can suggest a framework from which to test new care models. Several of these points of view will be part of this symposium.

The debate surrounding the effectiveness of care models for hospitalized children continues; the research on FCC evolves; the execution from national points of view have been studied with weak results. The emerging viewpoint of CCC derives from philosophical and ethical foundations. Deconstructing FCC into components becomes essential, and philosophical and ethical arguments can emerge. This symposium will provide several divergent views with empirical evidence to harmonize a framework toward family-centered and child-centered care. Each of the presentations will offer a national perspective. It will include historical writings about the care of children in hospital, cultural factors from the different countries, and on-going discussion and debate. The new framework will rise from a philosophical theory with a consensus of opinions and an eclectic structure. This first step will form the base of collaboration and dialogue. Once a framework emerges from these discussions, nurse researchers from around the globe may begin to develop methods and tools to test the new model. Ultimately, the health and well-being of children and families across the world will be better understood with the convergence and divergence of perspectives enhanced by a strongly tested, empirical model of care.

References

- Shields, L., Zhou, H., Pratt, J., Taylor, M., Hunter, J., Pascoe E. (2012). Family-centred care for hospitalised children aged 0-12 years (update). *Cochrane Database of Systematic Reviews* 10: CD004811. doi: 10.1002/14651858.CD004811.pub3
- Carter, B., Bray, L., Dickinson, A., Edwards, M., Ford, K. (2014). *Child-centred nursing: promoting critical thinking*. Thousand Oaks, CA: SAGE Publications Ltd.
- Shields, L. (2016). Family-centred care: the captive mother revisited. *Journal of the Royal Society of Medicine*, 1. 109(4) 137-140. doi: 10.1177/0141076815620080

Contact

vfeeg@molloy.edu

Measures of Family Centeredness from the U.S.: Deconstructing Components of Decision Making and Parents Needs

Veronica D. Feeg, PhD, RN, FAAN, USA
Ann Marie M. Paraszczuk, EdD, RNC, IBCLC, USA

Abstract

As the academic dialogue around models of care for children in hospitals evolves, the discussion about Family Centered Care (FCC) also warrants a closer look into the context of the culture, sociopolitical environment and service delivery differences across countries. The literature is expansive on the universe of families of sick children with a kaleidoscope of perspectives. The effectiveness of FCC has been disappointing using measures that are as diverse as the perspectives. The debate about effectiveness is skewed using the prism of focal points and countering arguments that are within those defined margins. The purpose of this session is to (1) begin with the premise that when dissected, the notion of “family centeredness” (i.e. an internalized attitude) may be at the heart of the implementation of FCC as demonstrated by similarities and differences among countries; (2) deconstruct three specific areas that parents are clearly a necessary component of sick children’s care (NICU, chronic illness and adolescents); (3) present a mechanism to measure family centeredness and a measure of parents’ needs to supplement the arguments supporting FCC that gets at the providers’ internalized attitudes and behavior about caring for parents and caring for children.

This session will make the case that FCC is critical as we move forward with CCC. If the way it has been examined is different, we need to take into account how, especially if it translates in some cultures into parents being held responsible for caretaking in hospitals (Shields, 2016). In the U.S., avoiding any integration of caring for parents of children in health care institutions in any philosophical or ethical discussion in the service delivery language would be a problem in a country where insurance drives every interaction and cost is part of the model. It would be too easy to operationalize the terms of “care” excluding the necessary integration of parents (families) into all aspects of decision-making and support if not explicitly included in best practices models. Using the U.S. frameworks of “Person and Family Centered Care” (Barnsteiner, Disch & Walton, 2014) can help to lay the framework of identifying child-and-family (parent) as a unit of care. “Empowering patients and families to become active partners in their health care — not merely passive participants — is a critical step on the road to achieving the best care at lower cost” (IOM, 2013).

Next, there will be three brief summaries of studies that focus on aspects that justify putting parents and children together as a unit of care in attitude and services. These include (1) a study on nurses’ “family-sensitive care” in neonatal intensive care units who fail to report positively about caring for parents of critically ill newborns and the ramifications of these attitudes (Magri, 2014); (2) two studies on shared decision-making (SDM) in adolescents with chronic illnesses and specifically with HIV who report the triad of SDM, in most cases, continue to tilt heavily on “mom’s” participation (Feeg & Ledlie, 2010; Knapp, Madden, Feeg, Huang & Shenkman, 2011; and (3) a study on parents’ needs of children with cancer, end stage renal disease (ESRD), chronic illnesses, and normal children who have episodic health care issues that offers a generic model of “parenting” to be further explored.

The session will conclude with important considerations about merging FCC and CCC with recognition of specific, focused attention on particular aspects of nursing caring behaviors. A simple measure of “Family-Centeredness” that elucidates attitudes that are central to caring ought to be considered in new models that might be proposed.

References

- Barnsteiner, J., Disch, J., & Walton, M. (2014). *Person and Family Centered Care*. Indianapolis, IN: Sigma Theta Tau International.
- Feeg, V. & Ledlie, S. Striving to Be Normal: A Secondary Analysis of Shared Decision-Making as Adolescents with HIV and Other Immune Deficiency Diseases Transition to Adulthood. Poster Presentation, Eastern Nursing Research Society (ENRS), Providence, RI. (March 2010) and SUNY Downstate Annual Nursing Research Conference (May 2010).
- Institute of Medicine. (2013). *Partnering with Patients to Drive Shared Decisions, Better Value, and Care Improvement - Workshop Proceedings*. Washington DC: National Academies Press.

Knapp, C., Madden, V., Feeg, V., Huang, I. & Shenkman, E. Shared decision making experiences of adolescents with special health care needs. Poster Presentation, Institute for Child Health Policy, University of Florida (2011).
Magri, E. (2014). *Psychometric validation of the family nurse caring belief scale in a neonatal nursing population*. Dissertation: Molloy College.
Shields, L. (2016). Family-centred care: the 'captive mother' revisited. *Journal of the Royal Society of Medicine*, 109(4), 137-140.

Contact

aparaszczuk@molloy.edu

Child and Family-Centered Care: Consensus Recommendations From a Panel Meeting

Mohammad Al-motlaq, PhD, MBS, BSN, RN, Jordan

Abstract

Introduction: Published literature on FCC model reached no consensus on the appropriate definition of the model. International literature fluctuates with no proven efficacy of the model and it has limitations when applied to children themselves. Consequently, differences in clinical practice may influence the expected outcomes particularly in specialized units such as PICUs and NICUs. This has led some pediatric researchers in this field to adopt several different approaches and philosophies to shape what can be called "their best view" of a child and family centered model of care. Finally, differences between countries/cultures were not considered deeply in previous investigations.

Purpose: These concerns prompted a panel of pediatric experts to adopt new strategy to develop a taxonomy to define CCC and FCC and to make recommendations regarding its core principles and research priorities.

Methods: A Delphi approach will be used to clarify all factors surrounding CCC and FCC. The goals are 1) to develop taxonomy to define CCC and FCC; 2) to offer recommendations regarding proper implementation of FCC core principles; and 3) to identify priorities for future research in CCC including expected outcomes and cultural differences. The panel also hopes to foster collaborative relationships with other interested parties for future international research on pediatric models of care.

Procedure: Members of the panel will meet in 2017 to develop an appropriate methodology to explore the consensus outcomes. The panel will also select subtopics to discuss and will seek potential experts with relevant qualifications and research track record to supplement the original members of the panel and representing as many countries/cultures as possible.

Step 1: agree upon the first symposium subtopics

Step 2: Write recommendations based on the symposium

Step 3: formulate a method for agreement on each topic; this will possibly include Likert scales for scoring, e.g. "strong agreement" can be assigned to concepts if an average of 5 out of 7 is achieved, while a "Weak agreement" can be assigned for a score less than 5. Weak statements can be re-discussed and re-evaluation is conducted.

This will give a consensus way forward for developing a plan for a comprehensive research program.

References

Shields, L., Zhou, H., Pratt, J., Taylor, M., Hunter, J., Pascoe E. (2012). Family-centred care for hospitalised children aged 0-12 years (update). *Cochrane Database of Systematic Reviews* 10: CD004811. doi: 10.1002/14651858.CD004811.pub3

Feeg, R., Paraszczuk, A.M., Çavuşoğlu, H., Shields, L., Pars, H. (2016). How is family centered care perceived by healthcare providers from different countries? an international comparison study. *Journal of Pediatric Nursing*, <http://dx.doi.org/10.1016/j.pedn.2015.11.007>

Contact

mohammada_m@hu.edu.jo

Fostering and Sustaining Family-Focused Healthcare Across the Life-Course: A Transferrable Model Between Countries?

Joanna Smith, PhD, RGN, RSCN, United Kingdom

Veronica Swallow, PhD, MMedSci, BSc (Hons), RGN, RSCN, United Kingdom

Veronica D. Feeg, PhD, RN, FAAN, USA

Abstract

Care of persons with chronic or long-term conditions is a key international health-policy priority. Around 15 million people in England live with one or more long-term condition, which impacts on the whole family's health & wellbeing with family members contributing to care. The Kings Fund report *Better Value in the NHS* (2015) predicts that improving service quality and cost-effectiveness for people with long-term conditions is critical because 70% of UK health/social-care spending is focused on individuals with long-term conditions.

International evidence indicates that long-term condition in early-life can affect not only the individuals' health and wellbeing across the life-course, but also the whole family's health and wellbeing. Although families respond differently to long-term conditions, the family response is closely related to clinical outcomes. Research indicates that family relationships have the potential for health-promoting effects and although models of family-focused care across the life-course are delivered in some countries, as yet they do not appear to be embedded within UK health and social-care systems. Family-focused care in a broad context is an approach to care delivery, whereby health professionals, respect and respond to the needs of the patient and their family as a complete unit, recognising the family role in supporting and being involved in care (Foster, et al. 2016; Grant, et al. 2016). In order to establish the extent to which family-focused care for persons with long-term conditions exists across the life-course we have established a virtual, multidisciplinary research development group: 'Family health and social-care research across the life-course' that combines expertise in long-term conditions research, psychology, nursing, social-care with patient/carer experience to meet the following objectives:

1. Systematically review the UK literature in this area;
2. Harness existing links with international family experts;
3. Establish a Patient and Public Involvement and Engagement Advisory group to advise from family perspectives;
4. Define aims/objectives for future collaborative grant application/s around support strategies where a family member has a chronic/long-term condition.

Since the project inception event in April 2016 that aimed to determine groups' aims, objectives and milestones we have:

1. Convened the PPI group;
2. Developed a project web-page to support dissemination and demonstrate collaboration <http://www.whiterose.ac.uk/collaborationfunds/fostering-and-sustaining-uk-multidisciplinary-family-focussed-care-across-the-life-course/>;
3. Delivered a 1.5 day workshop for the applicants, consumers and key UK family-focussed colleagues, and expert Master Classes with international experts;
4. Developed and begun a systematic review of reviews protocol to summarise and synthesis the findings of systematic reviews of family-focused care, family-centred care and family-focused practice across the life course in the context of supporting families where a family member has a long-term condition using the Joanna Briggs Institute methodology for 'umbrella reviews'.

Conclusion: It is anticipated that a new and potentially transferrable model for fostering and sustaining family-focused health-care across the life-course in one global region will be developed. The benefits of establishing a collaboration to identify research priorities for family-focused care for persons with long-term conditions and a Patient and Public Involvement and Engagement Advisory Group has the potential to ground the model in real-world, family insights and experiences.

References

Alderwick, H., Robertson, R., Appleby, J., Dunn, P., Maguire, D. (2015). *Better value in the NHS: the role of changes in clinical practice*. London: The King's Fund.

Foster, K., Maybery, D., Reupert, A., et al. (2016). *Family Focused Practice in Mental Health Care: An Integrative Review*. *Child and Youth Services*, 37: 2; 129-155.

Grant, A., Reupert, A. (2016) The Impact of Organizational Factors and Government Policy on Psychiatric Nurses' Family-Focused Practice With Parents Who Have Mental Illness, Their Dependent Children, and Families in Ireland. *Journal of Family Nursing*, 22: 2; 199-223.

Joanna Briggs Institute (2014) *The Joanna Briggs Institute Reviewers' Manual 2014 edition: Methodology for JBI Umbrella reviews*. Joanna Briggs Institute, Australia.

Contact

vfeeg@molloy.edu

F 07 - Facilitation: The Cornerstone of Practice Development and Person-Centredness, a Journey From Aristotle to the Bedside

Human Flourishing: From Notion to Reality

Lorna Peelo-Kiloe, MSc, BSc, RGN, Ireland

Abstract

Facilitation is complex and multifaceted depending on its intended purpose, whether that be education, health or counselling (Shaw et al 2008). At its simplest it can be described as a 'helping relationship' whereby individual(s) and consequently self are enabled to achieve growth, development and self-actualisation through transition (Mayeroff, 1971). A key outcome of transformational practice development, where people are the principal focus and where transformative approaches are used, is an implicit and explicit focus on human flourishing as an outcome for all involved (Titchen, 2011). In helping relationships we seek to create conditions for human flourishing to take place (McCormack and Titchen, 2014), therefore facilitation based on helping relationships and human flourishing are intertwined.

There are many interpretations of human flourishing including happiness, well-being, thriving, growth to name but a few. Although human flourishing is relatively new to health care it can be traced back to ancient philosophers such as Socrates, Plato and in particular Aristotle who wrote extensively on *eudaemonia*, and linked by Aristotle to virtue ethics. Aristotle and his followers described human flourishing as the highest point to all our endeavours and the aim to which all our actions are focused. As humans, Aristotle believed that we each have a natural obligation to achieve and pursue our true ends and goals in life (Younkins, 2003). Maintaining that happiness represents to us success as a human being, Aristotle alleged that "the happy person lives well and does well in action" and that every action, decision and investigation is aimed at some good.

If we accept the innate good of human beings; most people accepting that no baby is born wicked, then it could be said that our desire as humans is to do the right thing because it is the right thing to do. In health care today with its focus on economics, cost containment and targets, there is a very real challenge for health care professionals to consistently ensure that they are doing the right thing because it is the right thing to do. The need to critically reflect and transform practice can seem arduous and thankless in highly pressured environments where health care professionals feel burdened by the amount of change that is taking place. Coupled with that is a feeling of disempowerment in decisions about their practice and working environment. This environment is not conducive to human flourishing for staff and therefore not conducive to the flourishing for service users either. It is rare to experience organisational change that includes a focus on human flourishing (Titchen et al, 2011) however practice developers have been witnessing at firsthand the beneficial outcomes of human flourishing to individuals and teams through facilitation.

References

- McCormack, B., Titchen, A. (2014) No beginning, no end: an ecology of human flourishing. International Practice Development Journal 4 (2) [2] 1-21 <http://www.fons.org/library/journal.aspx>
- Titchen, A., McCormack, B., Wilson, V., Solman, A. (2011) Human flourishing through body, creative imagination and reflection. International Practice Development Journal, Article 1, 1, 1, 1-18

Contact

LPeeloKiloe@gmu.ac.uk

A Concept Analysis: Facilitation and Practice Development Analyzing Evidence From the Literature and Beyond

Elizabeth Breslin, MHSc, MA, BSc (Hons), HDip (Ortho), RGN, Ireland

Abstract

The aim of this exploration is to understand, as fully as possible, the concept of facilitation within practice development using a concept analysis approach. The purpose of concept analysis methodology is to distinguish between concepts (Jakimowicz and Perry, 2015) and clarify the relationships and distinguishing characteristics between concepts (Fitzgerald and McCarthy, 2016)

Early mention of the concept of facilitation in PD began to emerge within nursing literature around the mid to late 1990s. This occurred alongside references to PD as a distinct and unique change methodology and, in the early years, was specifically focused on nursing practice. Practice development, as an approach, is now considered much wider than nursing practice. Facilitation is referred to as being central to PD and although much has been written about this topic, there appears to be a lack of an agreed definition of what facilitation actually means within the systematic processes that are PD. Shaw et al's. (2008 p. 147) analysis is the most recent CA in PD and has been influential in this CA work.

Practice development provides a methodology to enhance and support cultures of person centred care delivery for clients and also for those individuals providing, organising and supporting care delivery at micro, meso and macro organisational levels. It is complex and has many components. Principle Four of the nine PD principles (Manley, McCormack and Wilson 2008, p.7) informs us that "PD integrates and enables both the development of evidence from practice and the use of evidence in practice". This principle has guided the development of this theoretical exploration of facilitation in PD.

Conceptual clarity and a shared understanding of what facilitation is, what it looks like, what it does and its' outcomes within PD adds to the growing body of nursing and healthcare knowledge. The engagement of individuals in systematic and inclusive ways of working to support and enable person centred cultures of care is considered an important component of PD approaches. This is referred to as facilitation. Concept analysis is carried out by framing the analysis within a model. Walker and Avant's (1995) model and Morse et al's (1996) guiding principles provided the theoretical framework for this concept analysis. This CA demonstrates the blending of two approaches with the purpose of clarifying what facilitation in PD is from published evidence, grey literature and expert practitioners in the field.

Defining attributes of facilitation in PD identified within this concept analysis include: process; learning; person centred practice; facilitator skills and knowledge; learning and personal (facilitator) growth; theoretical approaches, models and frameworks; culture and context; values and beliefs. A definition of what facilitation means in PD is offered. Attributes, antecedents and the consequences found from the concept analysis will be tested with practitioners in a participatory action research study.

References

- Fitzgerald, J.J. and McCarthy, G. (2016) 'Concept Analysis' in Nursing Concept Analysis: Application to Research and Practice (Editors). Springer Publishing Company: LLC. New York. Pp 3-5.
- Jakimowicz, S. and Perry, L. (2015) A concept analysis of patient-centred nursing in the intensive care unit. Journal of Advanced Nursing 00(0), 000-000. Doi 10.1111/jan.12644

Contact

Ebreslin@qmu.ac.uk

Developing Novice/Proficient Facilitators, Two Frameworks to Create Conditions for Person-Centred Cultures: A PAR Study

Michele Hardiman, MA, RGN, RPN, Ireland

Abstract

The vision of person-centred cultures is core to all policy and standards in healthcare in Ireland (Health Information and Quality Authority, 2012) and globally (World Health Organisation, 2007) implementing these strategies and standards require focused development of staff who deliver care in our health services (Department of Health and Children, 2010). In the acute hospital setting in Ireland this staff

development has largely been technical in its approach to date. Evidence suggests that for person-centred cultures to emerge, purposeful Practice Development (PD) needs to be facilitated within the workplace (McCormack et al, 2010). The role of clinical nursing leaders is pivotal in developing and sustaining person-centred cultures and is therefore a key element of all PD activity (McCormack et al, 2010; Brown and McCormack, 2016). If PD is to become more meaningful to nursing leaders as part of their daily work, more focus must be placed on making the development and 'doing' of facilitation easier. Although complex facilitation frameworks such as Critical Companionship (Titchen, 2002) remain an exemplar in the development of expert facilitation skills, use of this particular framework has been minimal due largely to its complexity (Dewing and Wright, 2004; Greggans and Conlon, 2009). To address this gap two sequential facilitation frameworks Critical Allies and Critical Friends (Hardiman and Dewing, 2014) were developed by the author to provide a stepped approach to the development of work based facilitators. This doctoral research study uses Participatory Action Research to test the use of Critical Allies and Critical Friends within an acute hospital setting. The study is theoretically located in Critical Social Science and Person-centredness. The study is conducted using an insider researcher approach to work with clinical nursing leaders within their own workplace.

The study addresses the following research questions:

1. What does a person-centred model for work based facilitation look like?
2. How do work based facilitation skills enhance the development person-centred cultures?
3. What are the implications for existing education/training frameworks in care services in Ireland should a work based learning facilitation model be established and adopted?

It also makes a contribution to the methods for achieving communicative spaces and discourse in busy workplaces and proposes that facilitation is not stationary and can be delivered by novice and proficient facilitators in certain conditions.

Outcomes: The frameworks and the associated tools offer novice and proficient facilitators a guide to the development of work based facilitation skills that can build up over time. This enables nurses to work with colleagues to help them to learn in and from work, grow their expertise and contribute to developing person-centredness in the workplace. The study has global application to contexts interested in developing person-centred cultures. It is unique in its focus on the development of novice and proficient facilitators that can impact on the development of themselves and on person-centred cultures.

References

- Brown, D and McCormack, B. (2016) Exploring psychological safety as a component of facilitation within the Promoting Action on Research Implementation in Health services framework. *Journal of Clinical Nursing*, 25, 2921-2932
- Hardiman, M. and Dewing, J. (2014). Critical Ally and Critical Friend: stepping stones to facilitating practice development. *International Practice Development Journal*, 4 (1) 05.
- McCormack, B. and McCance, T., Editors (2016) *Person-centred practice in Nursing and health Care. Theory and Practice.* (2nd edition) Wiley Blackwell. Oxford UK

Contact

mhardiman@gmu.ac.uk

F 08 - High Reliability: Practical Application and Tips for the Journey

Psychological Safety: A Work Environment Characteristic in a High Reliability Organization

Cynthia A. Oster, PhD, MBA, ANP, ACNS-BC, CNS-BC, USA
Jane Braaten, PhD, MS, RN, USA

Abstract

Background/Significance: It is estimated 400,000 people die each year due to healthcare error (James, 2014). One strategy to reducing harm has been to institute high reliability into healthcare. High reliability science is the study of “organizations in industries like commercial aviation and nuclear power that operate under hazardous conditions while maintaining safety levels that are better than in healthcare” (Chassin and Loeb, 2013). High reliability organizations (HROs) are organizations that are high-risk, dynamic, turbulent, and potentially hazardous, yet operate nearly error-free (Weick and Sutcliffe, 2007). Becoming a HRO is now a leadership mandate from hospital boards and top executive leaders; however HRO development must permeate the entire organization. HROs have demonstrated success in minimizing errors by creating mindful environments where employees are trained to look for and report small problems that could lead to big ones. HROs view small errors and close calls as learning opportunities; correct them and share details about them across the organization (Chassin, 2012; Shabot, 2015).

A healthy work environment (HWE) is required for high reliability. The 2004 IOM report, *Keeping Patients Safe: Transforming the Work Environment of Nurses*, emphasized the dominant role of the work environment within health care organizations and the importance of the work environment in which nurses provide care to patients. A HWE is one that is safe, empowering, and satisfying. HWEs are settings with policies, procedures, and processes designed to empower nurses to meet the organizational objectives and achieve personal satisfaction (Huddleston & Gray, 2016a). It is not merely the absence of real and perceived threats to health, but a place of “physical, mental, and social well-being,” supporting optimal health and safety (ANA, 2016). A HWE includes appropriate staffing, authentic leadership, effective decision making, meaningful recognition, skilled communication and true collaboration (AACN, 2005). Huddleston and Gray (2016b) recommend the addition of two new characteristics: genuine teamwork and physical and psychological safety. Psychological safety means ensuring that no one is penalized if they ask for help or admit a mistake and they can openly disagree without fear of ridicule or punishment (Edmondson, 2008; Edmondson, 2016). Psychological safety is crucial in organizations where knowledge constantly changes, where workers need to collaborate, and where those workers must make decisions without management or leadership intervention (Edmondson & Lei, 2014).

A culture of safety and resilience is paramount in a HRO. All leaders, managers, health care workers, and ancillary staff have a responsibility as part of the patient centered team to perform with a sense of professionalism, accountability, transparency, involvement, efficiency, and effectiveness. All must be mindful of the health and safety for both the patient and the health care worker in any setting providing health care, providing a sense of physical and psychological safety, respect, and empowerment to and for all persons (ANA, 2016). HROs must adopt a fundamental HWE approach in how they communicate and how individuals interact. Organizational leaders must ensure there is a free flow of information; a safe environment in which to speak up and respectful interactions (Chassin, 2012; Chassin & Loeb, 2013; DuPree, 2013). Organizations require resiliency to achieve high reliability. A resilient organization maintains a high level of performance despite mounting pressures, threats and uncertainties, and is able to withstand disruption and recuperate while resuming operations (Boin & Van Eeten, 2013). When employees feel psychologically safe, meaning staff is empowered to have a voice without being retaliated against; they will be more likely to report concerns and near misses. Therefore, patient safety and quality outcomes improve in every day clinical practice.

Purpose: The purpose of this presentation is to describe how psychological safety in the work environment at two acute care facilities contributed to the facilitation and sustainment of a culture of safety and organizational resilience.

Scope: The scope of this project encompasses two acute care hospitals; a 50-bed community hospital and a 350-bed quaternary hospital with specialty service lines. It includes 650 clinical nurses, advanced practice nurses and nursing leadership across the spectrum of care including outpatient and ambulatory settings.

Methods: Leadership commitment to psychological safety serves as the paradigm for two organizations to be resilient, maintain gains and sustain the success of high reliability. In 2002 Dr. Amy Edmondson, a Harvard business professor expert on psychological safety in the workplace, published a seminal work describing psychological safety. Psychological safety describes individuals' perceptions about the consequences of interpersonal risks in their work environment. It consists of taken-for-granted beliefs about how others will respond when one puts oneself on the line, such as by asking a question, seeking feedback, reporting a mistake, or proposing a new idea. Nurse leaders play an important role in creating cultures that are psychologically safe. The commitment of leaders to a transformational style of leadership in order to facilitate psychological safety is essential in a resilient, learning and highly reliable organization. Transformational leaders transform organizations by motivating followers to transcend their own self-interest to improve performance through organizational learning and innovation (Grant 2012; Garcia-Morales, Jimenez-Barrionuevo, and Gutierrez-Gutierrez, 2012). Leaders within the organizations facilitate psychological safety by developing and reinforcing civility, respect, support, professionalism and accountability. Leaders insist on civility for all interactions (Blouin, 2013). Respect is the cultural norm; thereby employees are more likely to communicate with the greater team (Sutcliffe, 2011). The use of supportive language towards others is an expectation as is professionalism with accountability. Alignment of senior leadership, managers and front-line nursing staff in a psychologically safe work environment is crucial for an organization to be resilient, maintain gains and sustain the success of high reliability.

The five principles of HROs served as a guiding framework to embed safety practices into two organizations with a culture of psychological safety. HRO principles (Deference to expertise, Preoccupation with failure, Sensitivity to operations, Reluctance to simplify, and Commitment to resilience) are woven into the fabric of one small and one moderate-sized healthcare organization.

Outcomes: Perception of psychological safety improved from 66% to 74% of staff feeling free to speak up if they see something that may negatively affect patient care on the AHRQ Hospital Survey on Patient Safety Culture. Vigilance drove detection analysis and constant surveillance. Increased near miss and self-reporting demonstrate enhanced organizational transparency and professional accountability. Between 2013 and 2016, preventable harm incidents decreased 33% while patient volume and case mix index increased.

Implications for Practice: Nurse leaders play an important role in creating organizational cultures that are psychologically safe for staff to question practices, report problems or propose new ideas. Resilient organizations have high reliability, maintain a high level of performance and have a psychologically safe work environment. HRO principles translate to the point of care, apply to hospital environments of any size, and can be utilized effectively in every patient encounter to drive positive quality outcomes. Comprehensive integration of HRO principles results in exemplification of nursing staff understanding that their actions contribute to organizational quality and safety. A culture of safety encourages open discussion of tough issues, tolerance of disagreement, and nurtures contrasting points of view. Making this cultural shift is crucial to organizational resilience and proactive adverse event management.

References

American Association of Critical Care Nurses. (2016). AACN Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence, 2nd Edition. Retrieved from <http://www.aacn.org/WD/HWE/Content/hwehome.content?menu=hwe>
American Nurses Association. (2016). Healthy work environment. Retrieved from <http://www.nursingworld.org/MainMenuCategories/WorkplaceSafety/Healthy-Work-Environment>

- Blouin, A. S. (2013). High reliability: truly achieving healthcare quality and safety. *Frontiers of Health Services Management, 29*(3), 35-40.
- Boin, A., & Van Eeten, M. G. (2013). The resilient organization. *Public Management Review, 15*(3), 429-445.
- Chassin, M.R. (2012). Health care and high reliability: a cautionary tale. 2012 5th International HRO conference. Chicago, IL.
- Chassin, M.R. & Loeb, J.M. (2013). High-reliability health care: Getting there from here. *The Joint Commission*. Retrieved from <http://www.jointcommission.org> .
- DuPree, E.S. (2014). The high reliability journey at your healthcare organization. *Hospital Executive Briefing*. The Joint Commission. Retrieved from <http://www.jointcommission.org> .
- Edmondson, A. C. (2002). *Managing the risk of learning: Psychological safety in work teams*. Division of Research, Harvard Business School.
- Edmondson, A. (2008). The competitive imperative of learning. *Harvard Business Review, 86*(7-8), 52-59
- Edmondson, A. (2016). Wicked-problem solvers, lessons from successful cross-industry teams. *Harvard Business Review, 94*(6), 52-59.
- Edmondson, A. & Lei, Z. (2014). Psychological safety: the history, renaissance, and future of an interpersonal construct. *Annual Review of Organizational Psychology and Organizational Behavior, 1*, 23-43.
- Garcia-Morales, V. J., Jimenez-Barrionuevo, M. M., & Gutierrez-Gutierrez, L. (2012). Transformational leadership influence on organizational performance through organizational learning and innovation. *Journal of Business Research, 65*, 1040-1050.
- Grant, A.M. (2012). Leading with meaning: beneficiary contact, prosocial impact, and the performance effects of transformational leadership. *Academy of Management Journal, 55*(2), 458-476.
- Huddleston, P. & Gray, J. (2016a). Measuring nurse leaders' and direct care nurses' perceptions of a healthy work environment in an acute care setting, Part 1. *Journal of Nursing Administration, 46*(7/8), 373-378.
- Huddleston, P. & Gray, J. (2016b). Describing nurse leaders' and direct care nurses' perceptions of a healthy work environment in acute care settings, Part 2. *Journal of Nursing Administration, 46*(9), 462-467.
- Institute of Medicine. *Keeping patients safe: transforming the work environment of nurses*. Washington, DC: National Academy Press; 2004.
- James, J. T. (2014). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety, 9*(3), 122-128.
- Shabot, M. M. (2015). New tools for high reliability healthcare. *BMJ Quality and Safety, 24*(7), 423-424.
- Sutcliffe, K. M. (2011). High reliability organizations (HROs). *Best Practice & Research Clinical Anaesthesiology, 25*, 133 -144.
- Weick K, & Sutcliffe K. (2007). *Managing the unexpected: Resilient performance in an age of uncertainty*. San Francisco, CA: Jossey Bass.

Contact

cynthiaoster@centura.org

Practical Tools for the High Reliability Journey

Jane Braaten, PhD, MS, RN, USA

Abstract

Highly reliable organizations are effective in three domains: leadership commitment to high reliability, a safety culture and robust process improvement (Chassin & Loeb, 2013). However, the nature of healthcare today creates a challenge to high reliability. Healthcare in the hospital today is a whirlwind of highly complex systems and processes, coupled with emergent conditions. Interacting within this chaos daily are human beings seeking and providing care to those who are ill and vulnerable. Human nature and the history of healthcare still lead us to fall back on expecting perfection from humans in this type of system. Current leaders in patient safety state that safety advances when human error is recognized as an attribute of the system and not the cause of it (Woods, et al, 2012). This means that we must expect vulnerability from human beings and create effective systems to mitigate the expected error. Errors occur most often, not because of lack of reliability from humans but because of lack of reliability of our system to prevent humans from error (IOM, 2009). Highly reliable organizations rely on finding system and process solutions to prevent human error in a proactive, rather than reactive manner (Weick & Sutcliffe, 2007). High reliability can become a “buzzword” unless we match the principles of high reliability with our everyday processes. Robust process improvement cannot be simplified by only adopting a process or tool. In order to create high reliability, we also need to be intentional with embedding the principles of high reliability into our process improvement tools. Root Cause Analysis (RCA) and Failure

Mode Effects Analysis (FMEA), when implemented with high reliability principles, can be effective tools to recognize and mitigate the effects of human fallibility by encouraging proactive anticipation of conditions that lead to errors and encouraging robust interventions created by interdisciplinary collaboration to mitigate error from emergent conditions. High reliability depends on crossing traditional barriers and boundaries to innovate. Boundary spanners can be people, objects, or processes that bridge differences and lead to collaboration between diverse areas. Highly reliable improvement tools can serve as boundary spanning processes that bridge the gap between traditional process improvement and highly reliable performance.

Purpose: The purpose of this presentation is to describe how two robust process improvement tools can be used to promote highly reliable error reduction in a complex hospital environment.

Methods: An effective RCA and FMEA is a key feature of a highly reliable organization's robust process improvement program. The RCA at its most effective considers system issues as causes and human errors as effects, considers and mitigates for sources of bias in the investigation , creates strong actionable, timed interventions that address the root causes found and is supported by the highest levels of organizational leadership (National Patient Safety Foundation, 2015). The RCA is generally used to analyze an event or a close call that has been identified. An FMEA, on the other hand, is used to predict and identify safety or problematic gaps in a process before an event occurs. Both methods if not intentionally facilitated can have challenges to high reliability such as bias, failure to consider system issues, failure to encourage diverse opinions in the process, choosing interventions which do not consider human factors and failure to monitor and sustain the improvement. When used effectively, the tools are a key component of a highly reliably organization, leading to sustainable improvement.

Outcomes: Implementing the robust improvement tools, RCA and FMEA, through the lens of high reliability principles has led to an increase in staff perception of patient safety and how the organization reacts to and prevents adverse events. Improvement in the AHRQ Hospital Survey on Patient Safety was realized in the items of "organizational learning from error" and "non-punitive response to error". One RCA led to a system change of the counting process in the operating room that identifies a mandatory time out for counting prior to close. After implementation, there have been no further retained foreign objects over the last year. An FMEA at the same facility identified at least 20 high risk opportunities for failure in a pediatric resuscitation event. Mitigation strategies have been implemented for all opportunities and currently, the process was tested with no deficiencies.

Implications for Nursing Practice: High reliability is dependent upon identifying conditions for adverse events before they occur and creating resilience in the system for staff to react to safety issues before harm to a patient occurs. The RCA and FMEA are tools which promote both anticipation and mitigation and can serve as boundary spanning processes, linking process improvement to high reliability.

References

- Chassin, M. & Loeb, J. (2013). High-Reliability Health Care: Getting There from Here. *The Milbank Quarterly*, 91 (3), 459–490.
- Institute of Medicine. (2009). *To Err is Human: Building a Safer Health System*. Washington D.C. National Academy Press.
- National Patient Safety Foundation (2015). *RCA² Improving Root Cause Analyses and Actions to prevent harm*. Boston: NPSF.
- Weick K., & Sutcliffe, K. (2007). *Managing the unexpected: Resilient performance in an age of uncertainty*. San Francisco, CA: Jossey Bass.
- Woods, D., Dekker, S., Cook, R. & Johannesen, L. & Sarter, N. (2012). *Behind human error* (2nd Ed.). Burlington , VT: Ashgate .

Contact

janebraaten@centura.org

Practical Application of High Reliability Principles in Healthcare to Promote Clinical Quality and Safety Outcomes

Cynthia A. Oster, PhD, MBA, ANP, ACNS-BC, CNS-BC, USA
Sherilyn Deakins, MS, BSN, CPPS, USA

Abstract

Background/Significance: It is estimated 400,000 people die each year due to healthcare error (James, 2014). One strategy to reducing harm has been to institute high reliability into healthcare. High reliability (HR) has long been used in aviation and nuclear energy to reduce variation and improve safety. High reliability science is the study of organizations in industries “that operate under hazardous conditions while maintaining safety levels that are better than in healthcare” (Chassin and Loeb, 2013). High reliability organizations (HROs) are organizations that are high-risk, dynamic, turbulent, and potentially hazardous, yet operate nearly error-free (Weick and Sutcliffe, 2007). HROs stay error-free by recognizing that small things that go wrong are often early warning signs of trouble (preoccupation with failure); recognizing that these warning signs are red flags that provide insight into the health of the whole system (reluctance to simplify); valuing near misses as indicators of early trouble and acting on them to prevent future failure (sensitivity to operations); being innovative and creative and valuing input from all corners of the organization (deference to expertise); and recognizing the value of preparing for the unexpected and the unknown, as failures rarely occur if they are expected (commitment to resilience). HROs have demonstrated success in minimizing errors by creating mindful environments where employees are trained to look for and report small problems that could lead to big ones. HROs view small errors and close calls as learning opportunities; correct them and share details about them across the organization (Chassin, 2012; Shabot, 2015). Healthcare application of HR principles is complicated by the complex adaptive nature of care delivery systems. Healthcare is moving from a reactive to a proactive paradigm. Near misses are influential in evaluating healthcare structures and processes prior to experiencing negative outcomes. HRO principle integration supports proactive identification of potential adverse events.

Purpose: The purpose of this presentation is to describe how application of High Reliability Organization (HRO) principles into daily healthcare work processes can successfully drive improved quality outcomes, safety, and culture change.

Scope: The scope of this project is one 350 bed acute care quaternary hospital with specialty service lines. It includes 500 clinical nurses, advanced practice nurses and nursing leadership across the spectrum inpatient care settings.

Methods: The five principles of HROs served as a guiding framework or methodology to embed safety practices into the organization. HRO principles (Deference to expertise, Preoccupation with failure, Sensitivity to operations, Reluctance to simplify, and Commitment to resilience) are woven into the fabric of the moderate-sized healthcare organization through distinctive intervention strategies. Implementation of HRO principles into 15-minute daily safety huddles enhanced an existing Just Culture environment. Partnerships translated HRO principles into clinical practice and evaluated operationalization. Resource investment led to real-time data, analysis, feedback, technology supporting low-variation practice, and rewards/recognition promoting transparency. Leaders role model their commitment to a culture of quality and safety. HRO principle integration: Deference to expertise correctly migrated responsibility from formal executive authority to experiential competency-based decision-making; Preoccupation with failure sensitized associates to be alert to small indicators before crisis situations developed and increased near miss reporting; Sensitivity to operations cultivated situational awareness; Reluctance to simplify drove drill-down enhancing learning and practice; Commitment to resilience was strengthened through TeamSTEPPS applications which led to heightened individual and organizational resilience.

Outcomes: Between 2013 and 2016, preventable harm incidents decreased 33% while patient volume and case mix index increased. Nurse sensitive indicator outcomes consistently meet or exceed national benchmarks. The 350-bed hospital reports 30% reduction in falls with injury; HAPUs stage 2+ below benchmark the majority of the time in all units; CLABSI-free in all units for greater than 3 years; and CAUTI 70% reduction in the last four fiscal years. Nursing value is \$1.7 M estimated direct cost avoidance FY12 to FY16.

Implications for Nursing Practice: HRO principles translate to the point of care and can be utilized effectively in every patient encounter driving nursing practice and positive clinical quality outcomes in a culture of safety. Comprehensive integration of HRO principles results in exemplification of nursing staff understanding that their actions contribute to nursing value and organizational quality and safety. Making this cultural shift is crucial to proactive adverse event management.

References

Chassin, M.R. (2012). Health care and high reliability: a cautionary tale. 2012 5th International HRO conference. Chicago, IL.

Chassin, M.R. & Loeb, J.M. (2013). High-reliability health care: Getting there from here. *The Joint Commission*. Retrieved from <http://www.jointcommission.org> .

James, J. T. (2014). A new, evidence-based estimate of patient harms associated with hospital care. *Journal of Patient Safety*, 9(3), 122-128.

Shabot, M. M. (2015). New tools for high reliability healthcare. *BMJ Quality and Safety*, 24(7), 423-424.

Weick K, & Sutcliffe K. (2007). *Managing the unexpected: Resilient performance in an age of uncertainty*. San Francisco, CA: Jossey Bass.

Contact

cynthiaoster@centura.org

F 09 - Health Information Technology Tools to Support the Implementation of a Complex Care Management Program

Development of a Dashboard to Provide Decision Support for Complex Care Management in Primary Care

Mary L. Blankson, DNP, APRN, FNP-C, USA

Sharon Liann Taylor, MPH, USA

Katie Ann Lainas, BS, USA

Ranbir Bains, PhD, MSN, APRN, CPNP, USA

Abstract

Primary care nurses often need to take on the role of nurse care manager (NCM) as they support a provider's panel of complex patients. NCMs require access to timely information from a single source to effectively provide care management to patients. In the past, manual data registries were maintained by NCMs. In the current era of Big Data, it is important to move away from inefficient, time-consuming processes toward automatic tools. Doing so ensures better utilization of valuable clinical skills to maximize the overall benefits to patients.

An electronic dashboard was developed to provide NCMs with decision support during the implementation phase of a Complex Care Management Program across 12 clinical sites of Community Health Center, Inc. (CHCI). CHCI is a statewide agency providing care to individuals with low socioeconomic status, including many that are uninsured and underinsured. It has 14 integrated patient-centered primary care sites, delivering medical, behavioral health and dental services along with other ancillary care services such as those delivered by registered dietitians, podiatrists or chiropractors to name a few. CHCI delivers care in over 200 total service delivery sites, when school based clinics and health care for the homeless sites are included in the total count. The care management dashboard enables NCMs to identify high-risk patients who would benefit from enrollment in care management. It serves as a population management tool for groups at highest risk for adverse outcomes related to uncontrolled chronic diseases, repeated hospitalizations, and increased emergency department utilization. This ensures the NCMs can use this tool for both proactive outreach and ongoing population data tracking.

The dashboard was built through the collaboration of CHCI's frontline NCMs, Business Intelligence, the Quality Improvement Department, and the Chief Nursing Officer. The dashboard is updated daily by extracting data from individual electronic health records based on an algorithm using Uniform Data System (UDS) measures along with other clinical markers. It is then populated with the medical record numbers of patients who meet these criteria, including uncontrolled hypertension, diabetes and asthma. The dashboard lists a patient's last recorded blood pressure, hemoglobin A1c, and smoking status. It indicates whether the patient has had two or more visits to an emergency room within six months, and if the patient has 4 or more chronic conditions listed on their active problem list. Additionally, the dashboard imports claims data from the state Medicaid database, which identifies patients currently hospitalized and/or recently discharged from a hospital. The dashboard is especially important in providing this information to nurses as it is often delayed from local hospitals. Given the focus on supporting patients to achieve self-management, the date on which the last self-management goal was set or motivational interviewing was completed is listed on the dashboard. This supports NCM's ongoing tracking of each enrolled patient as they progress toward their self-management goals.

When the dashboard was implemented in August of 2014, the overall enrollment in CHCI's Complex Care Management Program was 17 patients. This number grew to 861 in year 1 of implementation and to 1724 by the end of year 2. Toward the end of year 2, NCMs were interviewed to explore their thoughts about the dashboard and to identify any changes or enhancements to improve the tool to better support their daily work. NCMs noted the value of the dashboard as an enhancement to their work. They could find information on their patients quickly and easily, and valued the tool as a means to support the ongoing

follow-up required post hospitalization. One of the primary care nurses interviewed summarized her thoughts by stating: "if we did not have a dashboard, I would spend less time on care coordination." The NCMs did identify several areas where they requested revisions or reorganization to the dashboard to enhance its overall functioning, which will be integrated into the second iteration. Implementing a Complex Care Management dashboard can improve nurses' confidence in delivering care to patients with complex needs. Since clinics that serve patients of low socioeconomic status typically have a large population of high-risk patients, the dashboard lends timely decision support and organization to NCMs to improve their ability to identify patients who would most benefit from Complex Care Management. This may lead to improvements in overall job performance and satisfaction in NCMs, and could therefore improve overall retention for key clinical team members.

References

- Spetz, J., Bates, T., Chu, L., Lin, J., Fishman, N. W., & Melichar, L. (2014). Creating a dashboard to track progress toward IOM recommendations for the future of nursing. *Policy, Politics, & Nursing Practice*, 1527154414521014.
- Singer, S.J., Burgers, J., Friedberg, M., Rosenthal, M.B., Leape, L., & Schneider, E. (2011). Defining and measuring integrated patient care: promoting the next frontier in health care delivery. *Medical Care Research and Review*, 68(1), 112-27.
- Thompson, C., Fahs, B., & Kell, C. (2016). A Nurse-Led Collaborative Linking Medical Center with Community Partners Transforms Patient Care and Reduces Readmissions. *Heart & Lung: The Journal of Acute and Critical Care*, 45(4), 381.

Contact

mary@chc1.com

Development of a Nursing Scorecard to Track Metrics to Support Complex Care Management

Tierney Elizabeth Giannotti, MPA, BA, USA
Mary L. Blankson, DNP, APRN, FNP-C, USA
Ianita Zlateva, MPH, RN, USA

Abstract

Primary care nurses often need to take on the role of nurse care manager (NCM) as they support a provider's panel of complex patients. Nurse care managers (NCMs) at the Community Health Center, Inc. (CHCI) use a clinical dashboard tool to aid in decision support to identify and manage individual patients through Complex Care Management (CCM). The NCMs identified that they needed a different tool to better support a global view of their impact as well as to identify areas needing additional focus.

A nursing scorecard was developed to track population metrics as part of the implementation of a complex care management program across 12 clinical sites of CHCI. CHCI is a statewide agency providing care to individuals with low socioeconomic status, including many that are uninsured and underinsured. It has 14 integrated patient-centered primary care sites, delivering medical, behavioral health and dental services along with other ancillary care services such as those delivered by registered dietitians, podiatrists or chiropractors to name a few. CHCI delivers care in over 200 total service delivery sites, when school based clinics and health care for the homeless sites are included in the total count.

Each CHCI nurse supports two individual primary care provider panels. CHCI's nursing scorecard quantifies care management indicators and outcomes as part of overall nursing performance with each of those panels. It provides the NCMs with data that is updated monthly. This helps the NCMs to identify which providers may follow best practices, and the overall trends for measures such as hypertension and diabetes control for each provider's panel of patients. The scorecard reinforces a measurement culture, which helps the NCMs to focus on specific patient populations or specific provider panels that are in need of intervention. When NCMs review the scorecard each month, they can make decisions on resource allocation to ensure they are addressing areas of greatest need. Furthermore, the scorecard provides opportunities for continuous improvement and accountability for the care management program. It supports NCMs in understanding the value of their work.

The scorecard is populated with data extracted from the electronic health records of all patients in a panel managed by an NCM and their two primary care providers. Data include the number of patients defined as eligible for care management (high emergency department utilization, recent hospital discharge, uncontrolled chronic illness, or multiple chronic illnesses), the number of those enrolled by a nurse in care management, and clinical measures such as the percentage of patients with uncontrolled hypertension and diabetes. The nursing scorecard was built through the collaboration of the NCMs, CHCI Business Intelligence, Quality Improvement Department, and Chief Nursing Officer.

Tracking population metrics for nurse-driven interventions for high-risk patients in primary care can help identify the impact of CCM on clinical measures for these patients, i.e., uncontrolled hypertension and diabetes, and re-admission to the hospital within 30 days of discharge. CHCI's scorecard reveals how many patients a nurse in primary care could potentially support in CCM at any given time while still fulfilling other aspects of the primary care nurse role.

The scorecard was active for all sites as of 4/14/2015, post the yearlong, stepped-wedge implementation of the overall complex care management program. The first scorecard noted that, on average, NCMs were managing about 6% of their eligible panel, with a wide range of 1% to 27%. By six months, this had grown to an average of 11% of the eligible panel, ranging from 1% to 29%. As of 12/2/2016, this has grown to 14% on average, ranging from 3% to 67%. This suggests that complex care management is now actively being performed by all nurses in the program. It does however highlight potential degrees of activity in care management activities, and that more work must be done to better quantify complexity to determine an exact panel expectation for NCMs. Both hypertension and diabetes control have improved since program and scorecard implementation by 3.7% and 2.5% respectively. CHCI's care management scorecard ensures that NCMs are better able to make decisions on resource allocation and to focus efforts to improve complex care management operational and clinical measures. Scorecards may be a solution for other clinics, regardless of geography, implementing care coordination or complex care management to support their teams toward success.

References

Cline, M. A. (2016). Increasing RN Accountability in Professional Practice: Development of a Pain Reassessment Documentation Scorecard. *Journal of Nursing Administration*, 46(3), 128-131.

Singer, S.J., Burgers, J., Friedberg, M., Rosenthal, M.B., Leape, L., & Schneider, E. (2011). Defining and measuring integrated patient care: promoting the next frontier in health care delivery. *Medical Care Research and Review*, 68(1), 112-27.

Contact

giannot@chc1.com

Structured Data in Electronic Health Records to Capture Nursing Work in Complex Care Management

Ianita Zlateva, MPH, RN, USA

Mary L. Blankson, DNP, APRN, FNP-C, USA

Abstract

Complex care management in primary care has proven difficult to track and measure. Electronic health records (EHRs) initially were designed to document the care of individual patients and for insurers for reimbursement of services, not for measuring population data or clinical processes. Since the implementation of EHRs, many have worked to create ways to utilize structured data to fulfill this need, but more work is needed to develop best practices particularly when it comes to the contribution of nurses in complex care management.

Various templates and structured data fields were created within Community Health Center, Inc.'s (CHCI) EHR to allow for tracking of population metrics as part of the implementation of a complex care

management program across 12 clinical sites of CHCI. CHCI is a statewide agency providing care to individuals with low socioeconomic status, including many that are uninsured and underinsured. It has 14 integrated patient-centered primary care sites, delivering medical, behavioral health and dental services along with other ancillary care services such as those delivered by registered dietitians, podiatrists or chiropractors to name a few. CHCI delivers care in over 200 total service delivery sites, when school based clinics and health care for the homeless sites are included in the total count.

CHCI faced many challenges, and celebrated some successes with adding many areas of structured data to the EHR to capture the work primary care nurses were completing every day in their role as nurse care managers. The team involved with creating the structured fields included members of leadership, frontline nurses, business intelligence and health information technology (HIT) personnel. The two main examples focused in care management were related to a template that captured important elements of transition management, and structured data fields to document motivational interviewing and self-management goal setting.

For transition management, CHCI created a template for nurses based on Coleman's Pillars (2004) to better capture structured data collection needed to support transition from hospital to home. Once the transition template is completed by the nurse, they would then choose the most appropriate template relating to the reason for admission, typically an exacerbating chronic illness. Once these templates were implemented, challenges included the length of time it took to complete overall data collection, and duplicative fields for chronic illness data that added some confusion for nurses. Nurses did, however, collect more meaningful data to support transition care than prior to implementation.

For the motivational interviewing and self-management goal structured fields, nurses are able to capture key data to support ongoing follow-up. The first data field addresses whether the patient is ready to set a self-management goal, and then if so, would prompt the nurse to document the confidence level and whether motivational interviewing was used. If the patient is not ready to set a self-management goal, then it would prompt the nurse to document whether motivational interviewing was done. If the patient is following up on a self-management goal, the template also has fields to document that along with progress toward the goal set prior. There are unstructured places for nurses to document notes on the specific goal, and any additional supportive information. This allows for some structure, but also room for the nurse to ensure more patient-specific documentation.

For both examples, nurses had varied success at completing the fields. For the transition template it was clear that nurses did not complete all data fields the majority of the time, as opposed to the self-management goal template which was much shorter. The self-management goal template was mainly used within the context of comprehensive diabetes visits, where it is embedded into this visit template. Unfortunately, the self-management template has not yet had its full intended effect, which is for nurses to access it for any situation where self-management would apply.

Structured data is extremely important to being able to create any other HIT tool. Both Dashboards and Scorecards draw on items that are structured within the EHR. Each structured field must be carefully considered and have standard definitions that address a specific clinical outcome measure. They must also address the growing trend of adding additional "clicks" to already challenging multi-tasking. Business Intelligence is key along with HIT personnel to design the most efficient approach to data capture. All in all, it appears that structured fields ensure more uniform data collection, and support standardized practice and measurement among nurses with regard to complex care management. However, more work is needed to perfect implementation and training strategies for frontline personnel to ensure wider use of these important tools.

References

- National Quality Forum. (2014). Priority Setting for Healthcare Performance Measurement: Addressing Performance Measure Gaps in Care Coordination. 1-45.
- Schultz, E., Pineda, N., Lonhart, J., Davies, S., & McDonald, K. (2013). A systematic review of the care coordination measurement landscape. *BMC Health Services Research*. 13(119), 1-12.

Contact

ianita.zlateva@gmail.com

G 08 - When Healthcare Is Needed: Violence Has Strained Relations and Law Enforcement Is Involved

When Healthcare is Needed: Violence has Strained Relations and Law Enforcement is Involved

Dianne McAdams-Jones, EdD, RN, GNE, CHSE, USA

Abstract

In our society, after many bitter wars ended e.g. the Civil War, the Cold War and apartheid in South Africa, we start to see peace building efforts. Often these peace building efforts include conversation between the two opposing forces. The strategy building begins; often it is based on experiential knowledge and not necessarily any academics of evidenced based research. Central to the issue here of conversations on race is a Registered Nurse along with a group of health care providers in Utah partnered with its Police Department agreeing with maybe the consensus of others in the rest of the world, that conversations on race and race relations maybe should take place. Or, perhaps we could borrow from Randall Stephenson, CEO of AT&T, who took a stand on racial tensions and breakdown of communication between law enforcement and the minority communities, "If this is a dialogue that's going to begin at AT&T, I feel like it probably ought to start with me" (Holland 2016).

In today's society, fraught with racial tensions and continued breakdown of communication between law enforcement and minority communities there has to be concern for cause and effect. In the wake of what certainly appears to be a quickening of racial tensions due to some recent events it could be asked '...how to mitigate or what is to be done'. Navigating uncomfortable spaces and conversations can bring discomfort. Human nature sends the spirit aflight as discomfort in social settings arise because this discomfort might be misinformation or lack of information which require 'brain checking' prior to initiating patient care. Too, biases are a reality. Health care providers are not immune to bias. In essence, humans will typically not indulge themselves in uncomfortable spaces. As health care providers, there often is not this luxury. The patient's needs will force the health care provider to immerse emotion into the discomfort as a search for some means of either chemical or emotional relief is a top priority for patient care. The health care provider champions open communication and will require a variety of skills in the midst of law enforcement peace keeping and possibly patient injury under suspected offenses. Adding to this, there can be the need to quell negative community input. These and more conversational tools will be explored.

References

- King, J., McAdams-Jones, D., & Woodfield, B. (2016). How to Successfully Create and Run a Citizens Advisory Board. *Police One*. Retrieved from <https://www.policeone.com/iacp-2016/articles/232139006-How-to-successfully-create-and-run-a-Citizens-Advisory-Board/>
- Holland, P. (2016). AT&T CEO Passionately Defends Black Lives Matter. Retrieved from <https://www.cnet.com/news/at-t-ceo-randall-stephenson-defends-black-lives-matter/>
- Cooper, E. (2016). Why Goldman Sachs is Encouraging Employees to talk about race at work and why as a black woman I think this is so important. Retrieved from <http://www.businessinsider.com/edith-cooper-goldman-sachs-on-talking-about-race-at-work-2016-9>

Contact

dianne.mcadams-jones@uvu.edu

When Healthcare is Needed, and I Feel Victimized

John King, USA

Abstract

Trust and consistency can provide feelings of safety and protection. In the wake of recent events and the looming feelings of distrust in law enforcement from some marginalized groups, communities and families have met with mourning and perceived grief yet unseen. Where do I turn?

Living accordingly in any society will provide columns and lines or guidelines. Living between columns and lines provides security but it would not be good to live as in a caged society. Then, living between columns and lines or in a caged society can provide security. Security is valuable if there is fear of the unknown. Security is valuable if there is fear of beliefs being challenged when we go beyond the columns and lines...venturing out of the cage. However, you will not build any scope of experience to share if you are not branching out beyond your assigned space. Life's experiences will challenge your beliefs; thus, you should check your brain at the door, inform your opinions, build some structure and focus on where you are going. This is not a time to be shy in discussing the stench of racism and inequalities; to some, silence is violence. Being unconcerned and avoiding the subject may give some credibility as to why prejudices and in many cases, the rot of racism continues to ruminate.

Communities can organize and approach public servants e.g. law enforcement, health care providers and local representatives with a spirit of community and caring. Conversations can take down walls and open doors for better understanding between perceived opposing forces. One community in Provo Utah did just that.

In the recent escalated racially tense incidents of Missouri and Charlotte, North Carolina, to name a few, some corporations have brought the subject to the forefront supporting conversations on race and race relations. The theme among these corporations is 'talk about it; don't sweep it under the rug'. Start ongoing conversations on race and race relations. Be honest with each other. Remember, our nation has a wound and it never healed as a wound should.

Wounds heal from the 'bottom up' and 'sides in'. When a wound heals over the top, the dead tissues underneath begin to fester and soon it erupts; our wounds as a people have erupted into violence and the hate is spewing as infection does from wound. Over the years American has struggled with race relations, which essentially just healed over the top; the real wound was festering below and now we need wide spread antibiotics in order to clean up the infection. Let's open the wound as painful as it is and clear it out with good healthy conversation which will kill the nastiness festering underneath. By doing this, the wound will heal as a wound should, from the bottom up and sides in. It will be uncomfortable, but it has to be done. Talk about it. Be an advocate for healing as a health professional should be.

References

Cooper, E. (2016). Why Goldman Sachs is Encouraging Employees to talk about race at work and why as a black woman I think this is so important. Retrieved from <http://www.businessinsider.com/edith-cooper-goldman-sachs-on-talking-about-race-at-work-2016-9>

Roy, B., Burdick, J. & Friedberg, L. (2010). A Conversation between Conflict Resolution and Social Movement Scholars. *Conflict Resolution Quarterly*. Vol.27. no 4.

Contact

jking@provo.org

Simulation in Law Enforcement: Safe Learning Spaces for Law Officers

Tirsit Valentine, USA

Abstract

Simulators can significantly reduce error in patient care provision. Pilots have used simulation for years and pilots are first in flight in a simulator. Technically speaking, the vast majority of people would never agree to flying with a pilot who has not had simulator training first. Similarly, perhaps most parents would not like to know that the first chest tube insertion the young doctor has performed is now on young Johnny who is desperately ill.

Then, as law enforcement, the safety of our community is to their charge. Simulators can massively reduce community harm and officer danger. When these simulators are used wisely, they can change our agency's culture in relation to liability, high-risk encounters, over use of force and emergency response driving. This session will address interacting with the community health care providers after an officer shooting of a community member and how simulation can enhance critical thinking. Multiple avenues of simulation use to mitigate negative community relations could change our society's approach to dealing with conflict and violence.

The world we live in is miles away from a decade ago; technology can significantly increase the officer's chances of going home safely and avoiding unnecessary injury to those it protects. Exactly as the health care environment uses the high fidelity in teaching patient care delivery and deliberate practice for expert procedure performance, critical thinking and patient safety, so it is with law enforcement and the use of high fidelity with the police simulators. The simulators high fidelity scenarios give natural recoil of the weapon and produces similar if not exact stress levels under simulated scenario cases. Utilizing health care professionals in law enforcement training and education has provided immense benefits to the Provo Police Department. The quality of the scenario delivery and the reaction of the simulation recipients have been both complementary and highly beneficial. The officers have noticed more confidence in their abilities to utilize deescalating techniques taught during simulation in policing which conceivably has saved lives.

The benefits of simulation in developing and promoting best practices, effective communication with health care professionals when injury has occurred will be examined and explored during this session.

References

King, J., McAdams-Jones, D., & Woodfield, B. (2016). How to Successfully Create and Run a Citizens Advisory Board. *Police One*. Retrieved from <https://www.policeone.com/iacp-2016/articles/232139006-How-to-successfully-create-and-run-a-Citizens-Advisory-Board/>

Wyllie, D. (2013). PoliceOne Roundtable: Using simulators in law enforcement training. *Police One*. Retrieved from <https://www.policeone.com/police-products/training/simulator/articles/6222904-PoliceOne-Roundtable-Using-simulators-in-law-enforcement-training/>

Contact

tcvalentine13@gmail.com

J 01 - Building EBP Capacity and Getting Results: What a Difference One Year Makes

Building EBP Competence and Capacity by Leveraging Opportunities and Planning

Lynn Gallagher-Ford, PhD, RN, DFPNAP, NE-BC, USA

Abstract

Purpose: To describe a unique collaboration between two renowned organizations to provide an evidence-based practice education program and create effective EBP teams to address real world healthcare challenges and drive best practices.

Methods: In a new era of healthcare, success will be achieved through collaborative relationships and development of teams that can deliver evidence-based, patient-centered care to improve healthcare safety, patient and clinician outcomes, and demonstrable returns on investments. The development of evidence-based practice (EBP) knowledge, skills, and attitudes along with creation of organizational cultures and infrastructures that support EBP is a comprehensive strategy that can effectively propel organizations toward achieving and sustaining these goals, meeting required healthcare mandates, and achieving the quadruple aims of healthcare.

Many healthcare organizations have identified that their staff are not competent in EBP as demonstrated by clinicians' and leaders' lack of EBP knowledge, skills and attitude. These organizations are seeking opportunities build such competence and capacity in their settings. The Center for Transdisciplinary Evidence-based Practice has worked with a wide range of both clinical and academic organizations to build and sustain EBP with significant results achieved. This session will highlight the innovative work of The Center for Transdisciplinary Evidence-based Practice (CTEP) in advancing EBP through a collaborative relationship with a large, magnet designated Pediatric Health System to create a successful EBP education and follow-up program that is delivering improved care and significant outcomes. The details related to forging an effective relationship between these enterprises to develop and deliver an EBP education program to meet the unique needs of this Health System will be highlighted.

Results: The characteristics of the original education program designed and implemented including: the evidence-based educational pedagogies and interventions utilized to assure the successful sharing of EBP knowledge and skills; the multiple tracks offered with specific content for different practitioners (front-line clinicians, EBP mentors, educators, organizational leaders) and; the structured follow-up sessions utilized to reinforce knowledge acquisition and promote implementation of EBP initiatives. The impact of planned discussions between the collaborating entities, that led to ongoing customization of the education program as EBP capacity at the Health System was forming, then growing and ultimately performing, with also be presented.

Conclusions: An innovative, customized, and robust EBP education program with structured follow up can build EBP competence in a complex nursing department. The EBP teams forged in this program utilize an evidence-based problem solving approach, recommend effective strategies to implement to address strategic nursing challenges, and lead others in implementing best practices. Lessons learned from this collaborative experience that can inform future EBP programs in other organizations

References

- Fineout-Overholt, E., Melnyk, B. M., & Schultz, A. (2005). Transforming health care from the inside out: advancing evidence-based practice in the 21st century. *J Prof Nurs*, 21(6), 335-344. doi:10.1016/j.profnurs.2005.10.005
- Melnyk, B. M., Fineout-Overholt, E., Gallagher-Ford, L., & Stillwell, S. B. (2011). Sustaining evidence-based practice through organizational policies and an innovative model. *AJN*, 111(9), 57-60.
- Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The establishment of evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings:

Proficiencies to improve healthcare quality, reliability, patient outcomes, and costs. *Worldviews Evid Based Nurs*, 11(1), 5-15. doi: 10.1111/wvn.12021

Contact

gallagher-ford.1@osu.edu

Overcoming Buzzwords and Variability Through a Nurse EBP Mentor Program

Diedre Bricker, MSN, RN, CRRN, CPHIMS, USA

Abstract

Purpose: A comprehensive EBP Mentor Program was created to support point-of-care clinicians throughout the EBP process at a regional pediatric healthcare system.

Background: It is widely recognized that evidence-based practice (EBP) improves patient outcomes, reduces costs, and standardizes practice (Fink, Thompson, & Bonnes, 2005; Harrison, Grapham, van den Hoek, Dogherty, Carley, & Angus, 2013; Melnyk, Gallagher-Ford, Long, and Fineout-Overholt, 2014; Stevens, 2013). Yet, studies have found that many point-of-care clinicians do not utilize EBP because of their beliefs about the difficulty of EBP and lack of knowledge and experience in implementing EBP in daily practice (Dogherty, Harrison, Graham, Vandyk, & Keeping-Burke, 2013; Fink et al, 2005; Stevens, 2013). Additionally, there is lack of consistency in how EBP is taught in formal education (Fink et al, 2005) resulting in lack of consistency in how EBP is carried out by individual EBP leaders within healthcare organizations once practicing professionally. The result is wide variability in the skills, tools, and resources utilized to carry out EBP in clinical practice.

A large, Magnet designated Pediatric Health System adopted EBP into its nursing vision, mission, strategic goals, and created clear job expectations for utilization of EBP at all levels of nursing. However, wide variability in the skills, tools, and resources utilized to carry out EBP persisted. An EBP Mentor Program utilizing the Advancing Research and Clinical Practice through Close Collaboration model (Fineout-Overholt, Melnyk, & Schultz, 2005) and in collaboration with a nationally recognized university-based EBP program was created to support point-of-care clinicians throughout the EBP process.

Methods: An org assessment was conducted before implementation. A nationally recognized university-based EBP program was selected to train 100 clinical leaders. Participants developed strategies for integrating and sustaining EBP into clinical practice. Participants emerged with an action plan and tools for implementing and sustaining EBP changes and for transforming their organizational culture. Organizational tools and a web-based support system was also created to aid EBP Mentors as they coach point-of-care clinicians through EBP projects and remove barriers to implementation. EBP projects and mentors were incorporated into new graduate residency and a new shared governance council combined EBP with quality improvement and nursing research to support nursing projects from inception to dissemination. An electronic project tracking system was created to give visibility to nursing projects and to store and communicate literature reviews through a web-based portal. Continuing education was created to hone clinician's skills in mentoring and critical appraisal of research.

Results/Outcomes: Baseline organizational assessment indicated high belief in and readiness for EBP but low demonstration of behavior reflective of this practice. In just one year, results included training of 100 EBP mentors: 13 EBP mentors have been through training more than once, with 12 interdisciplinary trained partners. Over 100 EBP projects completed with 33 practice changes implemented as a result; 9 new nurse-led research studies created. An additional 24 EBP projects successfully mentored after the immersions.

Implications for Nursing Practice: Examples of changes in practice include: implementation of nurse bedside shift report/handoff; adoption of alcohol impregnated caps to reduce CLABSI; new thermometers to improve accuracy; adoption of pediatric intensive care delirium scoring tool; research on a dedicated patient/family education facility; alignment with national pediatric asthma treatment clinical care

guidelines. Through individual EBP projects, knowledge, beliefs, and skills in EBP are developed in the point-of-care staff and strengthened in EBP Mentors. Research shows a strong EBP foundation increases competence in clinical practice and the use of EBP. Having EBP Mentors strengthens clinicians' beliefs about EBP and their ability to implement it. Having standardized tools and resources reduces variability in how EBP is carried out and decreases confusion over what it means to practice EBP.

References

- Dogherty, E. J., Harrison, M. B., Graham, I. D., Vandyk, A. D., & Keeping-Burke, L. (2013). Turning knowledge into action at the point-of-care: The collective experience of nurses facilitating the implementation of evidence-based practice. *Worldviews Evid Based Nurs*, 10(3), 129-139. doi: 10.1111/wvn.12009
- Fink, R., Thompson, C. J., & Bonnes, D. (2005). Overcoming barriers and promoting the use of research in practice. *J Nurs Adm*, 35(3), 121-129.
- Harrison, M. B., Graham, I. D., van den Hoek, J., Dogherty, E. J., Carley, M. E., & Angus, V. (2013). Guideline adaptation and implementation planning: A prospective observational study. *Implement Sci*, 8, 49. doi: 10.1186/1748-5908-8-49
- Fineout-Overholt, E., Melnyk, B. M., & Schultz, A. (2005). Transforming health care from the inside out: advancing evidence-based practice in the 21st century. *J Prof Nurs*, 21(6), 335-344. doi:10.1016/j.profnurs.2005.10.005
- Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The establishment of evidence-based practice competencies for practicing registered nurses and advanced practice nurses in real-world clinical settings: Proficiencies to improve healthcare quality, reliability, patient outcomes, and costs. *Worldviews Evid Based Nurs*, 11(1), 5-15. doi: 10.1111/wvn.12021
- Stevens, K. R. (2013). Impact of evidence-based practice in nursing and the next big ideas. *Online Journal of Issues in Nursing*, 18(2). Retrieved from <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-18-2013/No2-May-2013/Impact-of-Evidence-Based-Practice.html?css=print>

Contact

diedre.bricker@childrenscolorado.org

EBP in Action: Ensuring Best Practice is Standard Practice

Kathleen Martinez, MSN, RN, CPN, USA

Abstract

Purpose: EBP methodology including evidence based policies and procedures and clear, consistent dissemination and implementation processes can accelerate the move of best practice to standard practice in a complex organization.

Background: Literature suggests that 70% to 90% of complex healthcare innovations never reach the patient (Jacobs et al, 2015). An organization that incorporates an Implementation Team embedded in its policy and procedure process has the opportunity to remove barriers and implement new practice as soon as it is identified. Using EBP methodology in policy management can support rapid adoption of evidence into clinical practice.

Methods: Implementation is often the most challenging aspect of EBP. Frontline clinical nurses do not always have the resources needed to manage organizational change, especially in a complex healthcare organization. As a result, EBP projects often stall at this critical point, preventing the new knowledge and innovation from reaching the patient.

Most practice changes eventually make it to a clinical policy. The Clinical Policy Committee (CPC) includes an Implementation Team consisting of Nurse Educators, Clinical Nurse Specialists, Advance Practice Providers, Clinical Managers, Nursing Informaticists and clinical application specialists from the electronic medical record. After each Clinical Policy meeting, the Implementation Team evaluates what steps are needed to prepare staff for the practice change. A dissemination plan is developed during the meeting. Key steps are identified, action items assigned and timelines established (Dilling et al, 2013).

A monthly newsletter entitled Policy Pearls is published on the first Monday of the month, the same day in which all new or updated policies are posted. Step by step instructions, skills validation check lists, videos, patient handouts, links to manufacturer's instructions, ordering information and educational materials are all included in the policies to accelerate uptake. Each quarter 8-10 questions designed to measure knowledge and understanding of practice changes are assigned to over 1500 clinical nurses through the organization's learning management system (LMS). The team manages complex implementation processes, including communicating with Providers, EMR personnel and educators to ensure the necessary changes are in place prior to posting the policy.

Outcomes and Takeaways: A pre/post survey was administered measuring leaders satisfaction with how information of practice changes were shared with staff before and after the creation of the Implementation Team.

- Satisfaction with the implementation process increased from 12% to 100% over two years for:
 - Awareness that a policy/procedure was updated.
 - Awareness that a new policy/procedure was posted.
 - Education for staff around policy and practice changes.
 - Timeliness of process of instituting new policy and practice.
- House-wide pre/post survey of confidence and satisfaction with current Clinical Policy and Procedure system. November 2013 August 2016 N=250

	November 2013	August 2016
Confidence P&P are evidence-based	Not confident = 13 Neutral=22 Confident/Very confident=65	Not confident =1 Neutral=14 Confident/Very confident=82
Satisfaction knowing about new and updated P&P	Dissatisfied/ Very dissatisfied=24 Neutral=35 Satisfied/Very satisfied=41	Dissatisfied/ Very dissatisfied=5 Neutral=25 Satisfied/Very satisfied=70
Satisfaction with searching and finding P&P	Dissatisfied/ Very dissatisfied=29 Neutral=38 Satisfied/Very satisfied=37	Dissatisfied/ Very dissatisfied=5 Neutral=12 Satisfied/Very satisfied=83

- A question was embedded in the quarterly LMS test to measure the effectiveness of using this method to spread awareness of significant practice changes. N=1500
 - 93% of nurses “Agreed or Strongly Agreed” that “The quarterly policy and procedure module is a beneficial way to increase my awareness of new and revised policies and practices.”
- Using logistics to track how often P&P are searched for, selected and opened we know that staff members access P&P 15,000-20,000 per month in the newly developed policy management platform.

Implications for Nursing Practice: EBP methodology including clear, consistent dissemination and implementation processes can accelerate the move of best practice to standard practice in a complex organization. Embedding EBP into existing structures such as organization P&P ensures that best practice is standard practice across all settings. Establishing the expectation that evidence is required for all practice changes supports the culture of EBP within the organization. Leveraging Shared Governance structure allows for streamlined communication and education efforts. Creating supportive structures, including technology that allows for quick retrieval of P&Ps, ensures that clinicians at the point of care have the tools necessary to provide safe, evidence based care.

References

Dilling, J.A., Swensen, S.J., Hoover, M.R., Dankbar, G.C., Donahoe-Anshus, A.L., Murad, M.H., Mueller, J.T. (2013). Accelerating the use of best practices: the Mayo Clinic model of diffusion. The Joint Commission Journal on Quality and Patient Safety 39 (4) 167-176.

Jacobs, S.R., Weiner, B.J., Reeve, B.B., Hofmann, D.A., Christian, M., and Weinberger, M., (2015). Determining the predictors of innovation implementation in healthcare: a quantitative analysis of implementation effectiveness. BMC Health Services Research. 2015; 15: 6. doi: 10.1186/s12913-014-0657-3

Contact

kathleen.martinez@childrenscolorado.org

J 02 - Cognitive and System Factors Impacting Nurses' Postoperative Pain Management

Human Factors Engineering in Healthcare

Priyadarshini Pennathur, PhD, USA

Abstract

Health care systems face complex challenges in delivering care and maintaining patient safety. Challenges include improving operational efficiencies, while supporting health care workers' tasks and workflow with appropriate tools, technologies and organizational policies. Patient safety continues to challenge health care teams. Severe, frequent safety incidents are still occurring, and the subsequent economic burden for the hospital continues. Health care professionals work to keep patients safe, while maintaining their work productivity. Safe outcomes not only depend on the health care worker safely delivering patient care but also depend on the underlying organizational environment and culture, the policies affecting their productivity, the physical space where health care operations take place, and organizational support structures enabling patient care work. The tasks designed for health care workers to perform, and the technology provided to support these tasks must reduce errors, decrease cognitive and physical effort and workload, and increase patient safety and productivity. For example, introducing new technology without understanding health care professionals' workflow and functional needs will, in all likelihood, compromise safety, and decrease productivity by forcing health care workers to add new tasks to their already demanding workflow. Similarly, organizational policies must ensure all health care workers have a safe operating environment by designing a balanced staffing load, incorporating training and education, and promoting a safety culture. Addressing health care system challenges requires solutions addressing problems from diverse perspectives, considering people characteristics, both health care workers and patients; technology and tasks characteristics for patient care and health care system operation; an organization's environmental characteristics; and physical space constraints. Most importantly, understanding the complex, and somewhat latent, interactions among all health care elements can help in addressing health care system challenges.

Human factors engineering is directed at studying how humans interact with systems, including their physical environment, technologies and tools they use, tasks they perform, and their organizational setting. According to the International Ergonomics Association, "human factors engineering applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance."

Human factors engineering aims to improve safety, enhance performance and increase user satisfaction. It builds on interdisciplinary knowledge encompassing many sub-disciplines such as psychology, cognitive science, management, and computer science. Human factors engineers apply scientific methods to the study and design of human physical and cognitive capabilities and limitations while considering people's organizational and societal settings. The three major sub-domains in human factors engineering include physical ergonomics, dealing with people's physical capabilities and limitations; cognitive ergonomics, dealing with cognitive processes such as attention and memory; and organizational or macro-ergonomics, dealing with sociotechnical system design.

Health care professionals have applied human factors engineering principles and methods to make health care systems more efficient, effective and safe. Some topics of research have been examining errors, technology and usability, teamwork and organizational culture, physical environment design, diagnostic decision-making, anthropometry and lifting, and workload.

As an example, consider a nurse's workflow when providing patient care. A nurse may care for several patients during a shift; the patients present different complexities, and consequently different needs for care, requiring the nurse to engage in teamwork with other health care professionals to provide the most effective care. Patients, when located in separate geographical spaces, may require the nurse to plan and

coordinate patient visits. Any coordination not only requires physical effort but also requires cognitive planning to meet patient needs in a timely manner. Nurses engage in patient care and secondary tasks throughout the day, sometimes amidst interruptions and distractions. Reducing nurse' workload necessitates carefully considering a care facility's physical design and layout. Additionally, the criteria used to make patient assignment decisions needs to consider the number, case complexity and unique patient needs for patients assigned to a specific nurse, and the geographical separation between different patients.

Nurses' workflow requires significant interaction with health information technologies to document the care provided. The technology should support nurses' tasks and routine workflow and facilitate planning, problem solving and decision-making activities, so the nurse can focus on providing effective care. Nurses play an important role in many care processes including admission, handoff communication to transition patients, medication administration, routine monitoring and care, ambulation, documentation, patient and family education, and discharge. The tools and technologies provided and organizational policies should help nurses seamlessly coordinate between different but connected care processes.

The significant amount of coordination, documentation and managing patients is heightened when nurses need to perform pain management. Pain affects each patient in a different way, demanding customized care from nurses. This requires nurses to perform significant cognitive work in planning and individualizing care for each patient with pain, accounting for clinical and individual characteristics, tolerance for pain, and evidence-based guidelines on pain management. The most challenging aspect of cognitive work in pain management involves constant prioritization of tasks between pain management and non-pain management patients. Additionally, a patient's condition may change quickly, requiring constant monitoring and timely responses from nurses. Changes in a patient's condition will require re-prioritizing workflow, so the nurse can effectively manage emerging problems. An informal intervention that is already successful for pain management from the nurses' perspective is the coordination and teamwork among nurses to provide peer support in managing complex health care tasks. If the same type of support can be enhanced among the interprofessional team, demands from cognitive work involved in pain management will be greatly reduced, and pain management processes will be effective from the patient's perspective. For example, the team surrounding a patient experiencing pain would involve not only the immediate care team of nurses and physicians but may involve physical therapy, pharmacy, pre-operative care, labs, and procedures. Interprofessional coordination among these entities is crucial for effective pain management. However, nurses often undertake the responsibility to coordinate among these different entities for effective pain management, further increasing their cognitive work. Managing uncertainties and dynamic changes impact nurses' workflow and requires significant cognitive work. On a typical day, nurses may perform cognitive work involving planning, prioritization, coordination, problem solving, and decision-making. Understanding nurses' cognitive work involved in caring for a patient and designing support systems to facilitate their cognitive work will ensure a safe and productive system.

In summary, knowledge on how best to implement and use evidence-based practices for pain is still lacking. Additionally, we do not know what cognitive work components are involved in pain management, how nurses engage in cognitive work for providing pain management, and how best to intervene to improve the pain management process. A nurse's workflow requires functioning within health care system constraints and encompasses other health care workers, tools and technologies, tasks, and organizational policies within a physical space. Systematically designing the work system from a human factors engineering perspective with consideration to cognitive and physical work elements can help generate design solutions to support nurses' work. When developing design solutions, designers must consider the interactions between different health care elements so the underlying system characteristics improve. Our study on cognitive work in pain management provides a case example to investigate cognitive work in pain management from a systems perspective.

References

Altman, D. E., Clancy, C., & Blendon, R. J. (2004). Improving Patient Safety - Five Years after the IOM Report. *New England Journal of Medicine*, 351(20), 2041-2043.

Ash, J. S., Berg, M., & Coiera, E. (2004). Some unintended consequences of information technology in health care: The nature of patient care information technology system-related errors. *Journal of the American Medical Informatics Association*, 11(2), 104-112.

Cao, W., Jiang, M., Han, Y., & Khasawneh, M. T. (2013). Ergonomic Assessment of Patient Barrow Lifting Technique Using Digital Human Modeling. *Digital Human Modeling. Applications in Health, Safety, Ergonomics and Risk Management: Ergonomics and Health*, pp. 20-29. Retrieved from http://link.springer.com/10.1007/978-3-642-39182-8_3

Carayon, P. (Ed.) (2007). *Handbook of Human Factors and Ergonomics in Health Care and Patient Safety*. Mahwah, NJ: Lawrence Erlbaum Associates.

Carayon, P. & Gürses, A.P. (2005). A human factors engineering conceptual framework of nursing workload and patient safety in intensive care units, *Intensive & Critical Care Nursing*, 21(5), 284-301.

Carayon, P., Xie, A., & Kianfar, S. (2014). Human factors and ergonomics as a patient safety practice, *BMJ Quality & Safety*, 23(3), 196-205.

Ebright, P. R., Patterson, E. S., Chalko, B. A., & Render, M. L. (2003). Understanding the complexity of registered nurse work in acute care settings. *Journal of Nursing Administration*, 33(12), 630-638.

Holden, R.J., Scanlon, M., et al., (2011). A human factors framework and study of the effect of nursing workload on patient safety and employee quality of working life, *BMJ Quality & Safety*, 20(1), 15-24.

Carayon, P. & Gürses, A.P. (2008). Nursing Workload and Patient Safety—A Human Factors Engineering Perspective. In: Hughes RG, editor. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville (MD): Agency for Healthcare Research and Quality (US)

IEA. (2016). Definition of Ergonomics. Retrieved December 6, 2016, from <http://www.iea.cc/whats/index.html>

Jones, M., Ebert, S., & Horn, R. (2016). Development of Three-Dimensional Anthropometry Methods for Patients with High Body Mass Index *Proceedings of the Human Factors and Ergonomics Society Annual Meeting* (Vol. 60, pp. 1036-1040).

Kliger, J. (2010). Giving medication administration the respect it is due: comment on: "Association of interruptions with an increased risk and severity of medication administration errors". *Archives of internal medicine*, 170(8), 690-692. doi:10.1001/archinternmed.2010.58

Kohn, J., & Donaldson, M. (2000). *To Err is Human: Building a Safer Health System*. Washington, DC: National Academy Press.

Kushniruk, A., Borycki, E., Juhra, C., Hernandez, M., & Ho, K. The human-computer user interface and patient safety: Introducing new technologies in healthcare effectively and safely 2016 *Digital Media Industry & Academic Forum (DMIAF)* (pp. 32-34): IEEE.

Mosher, H. J., Lose, D. T., Leslie, R., Pennathur, P., & Kaboli, P. J. (2015). Aligning complex processes and electronic health record templates: a quality improvement intervention on inpatient interdisciplinary rounds. *BMC Health Services Research*, 15(1), 1-9. doi:10.1186/s12913-015-0932-y

Leape, L. L., & Berwick, D. M. (2005). Five years after to err is human. *JAMA: the journal of the American Medical Association*, 293(19), 2384.

Pennathur, P. R., Thompson, D., Abernathy III, J. H., Martinez, E. A., Pronovost, P. J., Kim, G. R., & ... Gurses, A. P. (2013). Technologies in the wild (TiW): human factors implications for patient safety in the cardiovascular operating room. *Ergonomics*, 56(2), 205-219. doi:10.1080/00140139.2012.757655

Potter, P., Wolf, L., Boxerman, S., Grayson, D., Sledge, J., Dunagan, C., & Evanoff, B. (2005a). An analysis of nurses' cognitive work: A new perspective for understanding medical errors. In K. Henriksen, J. B. Battles, E. S. Marks, & D. I. Lewin (Eds.), *Advances in Patient Safety: From Research to Implementation (Volume 1: Research Findings)*. Rockville, MD: Agency for Healthcare Research and Quality.

Potter, P., Wolf, L., Boxerman, S., Grayson, D., Sledge, J., Dunagan, C., & Evanoff, B. (2005b). Understanding the cognitive work of nursing in the acute care environment. *Journal of Nursing Administration*, 35(7-8), 327-335.

Schall, M., Chen, H., Cullen, L., Pennathur, P. (2015). Development and Evaluation of a Health Information Technology Dashboard of Quality Indicators. Proceedings of the Human Factors and Ergonomics Society 59th Annual Meeting, 59(10), 461-465. Retrieved on December 3, 2015; Retrieved from: <http://pro.sagepub.com/content/59/1/461.full.pdf+html>.

Tang, C., Xiao, Y., Chen, Y., & Gorman, P. N. (2015). Design for Supporting Healthcare Teams. *Cognitive Informatics for Biomedicine*, pp. 215-239. Retrieved from http://link.springer.com.proxy.lib.uiowa.edu/chapter/10.1007/978-3-319-20765-0_9/fulltext.html

Unertl, K. M., Holden, R. J., & Lorenzi, N. M. (2016). Usability: Making It Real from Concepts to Implementation and End-User Adoption. *Healthcare Information Management Systems*, pp. 165-175. Retrieved from http://link.springer.com.proxy.lib.uiowa.edu/chapter/10.1007/978-3-319-20765-0_9/fulltext.html

Westbrook, J. I., Woods, A., Rob, M. I., Dunsmuir, W. T., & Day, R. O. (2010). Association of interruptions with an increased risk and severity of medication administration errors. *Archives of internal medicine*, 170(8), 683-690. doi:10.1001/archinternmed.2010.65

Contact

priyadarshini-pennathur@uiowa.edu

Cognitive and System Factors Impacting Nurses Postoperative Pain Management

Laura Cullen, DNP, RN, FAAN, USA

Toni Tripp-Reimer, PhD, RN, FAAN, USA

Abstract

Pain is a common patient experience with evidence available to guide practice. Inadequate pain control contributes to poor functional recovery. This feasibility study aimed to identify cognitive and system factors that impact nurses' postoperative pain management practices. Complex patient conditions and nurses' workload create significant challenges for effective pain management. Nurses' increased cognitive work (e.g., cognitive shifts and interruptions, cognitive stacking, lack of care coordination) and system factors (e.g., environment, technology, social and organizational aspects) may hinder evidence-based pain assessment and pain management practices. Observations targeted nurses' pain practices for adult postoperative total knee replacement (TKR) patients who often experience severe pain. Human factors engineering, nursing, and pain experts collaborated to study the complexity in nurses' pain practices.

Human factors engineering and ethnography methods were used to identify cognitive and system factors affecting nurses' postoperative pain practices. A nurse-engineer pair conducted shadowing, interviews, workload assessments and a focus group using contextual inquiry techniques. Observers shadowed five nurses (observer pair, four hours each nurse) for a total of 40 hours during the patients' first full post-operative day. Facility design impacting nurses' work was captured using movement analysis. Coding of themes was inductive and integrated nurse and engineer observations to create a coding framework built upon human factor engineering and the nursing process. Consensus was achieved using multi-step analysis.

Postoperatively, nurses prioritize patient care for pain and used evidence-based recommendations. However, the most frequent nursing activities included computer use, paperwork or charting/documentation, care coordination, and then care for pain. Nurses caring for surgical patients postoperatively frequently adjust and reprioritize care as a result of cognitive and system factors along with the unit layout. Stacking was a recognized norm that interfered with nursing care. Workflow blocks affected nurses' ability to provide care and meeting colleagues' needs created work stoppages. Work blocks increased both stacking and cognitive load. Unit design and organizational procedures (e.g., double checks, documentation) impact work pace, while creating work blocks. Interruptions and distractions were less influential than anticipated. These nurses rated workload with ratings lowest for pain reassessment and highest for overall pain management.

Millions of patients have surgery every year across the globe. Nurses caring for post-operative patients consistently prioritize pain management. Evidence-based recommendations are available and were designed to improve pain practice for all postoperative patients. Nurses' work is highly complex and influenced by cognitive work and system factors. c offers considerable opportunity to improve pain management for this patient population.

References

- Barr, J., Fraser, G., Puntillo, K., Ely, E., Gélinas, C., Dasta, J., & ... Skrobik, Y. (2013). Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit. *Critical Care Medicine*, 41(1), 263-306. doi:10.1097/CCM.0b013e3182783b72
- Carayon, P., Wetterneck, T. B., Rivera-Rodriguez, A. J., Hundt, A. S., Hoonakker, P., Holden, R., & Gurses, A. P. (2014). Human factors systems approach to healthcare quality and patient safety. *Applied Ergonomics*, 45(1), 14-25. doi:10.1016/j.apergo.2013.04.023
- Chou, R., Gordon, D. B., de Leon-Casasola, O. A., Rosenberg, J. M., Bickler, S., Brennan, T., & ... Thirlby, R. (2016). Management of Postoperative Pain: A Clinical Practice Guideline From the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee, and Administrative Council. *Journal of Pain*, 17(2), 131-157. doi:10.1016/j.jpain.2015.12.008

Gan, T. J., Habib, A. S., Miller, T. E., White, W., & Apfelbaum, J. L. (2014). Incidence, patient satisfaction, and perceptions of post-surgical pain: results from a US national survey. *Current Medical Research & Opinion*, 30(1), 149-160. doi:10.1185/03007995.2013.860019

Gordon, D. B., de Leon-Casasola, O. A., Wu, C. L., Sluka, K. A., Brennan, T. J., & Chou, R. (2016). Research Gaps in Practice Guidelines for Acute Postoperative Pain Management in Adults: Findings From a Review of the Evidence for an American Pain Society Clinical Practice Guideline. *Journal of Pain*, 17(2), 158-166. doi:10.1016/j.jpain.2015.10.023

Joshi, G. P., Beck, D. E., Emerson, R. H., Halaszynski, T. M., Jahr, J. S., Lipman, A. G., & ... Sinatra, R. S. (2014). Defining new directions for more effective management of surgical pain in the United States: highlights of the inaugural surgical pain congress[TM]. *American Surgeon*, 80(3), 219-228.

Jungquist, C. R., Correll, D. J., Fleisher, L. A., Gross, J., Gupta, R., Pasero, C., & ... Polomano, R. (2016). Avoiding Adverse Events Secondary to Opioid-Induced Respiratory Depression. *Journal of Nursing Administration*, 46(2), 87-94. doi:10.1097/NNA.0000000000000301

Koranyi, S., Barth, J., Trelle, S., Strauss, B., & Rosendahl, J. (2014). Psychological interventions for acute pain after open heart surgery. *Cochrane Database Of Systematic Reviews*, (5), N.PAG. doi:10.1002/14651858.CD009984.pub2

Pasero, C., Quinlan-Colwell, A., Rae, D., Broglio, K., & Drew, D. (2016). American Society for Pain Management Nursing Position Statement: Prescribing and Administering Opioid Doses Based Solely on Pain Intensity. *Pain Management Nursing*, 17(3), 170-180. doi:10.1016/j.pmn.2016.03.001

Smith, A., Farrington, M., & Matthews, G. (2014). Monitoring Sedation in Patients Receiving Opioids for Pain Management. *Journal of Nursing Care Quality*, 29(4), 345-353. doi:10.1097/NCQ.0000000000000059

Contact

laura-cullen@uiowa.edu

Evidence-Based Pain Management Solutions

Michele Farrington, BSN, RN, CPHON, USA

Abstract

Provision of evidence-based practice (EBP) is a global priority, yet EBP is not consistently provided. The complexity of EBP recommendations and clinician workload present significant challenges related to integration of practice changes into day-to-day routines and workflow. Since 2001, pain has been recognized by The Joint Commission as a right of all patients, but pain assessment and management were recognized as organizational priorities at one large academic medical center in the United States well ahead of that time.

Pain remains a prevalent global health concern, and one of the most common reasons people seek health care.

Ineffectively treated pain negative impacts overall health care costs, of which the annual estimate is \$261-\$300

billion, not including the immeasurable suffering experienced by patients in pain.

Since pain is a frequent, complex, important clinical condition, there have been many evidence-based guidelines developed for different types of pain (e.g., acute, chronic, procedural), different types of clinicians (e.g., anesthesiologists, primary care clinicians), and different pain components (e.g., assessment, treatment, monitoring).

Regardless of setting, integration of evidence-based pain management (EBPM) recommendations is complex and require nurses to balance patient preferences, individual responses to interventions, risks associated with both undertreatment and over treatment of pain, expectations outlined in hospital policies, patient's other needs, needs of their other patients, and coordination with colleagues.

A clinical practice guideline (CPG) focused on management of postoperative pain was published in 2016 from the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia. This guideline includes

32 recommendations, many of which have additional subcomponents and details aimed at helping clinicians provide evidence-based pain management to surgical patients.

Accurate pain assessment is an essential first step if effective management is to occur. Pain management on medical-surgical units is complex, and acute care nurses use pain assessment scales inconsistently. The purpose of one EBP project was to offer reliable and valid pain assessment scales to hospitalized adult cardiothoracic patients on a medical-surgical step-down unit so the patients could pick their preferred pain assessment scale. Using patients' preferred pain assessment scales improves the accuracy, trending, and evaluation of pain treatment effectiveness. This EBP project aligns with recommendation #5 from the CPG related to use of a validated pain assessment tool by clinicians to reassess postoperative pain and determine effectiveness of treatment interventions. Incorporating use of the patients' preferred evidence-based pain assessment scale improved nurses' care processes and patient satisfaction as measured by the institutional patient satisfaction questionnaire.

The use of intravenous ketamine for select adult patients, as part of multimodal analgesia, was another recommendation included in the 2016 CPG. The purpose of a staff nurse-led EBP project was to improve postoperative pain for opioid-tolerant orthopedic spine surgery patients through expanded use of low-dose ketamine infusions. Opioid-tolerant patients have complex pain management needs, and untreated acute pain may lead to the development of persistent pain. The potential benefits of using ketamine as an analgesic in low doses include resetting opioid receptors, need for less opioid postoperatively and decreased opioid side effects. Results from the EBP project included proactive identification of opioid-tolerant orthopedic spine surgery patients who may benefit from ketamine infusions, as part of a comprehensive approach to postoperative pain management, in addition to development of an individualized pain treatment plan. Clinician knowledge regarding ketamine for pain, communication among the interprofessional health care team and collaboration also improved as a result of the EBP change.

As a precaution, global attention is focused on opioid side effects and safety. Patient monitoring needs to occur after administration of systemic opioid medications. Crucial monitoring components include sedation, respiratory status and other adverse events as outlined in recommendation #14 from the guideline. The purpose of an institutional EBP project was to standardize monitoring of sedation in adult and pediatric patients receiving opioid analgesia in general care areas. Standardization of monitoring was necessary to help nurses identify excessive, unintended sedation early in order to prevent patients from progressing to respiratory depression while at the same time providing the best possible pain management. Implementation of the Pasero Opioid-Induced Sedation Scale and respiratory monitoring allowed bedside nurses to improve their ability to identify patients at risk for unintended sedation when administering opioid medications. After the project was complete, the bedside nurses reported providing safer care to these patients as a result of the new sedation and respiratory monitoring policy.

Application of evidence-based recommendations through these exemplars provides some direction and solutions for addressing important clinical issues related to pain management. However, continued research is still needed to address the gaps that remain with regards to effective, efficient ways to integrate practice change recommendations into complex care environments.

References

- Chou, R., Gordon, D. B., de Leon-Casasola, O. A., Rosenberg, J. M., Bickler, S., Brennan, T., . . . Wu, C. L. (2016). Management of postoperative pain: A clinical practice guideline for the American Pain Society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists' Committee on Regional Anesthesia, Executive Committee and Administrative Council. *Journal of Pain, 17*(2), 131-157. doi:10.1016/j.jpain.2015.12.008
- Cullen, L. (2013). Pain assessment for older adults. In M. Farrington (Series Ed.) *EBP to Go®: Accelerating Evidence-Based Practice Series*. Iowa City, IA: Office of Nursing Research, Evidence-Based Practice and Quality, Department of Nursing Services and Patient Care, University of Iowa Hospitals and Clinics.
- Farrington, M., Hanson, A., Laffoon, T., & Cullen, L. (2015). Low-dose ketamine infusions for post-operative pain in opioid-tolerant orthopedic spine patients. *Journal of PeriAnesthesia Nursing, 30*(4), 338-345.
- Gaskin, D. J., & Richard, P. (2012). The economic costs of pain in the United States. *Journal of Pain, 13*(8), 715-724. doi: 10.1016/j.jpain.2012.03.00

Gordon, D. B., de Leon-Casasola, O. A., Wu, C. L., Sluka, K. A., Brennan, T. J., & Chou, R. (2016). Research gaps in practice guidelines for acute postoperative pain management in adults: Findings from a review of the evidence for an American Pain Society clinical practice guideline. *Journal of Pain*, 17(2), 158-166. doi:10.1016/j.jpain.2015.10.023

Institute of Medicine. (2011). *Relieving pain in America: A blueprint for transforming prevention, care, education and research*. Washington, DC: The National Academies Press.

Jarzyna, D., Jungquist, C. R., Pasero, C., Willens, J. S., Nisbet, A., Oakes, L., . . . Polomano, R. C. (2011). American Society for Pain Management Nursing guidelines on monitoring for opioid-induced sedation and respiratory depression. *Pain Management Nursing*, 12(3), 118-145 e110. doi: 10.1016/j.pmn.2011.06.008

Smith, A., Farrington, M., & Matthews, G. (2014). Monitoring sedation in patients receiving opioids for pain management. *Journal of Nursing Care Quality*, 29(4), 345-353. doi:10.1097/NCQ.0000000000000059

UN Office on Drugs and Crime, (2013). Opioid overdoses: Preventing and reducing opioid overdose mortality. Retrieved December 7, 2016, from: http://www.unodc.org/substance_abuse/information-sheet/en/

WHO, (2014). Management of substance abuse: Information sheet on opioid overdoses. Retrieved December 7, 2016, from: http://www.who.int/substance_abuse/information-sheet/en/

Contact

michele-farrington@uiowa.edu

J 03 - Engaging Non-Traditional and Innovative Partners Across the Nursing Research Process

Non-Traditional Community Partnerships for Recruiting Hispanic Research Participants

DeAnne K. Hilfinger Messias, PhD, MS, BAS, BS, RN, FAAN, USA

Abstract

Purpose: Language, culture, geographic, social, and economic factors are associated with health disparities. Among more recent Hispanic immigrants, limited-English-proficiency and immigration status are barriers to health information and healthcare access. Improved access to culturally and linguistically tailored health information through technology could potentially enhance healthcare access and health outcomes. However, little is known about health information-seeking through technology among Hispanics in recent settlement areas (Lopez, Gonzalez-Barrera, & Patten, 2013). This primary aim of this collaborative research was to assess access and utilization of technology for health information among Hispanics in South Carolina. To effectively reach and engage community-dwelling Hispanics in research, investigators frequently must address potential barriers related to language, culture, location, and trust (Victorson, et al., 2014). To address these barriers, we engaged with non-traditional community partners to recruit a wide range of community-dwelling Hispanics.

Methods: We developed the interviewer-administered data-collection instrument, *The Use of Technology and Health*, a Spanish-language interviewer-administered, 47-item Spanish language survey with four components: access to care, health and health care information, technology and health, and participant demographics. Trained bilingual data-collectors administered the surveys in Spanish in a variety of non-traditional research settings. Data collection occurred at the Hispanic- free clinic, local churches, *tiendas* (stores), flea markets, English-as-a Second Language classes, and Mobile Mexican Consulate events at local schools.

Results: We conducted the first wave of surveys (n= 216) in 2011 and a second wave (n=156) in 2015-2016. For the first wave we used interviewer-administered paper and pencil surveys; during the second wave the interviewers at some sites utilized smart phone technology to directly enter data. Individual interviews lasted between 10-30 minutes. The survey design was such that not all participants were asked all questions. For example, if a participant answered “no” to questions regarding access/ownership of a cell phone or computer, the interviewer skipped the follow-up questions regarding cell phone or computer usage, shortening the interview.

Conclusions: This community-based and community-engaged research was a collaborative effort involving the South Carolina Hispanic/Latino Health Coalition, the *Clínica del Buen Samaritano*, the University of South Carolina College of Nursing, and several local and bi-national non-traditional research partners. The inclusion of non-traditional community partnerships enhanced access to the target population in “naturally-occurring” settings.

References

- Lopez, M. H., Gonzalez-Barrera, A., & Patten, E. (2013). Closing the digital divide: Latinos and technology adoption Retrieved 07/07/2016, from <http://www.pewhispanic.org/2013/03/07/closing-the-digital-divide-latinos-and-technology-adoption/>
- Victorson, D., Banas, J., Smith, J., Languido, L., Shen, E., Gutierrez, S., . . . Flores, L. (2014). eSalud: Designing and Implementing Culturally Competent eHealth Research With Latino Patient Populations. *American Journal of Public Health*, 104(12), 2259-2265. doi: 10.2105/ajph.2014.302187

Contact

deanne.messias@sc.edu

Innovative Academic-Retail Partnership for Carbon Monoxide Intervention Funding

Amber P. Williams, DNP, APRN, FNP, RNC-MNN, USA

Abstract

Purpose: With more than 20,000 annual exposures, carbon monoxide (CO) poisoning is the number one cause of poison related death in the United States, with more than 20,000 annual exposures (Iqbal, Clower, King, Bell, & Yip, 2012). A CO monitor is the only means of detecting the presence of this silent, colorless, odorless, and tasteless gas (Hampson & Weaver, 2011). The majority of homes in South Carolina (SC) do not have CO monitors, nor do emergency medical services (EMS) workers have portable, personal CO monitors, leaving a large segment of the SC population at risk. To address this public health issue, we developed a unique academic-retailer partnership in collaboration with the SC CO Safety Consortium (SCCOSC). We developed a partnership consisting of nursing researchers, public service associations, a non-profit foundation, and other community partners to conduct a multi-level study aimed at addressing CO morbidity and mortality through increased access to CO alarms. Firehouse Subs Public Safety Foundation was the non-traditional funding source for this nursing research.

Methods(s): The aims of this project were to assess the effectiveness of a community partnership in 1) extending CO alarm coverage in the SC Midlands; and 2) providing portable CO alarms for EMS workers throughout SC. SCCOSC partners installed over 1200 CO alarms in private residences in 7 SC Midlands region cities, along with providing an educational intervention. We conducted follow-up surveys 3-4 months post-installation.

Results: *Aim 1:* At follow-up, 100% of those surveyed still had the working CO alarm and >70% could state common symptoms of CO exposure, sources of CO production in their homes, and the best course of action if the alarm sounded. *Aim 2:* Responding to initial grant funding, the SC EMS director provided additional monies; total funding was sufficient to provide 225 portable CO monitors, or one monitor per EMS response vehicle in SC. Monitors were distributed in 2016; prospective data collection using the EMS Performance Improvement Center (EMSPIC) database is underway.

Conclusion: We will be able to track EMS post-intervention data through the EMSPIC database in conjunction with SC EMS. At least 2 families have been saved due to alarms placed during blitz activities. Partnerships such as this academic-retailer collaboration can be an innovative means of funding effective, multi-level interventions.

References

Hampson, N. B., & Weaver, L. K. (2011). Residential carbon monoxide alarm use: Opportunities for poisoning prevention. *Journal of Environmental Health*, 73(6), 30-33.
Iqbal, S., Clower, J. H., King, M., Bell, J., & Yip, F. Y. (2012). National Carbon Monoxide Poisoning Surveillance Framework and Recent Estimates. *Public Health Reports* (1974-), 127(5), 486-496.

Contact

proctora@comporium.net

Partnering With Students to Enhance the Pipeline of Future Nursing Researchers

Courtney Catledge, DNP, APRN, FNP-BC, USA

Abstract

Purpose: Research is an integral part of nursing practice, yet undergraduate nursing and high school students considering a career in nursing rarely have exposure to nursing research. Many of these students are capable of higher education, including the master's and doctoral level, but do not pursue this trajectory due to a variety of reasons, including a lack of awareness regarding nursing career options. Additionally, in rural South Carolina these students are often the first in their families to pursue any type of

post-secondary education and have limited guidance in considering a graduate education. This has a direct impact on the number of nursing faculty available to teach future nurses. Currently US nursing schools turn away almost 69,000 qualified baccalaureate and graduate applicants annually due to faculty shortages (American Association of Colleges of Nursing, 2015), limiting the number of nurses available to care for our increasingly aging population (Ortman, Velkoff, & Hogan, 2014). Recruitment and support of students capable of performing nursing research and attaining a master's or doctoral degree is critical in assuring the future production of well-prepared, professional nurses. To provide an opportunity for early and direct engagement in research, we formed a nursing research club in partnership with a local high school and engaged high school and nursing students in a collaborative research project.

Methods: The collaborative project engaged BSN students (n=28) in faculty-mentored research in which they concurrently mentored local high school (HS) students (n=6) interested in health sciences careers. Students participated in a longitudinal, prospective research study of lung capacity among school band members (n=77). The BSN students recruited participants and obtained peak flow measurements using spirometry at the beginning and end of the school year. We conducted formative and summative program evaluations using Debriefing for Meaningful Learning.

Results: Both HS and BSN students reported having gained valuable knowledge on the research process, asthma and pulmonary function testing, leadership, and communication, in addition to other skills of value in health care delivery (i.e., patient engagement, documentation). Challenges identified included a need for role clarity. Follow-up engagement opportunities have included participation in local podium and poster research presentations by 1 BSN and 2 HS students. Participation in this mentored research program facilitated another BSN student's selection for a nursing internship.

Conclusions: This unique multi-level educational partnership allowed BSN students the opportunity to concurrently participate in research and concurrently serve as role-models of nurse researchers. Initial process evaluations revealed that opportunities to participate in research early in the academic trajectory can influence students in considering a career in nursing research.

References

American Association of Colleges of Nursing. (2015). Nursing Faculty Shortage Fact Sheet. Retrieved 12/5/2016, from <http://www.aacn.nche.edu/media-relations/FacultyShortageFS.pdf>
Ortman, J. M., Velkoff, V. A., & Hogan, H. (2014). An aging nation: The older population in the United States. Current Population Reports Retrieved 12/5/2016, from <http://www.census.gov/prod/2014pubs/p25-1140.pdf>

Contact

catledge@mailbox.sc.edu

Responding to a Community-Partner Identified Knowledge Gap

Robin Dawson Estrada, PhD, RN, CPNP-PC, USA

Edward B. Card, BS, MBA, USA

Anthony Scoggin, HS, USA

Abstract

Purpose: Of the nearly 90% of U.S. adults who utilize the internet, over 70% access health-related information for themselves or their family members (Fox & Duggan, 2013). However, health-related information on the internet is of variable quality and is linked to suboptimal patient outcomes (Chisolm, Sarkar, Kelleher, & Sanders, 2015). Through a partnership with representatives of the South Carolina Office of State Fire Marshal (SCOSFM), we identified a potential for misinformation in fire safety messaging and autism. Even when successfully evacuated, individuals with autism are more likely to re-enter a structure and die due to overwhelming stimulation that occurs at a fire scene. Evidence-based information for caregivers of people with autism is needed to address this unique risk.

Methods: After clearing the computer browsing history, we conducted an internet search on Google, Bing, and Yahoo using the search terms "autism" and "fire" and related search terms. From the 1,350

search returns, we identified websites targeting caregivers (e.g., parents, family) of people with autism that also contained fire safety messaging. PDFs, blogs, and other documents were excluded, as were websites targeting other populations (e.g., emergency medical services or fire professionals). We then evaluated two domains: 1) *appropriateness, usability, and readability* using Suitability of Materials and the SMOG formula (Doak, Doak, & Root, 1996); and 2) *content* using the DISCERN tool (Charnook, 1998) for both autism (using DSM-V) and fire safety (using National Fire Protection Association Standards).

Results: Of the nine identified sites, eight contained relevant fire safety content; the remaining one was labeled as a fire safety webpage but contained dead links and no information. Content analysis revealed readability levels of 10th grade and higher, and several sites related personal stories rather than information congruent with evidence-based information on fire safety and autism.

Conclusion: Novel partners with specific expertise, such as SCOSFM representatives, facilitate the identification of previously unknown knowledge gaps and the process of conducting research. These findings will be used to inform the development of evidence-based fire safety messaging for caregivers of people with autism.

References

- Charnook, D. (1998). The DISCERN handbook: Quality criteria for consumer health information on treatment choices. 12/5/2016, from <http://www.discern.org.uk/discern.pdf>
- Chisolm, D.J., Sarkar, M., Kelleher, K.J., & Sanders, L.M. (2015) Predictors of Health Literacy and Numeracy Concordance Among Adolescents With Special Health Care Needs and Their Parents. *Journal of Health Communication, 20*(sup2), 43-49, DOI:10.1080/10810730.2015.1058443
- Doak, C., Doak, L., & Root, J. (1996). *Teaching patients with low literacy skills* (2nd ed.). Philadelphia, Pa: JB Lippincott Company.
- Fox, S., & Duggan, M. (2013). Health online 2013. *Pew Research Center*, 12/5/2016, from <http://www.pewinternet.org/2013/01/15/health-online-2013/>

Contact

robin.estrada@sc.edu

J 04 - International Collaboration: A Cross-Cultural Brazil and U.S. Perspective in Practice, Education, and Research

Establishing International Research Collaborations: A Cross Cultural Perspective

Diana Lynn Woods, PhD, RN, APRN-BC, FGSA, FAAN, USA

Priscilla Souza, PhD, RN, Brazil

Renee Pozza, PhD, MSN, RN, CNS, CFNP, FAASLD, USA

Fernando Sanches, MSN, BSN, Brazil

Celia Caldas, PhD, RN, Brazil

Abstract

Background: With the emphasis on global health and international collaborations, international research collaborations for nursing are essential. From a worldwide perspective, the process of building knowledge is directly related to the ability to disseminate this knowledge and apply it globally. Comparing different cultural challenges and solutions can lead to unique ways to solve specific social and professional problems. These solutions can be used in other cultures as a way to replicate successful models and evidenced based practice to improve nursing practice. Establishing cross cultural research collaborations including cultural experiences helps to deal with problems experienced within different cultures. Here we present steps that contributed to the establishment of a sustainable research collaboration between a university School of Nursing in Rio de Janeiro and a university School of Nursing in California, United States. The presentation will focus on the experience and insights of establishing a research collaboration, of engaging both undergraduate and graduate students in research, establishing common approaches to work from a collaborative international perspective, and future plans for sustaining this collaboration.

Methods: This study is based on the self-reported experience of faculty, preceptors, and nursing students that have participated in the collaborative partnership between Brazil and the United States (US). There is a well-established process for exchanging nursing professionals and students. An initial visit by the Dean and Associate Dean of the US School of Nursing resulted in a Memorandum of Understanding (MOU) for education and research between the universities.

Faculty and students from a School of Nursing in California, US visited the Brazilian university and university hospital in Rio de Janeiro, Brazil. Brazilian professors also visited the School of Nursing in California. Discussions ensued by e-mail and videoconference.

Results: Between 2013 and 2016, faculty members from the School of Nursing in California travelled to Brazil 3 times, while Brazilian faculty members from Rio travelled once to the US. Additionally, two groups of US students have travelled to Rio where they had the opportunity observe nursing research and practice. For example, while health care systems are very different, the population and the pressure from the growing a gerontological population is a significant consideration that is similarly shared between Brazil and the US. Moreover, there are opportunities to identify different ways to solve problems consistent with the culture of each country. Observations and discussion led to new research possibilities in child and gerontological nursing. For example issues related to the Zika virus, dementia syndromes; an application of a cognitive stimulation workshop for elderly people with dementia, a gerontological nursing care strategy (Souza, Bastos, Santana, As & Cassiano, 2008), and aging variations and ethnopharmacology (Woods, Mentis, Cadogan & Phillips, 2016) focusing on conditions common to both countries. Using similar instruments to measure outcomes will help improve cross-cultural comparisons (Jessen, Cruz, Tesoro & Lopes, 2014). Ongoing videoconferencing, monthly will maintain relationships and help to identify areas of mutual interest for research. Preliminary studies have shown that nurses who understand a variety of different people are more effective in offering ways to deal with illness and to seek wellness. According to Long (2016), the main benefit that an international experience can offer are: 1) improving cultural awareness; 2) increasing cultural sensitivity; 3) providing exposure to regional diseases

and health conditions; 4) fostering a deeper understanding of the interaction between environment and health. As the result, these benefits lead to more effective nursing care.

Conclusions: Having established relationships between universities, future efforts will focus on collaborative research and comparing populations, such as gerontological populations. This is the first stage in developing a strong sustainable collaboration. Positive responses from faculty and students indicates a positive response for nursing practice and education. We continue to share data and complete joint publications. This international collaboration helps enhance nursing abilities and achieve a better quality of care, by offering experiences that enhance a cross cultural perspectives including the strong association between the environment and health.

References

- Jessen, R., da Cruz, D. A. L. M., Tesoro, M. G., & Lopes, M. H. B. M. (2014). Translation and cultural adaptation for Brazil of the Developing Nurses' Thinking Model. *Rev. Latino-Am. Enfermagem*, 22(2):197-203. doi: 10.1590/0104-1169.3232.2402
- Long, T. (2016). Why international experience is essential for nurses. Retrieved from: <http://www.goabroad.com/articles/volunteer-abroad/why-international-experience-is-essential-for-nurses>
- Souza, P. A., Bastos, R. C., Santana, R. F., Sa, S. P., & Cassiano, K. M. (2008). Cognitive stimulation workshops for elderly people with dementia: A gerontological nursing care strategy. *Revista Gaúcha de Enfermagem*, 24(4), 588-595.
- Woods, D. L., Menten, J. Cadogan, M. & Phillips, L. R. (2017) Aging, genetic variations, and ethnopharmacology: Building cultural competence through awareness of drug responses in ethnic minority elders, *Journal of Transcultural Nursing*, 28 (1), 56-62. Epub 2015 Sep 23. DOI: 10.1177/1043659615606202

Contact

dwoods@apu.edu

How International Interchange Can Bring Benefits into Professional Lives

Fernando Sanches, MSN, BSN, Brazil

Priscilla Alfradique, PhD, RN, Brazil

Diana Lynn Woods, PhD, RN, APRN-BC, FGSA, FAAN, USA

Renee Pozza, PhD, MSN, RN, CNS, CFNP, FAASLD, USA

Abstract

Background: In a globalized world, data and information are crucial to making decisions in any field of knowledge. This is especially true for nursing work. Including a global perspective in clinical decision making helps to broaden decision choices, including those that are culturally appropriate. Using this lens, nursing has an important position in the health workforce, developing and strengthening human resources for health and playing a vital role in improving health service delivery worldwide, as shown in a several World Health Assembly resolutions (WHA42.27, 45.5, 47.9, 48.8, 49.1, 54.12 and WHA59.27). Following this assertive, we recognize that international partnership and collaboration from different settings are strategies to build a bridge for nursing knowledge.

Methods: This study is based on the self-reported experience of preceptors from a 250 bed tertiary care university hospital located in Rio de Janeiro, Brazil where students from a School of Nursing in California visited hospital wards and the operating room. Conducting this experience, one leader of the coordination applied four questions to preceptors who received the students in their wards. The questions were: 1. a. What would you have to say about an international agreement? b. Do you think your hospital has this capacity? 2. How did you engage students for learning on your unit? Have there been repercussions in your unit? 3. Do you think it is important to open the experience to not only students, but experienced nurses as well? 4. Would you be interested participating in an exchange abroad? Data were analyzed using a qualitative descriptive approach focusing on thematic analysis.

Results: A total of 17 eligible preceptors were invited to participate. From this total, 12 (71%) nurses with, at range of three to thirty years of experience in this Brazilian university hospital, answered the proposed

questions. Four themes emerged from the preceptor's responses regarding the participation in the nurse students' exchange abroad: 1) Perceptions about international agreement; 2) Brazilian university hospital's capacity; 3) Repercussions about receiving students and nurses in the ward; 4) Interest in international professional exchanges. Overall, the preceptors believe to be a relevant opportunity to exchange knowledge and experience. They affirmed that the hospital has conditions to receive international students, if planned accordingly, in a productive way. Preceptors considered a great experience to exchange knowledge and experiences from different realities. Thus, receiving experienced nurses would bring even more opportunities to share scientific knowledge and enrich evidenced based nursing care. They reported the nurse team was positively surprised with the presence of international students and, at the same time, curious know more about their routines and practices related to nursing care. In addition, preceptors were highly interested in international exchanges, although some reported that the use of a second language might be a barrier.

Conclusion: A benefit of our international exchange includes learning about diverse people, cultures, belief systems, and worldviews which is essential for nurses to be effective in a person-centered profession. This experience has formed new partnerships around the world, and promoted a setting where nurses/nursing students learn to care in a worldwide perspective. Furthermore, they have an opportunity to share anxieties, curiosities, discoveries, difficulties, doubts, challenges, and methodologies. These attributes are important aspects to consider when using evidence based practice to improve and promote quality of life.

References

Njie-Carr et al., Enhancing Nurse Leadership Capacity in Resource-Limited Countries. International Journal of Nursing & Clinical Practice 2016, 3: 200 <http://dx.doi.org/10.15344/2394-4978/2016/200>
Hunt, D.D, The New Nurse Educator - mastering academe. Springer Publishing Company. 280 p. 2013. ISBN: 978-0-8261-0641-4.

Contact

enfermeirofernando@hotmail.com

Student and Faculty International Exchanges

Renee Pozza, PhD, MSN, RN, CNS, CFNP, FAASLD, USA
Aja Lesh, PhD, RN, NP, USA

Abstract

Background and Significance: International nursing experiences are important learning opportunities for both students and faculty. The experiences provide an enrichment to nursing practice, a global perspective of healthcare and a cultural awareness and sensitivity which all serve to enhance the profession of nursing. Several methods of providing these experiences for students and nursing faculty has been cited in the literature including short term trips, semester long study abroad programs, and visiting scholar appointments. All of these opportunities involve collaboration, relationship building and sustainable programs to ensure consistent quality educational outcomes.

Purpose: This presentation will provide an example of the partnership between a US School of Nursing and a Brazilian School of Nursing in order to provide experiences for both undergraduate and graduate nursing students as well as nursing faculty in a sustainable program.

Methods and Results: A collaborative effort between both schools was begun informally 3 years ago. As the relationship developed between the leadership teams in both Schools of Nursing a vision and related goals for each school was established for an exchange. Thus began the movement to a more structured exchange program which was outlined in a contract between the two Universities. Alignment of nursing curriculum and clinical opportunities were designed in collaboration between the two nursing faculties to allow undergraduate and graduate nursing students from the US to experience an immersion into the Brazilian healthcare system. Nursing faculty from Brazil traveled to the US to experience US healthcare and develop further language skills to enhance the exchange experience and foster research efforts.

Future plans are underway for experienced nurses from Brazil to travel to the US along with nursing faculty. Technological advances have enhanced communication between the two schools and has fostered relationship and team building which is critical to the sustainability of the program. Language barriers continue to exist, although more at the faculty level compared with the student exchange.

Conclusions: The model of collaboration and exchange built upon a trusting relationship and mutual identification of goals and outcomes is an effective way to establish collaborative partnerships between two Schools of Nursing in two different countries. This model allows for efficient exchange of students and faculty to foster sustainable relationships, increase understanding of global healthcare systems and ultimately to impact nursing practice.

References

Long, Tracey (2016) Why International Experience is Essential for Nurses. Accessed 12/5/2016

Jensen, R. (2014) Translation and cultural adaptation for Brazil of the Developing Nurses Thinking Model. Rev Latino-American Enfermagem, 22(2), 197-203.

Contact

rpozza@apu.edu

J 05 - Improve Nursing Practice: Outcomes, Technologies, and Clinical Supervision

Validity and Reliability of Self-Management Style Instrument

Fernanda Bastos, PhD, MsC, RN, Portugal

Alice Brito, PhD, McN, RN, Portugal

Filipe Miguel Soares Pereira, PhD, RN, Portugal

Abstract

Based on theory of self-management in chronic disease an instrument was created to identify the style of self-management. This tool is conceptualized as a synthesis of personality, attitudes and health behaviors. Identifies personal features, different ways of living with the disease, and a self-report perception of behavior towards the therapeutic regimen.

According to this theory there are self-management styles associated with greater vulnerability and therefore need more specific care. Theoretically styles are linked to seven dimensions (Internal Locus of control; self-determination; decision making; attitude to disease; attitude to regime; self-efficacy; interaction with health professionals) grouped in two major categories: flexibility and control.

Purpose: Contribute to the development of the quality of nursing practice identifying the personal attributes that interfere with self-management to better adapt the strategies of approach to the chronic patient according to their individuality.

The objective of this study is to evaluate validity and reliability of self-management styles instrument.

Methods: Instrument content was based in self-management in chronic disease theory (Bastos, 2012). The items were constructed according grounded on the content analysis of the research that is the basis of the theory. Being subsequently validated by a group of experts. Scale ranges from 0 to 4 for strongly disagree to strongly agree.

Instrument was applied to 521 participants in three different contexts. Two of them were in Primary care, in different cities of Portugal (one hundred of diabetics and two hundred and seventy-one with a chronic disease), and one was in a Portuguese hospital (one hundred and fifty of patients purpose, or already made, a transplant).

Reliability was evaluated by analysis of internal consistency (Cronbach alpha).

Results: Reliability estimates revealed good internal consistency, with the alpha coefficient for the overall scale being .77. However, the interest of this instrument is not to obtain a global score, but the identification of scores in different aspects that indicate personal characteristics and levels of vulnerability. Therefore, and considering the central axes as subscales, Flexibility (25 items) presented an alpha .58, and Control (16 items) .64.

The seven theoretical dimensions presented an alpha between .46 and .71 (internal locus of control (6 items) $\alpha = .52$; self-determination (6 items) $\alpha = .51$; decision making (5 items) $\alpha = .49$; attitude to disease (17 items) $\alpha = .54$; attitude to regime (13 items) $\alpha = .46$; self-efficacy (3 items) $\alpha = .71$; interaction with health professionals (4 items) $\alpha = .51$).

When we computed the variables to obtain the score by self-management styles, we obtain other dimensions: responsible style score (17 items) $\alpha = .72$; formally guided style score (14 items) $\alpha = .71$; independent style score (5 items) $\alpha = .10$; and negligent style score (8 items) $\alpha = .62$.

Conclusions: The instrument has proven to be easy to apply and is of interest for the identification of people with chronic disease who are particularly vulnerable. However, it showed fragility in the discrimination of the independent self-management style score, and the validity of content in this subscale was not assured.

References

- Bastos, F. 2012. A pessoa com doença crónica : uma teoria explicativa sobre a problemática da gestão da doença e do regime terapêutico. *Veritati - Repositório Institucional da Universidade Católica Portuguesa*. [Online] 2012. <http://hdl.handle.net/10400.14/11990>.
- Bastos, F. 2015. *Teoria explicativa sobre a gestão da doença e do regime terapêutico: A transição para a doença crónica*. s.l. : Novas Edições Acadêmicas, 2015. 978-3639835540.

Contact

fernandabastos@esenf.pt

Clinical Utility of Self-Management Style Instrument

Alice Brito, PhD, McN, RN, Portugal
Fernanda Bastos, PhD, MsC, RN, Portugal
Filipe Miguel Soares Pereira, PhD, RN, Portugal

Abstract

To identify the style of self-management in people with chronic disease an instrument of self-management style was used. This instrument, as a synthesis of personality, attitudes and health behaviors, allows to characterize and identify personal characteristics, different ways of living with the disease and a perception of self-reporting of behavior in relation to the therapeutic regime in the sense of being able to act with each according to these characteristics. These characteristics are expected to influence clinical outcomes.

Purpose: Contribute to the development of the quality of nursing practice identifying the personal attributes that interfere with self-management to better adapt the strategies of approach to the chronic patient according to their individuality.

Objective: Identify the variables that interfere with the scores in each of the self-management styles: age; sex; education; cause of disease (liver transplantation); illness intrusiveness.

Identify the clinical utility of the self-management style instrument face to clinical outcomes: empowerment; self-care activities with diabetes; readmissions at hospital

Methods: Instrument was applied to 521 participants in three different contexts and analyzed in its association with different variables, obtained by application of socio-demographic and clinical characterization questionnaires and other instruments: summary of diabetes self-care activities-SDSCA (translated and adapted to Portuguese); Adapted Illness Intrusiveness Ratings (translated to Portuguese), Individual Empowerment's Scale.

Results: Study identify some very weak correlations but statistically significant (n=521) between age and: responsible style ($r = -.133^{**}$); formally guided ($r = .284^{**}$); and Independent ($r = .115^{**}$).

Using ANOVA the study identify differences between groups of educational levels in the score of responsible, formally guided and negligent, but no in independent style. Educational level predicts in a positive way responsible score ($r^2 = .05^{**}$), also in a negative way formally guided ($r^2 = .14^{**}$) and negligent style ($r^2 = .03^{**}$).

Illness intrusiveness correlates in a significant, but weak and negative way, with the responsibility score, and moderately with negligence score ($r = .504^{**}$).

On the other hand, the responsible score predicts the empowerment score ($\beta = .556^{**}$), explaining 26% of its variability, while the negligent score predicts negatively ($\beta = -.228^{**}$), explaining about 17% of its variability.

The least empowered ($n = 203$) had a mean score of responsible (mean=3.5 (Dp 0.4)) lower than the most empowered ($n = 68$) (mean=3.8 (Dp = .2)) with the mean difference being 0.26 $p = 0.032$; when we compared the mean of the negligence score of the most and least empowered, we found a significant difference of means (0.38) $p < 0.001$.

Comparing mean scores for both responsible and negligent individuals ($n = 271$) followed in primary health care, we found that individuals who were already hospitalized ($n = 130$) had a higher mean of the negligent score (mean=29 (Dp.84)) And lower in the score responsible (mean=3.47 (Dp.42)) for those who were never hospitalized, respectively (mean=.93 (Dp.61)) and (mean=3.64 (Dp.31)) for a $p < .001$.

We observed significant correlations in people with diabetes between self-management styles scores and SDSCA subscales:

Responsible score: $r = .428^{**}$ with foot care ($n = 99$); and with SDSCA $r = .235^{*}$ ($n = 92$)

Formally guided score: $r = -.333^{**}$ with physical exercise ($n = 100$); blood glucose monitoring $r = -.237$ ($n = 97$) and with SDSCA $r = -.302^{**}$ ($n = 92$)

Negligent score: $r = -.227^{*}$ with general feeding ($n = 100$); physical exercise $r = -.225^{*}$ ($n = 100$); and with SDSCA $r = -.307^{**}$ ($n = 92$)

Conclusions: The older chronic ill person tend to be less responsible and more formally guided or independent.

Educational level predicts characteristics of greater responsibility and less tendency to score formally guided and negligent. This association is significant but rather weak.

A more negligent experience leads to more symptoms of the disease.

This study allowed to identify variables that interfere with the style of self-management and variables that may be predicted by them. In this way the instrument proved to be clinically useful.

References

- Bastos, F. 2012. A pessoa com doença crónica : uma teoria explicativa sobre a problemática da gestão da doença e do regime terapêutico. *Veritati - Repositório Institucional da Universidade Católica Portuguesa*. [Online] 2012. <http://hdl.handle.net/10400.14/11990>.
- Bastos, 2015. *Teoria explicativa sobre a gestão da doença e do regime terapêutico: A transição para a doença crónica*. s.l. : Novas Edições Acadêmicas, 2015. 978-3639835540.
- Luz, E, Vieira, M e Bastos, F. 2015. Análise factorial exploratória da escala de Empowerment Individual na Doença Crónica. *9th International Seminar on Nursing Research Proceedings*. Lisboa : Instituto de Ciências da Saúde – Porto | Universidade Católica Portuguesa, 2015.
- Meireles, M. 2014. *O instrumento de caracterização do estilo de gestão do regime terapêutico: um contributo para a validação*. Porto : Instituto de Ciências Abel Salazar, 2014.
- Mota, L, Bastos, F e Brito, A. 2015. The success in liver transplantation and its relationship with self-management style-a quantitative approach. *The 15th European Doctoral Conference in Nursing Science*. Graz: s.n., 2015.
- Rodrigues, S. 2014. *Os estilos de gestão do regime terapêutico e a sua influencia nas atividades de autocuidado da população com Diabetes Mellitus tipo2*. Porto : Instituto de Ciências Abel Salazar, 2014.

Contact

alice@esenf.pt

Nursing Outcomes Related to Self-Care

Maria Joana Campos, MScN, RN, Portugal
Abel Paiva Silva, PhD, MScN, RN, Portugal

Abstract

Introduction: Outcomes are tools that allow "measuring performance ... aiming to discover certain basic information for decision making to improve quality" (Mezomo 2001, 135). Nursing outcomes are needed to show the improvement in health of the patients and families related with nursing care, " more specific" metrics, related to "... new health outcomes ..." (Campos & Ramos, 2005, P 235).

Purpose: As part as a large research with the objective of defining a model of management of quality nursing care based on reflection for / on valid information (from the learning model of Argirys & Schön, 1982), we tried to identify the outcomes of patients and families in context of long-term care at home.

Methodology: We analyzed the nurse records (software - SAPE®) and exported the data to a Microsoft Access® database.

The analysis was performed through the Statistical Package for Social Sciences - SPSS (version 18.0, SPSS Inc, Chicago, USA). A data analysis was carried out to characterize the sample through a descriptive and inferential statistical analysis (Pollit & Hungler 1995; Gil, 1999). The information records (diagnostics, interventions, outcomes) by the nurses in the clinical records (Software - SAPE®), between September and December 2012 were the material for analysis.

Results: We have gathered the outcomes by several areas, those that belong to the patient's condition like the patient's knowledge, the patient's capacities, prevention (potential problems), and those about the condition of the family caregiver like the family caregiver's knowledge, and total outcomes. It was impossible to generate outcomes in all areas in the 191 cases. Regarding the integumentary system, it was possible to generate indicators in 158 patients, 110 patients had outcomes related to their condition, 103 with the knowledge of family caregivers, 100 related to potential problems, 68 with family caregivers capacities, 40 patients had outcomes related to knowledge and 13 with the capabilities. Regarding self-care outcomes indicators were generated in 155 patients. Therefore, the indicators generated, 145 cases had outcomes related to their condition, 116 to the knowledge of the family caregiver, 100 to the capacities of the family caregiver, 67 outcomes about the patient's knowledge and 56 about the abilities.

Conclusion: In order to better understand the nursing outcomes in patients in the context of long-term care, a model based on 4 variables was generated through clusters analysis. Like the proportion of outcomes in the patient global condition, proportion of outcomes in independence, proportion of outcomes in the patient capacities and proportion of outcomes in the patient knowledge; which is good (0,6). This model has 2 clusters, the largest with 33 cases (57.9%) that we designated as "Patient with a lower percentage of outcomes"; and the lowest with 24 cases (42.1%) "Patient with a higher percentage of outcomes". The ratio of highest to lowest is 1.38. The outcomes are important to reflect the nursing practice turned to quality of care

References

- ARGYRIS, C., SCHÖN, D. (1982) – *Theory in practice: Increasing professional effectiveness*. San Francisco: Jossey-Bass Publishers.
- CAMPOS, C; RAMOS, F (2005) – Contas e Ganhos na Saúde em Portugal: dez anos de percurso. In: *Desafios para Portugal – Seminários da Presidência da República*. Lisboa: Casa das Letras, p. 159-254
- GIL, C (1999) – *Métodos e técnicas de pesquisa social*. 5ª Ed. São Paulo: Editora Atlas.
- MEZOMO, J., C. (2001) – *Gestão da Qualidade na Saúde: Princípios Básicos*. São Paulo: Ed. Manole
- POLIT, D.; HUNGLER, B. (1995) – *Investigacion científica en ciências de la salud*. 5ª ed. México: McGraw-Hill Interamericana Editores.

Contact

joana@esenf.pt

The Value of Educational Technology in the Nursing Care: Benefits in Clinical Practice

Maria José Lumini Landeiro, PhD, MScN, RN, Portugal
Teresa Martins, PhD, MsC, RN, Portugal

Abstract

In the current scenario, it is important that health professionals use innovative educational plans using the new technologies of information and communication to address health problems. There is a need to provide health information to ensure and protect citizens from misleading information and to promote the implementation of useful, reliable and up to date health information. Citizens are increasingly requested to get involved and also become responsible in health care.

Aim of the study: To assess the influences of the educational technology "Caring for Dependent People" in some clinical indicators.

Methods: A quasi-experimental study, not randomized, of the before and after type, with a convenience sample of 65 family caregivers, from two Medicine services of a hospital in Porto, Portugal. The Control Group consisted of 33 family caregivers and the Experimental Group of 32, identified by consecutive sampling. The experimental group had access to educational technology at home. Data were collected by socio-demographic, evaluation of clinical indicators questionnaire. The assessment in both groups were made one month after discharge.

Results: The assessment of the clinical indicators such as: use to the emergency room, unscheduled consultation, home visit request of nurses, use of the INEM (National Institute of Medical Emergency), unscheduled hospitalization and pressure ulcer development, revealed no statistically significant differences between the two groups of dependents. These results, highlights the need to strengthen priority and essential information during the process of immediate recovery at clinical discharge, emphasizing the key role of nurses in the monitoring and management of this process. This technology can be used in health, particularly in hospital and essentially home context, as may be advised by the nurses in the hospital for use after discharge, as well as to remember and take questions following the instruction given.

Conclusion: We think we have contributed to the development and integration of interactive educational technologies in the clinical setting, providing a technological complement in the preparation of family caregivers by health professionals contributing to the improvement of health care

References

- EC -European Commission (2015). *Report on the public consultation on eHealth Action Plan 2012-2020*. Consultado em fevereiro, 12, 2016 através de <http://ec.europa.eu/digital-agenda/en/news/report-public-consultation-ehealth-action-plan-2012-2020>
- Heikkinen, K., Leino-Kilpi, H., & Salanterä, S. (2012). Ambulatory Orthopaedic Surgery Patients' Knowledge with Internetbased Education. *Methods of Information in Medicine*, 4, 295-300. doi: 10.3414/ME11-02-0004
- OECD (2015b). *Focus on Health Spending: Health statistic 2015*. Paris: OECD Publishing. Consultado em fevereiro, 15, 2016 através de <https://www.oecd.org/health/health-systems/Focus-Health-Spending-2015.pdf>
- Righi V. (2016). *Re-thinking human-computer interaction research and design with a growing ageing population*. Tesi doctoral, Universitat Pompeu Fabra, Barcelona, España. Consultado em fevereiro, 12, 2016 através de http://www.dtic.upf.edu/~jblat/material/tvr_2016.pdf
- Xesfingi, S. & Vozikis, A. (2016). eHealth Literacy: In the quest of the contributing factors. *Interactive Journal of Medical Research*, 5(2), e16. doi:10.2196/ijmr.4749. Consultado em fevereiro, 11, 2016 através de http://www.ijmr.org/article/viewFile/ijmr_v5i2e16/2
- Yardley, L., Joseph, J., Michie, S., Weal, M., Wills, G., & Little, P. (2010). Evaluation of a web-based intervention providing tailored advice for self-management of minor respiratory symptoms: exploratory randomized controlled trial. *Journal of Medical Internet Research*, 12 (4), e 66. doi: 10.2196/jmir.1599

Contact

Nursing Clinical Supervision in Integrated Continuous Care Unit

Regina M. Pires, MsC, RN, Portugal
Filipe Miguel Soares Pereira, PhD, RN, Portugal

Abstract

Clinical supervision (CS) is a facilitator process of professional support and learning with the purpose to improve practice, the quality and safety of care, based on interactive functions: formative, restorative and normative (Proctor, 1987).

In Portugal the primary health care incorporate Integrated Continuous Care Units (ICCU) where nurses, providing care to people in situations of dependency, helping them to regain or maintain their independence and maximize their quality of life.

Aim: The study aimed to identify the core elements of the Clinical Supervision (CS) process for Integrated Continuous Care Units (ICCU) nurses.

Methodology: Qualitative study, data were collected using half-structured interviews, with a sample of 16 nurses from a primary health care center, between May and December of 2012.

Data analysis, through content analysis according to the principles of the grounded theory method, using the program Nvivo10. Ethical approval was granted by the Board of Director and Ethic Committee.

Results: In the nurses' discourse were identified elements of formative, restorative and normative functions, as the base of Clinical Supervision (CS) process in the Integrated Continuous Care Units (ICCU).

In formative category were identified some properties: reflection on practice; development of critical thinking; development of scientific knowledge; orientation research the best scientific evidence; continuing education; individual and professional development.

In restorative category were identified some properties: emotional support; positive reinforcement; nurses' professional motivation; supervisor collaboration in care.

In normative category were identified some properties: observation of practice; identification of training needs; formative feedback; ensure standards; ensure ethical issues.

Conclusion: This study was concluded that nurses of Integrated Continuous Care Units (ICCU) consider that Clinical Supervision (CS) process must be based on intrinsic elements of the three interactive functions of Proctor (1987), which corroborates much of the main research in this specific area, both in primary care or in a hospital organization.

References

- Bishop, V. (2006). *Clinical Supervision: What Is It? Why Do We Need It?* In V. Bishop, *Clinical Supervision in Practice Some Questions, Answers and Guidelines for Professionals in Health and Social Care* (2nd ed., pp. 1-26). Palgrave Macmillan.
- Henderson, M. (2014). *Staff Supervision Policy*. Supervision in Adult and Community Services Policy Framework and Procedures, Suffolk County Council, Suffolk .
- Hull, P. (2016). *Clinical supervision policy. A statement of good practice*. Version: 3. Clinical Supervision Policy, Southern Health, NHS Foundation Trust.
- Pires, R., Reis Santos, M., Pereira, F. & Rocha, I. (2016). Most Relevant Clinical Supervision Strategies In Nursing Practice. *Social & Behavioral Sciences EpSBS*, p. 351-361. <http://dx.doi.org/10.15405/epsbs.2016.07.02.34>
- Vieira, J. (2014). *Identificação de indicadores de qualidade do exercício profissional: contributo para um programa de supervisão clínica em enfermagem*. Dissertação de mestrado, Escola Superior de Enfermagem do Porto, Porto.

Contact

regina@esenf.pt

Research Symposia

D 07 - Advancing World Health Through Nursing Students' Study Abroad Experiences: Shared Insights

Preparing Nursing Students for International Learning Experiences

Karen M. Lundberg, MS, RN, CNE, USA
Cheryl A. Corbett, MSN, APRN, NP-C, USA
Debra Edmunds, MS, RN, CNE, USA

Abstract

Purpose: Faculty at a western United States university found it essential for student nurses participating in a clinical international experience to complete a preparatory course prior to in-country experience. Students prepared by learning about travel expectations, culture and people, course requirements and personal perceptions. The purpose of this presentation is to discuss the significance of cultural preparation before travel, and describe a cultural preparatory course.

Methods: Students selected to participate in an international experience are required to complete a one-credit cultural preparatory class. The course is taught the semester before student travel. Course outcomes include assisting students to understand their own personal worldview and perceived experience expectations, in addition to studying about the culture and people. Students also prepare to practice nursing in an international setting. Additional preparation includes the development of an emergency plan for possible in country disasters. Teaching methods include book reports, oral presentations on culture topics, guest lectures, videos, and reading articles. Class discussions are very helpful concerning culture shock and culture biases. These important discussions help students identify their personal risks of maladaptation to new international experiences. Students are also given opportunities to voice fears or concerns during discussions whereupon faculty can address these issues prior to travel. Presenting faculty have assisted students in preparation for a variety of international experiences including India, Vietnam, Tonga and refugee populations.

Results: Students prepared for international travel have a more rewarding encounter and adapt quicker to their new situation, allowing for earlier engagement in the international experience. End of travel student feedback provided faculty with suggestions for improved preparation such as guest speakers from different religious communities and increased language skills.

Conclusions: The benefits of cultural preparation contribute to a more enlightened international experience for both faculty and students. Continued preparation is vital for international travel. Faculty are encouraged to implement a similar type of preparatory program for international study abroad programs.

References

- Albers-Miller, N., Prenshaw, P. J., Straughan, R. D. (1999). Student perceptions of study abroad programs: a survey of U.S. colleges and universities. *Marketing Education Review*, 9(1), 29-36.
- Butteris, S. M., Gladding, S. P., Eppich, W., Hagen, S., Pitt, M. B. (2014). Simulation use for global away rotations (SUGAR): Preparing residents for emotional challenges abroad-A multicenter study. *Academic Pediatrics*, 14, 533-541.
- Floyd, B. M. (2013). Lessons learned preparing volunteer midwives for service in Haiti: After the earthquake. *Journal of Midwifery & Women's Health*, 58, 558-568.
- Goldoni, F. (2015). Preparing Students for Studying Abroad. *Journal of the Scholarship of Teaching and Learning*, (15) 4, 1-20. doi: 10.14434/josotl.v15i4.13640
- Goldoni, F. (2013). Students' immersion experiences in study abroad. *Foreign Language Annals*, 46(3), 359-376.

Contact

karen-lundberg@byu.edu

Six Continents: One Undergraduate Public and Global Health Nursing Course

Leslie W. Miles, DNP, APRN, PMHNP-BC, USA
Scott K. Summers, MS, FNP-C, USA

Abstract

Purpose: With globalization, the demand for culturally competent nurses who are prepared to provide quality care from a cultural point of view has increased. (Kokko, 2011). Research has shown a deficit of culturally sensitive care leads to “nurses [that] may have ethnocentric and stereotyped attitudes toward patients” (Kokko, 2011, p. 674). The American Association of Colleges of Nursing (2008) *Essentials of Baccalaureate Education for Professional Nursing Practice* identified global health as an essential core knowledge area for nurses.

This presentation will highlight and discuss our challenges and successes with a variety of clinical sites meeting course outcomes over the years of providing cultural and global experiences for our nursing students.

Methods: Broadening undergraduate nursing students’ global health education and experience is paramount, but current nursing literature on how to implement global education is limited (Edmonds, 2012). In the United States, only 23% of baccalaureate nursing programs offer a semester abroad opportunity with only 44% of those colleges offering clinical nursing courses taught by nursing faculty (Read, 2011). A European Union student exchange program, European region access scheme for the mobility of University students (ERASMUS) is available for nursing students for education abroad that improves student’s ability to provide culturally competent care (Milne & Cowie, 2013).

The literature has shown an increase in confidence, self-awareness and overall enrichment in students who participate in a study abroad course (Long, 2016). This transformation rarely comes with didactic work alone, students do not always retain information that is presented, but are more likely to change through lived experiences (Long, 2016).

Results: For over 16 years, an American university college of nursing has coordinated multiple clinical sites utilizing nursing faculty to provide an adaptable high quality learning environment on six continents. All undergraduate nursing students in this college are required to take the public and global health course.

To ensure curriculum consistency and enhance cultural competence opportunities, a committee was formed to develop course outcomes and learning activities to be utilized for all clinical sites – both domestic and international.

The course outcomes include: 1) Acquired a basic understanding and perform thoughtful reflection of culture, diversity, social, economic, globalization, and environmental factors as it affects health care; 2) Exhibit inter-professional values, communication skills and culturally sensitive health care that is respectful of people with different backgrounds, socio-economic status, beliefs, or perspectives; and 3) Recognize their own biases and self-limitations and increase desire to learn from others and integrate cultural competency as a life-long learning process.

Conclusion: Currently the course is offered every spring term for 128 nursing students who span the world in three domestic sites (At-Risk, Refugee, and Veterans) and eight international sites: Czech Republic, Ecuador, Finland, Ghana, Spain, Taiwan, Tonga and Vietnam. Clinical sites vary from high density populations to remote areas. Experiences include the following areas: hospitals, clinics, home care, schools, veteran facilities, public health, and international student collaboration. Each varied experience is designed to meet the course outcomes. Our collective experiences has resulted in unique know-how about how to tailor global health outcomes to diverse domestic and international sites.

References

American Association of Colleges of Nursing (2008). *The essentials of baccalaureate education for professional nursing practice*. Retrieved from <http://www.aacn.nche.edu/education-resources /BaccEssentials08.pdf>

Edmonds, M. L. (2012). An integrative literature review of study abroad program for nursing students. *Nursing Education Perspective*, 33(1), 30-34.

Kokko, R. (2011). Future nurses' clinical competencies: What are their learning experiences during exchange and studies abroad? A systematic literature review. *Journal of Nursing Management*, 19(5), 673-682. doi:10.1111/j.1365-2834.2011.01221.x

Long, T. (2016). Influence of international service learning on nursing students' self-efficacy towards cultural competence. *Journal of Cultural Diversity*, 23(1), 28-33.

Milne A, & Cowie, M.A. (2013). Promoting culturally competent care: The ERASMUS exchange programme. *Nursing Standard*, 27(30), 42-46. doi:10.7748/ns2013.03.27.30.42.e7215

Read, C. Y. (2011). Semester abroad opportunities in baccalaureate nursing programs. *Journal of Professional Nursing*, 27(4), 221-226. doi:10.1016/j.profnurs.2011.03.005.

Contact

leslie-miles@byu.edu

Nuts and Bolts of Nursing Study Abroad: Logistics and Funding

Sondra Heaston, MS, NP-C, CEN, CNE, USA

Gaye L. Ray, MS, FNP-C, PH-C, USA

Abstract

Purpose: There is little doubt that nursing specific study abroad experiential learning facilitates the development of cultural humility and enhances cultural awareness. A well planned study abroad should be a life changing experience for participants adding richness to their education and future careers¹. However, there are logistical and funding issues that serve as hurdles to the development of study abroad programs and student ability to participate². This presentation will share insights and suggestions to address the hurdles encountered when planning and conducting nursing specific semester abroad programs.

Methods: A baccalaureate pre-licensure program at a large university located in the western United States has implemented a required Public and Global Health Clinical Practicum offering eleven location options from which students can choose. Among the location options are international sites including Tonga, Ecuador, Taiwan, Finland, Czech Republic, Samoa, and Ghana, and at least three domestic options working with vulnerable groups such as at risk teens, incarcerated populations, and refugees. Each option includes activities geared specifically to the population of the area and are distinct and varied. Nearly 100 students enroll in this course each spring term. Each site has two college of nursing faculty members acting as program directors who interface with in-country contacts, the college of nursing international representative, and the university international travel center, to develop the program including an itinerary and a budget.

A discussion of the role of program directors and how they navigate some of the aforementioned hurdles in preparing a nursing specific study abroad experiences will be presented. The discussion will include creating a budget, the method for determining student fees, and anticipating in-country expenses. Examples of sponsoring university financial and other support necessary for a successful program along with how we cover faculty expenses will be shared. Options for student funding will be discussed³. In addition, the process of determining how to honor student choice within the available options considering cost, time, desired to travel or stay home, and other variables will also be addressed.

Results: Successful navigation of the budgetary and logistical study abroad hurdles is key to building a well-planned nursing specific study abroad program. Student outcomes, as a result of participation, include an enhanced awareness of the influence of culture on health and healthcare systems, an increased understanding of social determinants of health, a heightened ability to provide culturally appropriate care for individuals, families and groups, and an expanded appreciation of diversity.

Conclusion: Study abroad experiences benefit nursing students both personally and professionally³. Participation facilitates future nurses to enrich and heighten culturally sensitive care for growing

multicultural patient populations at home^{4,5}. While designing, planning and executing nursing specific semester abroad experiences is labor intensive and can present challenging hurdles, efforts should be taken to offer these educational opportunities to nursing students to enhance their preparation for nursing practice⁶.

References

- ¹Shannon, NR (2013). Fly the coop: benefits of and tips for successful study abroad. *Nurse Educator*, 38(2), 49-51. doi: 10.1097/NNE.0b013e3182829773
- ²Bégin-Caouette, O., Angers, V., & Niflis, K. (2015). Increasing Participation in Study Abroad Programs: Organizational Strategies in Quebec CEGEPs. *Community College Journal Of Research & Practice*, 39(6), 568-583. doi:10.1080/10668926.2013.865003
- ³National Association for Foreign Student Advisers (NAFSA): Association of International Educators Financial Aid for Study Abroad (N.D.). *Financial aid for study abroad: An undergraduate student's resource*. Retrieved from http://www.nafsa.org/About_Us/About_International_Education/For_Students/Financial_Aid_for_Study_Abroad__An_Undergraduate_Student_s_Resource/
- ⁴Martins de Oliveira, A. K., & Tuohy, D. (2015). Communication and nursing: a study-abroad student's reflections. *British Journal Of Nursing*, 24(21), 1080-1084. doi:10.12968/bjon.2015.24.21.1080
- ⁵Carpenter, L. J., & Garcia, A. A. (2012). Assessing Outcomes of a Study Abroad Course for nursing students. *Nursing Education Perspectives (National League For Nursing)*, 33(2), 85-89. doi:10.5480/1536-5026-33.2.85
- ⁶Nilsson, J., Carlsson, M., Johansson, E., Egmar, A., Florin, J., Leksell, J., Lindholm, C., Nordstrom, G., Theander, K., Larsson, B., Lepp, M., & Gardulf, A. (2014). Nursing in a Globalized World: Nursing Students with International Study Experience Report Higher Competence at Graduation. *Open Journal of Nursing*, 2014, 4, 848-858. Published online November 2014 in Scientific Research <http://www.scirp.org/journal/ojn> <http://dx.doi.org/10.4236/ojn.2014.412090>

Contact

sondra-heaston@byu.edu

Outcomes of a Global Health Nursing Course: Does the End Justify the Means?

Sheri Palmer, DNP, RN, CNE, USA
Stacie Hunsaker, MSN, RN, CEN, CPEN, USA

Abstract

Purpose: Due to nursing programs being increasingly burdened with additional education expectations, study abroad may seem like an inordinate extravagance. In order to increase sustainability of study abroad courses in nursing, the benefits of such experiences need to be proven and justified. The purpose of the following studies are to exhibit the positive effects of a Global Health Nursing Course including study abroad. The studies we have completed include: long-term effects of study abroad on the career of the graduate and cultural competence attainment of the undergraduate student.

Background: For over 10 years our College of Nursing has offered study abroad experiences in a Global health course. We typically have close to 100 students travel abroad for 3-5 weeks every year. There are many challenges and successes in offering this type of course.

Methods: The "Long term effect of Study Abroad in Nursing" research included 121 nursing alumni who had graduated up to seven years ago. They completed the International Education Survey (IES) (Zorn, 1996) with additional open-ended questions. The "Cultural Competency" studies include the use of three quantitative tools to measure student cultural competency over the past few years (Braskamp, Braskamp, Merrill, 2010; Caffrey, 2004; Camphina-Bacote, 2002). Over 450 pre-/post-test surveys have been returned. In addition, other methods to determine cultural competency included student's reflective writing papers.

Results: Results of the various studies will be shared in the presentation. The "Long term effect of Study Abroad in Nursing" study showed a large statistical significance on the nurse's career from studying abroad. Quantitative and qualitative results concluded: 1) nursing alumni were positively influenced long

term by the course and 2) comparatively, students who studied abroad had significantly increased IES scores.

Results from studies measuring cultural competence were also statistically significant. Studies indicate that all students, no matter where they completed their clinical experience, improved in their global perspective skills, knowledge and attitudes.

Conclusion: The information gleaned from the studies help justify the purpose of continuing the Global health Course with study abroad courses in nursing. In addition, the information has been used for quality improvement to determine what experiences and teaching techniques best assist students to increase their cultural and global health perspectives. With the amount of student dollars and resources invested in this program, it is critical we provide deliverable data of the impact of the course on their education.

References

- Braskamp, L.A., Braskamp, D.C. & Merrill, K.C. (2010) Global Perspectives Inventory (GPI): Its purpose, construction, potential uses, and psychometric characteristics. Retrieved March 11, 2010 from <https://gpi.central.edu/supportDocs/manual.pdf>
- Caffrey, R. A., Neander, W., Markle, D., & Stewart, B. (2005). Improving the cultural competence of nursing students: Results of integrating cultural content in the curriculum and an international immersion experience. *Journal of Nursing Education*, 44, 234-240.
- Campinha-Bacote, J. (2002). The process of cultural competence in the delivery of healthcare services: A model of care. *Journal of Transcultural Nursing*, 13(3), 181-184.
- Carpenter, L.J., Garcia, A.A. (2012). Assessing outcomes of a study abroad course for nursing students. *Nursing Education Perspectives*, 33(2), 85-89.
- Edmonds, M.L., (2012). An integrative literature review of study abroad programs for nursing students. *Nursing Education Perspectives*, 33(1), 30-34.
- Gallagher, R.W., Polanin, J.R. (2015). A meta-analysis of educational interventions designed to enhance cultural competence in professional nurses and nursing students. *Nurse Education Today*, 35, 333-340.
- Zorn, C. (1996). The long-term impact on nursing students of participating in international education. *Journal of Professional Nursing*, 12(2), 106-110.

Contact

sheri-palmer@byu.edu

D 08 - A Transformative Vision for Health: Promoting Nursing Colleges

An Action Framework for Leading the Transformation Process

Fernanda Principe, MsD, RN, Portugal

Abstract

Purpose: Health promotion programs in community and workplaces are increasing in prominence. However, planning and implementing such programs at large bureaucratic institutions are difficult. The PEER-IESS model (Brito & Mendes, 2009) is a bottom-up participatory health research and was designed to activate high education communities for the implementation of health promoting contexts, using dialogic strategies and creative means of intervention centered in the academic community.

A healthy university aspires to create a learning environment and organizational culture that enhances health, wellbeing and sustainability of its community and enables people to achieve their full potential. Ottawa Charter (1986) sets out three key strategies: advocacy, mediation and enablement. Also highlights five action areas: build healthy policy; create supportive environments; strengthen community actions; develop personal skills; reorient health services.

Tsouros and collaborators (1998) proposed a conceptual framework that defined healthy universities approach as institutions that develops an environment that supports and promotes health and wellbeing; allows the contribution of the views, skills and experience of the whole university community; increases participation and builds collaborative partnerships; is an effective, evidence-informed mechanism to bring about and embeds cultural change; leads to sustainable changes to improve the health and wellbeing of students and staff; links research, educational, operational and outreach activities and engages students in each; provides a framework that goes beyond interventions that focus on single topics, single target groups or single elements of the university.

Universities are dynamic, complex systems with inputs, processes, outputs and impacts and are part of a greater whole, embedded in local and global communities and interacting with the wider environment. Elements of the university system have interconnectedness, interrelationships, interdependencies and integration between them. Healthy universities concern to draw upon best practice linked to organization development, learning and change.

More recently Okanagan Charter (2015) shared aspirations that health promoting universities and colleges infuse health into everyday operations, business practices and academic mandates. By doing so, health promoting universities and colleges enhance the success of our institutions; create campus cultures of compassion, well-being, equity and social justice; improve the health of the people who live, learn, work, play and love on our campuses; and strengthen the ecological, social and economic sustainability of our communities and wider society. The Charter has two Calls to Action for higher education institutions: embed health into all aspects of campus culture, across the administration, operations and academic mandates, and lead health promotion action and collaboration locally and globally.

Based on these assumptions we formulated the following research question: How conceptualize and design a participatory health research process that allows the activation of a community of higher nursing education to implement a health promoting context and increases the skills for the profession?

To answer the research question, we defined the following objective: To discuss the framework that guide the transformative process of a nursing college into a health promoting context using the PEER-IESS model.

Methods: PEER-IESS is a *bottom up* strategy to implement health promotion contexts in high education institutions. Through PEER-IESS model (Education, Engagement and Evaluation Research - Salutogenic Higher Education Institutions), is intended to enable the community mobilization in higher education institutions to develop health promotion and resolution of problems of educational communities through the use of dialogical and creative strategies to promote health intervention centered on the student community (Brito & Mendes, 2009).

Within PEER-IESS model, and through the implementation of PRECEDE-PROCEED model (Green and Kreuter, 1991), used in various cultural contexts, settings, practices and structures of intervention is intended to systematize participatory health research to mobilize youth in large-scale issues related to healthy lifestyles.

PEER-IESS aims to be a participatory health research model to activate university communities in addressing the problems faced by youth, through using Community Mobilization, Peer Education and Peer Research strategies.

Results: As results the researchers realize that to engage youth in participatory health research networks will be an asset to reduce the gap between young people of different social status, allowing students to have social contact and support socially excluded communities; the value added by participatory action research is to increase awareness of social responsibility to promote youth health and networking between universities will promote institutional commitment because they represent the key mechanisms for change and innovation and organizational forms to provide cooperative learning and reduce the uncertainty of implementation of innovation.

Conclusion: Higher education has a unique opportunity and responsibility to provide transformative education, engaging the student voice, and developing new knowledge and understanding. PEER-IESS model recognize the link between Peer Education and Peer Research strategies, building capacity for health promotion; increasing academic success; curricular infusion health promotion in the study plan of nursing undergraduate course; formulation of health promotion policies in terms of mission, values and vision in the higher nursing education institution leading to the participation of the entire academic community in building the strategic development plan of the institution.

References

Brito, I. & Mendes, F. (2009). PEER-IESS. Instituições de ensino superior salutogénicas. Retrieved from: http://www.esenfc.pt/site/?module=esenfc&target=outreach-projects&id_projeto=236&id_ps=9&tipo=APS
ICPHR (2013). Position Paper 1: What is Participatory Health Research? Version: May 2013. Berlin: International Collaboration for Participatory Health Research. Retrieved from: http://www.icphr.org/uploads/2/0/3/9/20399575/ichpr_position_paper_1_defintion_-_version_may_2013.pdf
Okanagan Charter: An International Charter for Health Promoting Universities and Colleges (2015). Retrieved from: <http://internationalhealthycampuses2015.sites.olt.ubc.ca/files/2016/01/Okanagan-Charter-January13v2.pdf>

Contact

fernandaesenfcvpoa@gmail.com

Key Principles for Action

Liliana Mota, MsC, RN, Portugal

Abstract

Purpose: The health promotion action is a process to improve people health`s. In this context, people has an active role to enhance their well-being and wellness. The nursing college could be a health promoting context to enhance the health self-control of academic communities, and it creating a learning environment and organizational culture that enhances health. The main lines that characterized these contexts are: to adopt institutional compromises and build healthy policy, to promote well-being, knowledge in health`s area, critical health literacy, personal and social responsibility of the academic and local community.

The aim of the study was to describe the process of transforming nursing college in health promoting context using the PEER-IESS model (Brito & Mendes, 2009) and to analyse the contributions of the involvement of academic community in participatory health research. PEER-IESS intend to be a bottom-up strategy to implement health promotion contexts.

Methods: A participatory health research (ICPHR, 2013) was implemented, using a constructive case-study in a nursing college, to evaluate in which way the involvement of a “seed group” in a participatory health research process initiates the mobilization a higher education community. The participatory health research through PRECEDE-PROCEED model (*Predisposing, Reinforcing, Enabling, Constructs in Educational/ecological Diagnosis and Evaluation*)-(Policy, Regulatory, Organizational, Constructor in Educational and Environmental Development) of Green and Kreuter (1991) conceptually guided our study.

The data collection strategies were multi-method, including semi-structured interviews, focus group, participatory observation, documental analysis and questionnaires. Based on PRECEDE-PROCEED model and quality criteria of participatory health research we trained and empowered a "seed group" to implement peer-research, peer-education and health promotion strategies. The initial assessment was based in social, epidemiological, behavioural, environmental, educational, organizational, political and administrative diagnostics. This approach supported the design of health promotion interventions in the academic community.

The "seed group" was constituted by 5 students, 4 teachers and 2 staff members. The interventions of the “seed group” were implemented since 2013.

Results: The priority areas of intervention were defined and implemented, in a collaborative and participatory involvement of all the academic community with the support of the “seed group”. The main areas of intervention were targeted for nursing students, institutional policies, school health services and infusion of health promotion content in undergraduate course curriculum in nursing. The intervention strategies used were workshops, worldcafé, peer-to-peer counselling interventions with the objective to reduce risk damage during academic festivities, curricular infusion, and definition of strategic development plan of the institution, occupational health and quality management. The intervention process engages the academic community to have an active voice in promoting health and in promoting the universal responsibility of the academic community. The engagement of the nursing students in studies with the participatory health research promotes the development of personal and professional skills, preparing the students to exercise of nursing profession.

Conclusion: These results will be an important contributes to guide the formulation of health enhancing policies and practices, thereby strengthening health and sustainability in universities and colleges and local community.

References

- Brito, I. & Mendes, F. (2009). PEER-IESS. Instituições de ensino superior salutogénicas. Retrieved from: http://www.esenfc.pt/site/?module=esenfc&target=outreach-projects&id_projeto=236&id_ps=9&tipo=APS
- Green, L.W., & Kreuter. M. (1991). Health Promotion Planning: an educational and environmental Approach. (2th ed.) Moutain View, Cal: Mayfield Publishing Company.
- ICPHR (2013). Position Paper 1: What is Participatory Health Research? Version: May 2013. Berlin: International Collaboration for Participatory Health Research. Retrieved from: http://www.icphr.org/uploads/2/0/3/9/20399575/ichpr_position_paper_1_defintion_-_version_may_2013.pdf

Contact

saxofermeira@gmail.com

Evidence of Transformation Process

Sónia Novais, MsC, RN, Portugal

Abstract

Purpose: The transformative process of a nursing college institution in a health promoting higher education institution, by applying a model bottom-up, participatory health research PEER-IESS (Brito & Mendes, 2009), promotes socio-environmental performance, cultural, political, ethical and deontological, scientific and continuous quality improvement, and requires the involvement of the academic community, helping students to acquire personal skills for the exercise of the future profession. Based on these assumptions we formulated the following research question:

How the involvement of a "seed group" in a participatory health research process mobilizes a community of higher nursing education to implement a health promoting context and increases the skills for the profession?

To answer the research question, we defined the following objective: To evaluate the process and the results of the transformative process using the PEER-IESS model from the perspective of representatives of school management boards, the degree course coordinator, student leader and local community leader.

Methods: We intend to validate the use of PEER-IESS intervention model. This model is a bottom-up intervention that mobilizes and activates the academic community to promote salutogenesis in the educational context. It should be noted that participatory health research should be understood as an empowerment so that is "transformative participation" (Springett and Ledwith, 2010, p.189), which must implicitly mean that all people can perform a self-awareness (Freire, 2001), culminating in reflection and willingness to change behaviour. Scientific knowledge is generated action and experimentation in context, democratic and social learning participation.

PEER-IESS develops in a sequential process to mobilize academic communities, focusing on dialogic procedures and creative ways to engage the community, from a "seed group", and was based on the quality criteria of participatory health research and based on the PRECEDE-PROCEED model developed by Green and Kreuter (1991).

To evaluate the process and the result of participatory health research, a semi-structured interview guide, based on the indicators defined by the American College Health Association (ACHA, 2012), the Standards of Practice for Health Promotion in Higher Education was built. The researchers interviewed the representatives of school management boards, the degree course coordinator, a student leader and local community leader, in a total of seven participants. The interviews were transcribed *verbatim* by researchers and was created a document computed in IRAMUTEQ (Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires). IRAMUTEQ is a GNU GPL (v2) licensed software that provides users with statistical analysis on text corpus and tables composed by individuals/words. It is based on R software and on python language.

We performed a classic lexicographical analysis. Which allowed us to identify and format text units, turns texts into textual segments and identifies word frequencies, medium frequency and hapax (words with frequency=1), searches for vocabulary and reduces the words to their primary lexical units (reduced forms) creates the reduced forms dictionary, identifies active and supplementary forms.

Then a specificities and correspondence factor analysis was performed, and this analysis associate texts with variables and allows us to analyse texts according to the characterization variables.

Another analysis performed to the data is named as method of descending hierarchical analysis (DHA). The IRAMUTEQ clustered the text segments according to their vocabularies and distributed according to the reduced forms frequencies. Using matrices that cross reduced forms with text segments, the DHA method allows us to obtain a definitive classification. A dendrogram was displayed showing clusters relations between the text segments and the participants variables. The software calculates the descriptive results of each cluster conforming to its main vocabulary (lexic) and words with asterisk (variables) and provided us with another way of presenting data, derived from a correspondence factor

analysis, because based on the chosen clusters, the software calculates and provides the most typical text segments of each cluster, giving context to them.

The similarity analysis is based on graph theory, and it is often used by social representations researchers. It allows to identify the words cooccurrences, providing information on the words connectivity thus helping to identify the structure of a text *corpus* content. It also allows to identify the shared parts and specificities according to the descriptive variables identified in the analysis (Marchand & Ratinaud, 2012). The results are also presented as word clouds, because IRAMUTEQ aggregates words and organizes them graphically according to its frequency.

Results: The results are aligned with Standards of Practice for Health Promotion in Higher Education (American College Health Association, 2012). In the standard 1 alignment with the missions of Higher Education, the results show that health promoting, student, transformative process and empowerment were the words more frequent and were in central core representation. In standard 2 socioecological-based practice, the semantic representation of the core is coincident in participants. The similarity analysis shows a strong relation between the representations of the different participants. In standard 3 collaborative practice, results demonstrate that the peer network and the health promoting practice are central in the discourse of the participants. For the 4th standard, cultural competency, the analysis showed that inclusion, cultural competence, cultural sensibility, PEER-IESS were the main words of the discourse of the participants. For the standard 5 theory-based practice, peer-education, bottom-up strategies and health promotion were in the central core representation of all the participants. Aligned with this results, is also the results of the analysis of standard 6 evidence-informed practice. The last standard, the 7th is related with continuing professional development and service. The question of this standard was only addressed to management bodies and to the coordination because of its specificity, and the answers are related to the ethical principles, professional development in clinical supervision, peer-feedback and in clinical simulation.

Conclusion: The analysis of these results allows us to conclude that participants are aware of the ACHA standards, they value the institution's transformative process in a health promoting higher education institution and we were able to validate the PEER-IESS model.

References

- Brito, I. & Mendes, F. (2009). PEER-IESS. Instituições de ensino superior salutogénicas. Retrieved from: http://www.esenfc.pt/site/?module=esenfc&target=outreach-projects&id_projeto=236&id_ps=9&tipo=APS
- ICPHR (2013). Position Paper 1: What is Participatory Health Research? Version: May 2013. Berlin: International Collaboration for Participatory Health Research. Retrieved from: http://www.icphr.org/uploads/2/0/3/9/20399575/ichpr_position_paper_1_defintion_-_version_may_2013.pdf
- Green, L.W., & Kreuter. M. (1991). Health Promotion Planning: an educational and environmental Approach (2nd ed.). Mountain View, Cal: Mayfield Publishing Company.
- Marchand, P. & Ratinaud, P. (2012). L'analyse de similitude appliquée aux corpus textuelles: les primaires socialistes pour l'élection présidentielle française. In: Actes des 11eme Journées Internationelles d'Analyse Statistique des Données Textuelles. JADT 2012, p. 687-699
- American College Health Association (2012). Standards of Practice for Health Promotion in Higher Education. (3th ed.), Hannover. Retrieved from: http://www.acha.org/publications/docs/Standards_of_Practice_for_Health_Promotion_in_Higher_Education_May2012.pdf
- Springett, J. & Ledwith, M. (2010). Participatory practice: Community-based action for transformative change. (1st ed.) Portland, OR: The Policy Press.
- Freire, P. (2001). Pedagogia da Autonomia: Saberes necessários à prática educativa. São Paulo: Paz e Terra.

Contact

sonianovais@esenfcvpoa.eu

D 09 - Academic-Practice Partnerships and Dedicated Educational Units: The Past, Present, and Future of Clinical Nursing Education

Academic Practice Partnerships: Mutual Benefits and Sustainability of a Dedicated Educational Unit

Cecilia McVey, MHA, RN, USA

Donna M. Glynn, PhD, MSN, RN, ANP-BC, USA

Abstract

Purpose: In 2007, the Northeast Region VA Nursing Alliance (NERVANA) was founded. NERVANA is an academic-practice partnership between the VA Boston/Bedford Health Care Systems and six schools of nursing which include: Boston College, Northeastern University, Regis College, Simmons College, University of Massachusetts Boston and University of Massachusetts Lowell. NERVANA's mission, derived from the VA's parent mission is as follows: "To employ an innovative educational model to expand and enrich nursing students and faculty, to educate nursing students in the care of veterans, and to expose nursing students to the advanced model of medical informatics, patient safety, quality improved and integrated systems of care employed by the VA's National Healthcare System". Although the NERVANA schools are among some of the most prestigious in the nation and located in the heart of a healthcare mecca, none is a component of an academic medical center. Thus, this consortium offers unique opportunities both for the schools and the VA Boston/Bedford alike. Goals for NERVANA are in congruence with the guiding principles for Academic –Practice Partnerships developed by AACN and AONE. The VA system provides the most comprehensive healthcare system in the country and therefore provides an experience to students and residents unlike any other they have had in their clinical experiences.

The partners share the vision for sustaining the mission and supportive activities of NERVANA. The VA Boston/Bedford Healthcare Systems and the academic partners take great pride in sharing mutual expertise to develop future nurses of America as well as sharing the important work the VA Provides to the veteran population. One of the primary goals of the partnership is to create and expand the Dedicated Educational Units for clinical education. The concepts and implementation of DEU and inter-professional education are examples of collaborative undergraduate BSN education that VA nurses have embraced with the support of the academic partners.

The purpose of this research was to examine the outcomes of the Northeast Region VA Nursing Alliance with emphasis on the creation and implementation of the DEU model of education. The research will evaluate the goals of the partnership and evaluate the sustainability of the alliance.

Methods: This retrospective research reviewed the advisory board, steering committee, and Dean's committee minutes for the past 9 years. The goals and outcomes of the academic practice partnership were evaluated and the impact of the DEU intervention related to clinical education was reviewed. Specific components to maintain the success of the DEU were identified and sustainability related to partnership interactions, activities and collaborative efforts were addressed.

Results: The benefits of the academic-practice partnership related to the DEU model and sustainability were evident in the results. An increased number of VA staff nurses are currently serving in the role of NERVANA faculty. The number of nursing students has dramatically increased within the VA system and preceptor workshops have been incorporated by the academic partners to support the staff nurses. A total of 4 acute care DEUs are currently in place, 1 interprofessional acute care DEU, 2 long term care DEUs and 2 Senior Capstone DEUs have been created and implemented. Through these nursing experiences, applications for positions within the VA after graduation are expanding and the VA Boston Nurse Residency program has achieved CCNE accreditation.

The academic practice partnership created and initiated the "Care of the American Veteran" series in 2009. The academic partners host educational presentations related to veteran specific topics on campus for all members of the college communities. Topics have included traumatic brain injury, spinal cord injury, PTSD, homelessness, dementia, military sexual trauma and care of the female veteran.

Conclusion: Based on the continued creation of DEUs and clinical educational partnerships and activities, the sustainability of the DEU and expansion of the NERVANA initiative is evident. Through this ongoing partnership, high quality, veteran-centered care will be provided to the next generation of nurses. Future research should focus on specific patient care outcomes related to the academic-practice partnership and the expansion of the DEU model of education

References

- Beal, J. A., Alt-White, A., Erickson, J., Everett, L. Q., Fleschner, I., Karshmer, J., & ... Gale, S. (2012). Original Article: Academic Practice Partnerships: A National Dialogue. *Journal Of Professional Nursing, 28*327-332. doi:10.1016/j.profnurs.2012.09.001
- Dobalian, A., Bowman, C. C., Wyte-Lake, T., Pearson, M. L., Dougherty, M. B., & Needleman, J. (2014). The critical elements of effective academic-practice partnerships: a framework derived from the Department of Veterans Affairs Nursing Academy. *BMC Nursing, 13*(1), 1-31. d
- Pearson, M. L., Wyte-Lake, T., Bowman, C., Needleman, J., & Dobalian, A. (2015). Assessing the impact of academic-practice partnerships on nursing staff. *BMC Nursing, 14*(1), 1-9. doi:10.1186/s12912-015-0085-7
oi:10.1186/s12912-014-0036-8

Contact

donna.glynn@simmons.edu

Staff Nurses Perceptions of Utilizing the Dedicated Educational Unit Model for a Senior Capstone Experience

Grace Conley, MSN, RN, USA

Patrick Hill, MSN, RN, USA

Bonnie J. Russell, MSN, RN, CRRN, USA

Abstract

Purpose: With the success of the dedicated educational nursing clinical units (DEU) within the VA Boston Healthcare system, academic-practice partners reached a decision to expand and revise the model to include senior nursing students completing their capstone experience (Glynn, 2016). Traditionally senior BSN students are placed with an experienced nurse for a one-to-one precepted clinical rotation during their final semester. The goal of clinical experience is to provide an intensive, individualized clinical learning opportunity to improve clinical competence and clinical judgment as the students nurse transitions to professional practice. The challenges of the traditional model is the availability and willingness of experienced staff nurses to work with nursing students and the significant time commitment. The decision to establish and implement a Senior Capstone DEU to provide students with a positive clinical learning environment and to enhance the experience of the practicing clinical nurses in the role of nurse educator was agreed upon.

Senior preceptorship is a valuable experience between an experienced nurse and a senior nursing student (Rogan, 2009). The preceptorship is a clinical experience in a baccalaureate nursing program to guide students in applying their knowledge and skills typically on a medical surgical unit. Clinical staff nurses serve in the preceptor role to assist nursing students in patient care, delegation and decision-making skills. Academic educators develop the course objectives, support the preceptors and oversee the students. The preceptorship is a teaching method that is used by 85.9% of professional schools in the United States offering a Bachelor of Science in Nursing (BSN) education (Altmann, 2006).

Professional nursing needs competent providers and nursing students must demonstrate proficiency in practice prior to graduation. Nurse preceptors play a vital role in transitioning students from the classroom to the bedside. However due to the forecasted nursing shortage, the precepted experience is in jeopardy

due to a shortage of qualified nurses, increased need for staff orientations, role frustration and nursing burnout (Spann, 2005). According to American Association of Colleges of Nursing 2014-2015 report, U.S. nursing schools turned away nearly 70,000 qualified applicants from baccalaureate and graduate nursing programs due to lack of faculty, clinical site, clinical preceptors and budget constraints (Nursing, 2014-2015).

The traditional senior preceptor model is a one-to-one relationship between a nursing student and an experienced nurse who is employed by a health care agency. It is time limited with the goal to provide an intensive individualized clinical learning opportunity to improve clinical competence and clinical judgment. An alternative nursing clinical educational model is the Dedicated Educational Unit (DEU). A DEU is an example of an academic-practice partnership designed to provide students with a positive clinical learning environment. A DEU is described as an optimal teaching and learning environment through the collaborative efforts of nurses, management and faculty (Moscato, 2007). The goal is to maximize the learning outcomes not only of students, but also of practicing clinical nurses in the role of nurse educator (Moscato, 2007).

The VA Boston Healthcare System is a leader in the education of nursing students. The VA Boston has established DEUs for sophomore and junior nursing students on acute care and chronic care units. Consistent with the literature, the DEU experience at the VA Boston has documented successful outcomes (Mulready-Shick, 2014). To date, there is limited research evaluating the use of a DEU model for a Senior Capstone experience and an analysis of the staff nurses' perceived outcomes of the clinical experience. The utilization of the DEU model for a senior nursing student experience is an effort to continue to develop experienced clinical nurses, expand the care provided to the Veteran population, to enhance the availability of nurses to serve as clinical preceptors, and enable senior nursing students to transition to practice.

Methods: This descriptive study which took place in the spring 2016. The study was reviewed and deemed exempt by the VA Boston IRB. Simmons College, in partnership with the VA Boston, embarked on a collaborative effort to bring a Senior Capstone Dedicated Education Unit to an acute medical unit. A total of 40 senior nursing students from a variety of Boston area colleges completed their senior capstone at the Boston VA during the spring semester. Twelve of the nursing students were assigned to the Senior DEU unit. To gauge staff interest, an email was sent out to staff of the acute medical unit with the following inclusion criteria: at least three years of clinical experience, works at least twenty-four hours per week and will not be on any type of leave for more than two consecutive weeks during the semester. Names of interested candidates who met criteria were then forwarded to the program director and school representative to initiate the process of preceptor selection and student pairing.

Staff nurses participating in the research were oriented to the preceptor's role and clinical educational objectives. A DEU instructor power point was developed that touched upon the history of the DEU, the unique advantages it affords the students and staff. Benefits to the unit and affiliated institution are clearly spelled out. The paradigm shift from the traditional model of clinical instruction to the new DEU model was compared side by side to show the forward thinking and evolution in nursing education. The DEU instructor power point education was rooted in Malcom Knowles adult learning theory of andragogy, with the goal of maximizing learning outcomes for the educators.

At the close of the 2016 spring semester, staff nurses serving as clinical educators to senior nursing students in the DEU setting and traditional preceptor experiences were surveyed. Staff nurses serving as clinical educators were asked to complete a Qualtrics® Survey tool to assess their satisfaction and confidence in the clinical instructor role. Staff nurses at VA Boston were invited via email to participate in the confidential, voluntary online survey. In order to ensure statistically significant response rate, reminder emails were sent out at the beginning of week two and three. The survey utilized the Likert scale for 14 questions to allow for additional comments if applicable, while 7 questions focused on demographics. Descriptive and Analysis of Variance were used to determine that staff nurses' perception of the student outcomes, clinical teaching experience and effectiveness of the alternative senior experience.

Results: A total of 23 clinical nurses participated in the survey. Eleven of the clinical nurses precepted senior nursing students in a traditional preceptor experience and twelve clinical nurses precepted students in the DEU Senior Capstone model. The majority of the nurses reported a minimum of 6 years of nursing experience and with an academic preparation of BSN.

The nurse were asked a series of questions related to the senior student experience. The questions included clinical role expectations, academic partner support, available learning opportunities for students, leaning atmosphere on the clinical unit, integration of students on the patient care unit, development of critical thinking and clinical reasoning skills, necessary available resources, and preparation of the students for professional practice. Although the sample size was limiting in this study, no statistical significance was found in the staff nurses perceptions of the senior capstone DEU experiences versus the traditional one-to-one precepted experience.

Conclusion: Based on available data regarding the projected nursing shortages, the need for academic nursing faculty and qualified clinical preceptors will continue to grow. The utilization of the DEU model for a senior capstone experience is a possible solution to assist senior nursing students transition to professional practice. The results of the pilot study demonstrated no perceived difference in student outcomes when comparing the DEU experience to a traditional one-to-one senior preceptorship.

However, nursing leadership reports a change in the moral on the unit and a willingness to work with students in the Senior DEU model. As the students were assigned to all shifts with their staff nurses, leadership reports a sense of “teamwork and education” that was not present in the past. The nurse manager found that precepting in the DEU model was not viewed as a burden and researchers are now evaluating patient care outcomes on the acute medical unit.

This study will be repeated and plans to expand the model to other acute care units are being organized. Researchers are hopeful to capture the sense of “teamwork, improved moral, and education” in future studies.

References

Glynn, D. M., McVey, C., Wendt, J., & Russell, B. (2016). Dedicated Educational Nursing Unit: Clinical Instructors Role Perceptions and Learning Needs. *Journal Of Professional Nursing*, doi:10.1016/j.profnurs.2016.08.005

Freundl, M., Anthony, M., Johnson, B., Harmer, B. M., Carter, J. M., Boudiab, L. D., & Nelson, V. (2012). Original Article: A Dedicated Education Unit VA Medical Centers and Baccalaureate Nursing Programs Partnership Model. *Journal Of Professional Nursing*, 28344-350. doi:10.1016/j.profnurs.2012.05.008

Mulready-Shick, J., & Flanagan, K. (2014). Building the Evidence for Dedicated Education Unit Sustainability and Partnership Success. *Nursing Education Perspectives (National League For Nursing)*, 35(5), 287-294. doi:10.5480/14-1379

Contact

bonnie.russell2@va.gov

Dedicated Eduational Nursing Units: Clinical Instructors Role Perceptions and Learning Needs

Judith Wendt, MSN, BSN, RN, USA

Bonnie J. Russell, MSN, RN, CRRN, USA

Abstract

Purpose: Over the past decade, health care leaders have called for a radical transformation in health care and nursing education. The 2010 Institute of Medicine Future of Nursing Report identified the need for change in nursing practice and nursing education (IOM, 2010). The report acknowledged specific goals related to an increased number of baccalaureate prepared nurses and implementation of nurse residency programs. In order to achieve these goals, academic and practice partnerships have been formed. The desired outcomes of the partnerships are to increase nursing student and practicing nurse’s satisfaction and performance, to increase research initiatives and to improve patient outcomes (Beal,

2011). With an increased acuity in patient care, the traditional “clinical placement model” is ineffective in preparing the nurse of the future for practice. Nurse educators are being challenged to develop new delivery systems of education to meet the goals of the IOM Report. Nursing education must immerse the student in the “real life” of the practice of nursing in order to prepare a proficient nursing workforce (Benner, Sutphen, Leonard & Day, 2010).

Patient care has become complex demanding succinct interprofessional communication and collaboration to optimize the care of the patient and the nurse at the bedside is the optimal leader at the point of care. Assistance with the clinical reasoning and critical thinking with nursing students is pivotal for successful patient outcomes. The expert clinical nurse at the bedside is the premier faculty to guide the young practitioner in the care of the patient.

The preceptor/clinical instructor role in undergraduate nursing education is complex and multifaceted. Undergraduate nursing students identify preceptors/clinical instructor as key to their learning in the clinical setting; however, staff nurse preceptors often feel unprepared to serve in this role (McClure & Black, 2013). Clinical educators are required to connect the classroom knowledge with the clinical practice requirement and support the students as they through both experiential and situated learning on the nursing units (Benner et al, 2010).

A Dedicated Educational Unit (DEU) is an example of an academic-practice partnership designed to provide students with a positive clinical learning environment. A DEU is defined as an “optimal teaching/learning environment through the collaborative efforts of nurses, management and faculty (Moscato, et al 2007). The goal is to maximize the learning outcomes not only of students, but also of practicing clinical nurses in the role of nurse educator (Moscato, et al 2007). In the DEU model, an expert nurse is responsible for the clinical education of 2 nursing students. The expert nurse, referred to as a Clinical Instructor (CI), provides instruction related to clinical skills and critical thinking to the nursing students in an integrated job-embedded manner (Nishiola, et al, 2014).

The nursing student’s successful outcomes in the DEU model have been well documented (Mulready-Shich & Flanagan, 2014; Edgecome & Bowden, 2013; Moore & Nahigian, 2013). However, little research has been completed evaluating the CIs perceptions of the role and perceived learning needs. The purpose of this research study was to identify the role perceptions of staff nurse’s participating as clinical instructors on a DEU and the perceived educational learning needs of the experienced staff nurses.

Methods: The study took place at the VA Boston Healthcare System. The VA Boston has a unique academic-practice partnership which includes 6 colleges of nursing. After IRB approval, staff nurses serving in the role of clinical instructors were asked to participate in the interview process. Interview questions were developed to capture the perceived role perceptions of staff nurses participating as clinical instructors on a DEU and the perceived educational learning needs of the staff nurses. Participation in the study was voluntary and the clinical instructors remained anonymous. All clinical instructors were invited to participate regarding of the academic affiliation on the DEU. A total of 8 nurses participated in the study. The audiotapes were transcribed verbatim. Content analyses were used to code and synthesize common themes from the interviews.

Results: The three themes which emerged regarding the perceptions of the role of clinical instructor by participating staff nurses on a DEU were mentoring, ensuring competency with basic skills and tasks and the critical thinking component of nursing education.

The themes which emerged related to the perceived learning needs of staff nurses participating in the role of clinical instructor on a DEU were clear objectives from the academic affiliate, more coordination and acknowledgement by the academic affiliate of the clinical instructor role and additional education in dealing with students with diverse learning needs and accommodations. An additional theme related to the commitment by all partners to work together was identified during the interviews. The CIs reported the need for a staffing commitment on the units to support the learning needs of the students and the staff nurses.

Conclusion: The DEU model represents an important collaboration between academic and practice partnerships. The restructuring of traditional nursing clinical education will allow for the nursing students to participate in high quality care and be valued on the patient care unit. The expert staff nurses are allowed to expand their expertise and develop effective teaching skills. The traditional clinical faculty role is transformed to a position of coaching and support for the CIs. These efforts will have an important impact on nursing clinical education and the potential to reduce the clinical faculty shortage.

The Academic-Practice Partnerships must demonstrate a commitment to provide the infrastructure necessary to support the nursing students and the staff nurses serving in the role of CI. AACN recognizes that academic-practice partnerships are an excellent forum to bring both partners to the table and provide involvement in both selections of nursing students and clinical instructors on the nursing care units. As the role of CI continues to expand, further research evaluating the development of clinical judgment and reasoning in nursing students needs to be measured in the DEU model.

References

- Glynn, D. M., McVey, C., Wendt, J., & Russell, B. (2016). Dedicated Educational Nursing Unit: Clinical Instructors Role Perceptions and Learning Needs. *Journal Of Professional Nursing*, doi:10.1016/j.profnurs.2016.08.005
- Hunt, D. A., Milani, M. F., & Wilson, S. (2015). Dedicated education units: An innovative model for clinical education. *American Nurse Today*, 10(5), 45-49.
- Nishioka, V. M., Coe, M. T., Hanita, M., & Moscato, S. R. (2014). Dedicated Education Unit: Nurse Perspectives on Their Clinical Teaching Role. *Nursing Education Perspectives (National League For Nursing)*, 35(5), 294-300. doi:10.5480/14-1381

Contact

judith.wendt@va.gov

D 10 - Global Research and International Collaborations in the Pacific Rim

Global Research and International Collaborations in the Pacific Rim

Christine Kennedy, PhD, RN, PPCNP-BC, FAAN, USA

Abstract

Purpose: Noncommunicable diseases (NCD) such as cardiovascular disease, cancers, diabetes and chronic lung diseases account for 68% of global deaths, disproportionately affecting low resource countries; and contributing to disparities in immigrant populations in high resource countries. The studies to be presented in this symposium address Goal Three of the United Nations Sustainable Development program to reduce by 2030 one third of premature mortality from NCD's through prevention and treatment.

Methods: As an introduction to the symposium the historical roots of engaged participatory collaborative partnership approach for research will be shared. A brief overview of the key elements of a three-generation mentored model documents its influence.

Results: This symposium will present current research findings based in Pacific Rim experiences. Nursing has a long history of collaborations, and yet for many decades western hemisphere beliefs and practices dominated these endeavors. To illustrate the transition in methods and research approaches an examination of 3 decades of work which fostered a relationship approach is presented. Starting in the 1980's, with nursing colleagues in Taiwan - Ida Martinsons work which influenced Kennedy's Pacific Rim studies commencing in the late 1990's in Hong Kong and China and lead to J.L Chen 2000 and onwards program of research across China, Hong Kong, Taiwan and the United States, provide one model (Martinson, 1982; Kennedy, 1998). Using this as a frame for contemporary work results from the three recent studies and their implications for children, adult and family health across these four countries with native populations and within immigrant populations are addressed.

Conclusion: Health behaviors in many countries are similarly being influence by modernization (increased media intake, sedentary behaviors, and obesity) and identification of commonalities across the globe to address these and other disparities in health will aid nurses in designing and testing interventions that are more inclusive and evidence based while still being cultured situated and relevant.

References

- Chen, J.L et al (2016). Like Mother, Like Child: Maternal Attitudes and Behaviors on Weight-Related Behaviors in Their Children. Presentation STTI 2017 Conference
- Fu, M.R et al (2016). Obesity Indicators, Accuracy of Body Weight Perception, and Chronic Illness among Chinese Americans. Presentation STTI 2017 Conference
- Kennedy, C. (1998). The unspoken voice: Children's behavioral response to illness. *Asian Journal of Nursing Studies*, 4(3), 24-33
- Lommel, L. et al (2016). Disparities in Self-rated Health among Chinese Immigrants: Exploring Inequality Identities. Presentation STTI 2017 Conference
- Martinson, I. M. (1982). Impact of childhood cancer on the Chinese family. *Journal of Medical Sciences*, 4(4), 1395-1415

Contact

cmk4k@virginia.edu

Like Mother, Like Child: Maternal Attitudes and Behaviors on Weight-Related Health Behaviors in Their Children

Jyu-Lin Chen, PhD, RN, CNS, USA

Abstract

Purpose: The increased prevalence of childhood obesity has exploded into a global epidemic and public health issue during the last two decades. China is facing childhood obesity issue as approximately 22% of Chinese children, aged two to six, are overweight or obese. Early childhood is a critical period for the development of eating patterns and activity habits that may influence weight and health outcomes in later childhood and adulthood. However, a paucity of investigators has examined the influence of *maternal* factors on dietary habits and physical activity in their children, especially in Chinese preschool-aged children. Thus, the aims of this study in preschool-aged children and their mothers (mother-child dyads) were to describe: (1) maternal feeding practices, self-efficacy for healthy eating and physical activity level; (2) maternal factors that are associated with their child's health behaviors.

Methods: A cross-sectional study design was employed with mother-child dyad participants recruited from four preschools in Hunan Province in south central China. Individuals were eligible to participate in this study if they meet the following criteria: 1) Children between the ages of three and five years 2) Identified as Chinese, 3) Able to attend regular preschool activities, and 4), Mothers of these children were able to read and write in Mandarin Chinese. Potential eligible participants were contacted by research assistants who were trained by the research team on recruitment and data collection methodology. Participant children had their weight and height measured at preschool sites while mothers completed a set of questionnaires regarding family demographic information, family eating and activity habit, child feeding practices, and maternal self-efficacy regarding their ability to influence their child's eating and sedentary behaviors. at home. Human subject approval was obtained at the University of California, San Francisco Committee on Human Research at the Central South University in China.

Multivariate regression was utilized to identify factors associated with children's health behaviors including physical activity, TV and computer viewing time, eating behaviors, and stimulus home environment. Factors included in the model were age of the child, gender, maternal health behaviors (physical activity and eating behaviors), maternal self-efficacy, and maternal feeding practices. SPSS 23.0 software was used to conduct the analysis. A P value less than .05 was considered significant.

Results: There were 222 mothers and their children included in this study with a mean age of 31.04 (SD + 4.28) and 3.68 (SD +.75), respectively. Approximately 52% of children were boys. More than half (54%) of the mothers completed college or graduate education and 29% completed high school education. About 53% of mothers worked outside of their home.

The average daily time children spent in physical activity and watching TV, playing computer/video games was 1.18 hours (71 minutes) and .75 hour (45 minutes). Higher maternal physical activity level, maternal self-efficacy for limiting screen viewing, and younger age children were related to less screen time in children. A child's eating style was associated with his/her mother's eating style ($R^2 = .44$, $p < .001$). Low maternal self-efficacy for healthy eating, a low perceived maternal feeding responsibility, child female gender, an unhealthy maternal eating style in, and older child's age was associated with a child's unhealthy eating behavior ($R^2 = .20$, $p = .001$).

Conclusion: Maternal health-related behavior and attitudes regarding feeding practices and self-efficacy are associated with their child's health-related behaviors including physical activity, sedentary activity, and eating behaviors. As the health of children is critical to the health of the nation and global development, understanding factors related to child's health-behaviors in first step toward development of tailored and culturally sensitive intervention to promote healthy lifestyle and prevent obesity. Improvement of child's health behaviors need to incorporate mothers by promoting healthy lifestyle of the mother and self-efficacy regarding providing health home environment for the child.

References

- Hnatiuk, J. A., Salmon, J., Campbell, K. J., Ridgers, N. D., & Hesketh, K. D. (2015). Tracking of maternal self-efficacy for limiting young children's television viewing and associations with children's television viewing time: a longitudinal analysis over 15-months. *BMC Public Health*, 15, 517. doi:10.1186/s12889-015-1858-3
- Karnik, S., & Kanekar, A. (2012). Childhood obesity: a global public health crisis. *Int J Prev Med*, 3(1), 1-7.

Schoeppe, S., & Trost, S. G. (2015). Maternal and paternal support for physical activity and healthy eating in preschool children: a cross-sectional study. *BMC Public Health*, 15, 971. doi:10.1186/s12889-015-2318-9

Contact

jyu-lin.chen@ucsf.edu

Disparities in Self-Rated Health Among Chinese Immigrants: Exploring Inequality Identities

Lisa L. Lommel, PhD, MPH, RN, FNP, USA

Abstract

Purpose: The purpose of this study is to investigate the degree to which self-rated health (SRH) varies by the intersection of inequality identities including gender, age, socioeconomic status, acculturation, stress and discrimination, and social position among Chinese immigrants.

Health disparities are increasing, especially among United States (U.S.) minority populations. Among one such group, Asian immigrants, studies have shown that disparities in SRH vary across Asian subpopulations, with Chinese subgroups reporting worse SRH compared to non-Hispanic whites (Seo, Chum & Shumway, 2014). The variation in health outcomes among Asian communities, including SRH, indicates that different risk factors may be at work. Therefore, it is imperative to examine potential sources of racial/ethnic disparity in SRH among the Chinese immigrant population. An intersectionality framework guided this study because of its potential to reveal and explain previously unknown health disparities. An intersectionality approach does not attribute adverse health consequences to individual inequality identities (e.g. age, ethnicity) (additive approach), but rather focuses on how inequality identities *interact* at the micro level of individual experience and *intersect* at the macro level of poverty, sexism and racism (multiplicative approach) (Bowleg, 2012). Factors shown to negatively impact SRH in Asian immigrants include female gender and increasing age, (Sentell & Braun, 2012), lower levels of education (as a proxy for socioeconomic status) (John, De Castro, Martin, Duran, & Takeuchi, 2012), limited English proficiency (as a proxy for acculturation) (Maty, Leung, Lau, & Kim, 2011), lower self-perceived social status (Gong et al., 2012), and an increase in acculturative stress (Kimbrow, Gorman, & Schachter, 2012). Although not studied in Asian immigrants, Molina, Alegría, & Mahalingam (2013) found an association between discrimination stress and worse SRH in Hispanics. Although previous studies have investigated SRH in Asian immigrants, the complex interaction between these inequality identities and SRH in Chinese immigrants has not yet been investigated.

Methods: This cross-sectional study used data from the 2002-2003 National Latino and Asian American Study. Participants were foreign-born Chinese 18 years and older (n=473). Inequality identities include: 1) gender, 2) age, 3) education, 4) language preference and co-ethnic ties, 5) acculturative stress and discrimination experiences, and 6) social position. The outcome variable, SRH, was assessed by the question: *How do you rate your current health status?* Choice of responses included: *excellent, very good, good, fair or poor*. Using an intersectionality framework, individual main effect regression models were calculated followed by an additive regression model. Multiplicatively was demonstrated by testing 15 two-way interactions between the six inequality identities. R-squared values were used to assess the magnitude of contributions in explaining SRH beyond the contributions of the main effects.

Results: In the main effects model, male gender, language preference, and higher social position were significantly associated with better SRH. Higher acculturative stress was significantly associated with poor SRH. Comparisons of R² values indicate that language preference (R²= .09), followed by social position (R²= .07), and education (R²= .06) were the strongest predictors of SRH. The multiplicative model showed five significant interactions: age and language preference, $b = .004$, 90% CI [.001, .01], social position and discrimination, $b = .07$, 90% CI [.01, .14], and gender, $b = -.05$, 90% CI [-.10, -.004], acculturative stress, $b = -.03$, 90% CI [-.05, -.01] and social position, $b = .01$, 90% CI [.001, .03], and education. Significant interactions contributed 7-11% of predicted variability in SRH beyond the additive model.

Conclusion: This study contributes to a deeper understanding of the factors associated with disparities in health among Chinese immigrants as each of the six inequality identities interacted significantly with at least one other. Women and those with lower social positions and levels of education were at greater risk of experiencing health disparities. The results of this study will help to inform interventions addressing health disparities among Chinese immigrants in the U.S.

References

- Bowleg, L. (2012). The problem with the phrase women and minorities: Intersectionality-an important theoretical framework for public health. *American Journal of Public Health, 102*(7), 1267-1273.
- Gong, F., Xu, J., & Takeuchi, D. T. (2012). Beyond conventional socioeconomic status: Examining subjective and objective social status with self-reported health among Asian immigrants. *Journal of Behavioral Medicine, 35*(4), 407-419.
- John, D. A., De Castro, A., Martin, D. P., Duran, B., & Takeuchi, D. T. (2012). Does an immigrant health paradox exist among Asian Americans? Associations of nativity and occupational class with self-rated health and mental disorders. *Social Science & Medicine, 75*(12), 2085-2098.
- Kimbro, R. T., Gorman, B. K., & Schachter, A. (2012). Acculturation and self-rated health among Latino and Asian immigrants to the United States. *Social Problems, 59*(3), 341-363.
- Maty, S. C., Leung, H., Lau, C., & Kim, G. (2011). Factors that influence self-reported general health status among different Asian ethnic groups: Evidence from the roadmap to the new horizon: Linking Asians to improved health and wellness study. *Journal of Immigrant and Minority Health, 13*(3), 555-567.
- Molina, K. M., Alegría, M., & Mahalingam, R. (2013). A multiple-group path analysis of the role of everyday discrimination on self-rated physical health among Latina/os in the USA. *Annals of Behavioral Medicine, 45*(1), 33-44.
- Sentell, T., & Braun, K. L. (2012). Low health literacy, limited English proficiency, and health status in Asians, Latinos, and other racial/ethnic groups in California. *Journal of Health Communication, for 17*(Suppl 3), 82-99.
- Seo, S., Chung, S., & Shumway, M. (2014). How good is "very good"? translation effect in the racial/ethnic variation in self-rated health status. *Quality of Life Research, 23*(2), 593-600.

Contact

lisa.lommel@ucsf.edu

Obesity Indicators, Accuracy of Body Weight Perception, and Chronic Illness Among Chinese-Americans

Mei R. Fu, PhD, RN, FAAN, USA

Abstract

Purpose: Compared to Chinese population in China, Chinese Americans have increased risk for obesity due to immigration and environmental changes. Obesity has been identified as a major source of unsustainable health costs, morbidity and mortality due to multiple chronic illnesses, including hypertension, type 2 diabetes, cardiovascular diseases and certain types of cancer. Obesity indicators generally include Body Mass Index (BMI), waist circumference, hip circumference, weight to hip ratio, weight to height ratio, fasting blood glucose and Glycated hemoglobin (HbA1C). Accuracy of body weight perception is an individual's perception of their body weight in comparison with actual body weight and is associated with weight related behaviors. Chinese Americans have increased risk for obesity but no studies have examined the impact of accuracy of body weight perception on obesity, obesity indicators and chronic illness.

Methods: This study used a descriptive and cross-sectional design. Participants were recruited from metropolitan New York area. Data included demographic information, accuracy of perception of body weight, anthropometric measures (weight, height, BMI, waist circumference, hip circumference, weight to height ratio, weight to hip ratio, fasting plasma glucose and HbA1C). Chronic illnesses were assessed using a researcher developed self-report checklist and verified by medical record review.

Results: Among the 162 Chinese Americans in the study, 52 participants (32%) did not perceive their body weight correctly. Significantly more male ($p=0.003$), older ($p=0.003$), and less educated ($p=0.047$) participants had incorrect accuracy of body weight perception. Participants with incorrect perception of

body weight had higher HbA1C ($p=0.004$) and hypertension ($p=0.035$). Accuracy of perception of body weight significantly predicted waist circumference ($p<.001$), hip circumference ($p<.001$), weight to height ratio ($p=0.001$), BMI ($p<.001$) and weight ($p<.001$) even after controlling for all demographic factors. Of 94 (58%) participants had fewer than three chronic illnesses and 68 (42%) had three or more chronic illnesses. The three most common chronic illnesses in this population were diabetes (65.4%), hypertension (46.9%), and eye problem (38.3%). Controlling for all demographic factors, numbers of chronic illnesses remained significant associations with obesity indicators of waist circumference ($p=0.006$), hip circumference ($p=0.020$), weight to height ratio ($p=0.011$), HbA1C ($p=0.026$). Obesity indicators also had significant associations with individual chronic illness of diabetes, hypertension, heart diseases, eye and foot problems.

Conclusion: One third of Chinese Americans did not perceive their body weight correctly. Accuracy of perception of body weight significantly predicted abnormal values of obesity indicators even after controlling for all demographic factors. General obesity indicator (BMI), central obesity indicators (waist circumference, hip circumference, weight to height ratio) and HbA1c were significantly associated with chronic illnesses. Nursing practice and interventions need to address perception of body weight, gender and age differences to promote normal values of obesity indicators so as to prevent obesity and chronic illnesses among this population.

References

1. World Health Organization, *Obesity: preventing and managing the global epidemic. Report of a WHO consultation*. World Health Organ Tech Rep Ser, 2000. **894**: p. i-xii, 1-253.
2. Jia, H. and E.I. Lubetkin, *The impact of obesity on health-related quality-of-life in the general adult US population*. J Public Health (Oxf), 2005. **27**(2): p. 156-64.
3. Barnes, J.S. and C.E. Bennett, *The Asian population 2002*, C. Bureau, Editor. 2002: Washing, D.C.
4. Liou, D., K.D. Bauer, and Y. Bai, *Psychosocial variables and obesity-risk-reduction behaviors in Chinese Americans*. Ecol Food Nutr, 2011. **50**(6): p. 486-505.
5. Nam, S., *Obesity and asian americans in the United States: systematic literature review*. Osong Public Health Res Perspect, 2013. **4**(4): p. 187-93.
6. Bates, L.M., et al., *Immigration and generational trends in body mass index*
7. Liu, S., Fu, M.R., Hu, S., Wang, V.Y., Crupi, R., Qiu, J.M., Cleland, C., D'Eramo Melkus, G. (2015). Obesity Indicators and Chronic Illness among Chinese Americans: A Pilot Study. *Journal of Obesity & Weight Loss Therapy*, 5:4; <http://dx.doi.org/10.4172/2165-7904.1000270>.
8. Liu, S., Fu, M.R., Hu, S., Wang, V.Y., Crupi, R., Qiu, J.M., Cleland, C., D'Eramo Melkus, G. (2015). Accuracy of Body Weight Perception and Obesity among Chinese Americans. *Obesity Research & Clinical Practice*. DOI: 10.1016/j.orcp.2015.04.004. Epub Ahead, May 1, 2015.

Contact

mf67@nyu.edu

D 11 - Building an Evidence-Based Nursing Enterprise: Critical Components for Success

Building EBP Competence and Capacity By Leveraging Opportunities and Planning Strategically

Lynn Gallagher-Ford, PhD, RN, DFPNAP, NE-BC, USA

Abstract

Purpose: To describe a unique collaboration between two renowned organizations to plan and execute an evidence-based practice education and follow up program to create effective EBP teams to efficiently address real world healthcare challenges and drive best practices.

Methods: In a new era of healthcare, success will be achieved through collaborative relationships and development of teams that can deliver evidence-based, patient-centered care to improve healthcare safety, patient and clinician outcomes, and demonstrable returns on investments. The development of evidence-based practice (EBP) knowledge, skills, and attitudes (EBP competence) along with creation of organizational culture and integration of effective infrastructures that support EBP is a comprehensive strategy that can effectively propel organizations toward achieving and sustaining these goals, and meeting required healthcare mandates and achieving the quadruple aims of healthcare.

Many healthcare organizations have identified that their staff are unprepared in EBP knowledge and skills and they are seeking opportunities build EBP capacity in their settings. The Center for Transdisciplinary Evidence-based Practice (CTEP) has worked with a wide range of both clinical and academic organizations to build and sustain EBP. CTEP's unique collaboration with a world-renowned, Magnet designated, NCI designated, comprehensive cancer center to plan and execute the creation of an evidence-based nursing enterprise to effectively and efficiently address real world healthcare challenges and drive best practices will be highlighted in this session.

Results: This presentation will focus on this organization's work in planning and executing the EBP education program created to meet their particular needs including: characteristics and actions of key innovators who drove the initial conceptualization of the unique EBP education program designed; innovative aspects of the program created for this large, complex organization; pioneering approaches utilized to deliver the program and; results of the education program initiative.

Conclusion: An innovative, customized, and robust EBP education program with structured follow up can build EBP competence in a complex nursing department. The EBP teams forged in this program utilize an evidence-based problem solving approach, recommend effective strategies to implement to address strategic nursing challenges, and lead others in implementing best practices. Lessons learned from this collaborative experience that can inform future EBP programs in other organizations.

References

- Melnyk BM, Fineout-Overholt E, Gallagher-Ford, L, Kaplan, L. (2012). The State of Evidence-Based Practice in US Nurses: Critical Implications for Nurse Leaders and Educators. *Journal of Nursing Administration*, 42(9), 410-417.
- Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5-15.
- Melnyk, B.M., Fineout-Overholt, E. (2016). *A test of the ARCC© model improves implementation of evidence-based practice, healthcare culture, and patient outcomes*. Manuscript submitted for publication.
- Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia, PA: Wolters Kluwer Health.

Contact

gallagher-ford.1@osu.edu

Utilizing a High Reliability Framework to Build Evidence-Based Practice in a Complex Organization

Kevin Browne, MS, RN, CCRN, USA

Abstract

Purpose: In 2014, the department of nursing at this ANCC magnet® designated and NCI designated comprehensive cancer center underwent structural changes at the executive nursing level. Recognizing that each division could no longer exist as configured, the divisions of nursing practice, quality and education were combined under the newly created office of the Deputy Chief Nursing Officer. The Division of PQE was created.

Methods: Nursing practice, quality, and education are fundamental domains within nursing; each unique however reliant upon one another. The three create a fluid paradigm that provides a foundation for the delivery of oncology nursing services and the 3000+ registered professional nurses within the system. Using a high reliability framework, the Deputy CNO set out to strengthen the approach to evidence-based practice (EBP). A partnership was forged with The Center for Transdisciplinary Evidence -based Practice (CTEP) at the Ohio State University College of Nursing to create a customized and novel deep dive immersion into EBP immersion.

The institution invested financial resources to support the attendance of 100 + nursing leadership in a week long EBP immersion. Nursing leadership included the Chief Nursing Officer, the executive nursing leadership team, frontline nurse leaders, NP coordinators, clinical nurse specialists, nurse informatics project managers and nursing professional development specialists. The team was divided into two tracks; leader and mentor. Sixteen distinct workgroups with representatives from each of the leadership roles were created. Each workgroup was assigned a pre-defined topic that was aligned with the department of nursing's 2016 strategic goals. Twenty-one CTEP faculty provided instruction and support during the immersion, guiding leadership through EBP enculturation. Topics such as meaningful perioperative benchmarks, meaningful outpatient benchmarks, preceptor development, oral chemotherapy medication adherence, CAUTI, CLABSI, falls, peer review, hand off, communication across a complex organization, etcetera are being used to learn the methodology so as to achieve two distinct goals; lead the enculturation across the center and produce sustainable outcomes.

Results: This unique approach resulted in the immediate creation of 16 multi-level teams from varied backgrounds with the responsibility to apply an evidence based problem solving approach to the key strategic nursing goals. This included set timelines and expectations for project implementation and completion. The teams have actively engaged in developing and implementing evidence-based action plans and measuring key outcomes.

Conclusion: A strategic, planned approach to; building EBP competence; creating EBP infrastructure and support, and; leading an EBP culture can provide the underpinning to build an effective program to address critical strategic goals in a complex health enterprise. Therefore, a second cohort is being planned for second quarter 2017.

References

- Melnyk, B.M., Fineout-Overholt, E. (2016). *A test of the ARCC© model improves implementation of evidence-based practice, healthcare culture, and patient outcomes*. Manuscript submitted for publication.
- Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia, PA: Wolters Kluwer Health.

Contact

brownek@mskcc.org

The Importance of Follow-up in the Teaching, Implementing and Sustaining of Evidence-Based Practice

Jennifer H. Dean, BS, BSN, RN, USA

Abstract

Purpose: This session will focus on the evidence-based follow-up strategies utilized to support the evidence-based practice (EBP) process and the EBP teams through discussions and meetings in the collaborative work between Memorial Sloan Kettering Cancer Center (MSKCC) and The Center for Transdisciplinary Evidence-based Practice (CTEP) at The Ohio State University College of Nursing. CTEP has anecdotally noted, in working with a variety of healthcare organizations over the past 5 years, that when follow-up interactions/sessions are completed with participants 3-months after the initial training session, these facilities were more successful at implementing and sustaining EBP efforts and projects. In addition, when others have implemented the Advancing Research and Clinical practice through close Collaboration (ARCC) Model over a 12-month period with planned follow up sessions, improved patient outcomes have been clearly demonstrated, including a reduction in ventilator days, pressure ulcer rates and congestive heart failure readmissions (Melnyk, 2012).

Methods: Based on the referenced information, anecdotal experience and the education literature, CTEP and MSKCC forged up a 15-month relationship that included an intensive educational program along with a post training follow schedule where the CTEP team met with participants every 3 months following the initial training session.

Results: This session will include how the intentional follow-up meetings addressed the EBP teams as they progressed in their moving through the steps of the EBP process: from critical appraisal to recommendations; from recommendations to action plan; from action plan to implementation and; from implementation to measurement. The meetings and discussions were completed either in person, with several members of CTEP's team traveling to MSKCC to meet with participants, via telephone or with the use of virtual meetings online. In addition to meetings, the groups were each provided with an online collaborative document that clearly laid out the expectations for the planned next steps based on where each group was in the EBP process. The presentation will include feedback from participants about the follow-up sessions and their effectiveness in assisting with the movement through the EBP process as well as results from additional data collected over the course of the follow-up.

Conclusion: Continuing to provide structured follow-up to participants is an essential component of an effective EBP implementation program.

References

- Melnyk, B. M. (2012). Achieving a high-reliability organization through implementation of the ARCC model for systemwide sustainability of evidence-based practice. *Nursing Administration Quarterly*, 36, 127-135.
<http://dx.doi.org/10.1097/NAQ.0b013e318249fb6a>
- Melnyk, B.M., Fineout-Overholt, E. (2016). *A test of the ARCC© model improves implementation of evidence-based practice, healthcare culture, and patient outcomes*. Manuscript submitted for publication.

Contact

dean.1040@osu.edu

F 10 - "What Did That Mean?" An Examination of Personal Disposition in Nursing Education and Practice

Personal Disposition and With-It-Ness in the Nursing Classroom: Implications for the Science of Nursing Education

Andrew Bobal, MEd, BS, USA

Laura C. Dzurec, PhD, RN, PMHCNS-BC, ANEF, FAAN, RN, PMHCNS-BC, ANEF, FAAN, USA

Barbara J. Patterson, PhD, RN, ANEF, USA

Abstract

Purpose: The goal of the investigators in conducting this study was to examine evidence of the importance of two notions--personal disposition and with-it-ness, a term coined in the early 80s--to improved understanding of the science undergirding nursing education. The metasyntheses conducted for this study lay the groundwork for understanding how nursing education is effectively carried out in the classroom. The act of educating is the primary intervention for the science of nursing education. Because the terms personal disposition and with-it-ness address nursing education's essential, interpersonal nature, they serve to characterize nursing education in action. As individuals work in a classroom environment together, disposition acts across individuals, as emerging group dynamics generate a *gestalt* that characterizes the group as a whole, interweaving people and their values in relationship. With-it-ness moves that established relationship forward. The investigators' systematic review of literature and identification of emergent concepts and themes suggests that because they necessarily commingle in every classroom setting, disposition and with-it-ness serve as core concepts for the science undergirding nursing education.

Methods: Using metasynthesis, the investigators identified concepts and themes from published literature to ascertain the relevance of the notions of personal disposition and with-it-ness in nursing classrooms, to identify whether those terms are found in descriptions and examples within the science of nursing education. Disposition can be defined as the sum of one's personal values, commitments, beliefs, and professional ethics. Disposition acts across individuals, as emerging group dynamics act collectively to meld individual students and faculty into a collective whole, a single entity. With-it-ness is defined as deep understanding of what's going on in a classroom environment. With-it-ness incorporates a faculty member's understanding of the feelings, apprehensions, and expectations of students, as well as awareness of students' prior knowledge and preparation for class. It involves a grasping of the classroom *gestalt*, recognizing what is transpiring in the classroom from moment to moment, predicting where discussion will go in the future, and dealing with the emotions of the students working there. Because in nursing education, learning stakes are high, requiring students' enhancement of skills in ethical decision-making, their personal refinement of professional values, and their development of identity through a focus on knowledge rather than tasks (Andrew, et al., 2009), nurse educators are particularly challenged to recognize and understand their own dispositions and to be with-it. The notions emerging from this perspective on classroom dynamics hold particular significance for advancing the science of nursing education: simply delivering content, in the tradition of the 'sage on the stage,' is inadequate to successful teaching, especially in fields such as nursing where not only information, but an array of skills and professional values, is on the line.

Results: Analyses demonstrated that as both concepts--personal disposition and with-it-ness--address 'ways of seeing' in the classroom, they shape the character of the work faculty and students will do together. Study findings highlight the relevance of both notions to the activities and scholarship inherent in teaching and learning in nursing. Snow noted that student learning is inextricably linked to faculty learning. Without strong foundations in the science undergirding nursing education, as those foundations guide faculty learning, the quality of student learning will certainly diminish. Findings demonstrate that the most with-it teachers are aware not only of student dispositions, but of their own dispositions, as well. From that highly-informed perspective, and recognizing how meaning emerges between themselves and the classroom ecology, the best nursing faculty are able to maximize student outcomes, class by class,

and course by course, responding with comprehensive awareness to student needs and to the needs of the classroom as a whole. Truly with-it nurse educators will effectively contribute to maximizing student outcomes, and ultimately to graduates' performance in professional practice, enhancing not only the skills and expertise of graduates, but contributing understanding of educational interventions that will support graduates' success.

Conclusion: For several decades, nursing's professional focus has been dedicated to the evidence-base undergirding clinical practice; nursing education, as a focus in its own right, has been broadly overlooked. This presentation provides evidence, derived from published literature, supporting the significance of personal disposition and with-it-ness to advancing the science of nursing education, serving to illustrate the relevance of both notions to the activities and scholarship inherent in teaching and learning in nursing. Nurse educators are particularly challenged to be with-it. They are required to recognize and predict how students' understanding and personal dispositions will shape personal and professional responses to the challenges of successful nursing practice. Understanding how disposition and with-it-ness shape education interventions, nurse educators can use their underlying science to good effect.

References

- Billings, D. M., & Halstead, J. A. (Eds.). (2016). *Teaching in nursing: A guide for faculty* (5th Ed.). St. Louis: Elsevier.
- Kounin, J. S. (1983). Classrooms: Individuals or behavior settings? Monographs in teaching and learning No. 1). Bloomington, IN: School of Education, Indiana University. **ERIC Number:** ED240070
- Parandeh A, Khaghanizade M, Mohammadi E, & Nouri, J. M. (2015). Factors influencing development of professional values among nursing students and instructors: A systematic review. *Global Journal of Health Science*, 7, 284–293.
- Shafakhah, M., Molazem, Z., Khademi, M., & Sharif, F. (2016). Facilitators and inhibitors in developing professional values in nursing students. *Nursing Ethics*, 0969733016664981.
- Snow, C. E. (2015). 2014 Wallace foundation distinguished lecture—Rigor and realism: Doing educational science in the real world. *Educational Researcher*, 44, 460-466.
- Tedesco-Schneck, M. (2013). Active learning as a path to critical thinking: Are competencies a roadblock?. *Nurse education in practice*, 13(1), 58-60.
- Zull, J. E. (2002). *The art of changing the brain: Enriching teaching by exploring the biology of learning*. Sterling, VA: Stylus.

Contact

lcdzurec@widener.edu

Shattered Assumptions: Examining Discrepant Perceptions of "Reasonable" Accommodations Among Faculty and Student Nurses with Disabilities

Rose Schwartz, PhD, RN, BC-CNS, USA
Geraldine Bloemker, PsyD, MA, MS, MA, BA, USA

Abstract

Purpose: The purpose of this study, which combined case study and content analysis methods, was to examine and begin to highlight features characterizing the interface between the assumptions of faculty members and student nurses with disabilities (SNWDs), as those assumptions regard implementation of academic accommodations.

Methods: The investigators used explanatory case study method and content analysis to examine how the Theory of Shattered Assumptions (Janoff-Bulman, 1992) helped to explain the responses of both faculty and SNWDs endeavoring to address teaching and learning from their respective viewpoints. Used to categorize data emerging from a systematic review of the literature, the steps in the process included investigator identification of ; the assumptions of both faculty and SNWDs; the character of the 'traumatic events' precipitating clashes of assumptions; the process of disillusionment and change often seen to demarcate the experiences of both faculty and SNWDs; the ways both faculty and SNWDs might process newly recognized data about the accommodation process; and routes to rebuilding relatively more congruency between and among faculty and SNWD assumptions.

Results: Systematic literature review suggested that both nursing faculty and SNWDs processed their academic accommodation experiences through the steps outlined in the Theory of Shattered Assumptions (Janoff-Bulman, 1992). The 'traumatic event,' that is, the process of implementing formally-defined accommodations, challenged the fundamental assumptions of both groups. Both faculty and SNWDs described disillusionment with the changes to their personal perceptions of what constituted the *status quo* in the nursing classroom. For both faculty and students, lack of knowledge about the Americans with Disabilities Act and conjoint interpretation of the term 'reasonable accommodation' interfered with abilities to modify fundamental assumptions. Moreover, as staff in disabilities services sought to support both faculty and students, they found themselves in the tenuous position of identifying and understanding the sometimes disparate needs of each group, while adhering to the law. Analysis demonstrated that although assumptions are not immediately changeable, nursing faculty and SNWDs are able to address concerns that will support them in negotiating reasonable accommodations. Review of literature suggests that faculty and SNWDs work through the steps outlined in the Theory of Shattered Assumptions as they address implementation of academic accommodations.

Conclusion: Although the original premise of the Theory of Shattered Assumptions addressed recovery from traumatic events, it has broad applicability in characterizing the struggle engaging nursing faculty and SNWDs as they try to engage with recommended academic accommodations. Through this presentation, the applicability of the theory of shattered assumptions will be highlighted, demonstrating how historical, hard-wired beliefs can be rebuilt through education, communication, interpretation, and resource support.

References

- Ashcroft, T.J. & Lutfiyya, Z.M. (2013). Nursing educators' perspectives of students with disabilities: A grounded theory study. *Nurse Education Today*, (33), p. 1316-21.
- Janoff-Bulman, R. (1992). *Shattered Assumptions*. Toronto: The Free Press.
- Levey, J. (2014). Attitudes of nursing faculty towards nursing students with disabilities: An integrative review. *Journal of Postsecondary Education and Disability*, (27) 3, p. 321-330.
- Neal-Boylan, L. & Smith, D. (2016). Nursing students with physical disabilities: Dispelling myths and correcting misconceptions. *Nurse Educator*, (41), 1, p. 13-18.
- Shpigelman, C., Zlotnick, C. & Brand, R. (2016). Attitudes toward nursing students with disabilities: Promoting social inclusion. *Journal of Nursing Education*, (55), 8, p. 441-448.
- Tee, S.R., Owens, K., Plowright, S., Ramnath, P., Rourke, S., James, C., & Bayliss, J. (2010). Being reasonable: Supporting nursing students in practice. *Nurse Education in Practice*, (10), p. 216-221.

Contact

raschwartz@widener.edu

"I Won't Dance, Don't Ask Me": Concerning Why Workplace Bullying Bystanders Simply Stand By

Laura C. Dzurec, PhD, RN, PMHCNS-BC, ANEF, FAAN, RN, PMHCNS-BC, ANEF, FAAN, USA
Monica Kennison, EdD, MSN, RN, USA

Abstract

Purpose: Extending Cross's (1981) model addressing deterrents to adults' participation in continuing education, the investigators' purpose was to use hermeneutic analysis to identify situational, institutional, and dispositional factors that serve to immediately dissuade interventions on the parts of workplace bullying bystanders. Bystanders are those individuals who observe bullying but are not directly targeted by bully perpetrators. Bystanders' reticence to act subtly but effectively perpetuates bullying actions.

Methods: Through a review of published first person narratives and descriptions of bystanders' experiences in bullying situations, the investigators selected relevant, textual quotes and accounts (hermeneutic description), identified themes portraying the character and essence of those quotes and accounts (hermeneutic reduction), and then considered the meanings that emerged from the selected text and the emergent themes, collectively (hermeneutic interpretation). Meanings inferred through this three

step, credible and auditable hermeneutic process were considered, then, in light of Cross's (1981) categories of situational, institutional, and dispositional factors. Findings of the study contribute to clarifying the complexity inherent in bystander response to situations of workplace bullying, and speak to the significance of disposition and context to furthering the intervention reticence of the bystanders who observe bullying in the workplace.

Results: Findings of the study address bystanders' concerns about responding to situations of workplace bullying, and speak to the significance of disposition and context to furthering bystanders' tendencies for bystander reticence. This reticence takes place frequently; still, bystanders frequently experience physical and psychological impact as a result of their distant involvement in workplace bullying. Analysis suggests that bystander intervention can influence the outcomes of bullying. Bullying bystanders' active intervention, though, tends to be discouraged by virtue of the way workplace context interfaces with personal disposition. Moreover, when the workplace context fails to provide objective permission to recognize and actively address bullying behaviors, as it often does, bystanders tend to exhibit the group conformity that constrains their active involvement in actions that will thwart bullying actions. Surrounded by others who deny bullying's expression, bullying bystanders tend to overlook bullying behaviors, to doubt that they've actually seen them, and to question what right they have to report them.

Conclusion: Numerous researchers have addressed the significance of workplace bullying bystanders' actions to ultimately abetting or deterring workplace bullying acts. Findings of this study demonstrate that bystanders' tendency to avoid intervening in bullying situations results from a confluence of dispositional, situational, and organizational factors. Consequently, efforts to stem workplace bullying may well be improved by incorporating education and training to empower bystanders to become 'upstanders,' skillful in responding to workplace bullying situations in the context of a safe, supportive organizational climate.

References

- Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological monographs: General and applied*, 70(9), 1-70.
- Cross, P. (1981). *Adults as learners*. San Francisco: Jossey-Bass.
- Dzurec, L. C., Kennison, M., & Albatineh, R. (2014). Unacknowledged threats proffered 'in a manner of speaking': Recognizing workplace bullying as shaming. *Journal of Nursing Scholarship*, 46, 281-291. DOI: 10.1111/jnu.12080.
- Fetzer, A. (2004). *Recontextualizing context: Grammaticality meets appropriateness*. Amsterdam/Philadelphia: John Benjamins.
- House, R. J., Shane, S. A., & Herold, D. M. (1996). Rumors of the death of dispositional research are vastly exaggerated. *Academy of Management Review*, 21, 203-224.
- Johnson, S. L., Boutsin, D., Tsai, J., & deCastro, A. B. (2015). Managerial and organizational discourses of workplace bullying. *The Journal of Nursing Administration*, 45, 457-461. DOI: 10.1097/NNA.0000000000000232
- Kennison, M., Dzurec, L.C., Cary, A., & Dzurec, D. J., III. (2015). Seeking the 'magis': A pathway to enhancing civility in higher education. *Jesuit Higher Education*, 4 (1), 27-35.
- Kendon, A. (1992). The negotiation of context in face-to-face interaction. In A. Duranti & C. Goodwin (Eds.), *Rethinking context: Language as an interactive phenomenon* (pp. 323-34). Cambridge, England: Cambridge University Press.
- Lanigan, R. L. (1988). *Phenomenology of Communication*. Pittsburgh: Duquesne University.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371-378.
- Simons, D. J., & Chabris, C. F. (1999). Gorillas in our midst: Sustained inattention blindness for dynamic events. *Perception*, 28, 1059-1074.

Contact

lcdzurec@widener.edu

F 11 - Self-Care and Nursing Image: Impact and Opportunities

The Impact of the Image of Nursing on Nurses' Perception of Self and the Profession

Nancy Laplante, PhD, RN, AHN-BC, USA
Wendy Ostendorf, EdD, RN, CNE, USA

Abstract

Purpose: The purpose of this research study was to explore the impact of a professional presentation offered at a national nursing conference, on participants' perceptions of the cinematic images of nursing. Image has been a focus of interest to nursing for over a decade; influenced by sentinel work by Kalisch and Kalisch (1986) that examined the portrayal of nurses compared to those of physicians in different media forms and nursing stereotypes.

A concept analysis of image by researchers in Iran provided validation that image is a multidimensional concept (Rezaei-Adaryani, Salsali, & Mohammadi, 2012), concepts that were explored in the current study. Rezaei-Adaryani et al. found that image encompasses four dimensions: public's perception of nursing, nurses' self-image/ professional identity, nurses' perception of the public's image, and image of nursing in the media.

For the current study, image was examined through the lens of cinematic images and in relation to several Core Values of Holistic Nursing. In particular, the American Holistic Nurses Association's (AHNA, 2013) Core Value #5, which highlights the focus on nurses being self-reflective and instrumental in creating self-care programs. This study provided the opportunity for self-reflection which must come before self-care practices can be identified and created.

Methods: The researchers obtained approval from their Institutional Review Boards and from the Research Committee of the conference prior to the start of the study. At the presentation, all attendees were given a packet of information that included an informational letter with all study details, a response form, and plain white envelope. If an attendee chose to participate responses were written on the form during the presentation.

Positive and negative cinematic images were shown as part of the presentation. Four open ended questions informed by the presentation were individually embedded at various points in slides in the power point presentation. The first question was: Before attending this presentation, what was your perception of the image of nursing? (Slide 2 after introductory slide.) The next two questions were presented on slides 12 and 28 respectively: How does the public's view of the image of nursing impact the way nurses view themselves? and How does nursing's image impact recruitment and retention into the nursing profession? The fourth question was: After attending this presentation how did your attitudes or beliefs about the image of nursing change? (The last slide of the presentation.)

During the presentation the researchers paused at each question to allow time for participants to write their response. At the end of the presentation, participants placed their response forms in the envelope, and placed these in a designated container at the exit of the room. Attendees had the option to not participate and remain as a viewer only of the presentation. They also could write responses, and not submit their forms at the end of the presentation. Once forms were placed in the bag, participants could not withdraw from the study as all forms were anonymous. Content analysis was used for this study. The researchers first individually read through all responses for each question, coming together in person after this to discuss commonalities they found. An audit trail was kept, documenting four additional sessions of discussion, with the researchers further collapsing the data of each question, ultimately to four themes. An expert in qualitative research was contacted to provide validation to the researchers for the process.

Results: Participants ranged in age from 24 to 84 years of age, and practice years of experience ranged from one to 63 years. Four themes were discovered: An Evolving Identity; In Defense of the Profession; Reality to Retain; and The Greater Voice.

Views of image were mixed prior to viewing the presentation. Participants felt they were caring, trusted and well-liked by the public, but at the same time had to defend that they were not “less” than a doctor. Public perception and recruitment/retention issues impact nurses worldwide, and there were many in the study who felt students needed a better understanding of the profession they chose early on to avoid a distorted sense of reality when they began practice.

Participants felt they possessed a positive image of nursing, but that there was a need for a stronger collective voice. Many felt they could do more to promote image; they expressed gratitude for the presentation as it encouraged them to dialogue and realized there is still work to be done to improve the image of the profession.

Conclusion: Nurse educators play an important role in the socialization of undergraduate students from their first year through graduation. They can assist students to develop a positive professional image and support students’ development throughout their education.

When nurses are viewed from a negative perspective, roles can become ineffective when collaborating with persons receiving care or partners in the health care community. These negative stereotypes have caused stress in practicing nurses, therefore the need for self-care is heightened. This study provided practicing nurses an opportunity to self-reflect on their perceptions of image, and participant responses support continuing this dialogue with students and practicing nurses alike to provide context and correct inaccurate stereotypes.

References

- American Holistic Nurses Association. (2013). *Holistic nursing scope and standards of practice*, 2nd ed. Silver Spring, MD: American Nurses Association
- Kalisch, P. A., & Kalisch, B.J. (1986). A comparative analysis of nurse and physician characters in the entertainment media. *Journal of Advanced Nursing* 11, 179-195.
- Rezaei-Adaryani, M., Salsali, M., & Mohammadi, E. (2012). Nursing image: An evolutionary concept analysis. *Contemporary Nurse* 43 (1), 81-89.

Contact

nllaplante@mail.widener.edu

A Mindfulness-Based Approach to Student Self-Care

Brenda Kucirka, PhD, BS, RN, PMH, CNS, CNE, USA

Abstract

Purpose: The purpose of this study was to determine if an 8 week mindfulness based stress reduction (MBSR) and cognitive behavioral intervention would decrease stress, improve sleep and positively impact wellbeing among first semester junior nursing students. The first clinical semester has been identified as inducing the highest levels of stress during the nursing curriculum. Students are confronted with the reality of the profession and are often flooded with fears and anxieties that negatively affect their wellbeing. The National College Health Association’s 2015 National College Health Assessment identified stress as the top ranked impediment to academic performance and wellbeing. Unmanaged stress has been connected to increased student attrition (Kukkonen, Suhonen, & Salminen, 2016), negative physical and psychological consequences, and interpersonal and relationship problems (Hensel & Laux, 2014). Studies employing MBSR and cognitive behavioral interventions among university students support the efficacy of these approaches in increasing student wellbeing and decreasing anxiety and stress (van der Riet, Rossiter, Kirby, Dluzewska, & Harmon, 2015; Regehr, Glancy & Pitts, 2013). Pender’s Health Promotion Model guided this research study. In Pender’s model, perceived barriers, sense of self-efficacy, and situation factors can contribute to action or inaction in the performance of health promoting

behaviors. The Student Nurse Stress Inoculation Study (SNSIS) protocol was designed to increase student self-care behaviors and sense of self efficacy through the use of mindfulness based stress reduction and cognitive behavioral strategies.

Methods: Approval from the university Institutional Review Board was obtained prior to conducting this pilot experimental research study. Students were randomly assigned to an 8 week mindfulness based protocol which included a 12 minute body scan meditation and a 5 minute “brain dump” journal. Both control and experimental groups completed pretest/posttest measures including the Student Nurse Stress Index (SNSI), WHO-5 Wellbeing Index and a questionnaire on coping strategies, sleep, and lifestyle. An Independent t-Test was performed to compare experimental and control groups and paired t-Test for comparing pre and post test scores of each group to measure the effect of the protocol on nursing student wellbeing and stress. Data were analyzed using SPSS 20.

Results: Fifteen junior level nursing students were recruited for the study. Nine students completed the study. The post-test experimental group scores for the WHO-5 (M = 16.75) were 3.75 points higher than the pre-test scores (M = 13.00). Control group post-test WHO-5 scores (M=11.20) were 3.40 points lower than pre-test scores (M = 14.60). Comparison of both groups for WHO-5 post- test scores was significant ($p=.046$). SNSI scores for both groups were higher than pre test scores indicating a higher level of stress at the completion of the study. SNSI scores for the experimental group increased by 6.5 points while students in the control group SNSI scores increased by 1.40 points.

Qualitative findings included themes of academic stress overload, relationship strain, feeling overwhelmed with “no life”, anxiety and sadness, and clinical pressures. Students in the experimental group did not consistently complete the protocol throughout the 8 weeks. The one participant who consistently completed the protocol reported improved sleep and ability to “relax at night”. Several students apologized in their journals for not maintaining the protocol and noted a sense of guilt and feeling overwhelmed with all the academic work that needed to be completed. While the protocol was intended to decrease stress and improve sleep, qualitative data indicated that the protocol induced stress.

Conclusion: This study highlighted the importance of building coping skills and self-care strategies proactively. The study began at the beginning of the semester and ended the week after midterm examinations. The failure to consider the timing of the protocol as it aligned with the academic calendar resulted in unintended added stress at midterm which fell on the week that posttest measures were being collected. The study provided significant evidence that a stress inoculation intervention improved wellbeing. Curriculum design should incorporate MBSR, cognitive behavioral strategies and wellness initiatives throughout the program. Future longitudinal research should explore this type of stress inoculation strategy following students across the curriculum.

References

- Chernomas, W.M. & Shapiro, C. (2013). Stress, anxiety and depression among undergraduate nursing students. *International Journal of Nursing Education Scholarship*, 10(1), 255-266.
- Hensel, D. & Laux, M. (2014). Longitudinal study of stress, self-care, and professional identity among nursing students. *Nurse Educator*, 39, 227-231. doi:10.1097/NNE.0000000000000057
- Kukkonen, P., Suhonen, R., & Salminen, L. (2016). Discontinued students in nursing education – Who and why?. *Nurse Education In Practice*, 17, 67-73. doi:10.1016/j.nepr.2015.12.007
- Regehr, C., Glancy, D., & Pitts, A. (2013). Interventions to reduce stress in university students: A review and meta-analysis. *Journal of Affective Disorders*, 148(1), 1-11. doi:10.1016/j.jad.2012.11.026
- van der Riet, P., Rossiter, R., Kirby, D., Dluzewska, T., & Harmon, C. (2015). Piloting a stress management and mindfulness program for undergraduate nursing students: Student feedback and lessons learned. *Nurse Education Today*, 35(1), 44-49. doi:10.1016/j.nedt.2014.05.003

Contact

bkucirka@widener.edu

Promoting Healthy Behaviors in Nursing Students

Donna M. Callaghan, PhD, RN-BC, GCNS-BC, CNE, USA

Abstract

Purpose: This study investigated the effects of an educational intervention to promote healthy behaviors in nursing students. The development of the intervention was based on the relationships among the variables of health-promoting self-care behaviors, self-care self-efficacy, and self-care agency. The purpose of the study was to identify if the intervention, which focused on spiritual growth as the foundation of health, would lead to an increase in the practice of healthy behaviors in nursing students.

The educational intervention was developed using three models/theories as its framework. Orem's Self-Care Model directed the supportive-educative nursing intervention. Pender's Health Promotion Model defined the healthy behavior topics of the intervention which include spiritual growth, stress management, nutrition, physical activity, interpersonal relations, and health responsibility. Bandura's Theory of Self-Efficacy guided the intervention activities that increase self-efficacy of these healthy behaviors. This educational intervention used spiritual growth as the foundation of healthy behaviors. Bryer, Cherkis, and Raman (2013), who performed a descriptive study that investigated the health-promotion behaviors of undergraduate nursing students, recommended that nursing students should not only learn about health promotion but should also participate in health promotion activities suggesting it could possibly improve the academic success of these students. Hensel and Laux (2014), who performed a longitudinal study that included measures of stress, self-care, and professional identity, suggested that integrating stress management strategies and spiritual growth practices in health promotion activities may be more effective in reducing stress levels in nursing students as well as improving their sense of fit with the profession.

Methods: The intervention was conducted at a school of nursing. It consisted of six one-hour presentations on the healthy behavior topics of spiritual growth, stress management, nutrition, physical activity, interpersonal relations, and health responsibility. Each one-hour presentation included 30 minutes of Power Point information and 30 minutes of selected activities to increase self-efficacy. A pre-test post-test quasi-experimental design was used to investigate the effect of the intervention on students' healthy behaviors. IRB approval was obtained through the university and a letter of support was obtained from the Dean of the School of Nursing. Students completed a consent form and the study instruments, which included the Health-Promoting Lifestyle Profile II Scale (Walker, Sechrist, & Pender, 1987) and a demographic questionnaire, one week before and one week after completion of the program. A paired t-test using SPSS 20 was performed to measure the effect of the educational intervention on the nursing students' healthy behaviors.

Results: Thirty-six nursing students started the program, with 23 students completing all six sessions. The mean post-test score (164.4) was 18 points higher than the mean pre-test score (146.2). The paired t-Test result was significant ($t = -5.2, p < .001$). There were significant increases in all six subscale scores (spiritual growth, stress management, nutrition, physical activity, interpersonal relations, and health responsibility).

Conclusion: The models/theory that were used as the framework for this intervention were supported by the statistical results of this study as well as the educational intervention did have a significant effect on the practice of healthy behaviors in the nursing students. This intervention also introduced the nursing students to the importance of spirituality in holistic health promotion including the importance of self-care in their personal lives and professional practices. The study gives direction for nurse educators in the area of teaching students how to promote healthy behaviors in others through promoting their own healthy behaviors. It also provides a strategy for nurse educators to integrate stress management and spiritual growth health promotion practices into the curriculum that could lead to an improvement in nursing students' academic success as well as an enhancement of their professional identities.

References

- Bryer, J., Cherkis, F., & Raman, J. (2013). Health promotion behaviors of undergraduate nursing students: A survey analysis. *Nursing Education Perspectives*, 34, 410-415.
- Hensel, D. & Laux, M. (2014). Longitudinal study of stress, self-care, and professional identity among nursing students. *Nurse Educator*, 39, 227-231.

Walker, S. N., Sechrist, K. R., & Pender, N. J. (1987). The Health-Promoting Lifestyle Profile: Development and psychometric characteristics. *Nursing Research*, 36, 76- 81.

Contact

dmcallaghan@mail.widener.edu

F 12 - Vitamin D and Its Impact Across the Lifespan

Can Vitamin D Supplementation Improve Poor Cognition in People with Type 2 Diabetes?

Mary Byrn, PhD, BSN, RN, USA

Abstract

Purpose: One in nine people aged 65 and older has Alzheimer's disease which is a chronic debilitating disease with no known cure (Alzheimer's Association, 2014). Vitamin D deficiency has been found to be related to increased risk of dementia, Alzheimer's and executive dysfunction (cognitive processes including working memory, reasoning, task flexibility, and problem solving). A meta-analysis of 14 observational studies, three prospective cohort studies, and three intervention studies has demonstrated that lower concentrations of vitamin D was associated with executive dysfunction (especially processing speed, mental shifting, and information updating) and that repletion was associated with improved executive functioning (Annweiler et al., 2013). More recently, participants from the United States Cardiovascular Health Study (n=1658 adults) who were followed prospectively for six years and were found to have a doubled the risk for dementia and Alzheimer's if they were vitamin D deficient at baseline (Littlejohns et al., 2014). Persons with diabetes have been reported to have a higher incidence of vitamin D deficiency (Penckofer, Kouba, Wallis, & Emanuele, 2008).

Diabetes is the seventh leading cause of death in the United States. In 2012, there were 1.7 million new cases of diabetes diagnosed and the total costs of diagnosed diabetes in 2012 was \$245 billion (American Diabetes Association, nd). Of concern is that diabetes is associated with cognitive impairment (Tuligenga et al., 2014; Wennberg et al., 2014). A large cohort study reported that for people with known diabetes there was a 45% faster decline in memory, a 29% faster decline in reasoning, and a 24% faster decline in cognition compared to those with no diabetes (Tuligenga et al., 2014). Also, self-reported diabetes was associated with immediate and delayed word recall and poorer memory (Wennberg et al., 2014). Cognitive impairment makes glycemic control challenging because self-management activities are cognitively demanding. Executive function comprises cognitive skills needed for the execution of complex activities which can include self-monitoring and daily management of diabetes. Also, executive dysfunction has been found to be associated with poor glycemic control.

A randomized control trial study of vitamin D supplementation for treatment of cognitive impairment in persons with diabetes has not been done to our knowledge, and the reason this current study is being conducted. The primary aim of the ongoing study is to determine the effect of vitamin D₃ supplementation on cognitive function for persons with type 2 diabetes. The secondary aim is to determine the effect of vitamin D₃ supplementation on diabetes self-management.

Methods: Participants are being randomly assigned to either weekly 50,000 IU of vitamin D₃ (n=31) or 5,000 IUs of vitamin D₃ (n=31). The dose of vitamin D₃ (cholecalciferol) (50,000 IUs) has been safely used in other studies (Nazarian, St. Peter, Boston, Jones, & Mariash, 2011). The control group dose of 5,000 IU approximates The Institute of Medicine recommendation 600 IUs of Vitamin D per day for individuals up to age 70 (600 IUs x 7 days= 4200 IUs).

The sample includes women and men aged 55 years or greater who have type 2 diabetes, a subjective complaint of a cognitive dysfunction or scoring at least one standard deviation below normal on a cognitive functioning screening test, vitamin D deficiency (25-OH D) < 32 ng/mL, and are currently under the care of a healthcare provider.

Study measurements are being completed at a baseline visit and after participants have received the vitamin D₃ for three months. Study measures include: cognitive function using administered standardized tests (Controlled Oral Word Association Test, Animal Naming Test, Letter Number Sequencing, Stroop Interference Test, Digit Symbol Modalities Test, Trail Making Test Part B, Hopkins Verbal Learning Test), serum measurements (HBA1c, blood glucose, vitamin D levels, and cardiometabolic profile) and surveys

to assess cognitive function (Social Adjustment Scale-Self Report and the Endicott Work Productivity Scale), as well as diabetes self-management behaviors (Self-Care Inventory, Diabetes Related Distress (PAIDS)

Results: So far, 35 participants have consented and 17 have been randomized to study treatment. Among these 17 individuals, the median WRAT-IV reading subtest z-score at baseline was below average at -1.07 (IQR -1.20 to -0.40). Further, participants' trail making test part A and part B standardized z-scores at baseline were average at $z = 0.42$ (IQR: -0.33 to 0.74) for part A and $z = 0.14$ (IQR -0.55 to 0.44) for part B, respectively. Participants ability to process a cognitive interference as measured by the Stroop Intereference subtest was below average at baseline ($Mdn z = -0.50$, IQR = -1.00 to 0.14) as was their verbal fluency ($Mdn z = -0.41$, IQR = -1.26 to 0.17). Among the 17 participants randomized to study therapy, their median CES-D score at baseline was 7.00 (IQR = 5.00 – 12.00). Of the 17 randomized, 13 have completed the trial. Further results of the trial will be presented at the meeting.

Conclusion: The importance of this study is several fold. Vitamin D supplementation is a low cost intervention, it has minimal side effects, and it could have high impact for persons with type 2 diabetes who suffer from cognitive impairment which can significantly affect their diabetes self-management.

References

- Alzheimer's Association. (2014). Alzheimer's facts and figures. *Alzheimer's & Dementia*, 10 (2): e47-92.
- Annweiler C., Montero-Odasso, M.M., Llewellyn, D.J., Richhard-Devantoy S-R., Duque G., & Beauchet O. (2013). Meta-Analysis of memory and executive dysfunctions in relation to vitamin D. *Journal of Alzheimer's Disease*, 37(1): 147-171. doi: 10.3233/JAD-130452
- Grober E., Hall, C.B., Hahn, S.R., & Lipton, R.B. (2011). Memory impairment and executive dysfunction are associated with inadequately controlled diabetes in older adults. *Journal of Primary Care & Community Health*, 2(4): 229-233. doi: 10.1177/2150131911409945
- Littlejohns, T.J, Henley, W.E, Lang, I.A., Annweiler, C., Beauchet O, Chaves. P.H.M.... Llewellyn D. (2014). Vitamin D and the risk of dementia and Alzheimer disease. *Neurology*, 83(10):1-9. doi: 10.1212/WNL.0000000000000755
- Munshi, M.N., Hayes, M., Iwata, I., Lee, Y., & Weinger, K. (2012). Which aspects of executive dysfunction influence ability to manage diabetes in older adults? *Diabetic Medicine: A Journal of the British Diabetic Association*, 29(9): 1171-1177. doi: 10.1111/j.1464-5491.2012.03606.x.
- Tuligenga, R.H., Dugravot, S., Tabak, A.G., Elbaz, A., Brunner, E.J., Kivimaki, M., & Singh-Manoux, A. (2014). Midlife type 2 diabetes and poor glycemic control as risk factors for cognitive decline in early old age: A post hoc analysis of the Whitehall II study cohort study. *Lancet Diabetes Endocrinology*, 2(3): 228-235. doi: 10.1016/S2213-8587(13)70192-X
- Wennberg, A.M., Gottesman, R.F., Kaufmann, C.N., Albert, M.S., Chen-Edinboro, L.P., Rebok, G.W.,....Spira, A.P. (2014). Diabetes and cognitive outcomes in a nationally representative sample: the National Health and Aging Trends study. *International Psychogeriatrics* 26(10): 1729-1735. doi: 10.1017/S1041610214001380

Contact

mbyrn@luc.edu

Depression and Vitamin D3 Supplementation in Women with Type 2 Diabetes

Sue M. Penckofer, PhD, MS, BSN, RN, FAAN, USA

Abstract

Purpose: Depression affects over 25% of women with type 2 diabetes (T2DM) and makes self-management challenging (Penckofer, Doyle, Byrn, Lustman, 2014). Having both T2DM and depression significantly increases mortality for women (Pan et al., 2011). Although antidepressants can effectively relieve depression and its related symptoms in persons with T2DM, side effects include weight gain and for some, difficulty with glycemic control.

Evidence indicates that low levels of vitamin D are associated with depressive symptoms and depression itself. A meta-analysis of cross-sectional and cohort studies examining levels of serum vitamin D measured as 25-hydroxyvitamin D [25 (OH) D], reported a significantly reduced risk for depression with a

10 ng/ml increase in 25 (OH) D levels (Ju, Lee, Jeong, 2013). Another meta-analysis reported that there was an increased risk for depression for the lowest as compared to the highest vitamin D categories for cohort studies when following nondepressed individuals until their first diagnosis of depression (Anglin, Samaan, Walter, McDonald, 2013). Studies examining the benefit of vitamin D supplementation on depression are currently in progress. One systematic review and meta-analysis using Cochran guidelines examined seven RCTs and found no effect on depressive symptoms following vitamin D supplementation; however, for persons who had significant depressive symptoms or depressive disorder, there was a moderate significant effect (Shaffer et al., 2014).

Persons with T2DM have lower levels of 25 (OH) D which may be due to obesity or diabetes itself. Cross sectional studies have examined whether vitamin D was associated with insulin action and secretion, but results were inconclusive. One systematic review and meta-analysis of 15 RCTS examined vitamin D supplementation on insulin resistance in patients with diabetes, impaired glucose tolerance and normal glucose tolerance. Small improvements in fasting glucose and insulin resistance, but no effect on HbA1c were found for those with T2DM (George, Pearson, Witham, 2012).

Currently, there are no studies examining vitamin D supplementation for persons with T2DM who have significant depressive symptoms. Thus, the purpose of this study is to determine the impact of vitamin D supplementation on depressive symptoms and diabetes outcomes.

Methods: These investigators are conducting a randomized clinical trial to determine whether vitamin D₃ supplementation impacts depressive symptoms (Center for Epidemiologic Studies, CES-D) and whether this improves diabetes self-management (Self-Care Inventory). In addition, the role of vitamin D on blood pressure control is being explored. Women must have T2DM, significant depressive symptoms (CESD > 16), and levels of 25 OH D < 32 ng/ml to enroll. Using a stratified block randomization (strata based on depression symptom severity) women are being assigned to either weekly vitamin D₃ supplementation (50,000 IUs) or a matching weekly placebo (5000 IU) for a period of six months. We hypothesize that women receiving 50,000 IU vitamin D₃ supplementation will report fewer depressive symptoms, increased diabetes self-management mediated by depression improvement, and have a lower systolic BP compared to those taking placebo. Measurements of 25 (OH) D, glycemic control (HbA1c), and self-care are being collected at baseline, 3 and 6 months following supplementation.

Results: Thus far, we have phone screened over 1300 women, consented 227, and enrolled 111 participants. Among these participants, 108 have been randomized to treatment. The characteristics of those enrolled are consistent with those who have not enrolled due to exclusion criteria. The 111 women who have met inclusion criteria have the following mean characteristics: age of 51.12 (SD = 10.91), 9.23 years (SD = 6.93) with T2DM, HbA1c of 7.83% (SD = 1.87%), BMI of 38.37 (SD=8.12), and systolic and diastolic blood pressures of 132.73 (SD = 15.34) and 72.53 (SD = 9.22), respectively. The average CES-D is 29.32 (SD = 8.68), and there are 48 (43.2%) in low depression group (CESD < 26) and 63 (56.8%) in high depression group (CESD > 26) for treatment. At baseline, there was no difference in vitamin D levels for those in the low depression group ($M = 20.71$, $SD = 7.13$) and high depression group ($M = 21.05$, $SD = 5.86$; $p = .78$). Thus far, of the women who have started the study drug ($n=108$), we have 96% retention at 3 months and 92% retention at 6 months.

Conclusion: Since women with T2DM have low levels of vitamin D and high levels of depressive symptomology, vitamin D supplementation as a treatment option could have significant implications with minimal side effects. This trial is anticipated to conclude in October 2017, and report its findings shortly thereafter. Given that 1 in 10 Americans now take antidepressants which can have negative effects on weight and metabolic control, positive findings may have implications as a cost-effective therapy for preventing depressive symptoms and/or as an adjunctive treatment for depression in others.

References

- Anglin R.S., Samaan Z., Walter S.D., McDonald S.D. (2013). Vitamin D deficiency and depression in adults: Systematic review and meta-analysis. *British Journal of Psychiatry*, 202, 100-107.
- George P.S., Pearson E.R., Witham M.D. (2012). Effect of vitamin D supplementation on glycaemic control and insulin resistance: a systematic review and meta-analysis. *Diabetic Medicine*, 29: e142-e150.

Ju S-Y, Lee Y-J, Jeong S-N. (2013). Serum 25-hydroxyvitamin D levels and the risk of depression: A systematic review and meta-analysis. *The Journal of Nutrition, Health & Aging*, 17(5), 447-455.

Pan A., Lucas M., Sun Q., van Dam R.M., Franco O.H., Willett W.C., Manson J.E., Rexrode K.M., Ascherio A., Hu F.B. (2011). Increased mortality risk in women with depression and diabetes mellitus. *Archives General Psychiatry*, 68(1): 42-50.

Penckofer, S., Doyle, T., Byrn, M., Lustman, P. (2014). State of the science: Depression and type 2 diabetes. *Western Journal of Nursing Research*, 36(9): 1158-1182.

Shaffer J.A., Edmondson D., Wasson L.T., Falzon L., Homma K., Ezeokoli N., Li P., Davidson, K.W. (2014). Vitamin D supplementation for depressive symptoms: A systematic review and meta-analysis of randomized controlled trials. *Psychosomatic Medicine*, 76(3), 190-196.

Contact
spencko@luc.edu

What is the Relationship Between Pregnancy Symptoms, Vitamin D Status, and Quality of Life?

Jennifer G. Woo, MSN, BSN, RN, CNM, WHNP, USA

Abstract

Purpose: There is much evidence in the literature about vitamin D deficiency and associated symptoms such as depression, musculoskeletal pain, sleep disorders, pelvic floor disorders and fatigue, all of which can be present in pregnancy (Spedding, 2014; Aydogmus et al., 2014; McCarty et al., 2013; Bergstrom et al., 2014). However, these observational studies have mainly examined this correlation in the non pregnant population, aside from a handful of studies that have shown this correlation in pregnant women. Since pregnant women are so at risk for vitamin D deficiency, the study of this group is warranted (Hosseini-Nezhad & Holick, 2013; Wagner et al., 2012; Ginde et al., 2010)

However, whether low levels of vitamin D are associated with these and other symptoms during pregnancy is unknown. What is known is that vitamin D deficiency disproportionately affects pregnant minority women, therefore, this study will help nurses, providers, etc. to understand the impact that vitamin D deficiency has on pregnancy symptoms and potential impact on quality of life (Ginde et al., 2010).

Therefore, the purpose of this study is to describe the pregnancy symptoms of a vulnerable patient population at risk for vitamin D deficiency and other poor maternal outcomes. In addition to describing the pregnancy symptoms that most frequently occur in this patient population, their impact on quality of life is also addressed.

Methods: This study utilized a correlational, cross-sectional design and recruited women from an urban, underserved, low income health center. The participants (n=125) were 50 % African American, 42% Hispanic, and 8% other. Women were 24 to 32 weeks gestation and were attending the center for routine healthcare at the time of consent and data collection. They completed demographic, pregnancy symptom questionnaire (Pregnancy symptom Inventory), and quality of life (SF-12) questionnaires, which were available in English and Spanish. At the same visit, they had a blood draw to measure vitamin D levels [25 hydroxy vitamin D= 25 (OH) D]. Women were classified using Institute of Medicine guidelines of < 20 ng/ml as deficient and ≥ 20 ng/ml being sufficient.

Results: The sample composed of 125 pregnant women with a mean age of 26.7 years of age and 60% of sample being multiparous women (n=75) and 40% primiparous (n=50). The pregnancy symptoms reported by at least 70% of all women included: tiredness, urinary frequency, food cravings, back pain, headache, and poor sleep. However, the participants had to rate the limitation in their activities of daily living for each of the pregnancy symptoms they reported on the questionnaire (42 total symptoms on the PSI). The pregnancy symptoms that caused the most limitation varied slightly from those that were most frequently reported. The symptoms that had the most impact on activities of daily living were: tiredness, poor sleep, back pain, and hip/pelvic pain. There was a discrepancy noted from the symptoms that were most frequently occurring and those that impacted their daily living. For example, urinary

frequency was listed as the second most commonly reported symptom, but it only caused limitation to daily living 35% of the time. On the other hand, hip/pelvic pain was reported as the ninth most frequently reported symptom by 66% of women, yet it was the fourth highest symptom causing limitations in daily living. A Mann Whitney U analysis was used to compare group differences of limitation of the top 60% of symptoms reporting limitation to activities of daily living between women who had vitamin D levels < 20 ng/ml (deficient based on IOM standards) and ≥ 20 ng/ml (sufficient based on IOM standards) in their pregnancy symptoms. Significant differences were found for tiredness, poor sleep, back pain, and hip/pelvic pain based on their rating of the effect on their limitation on activities of daily living with p values < .05 with a Bonferroni correction due to risk of inflated type I error.

In addition, women who had higher total pregnancy symptoms scores (sum score of all their pregnancy symptoms) had poorer quality of life as measured by SF-12. There was a significant negative correlation between physical component score and total pregnancy symptom total score ($r = -0.31, p < .001$). Thus, women who had higher pregnancy symptom scores had worse physical functioning. Similarly, there was a significant negative correlation between mental component score and pregnancy symptom total score ($r = -0.32, p < .001$) indicating that women who had higher pregnancy symptom scores had worse mental health.

Conclusion: Based on the results of the study, vitamin D status may potentially impact pregnancy symptoms such as back pain and poor sleep. These symptoms can significantly affect health and quality of life. These findings also suggest that exploration of the association between vitamin D levels and pregnancy symptoms is warranted in a larger sample which could then be followed by a supplementation study to determine its effectiveness in treating these symptoms during pregnancy.

References

- Aydogmus, S., Kelekci, S., Aydogmus, H., Demir, M., Yilmaz, B., & Sutcu, R. (2015). Association of antepartum vitamin D levels with postpartum pelvic floor muscle strength and symptoms. *International Urogynecology Journal*, 26(8), 1179-1184.
- Bergstrom, I., Palmer, M., Persson, J., & Blanck, A. (2014). Observational study of vitamin D levels and pain in pregnant immigrant women living in Sweden. *Gynecological Endocrinology: The Official Journal of the International Society of Gynecological Endocrinology*, 30(1), 74-77.
- Ginde, A. A., Sullivan, A. F., Mansbach, J. M., & Camargo Jr., C. A. (2010). Vitamin D insufficiency in pregnant and nonpregnant women of childbearing age in the united states. *American Journal of Obstetrics and Gynecology*, 202(5), 436.e1-436.e8.
- Hosseini-Nezhad, A., & Holick, M. F. (2013). Vitamin D for health: A global perspective. *Mayo Clinic Proceedings*, 88(7), 720-755.
- Huang, W., Shah, S., Long, Q., Crankshaw, A. K., & Tangpricha, V. (2013). Improvement of pain, sleep, and quality of life in chronic pain patients with vitamin D supplementation. *Clinical Journal of Pain*, 29(4), 341-347
- McCarty, D. E., Reddy, A., Keigley, Q., Kim, P. Y., Cohen, S., & Marino, A. A. (2013). Nonspecific pain is a marker for hypovitaminosis D in patients undergoing evaluation for sleep disorders: A pilot study. *Nature and Science of Sleep*, 5, 37-42.
- McCarty, D. E., Reddy, A., Keigley, Q., Kim, P. Y., & Marino, A. A. (2012). Vitamin D, race, and excessive daytime sleepiness. *Journal of Clinical Sleep Medicine*, 8(6), 693-697[PPRS1]
- Spedding, S. (2014). Vitamin D and depression: A systematic review and meta-analysis comparing studies with and without biological flaws. *Nutrients*, 6(4), 1501-1518.
- Wagner, C. L., Taylor, S. N., Dawodu, A., Johnson, D. D., & Hollis, B. W. (2012). Vitamin D and its role during pregnancy in attaining optimal health of mother and fetus. *Nutrients*, 4(3), 208-230.

Contact

jennifer_woo@baylor.edu

F 14 - Nurse-Managed Technology to Enhance Cancer Care Outcomes for Survivors With Breast Cancer or Head/Neck Cancer

Mobile Platform for Assessment, Early Detection, and Management of Breast Cancer-Related Lymphedema

Jane Armer, PhD, RN, CLT, FAAN, USA

Nathan C. Armer, MEd, USA

Guilherme N. DeSouza, PhD, USA

Abstract

Purpose: Early detection and management of secondary lymphedema (LE) can significantly reduce the potential for symptoms and complications. Unfortunately, many patients fail to seek medical assistance at first signs of the disease. It is estimated that approximately 500,000 people in the U.S. suffer from lymphedema, and 2.4 million breast cancer survivors are at-risk for developing this chronic condition. Objectives were to: (1) Test the two completely automated measuring systems we developed (using an IR depth camera and a smart phone) for individuals to use at home or in the clinic for early detection and self-monitoring of LE; (2) Integrate and evaluate the automated smart phone application in the clinical setting.

Methods: Over 280 data points (upper limbs) were sampled from healthy people and LE patients to exam the correlation between the mobile platform systems and the “gold standards” (water displacement and perometry); and to determine the reliability of both proposed methods. In comparison with water-displacement, 14 measurements of upper limbs from many repetitions for 7 healthy test subjects were done. Regarding the comparison with the Perometer, 34 upper limbs from 17 human subjects, including LE patients, were measured. IRB approval was received for integration of the 3D smart phone images with circumferences and symptom assessment in a prospective surveillance model with breast cancer survivors at risk of lymphedema.

Results: Pearson correlations of 0.97-0.98 with the kinect and smartphone 3D mobile platform systems and clinical limb volume measures of water displacement and perometry are reported. The two completely automated and robust systems for 3D image of human arms outperformed existing methods in many aspects, including cost, maintenance, and ease of use, while they maintained high correlations with the “gold standards.” Patients and staff are open to, and, indeed, eager to, participate in the application of the mobile device in the clinical setting.

Conclusion: The systems will accurately assist patients in managing LE through early detection and monitoring in the clinic and at home. Algorithms will be further refined to facilitate even more efficient and accurate data capture in the clinical and home setting. We will be doing further testing as we work to assess the ease of use by patients and clinicians with variable levels of comfort with technology.

References

- Lu, G., Han, K., DeSouza, G., Armer, J., Shyu, CR. (2014). A new algorithm for 3D registration and its application in self-monitoring and early detection of lymphedema. *Journal of Innovation and Research in BioMedical Engineering*, 35(6). 370-384. DOI:10.1016/j.irbm.2014.10.003.
- Chance-Hetzler, J., Armer, J., Van Loo, M., Anderson, B., Harris, R., Ewing, R., & Stewart, B. (2015). Prospective lymphedema surveillance in a clinic setting. *Journal of Personalized Medicine*, 5(3): 311-325.
- Voss, R.K., Cromwell, K.D., Chiang, Y.J., Armer, J.M., Ross, M.I., Lee, J.E., Gershenwald, J.E., Royal, R.E., Lucci, A., Stewart, B.R., Shaitelman, S.F., & Cormier, J.N. (2015). The long-term risk of upper extremity lymphedema is two-fold higher in breast cancer compared to melanoma patients. *Journal of Surgical Oncology*, 112(8): 834-840.
- Ostby, P.L., Armer, J.M., Dale, P.S., Van Loo, M.J., Wilbanks, C.L., & Stewart, B.R. (2014). Surveillance Recommendations in Reducing Risk of and Optimally Managing Breast Cancer-Related Lymphedema. *Journal of Personalized Medicine*, 4(3):424-447.
- Armer, J. M., Hulett, J. M., Bernas, M., Ostby, P., Stewart, B. R., & Cormier, J. N. (2013). Best-Practice Guidelines in Assessment, Risk Reduction, Management, and Surveillance for Post-Breast Cancer Lymphedema. *Current Breast Cancer Reports*, 5(2), 134-144.

Hynstrom, J.R., Chiang, Y.J., Cromwell, K.D., Ross, M.I., Xing, Y., Mungovan, K.S., Lee, J.E., Gershenwald, J.E., Royal, R.E., Lucci, A., Armer, J.M. & Cormier, J.N. (2013) Prospective assessment of lymphedema incidence and lymphedema-associated symptoms following lymph node surgery for melanoma. *Melanoma Research*. 23(4). 290-297. DOI 10.1097/CMR.0b013e318283632c83.

Green, J., Paladugu, S., Xu, S., Stewart, B., Shyu, CR., Armer, J. (2013) Using Temporal Mining to Examine the Development of Lymphedema in Breast Cancer Survivors. *Nursing Research*. 62(2) 122-129. DOI 10.1097/NNR.0b013e318283da67.

Bernas, M., Askew, R., Armer, J., & Cormier, J. (2010). Lymphedema: How do we diagnose and reduce the risk of this dreaded complication of breast cancer treatment? *Current Breast Cancer Reports*, 2, 53-58. DOI: 10.1007/s12609-010-0009-1.

Cormier, J.N., Xing, Y., Zaniletti, I., Askew, R., Stewart, B.R., Armer, J.M. (2009). Minimal limb volume change has a significant impact on breast cancer survivors. *Lymphology*, 42(4), 161-175.

Armer, J.M., Culbertson, S.D., Radina, M.E, & Porock, D. (2003). Prediction of breast cancer lymphedema based on Lymphedema and Breast Cancer Questionnaire (LBCQ) symptom report. *Nursing Research*, 52(6), 370-9.

Contact

armer@missouri.edu

Health Information Technology (IT) to Promote Patient-Centered Care

Mei R. Fu, PhD, RN, FAAN, USA

Abstract

Purpose: A growing body of evidence indicates the use of health information (IT) solutions are effective in implementing patient-centered care and can be instrumental to improving the safety, quality, and efficiency of patient-centered health care delivery. Many breast cancer survivors suffer from daily distressing symptoms related to lymphedema, a chronic illness induced by cancer treatment and currently no medical and surgical intervention can provide a cure. Lymphedema is an abnormal accumulation of lymph fluid in the ipsilateral body area or upper limb with more than 20 distressful symptoms. In spite of the growing body of evidence linking the experience of lymphedema symptoms to risk of lymphedema and poor quality of life, the experience of lymphedema symptoms is not often valued and not considered essential for assessment or inclusion in clinical practice, leading to an overall health disparity manifested as a lack of patient-centered care in clinical practice. The purpose of this presentation is to share our experience of using health IT to promote patient-centered care in lymphedema symptom assessment among breast cancer survivors, focusing on building institutional infrastructure, feasibility, and sustainability of using health IT in clinical practice.

Methods: The Evaluation Planning Incorporating Context (EPIC) model was used to guide this project. Methods used included: i) a literature review on the use of a tablet computer in the assessment of cancer symptoms; ii) a literature review related to detection and referral of lymphedema; iii) a literature review regarding satisfaction related to the use of a tablet computer; iv) observation of the state of the current process at an outpatient breast cancer practice; v) implementation of the evidence-based lymphedema symptom TouchScreen at the outpatient breast cancer practice; vi) survey assessment of patient and clinician satisfaction with the use of the TouchScreen.

Results: By building a sustainable infrastructure we have successfully incorporated this patient-centered care into daily clinical practice. Using the TouchScreen to report lymphedema symptoms is safe, easy-to-use, and no risk of harm to patients. The use of the TouchScreen increased the number of timely referrals for lymphedema treatment and patients' self-recognition of lymphedema symptoms. Overall, clinicians and patients reported being very satisfied with the use of the TouchScreen that improved clinicians' assessment of lymphedema symptoms and improved communication among health care providers and patients and patients' learning about lymphedema symptoms.

Conclusion: Using TouchScreen for patients to report lymphedema symptoms show benefit to patients in terms of earlier self-recognition of lymphedema symptoms, increased communication among clinicians and patients and increased timely referral to lymphedema specialist, all potentially leading to a reduction of lymphedema complications.

References

- Abernethy, A. P., Herndon, J. E., Wheeler, J. L., Day, J. M., Hood, L., Patwardhan, M., Shaw, H., & Lyerly, H. K. (2009). Feasibility and acceptability to patients of a longitudinal system for evaluating cancer-related symptoms and quality of life: pilot study of an e/Tablet data-collection system in academic oncology. *Journal of pain and symptom management*, 37(6), 1027-1038.
- Aiello, E. J., Taplin, S., Reid, R., Hobbs, M., Seger, D., Kamel, H., Tufano, J. & Ballard-Barbash, R. (2006). In a randomized controlled trial, patients preferred electronic data collection of breast cancer risk-factor information in a mammography setting. *Journal of Clinical Epidemiology*, 59(1), 77-81.
- Aktas, A., Hullihen, B., Shrotriya, S., Thomas, S., Walsh, D. & Estfan, B. (2013). Connected Health: Cancer Symptom and Quality-of-Life Assessment Using a Tablet Computer: A Pilot Study. *American Journal of Hospice & Palliative Medicine*, 30(7), 1-9.
- DeVito, D.V, Johnson, B.A., Wardzinski, W.T., Lacono, A.T., & Studer, S.M. (2007). Evaluation of the electronic version of the questionnaire for lung transplant patients. *Progress in Transplantation*, 17(1), 29-35.
- Dijkers, M. (2013). Introducing GRADE: a systematic approach to rating evidence in systematic reviews and to guideline development. *KT Update 1 (5)*. Austin, TX: SEDL, Center on Knowledge Translation for Disability and Rehabilitation Research.
- Fu, M.R. (2014). Breast cancer-related lymphedema: Symptoms, diagnosis, risk reduction, and management. *World Journal of Clinical Oncology*, 5(3), 241-247.
- Fu, M.R. & Rosedale, M. (2009) Breast cancer survivors' experiences of lymphedema-related symptoms. *Journal of Pain Symptom Management*, 38(1), 849-859.
- Fu, M.R., Axelrod, D. & Haber, J. (2008). Breast-Cancer-Related Lymphedema: Information, Symptoms, and Risk-Reduction Behaviors. *Journal of Nursing Scholarship*, 40 (4), 341-348.
- Fu, M.R., Ridner S.H., Hu, S.H., Stewart, B.R., Cormier, J.N. & Armer, J.M. (2013). Psychosocial impact of lymphedema: a systematic review of literature from 2004 to 2011. *Psychooncology*, 22(1), 1466-1484.
- Paskett, E.D., Naughton, M.J., McCoy, T.P., Case, L.D., Abbott, J.M. (2007). The epidemiology of arm and hand swelling in premenopausal breast cancer survivors. *Cancer Epidemiology Biomarkers Prevention*, 16(4), 775-782.
- Petrek, J.A., Senie, R.T., Peters, M., Rosen, P.P. (2001). Lymphedema in a cohort of breast carcinoma survivors 20 years after diagnosis. *Cancer*, 92(6), 1368-1377.
- Shih, Y.C., Xu, Y., Cormier, J.N., Giordano, S., Ridner, S.H., Buchholz, T.A., Perkins, G.H., Elting, L.S. (2009). Incidence, treatment costs, and complications of lymphedema after breast cancer among women of working age: a 2-year follow-up study. *Journal of Clinical Oncology*, 27 (1), 2007-2014.
- Stout, N.L., Pfalzer, L.A., Springer, B., Levy, E., McGarvey, C.L., Danoff, J.V., Garber, L.H., and Soballe, P.W. (2012). Breast Cancer-Related Lymphedema: Comparing Direct Costs of a Prospective Surveillance Model and a Traditional Model of Care. *Physical Therapy* 92, 152-163.
- Zimmerman, M. A., & Holden, D. J. (Eds.). (2009). *A practical guide to program evaluation planning: Theory and case examples*. SAGE Publications Inc.

Contact

mf67@nyu.edu

Cancer Registry and Electronic Medical Record Data In Head and Neck Cancer Research

Janet Van Cleave, PhD, MSN, RN, USA

Abstract

Purpose: Medically underserved head and neck cancer populations are underrepresented in clinical trials and national datasets in the United States (US). Therefore, limited evidence is available to guide the care of patients receiving cancer treatments in safety-net health systems for low-income, uninsured, or vulnerable populations. Using combined hospital cancer registry and electronic medical record (EMR) data from a northeastern United States integrated safety-net system, we analyzed factors associated with receipt of cancer treatment among medically underserved persons with head and neck cancer. The research objectives of the study were to: 1) Identify demographic and clinical features of the population receiving care for head and neck cancer in an integrated, safety-net health system, and 2) determine factors associated with receipt of cancer treatment.

Methods: A retrospective, multi-institution review was conducted using combined hospital cancer registry and EMR data from 343 patients diagnosed with squamous cell carcinoma of the head and neck between January 1, 2007 and December 31, 2010. All patients received care in an integrated, safety-net health system located in the northeastern US. After receiving human subjects approval from a regional biomedical internal review board, the participating hospital cancer registrars identified the study population and obtained demographic data from their automated registry. After identification of the study population, investigators abstracted cancer treatment data from the electronic medical records and entered this data into an encrypted, password protected Microsoft Excel file. All data were uploaded and analyzed with STATA 13. Descriptive statistics, and multivariable analyses using logistic regression were conducted to determine the association between the dependent variable (receipt of cancer treatment) and independent variables of age, gender, race/ethnicity, cancer stage, and cancer site. Tobacco use was also included as an independent variable because of the association of tobacco use with increased mortality risk.

Results: Among the 343 patients with head and neck cancer, the mean age was 59 years (SD = 13, Range 20 to 100). The population was racially and ethnically diverse (white 19%, black 43%, Hispanic 17%, Asian or other race/ethnicity 20%), and predominantly male (male 78%, female 22%). Most patients presented with advanced stage head and neck cancer (Stage I – III 31%, Stage IV or Metastatic 57%, Unknown 11%). The majority of the study population received chemotherapy, radiation therapy, surgery, or combination of these therapies (85%). While controlling for age, gender, race/ethnicity, cancer stage and site, and tobacco use, the regression model demonstrated that cancer stage, age, and race/ethnicity were associated with receipt of cancer treatment. Specifically, persons with an unknown stage of head and neck cancer were significantly less likely to receive cancer treatment than those with Stage I disease (Odds Ratio [OR] = .07, [95% Confidence Interval (CI): .02 - .22]). Further, those who were ages 60 and over were less likely to receive cancer treatment than those ages 59 and under (OR =.53, [95% CI: .30 - .94]). However, those who identified as Asian or other race/ethnicity were more likely to receive cancer treatment than those who identified as white (OR=2.18, [95% CI: 1.01 – 4.69]).

Conclusion: Using hospital cancer registry and EMR data, our study findings indicate that those who receive care for head and neck cancer in a safety-net health system in the US comprise a racially/ethnically diverse population. Further, a person's cancer stage, age, and race/ethnicity may influence receipt of cancer treatment. Possible explanations for study findings include the impact of physiological status and social support on provider-patient decisions in cancer treatment. Limitations of using a combined hospital cancer registry and EMR data set include the lack of information about episodes of care that occur outside the integrated safety-net system. To address this limitation, more research and policy initiatives are needed to accelerate data sharing across both US and international health care systems.

References

- Genther, D. J., & Gourin, C. G. (2012). The effect of hospital safety-net burden status on short-term outcomes and cost of care after head and neck surgery. *Archives of otolaryngology -- head & neck surgery*, 138, 1015 - 1022.
- Van Cleave, J. H., Smith-Howell, E., & Naylor, M. D. (2016). Achieving a high-quality cancer care delivery system for older adults: innovative models of care. *Seminars in oncology nursing*, 32, 122-133.
- Van Cleave, J. H., Kenis, C., Sattar, S., Jabloo, V. G., Ayala, A. P., & Puts, M. (2016). A research agenda for gerontology nursing. *Seminars in oncology nursing*, 32, 55 - 64.

Contact

janet.vancleave@nyu.edu

Assessment of Head and Neck Lymphedema with Ultrasonography

Jie Deng, PhD, RN, OCN, FAAN, USA

Abstract

Purpose: Patients with locally advanced head and neck cancer are at high risk for the development of secondary lymphedema. Lymphedema is associated with damage to the lymphatic system and its

surrounding soft tissues, from tumor infiltration, surgery, and radiation. We have found that head and neck cancer survivors frequently suffer from lymphedema. Lymphedema occurs both externally and internally. External lymphedema results in functional deficits (e.g., impaired swallowing and speaking) and restricted activities of daily living (driving and work-related tasks). Internal swelling causes functional impacts (e.g., difficulty chewing and respiratory distress). Aggressive identification and treatment of lymphedema is critical to ensure optimal function and quality of life. The purpose of this report is to present information regarding the use of ultrasonography for the assessment of head and neck lymphedema.

Methods: A longitudinal design is used in the study. The study will enroll up to 30 head and neck cancer patients. Ultrasonography measures are obtained at baseline and at 3 months post head and neck cancer treatment, then compared to clinical assessment of lymphedema based upon physical examination. Ultrasonography measures are performed by an experienced sonographer, using an EPIC scanner (Phillips Healthcare Bothell, WA) and a standoff gel pad, in 5 preselected anatomical sites on each side of the face and neck. The sites measured include maxillary prominence, mid-mandible, superior and middle sternocleidomastoid muscles, and submental regions. Measurement variables for each site include distance of soft tissues and stiffness of soft tissues. For the purpose of data analysis, anatomical sites are grouped into four regions: peri-orbital, cheek, neck, and submental. SPSS 24.0 is being used to conduct statistical analysis. Area under the curve (AUC) values are derived from the ultrasound values (soft tissue distances at the anatomical sites) for each region. Detectable differences in the ultrasound values among the types of lymphedema will be tested using Kruskal-Wallis tests.

Results: Data collection is ongoing. Preliminary analysis (12 patients has completed all the baseline and 3-month measures) indicates that the strength of the correlation between physical examination and ultrasonography varies based upon each region, however there are statistically significant differences in ultrasound measurement areas (AUC values) in the cheek, submental, and neck regions ($p < 0.05$). Sites without lymphedema demonstrate median elasticity velocities of 2.85m/s; sites with lymphedema show increased elasticity velocities (median value= 3.54m/s).

Conclusion: These preliminary findings indicate that ultrasonography could be an important supplemental tool for quantifying the severity of lymphedema-related soft tissue changes.

References

- Deng, J., Ridner, S. H., Dietrich, M. S., Wells, N., Wallston, K. A., Sinard, R. J., ... Murphy, B.A. (2012). Prevalence of secondary lymphedema in patients with head and neck cancer. *Journal of Pain and Symptom Management*, 43(2), 244-252. doi: 10.1016/j.jpainsymman.2011.03.019
- Deng, J., Ridner, S. H., Wells, N., Dietrich, M. S., & Murphy, B. A. (2015a). Development and preliminary testing of head and neck cancer related external lymphedema and fibrosis assessment criteria. *European Journal of Oncology Nursing*, 19(1), 75-80. doi: 10.1016/j.ejon.2014.07.006
- Deng, J., Ridner, S. H., Aulino, J. M., & Murphy, B. A. (2015b). Assessment and measurement of head and neck lymphedema: State-of-the-science and future directions. *Oral Oncology*, 51(5), 431-437. doi: 10.1016/j.oraloncology.2015.01.005

Contact

jie.deng@vanderbilt.edu

F 15 - Improving Quality of Nursing Worklife: A Global Perspective

Quality of Nursing Worklife: A Review of the Science

Beth A. Brooks, PhD, RN, FACHE, USA

Abstract

Purpose: As the largest single employee group within hospitals, nurses are critical to the optimal functioning of the organization, and improving employee productivity continues to be a common theme in the health care literature. However, any increased productivity will be transitory if achieved at the expense of the quality of nurses' work life (QNWL), since improvement in the QNWL is prerequisite to improved productivity. The purpose of this symposium is to review the theoretical and conceptual underpinnings of QNWL, list the various countries that have used the Brooks QNWL Survey to measure nursing worklife, and to describe two strategies to improve nursing worklife. These two strategies align with the assumptions of Socio-technical Systems theory (STS) which underlies the concept of quality of nursing worklife.

Method: Socio-technical systems theory is based on two underlying assumptions: (a) organizational performance can be improved by allowing lower level employees to assume more responsibility for their efforts, and (b) employees will become more responsible and self-directed as their positions offer opportunities to fulfill important psychological needs, such as learning, growth, self-esteem and significance in their working lives. An organization's internal environment has social and technical subsystems, as well as physical design and work settings, which act together to influence and produce the intended outcome (product or service). The social subsystem is comprised of the people who work in the organization and the relationships among them, whereas the technical subsystem of an organization consists of the tools, techniques, procedures, skills, knowledge, and devices used by members of the social subsystem to accomplish tasks of the organization. The major objective of the STS theory approach to organizational change is to optimize jointly the organizational goals and the needs of the employees—an approach significantly different from job satisfaction, which is based on employees' likes and dislikes, a function of personality which employers can do little to change.

The network of relationships defined by STS theory and prior conceptualizations of QNWL implicitly define and identify characteristics of a quality work environment as defined **by nurses for nurses** (Attridge & Callahan, 1990). Leading to quality of nursing work life begins by being defined as the degree to which registered nurses are able to satisfy important personal needs through their experiences in their work organization while achieving the organization's goals (Brooks, 2001). The four dimensions that underlie QNWL are: 1) work life-homelife; 2) work design; 3) work context; and 4) work world (Baumann & O'Brien-Pallas, 1993; O'Brien-Pallas, Baumann, & Villeneuve, 1994).

Methods: These dimensions along with a synthesis of empirical referents gleaned from prior work resulted in the development of Brooks' Quality of Nursing Worklife Survey. The survey has now been used in 30 countries and translated into five languages.

Results: This session will review the origins of the survey.

Conclusion: A number of Human Resources strategies can be used to improve the quality of nursing worklife in select countries.

References

- Lee, Y.W., Dai, Y.T., McCreary, L.L., Yao, G., & Brooks, B.A. (2014). Psychometric properties of the Chinese-version Quality of Nursing Work Life Scale. *Nursing & Health Sciences*, Article first published online: 17 MAR 2014
DOI: 10.1111/nhs.12099
- Omoike, O., Stratton, K., Brooks, B.A., Ohlson, S., & Storfjell, J. L. (2011). Advancing Nursing Leadership: A Model for Program Implementation and Measurement *Nursing Administration Quarterly*, 35(4), 323–332.

Contact

brooksbe@comcast.net

Including Human Resources Professionals and Practices to Improve Nursing Worklife

Paul T. Skiem, MBA, LCS, USA

Abstract

Purpose: Human resources (HR) professionals can play a major role in improving nursing worklife. The social subsystem, comprised of the people who work in the organization and the relationships among them, must be able to successfully meet a number of interrelated challenges: attain the goals set for the organization, adapt to the organization's environment, integrate the activities of the organization's stakeholders, and fill essential, occupational roles through recruitment, socialization, and retention initiatives.

Methods: More broadly, the social subsystem includes the reasons that employees choose to work for an organization, their attitudes toward it, their expectations of it, patterns of supervisory-subordinate relationships, skill levels of employees, and the nature of the subgroups within the organization. The STS theorists contend that the surest way to direct the efforts of organizational members toward organizational goals is to identify the needs that people bring with them to the workplace, and incorporate the means to meet those needs through technological design and the work itself. In short, the social subsystem encompasses all of the human qualities that each member of an organization brings with them to the workplace.

Results: If provided with an appropriate set of tools, Human Resources can leverage the greatest impact on the social subsystem of an organization. Using data from the quality of nursing worklife survey, Human Resources is able to identify the needs that employees bring with them to the workplace, and can then design means to meet those needs through various compensation and employee benefits, learning and development, and other human resources programs.

Conclusion: Nurse leaders can then partner and collaborate with HR to select those evidence-based practices that can help deliver greater levels of individual performance, organizational performance, productivity, which all help provide the larger organization with a superior financial performance. From labor and employee relations training, to creating effective on-boarding programs, to individual and team coaching initiatives, working in collaboration with Human Resources can influence the social subsystem. In this session, a senior human resources executive will review selected, high impact HR practices that can be used to improve the quality of nursing worklife.

References

Lee, Y.W., Dai, Y.T., McCreary, L.L., Yao, G., & Brooks, B.A. (2014). Psychometric properties of the Chinese-version Quality of Nursing Work Life Scale. *Nursing & Health Sciences*, Article first published online: 17 MAR 2014
DOI: 10.1111/nhs.12099
Omoike, O., Stratton, K., Brooks, B.A., Ohlson, S., & Storfjell, J. L. (2011). Advancing Nursing Leadership: A Model for Program Implementation and Measurement *Nursing Administration Quarterly*, 35(4), 323–332.

Contact

paulskiem@comcast.net

Staffing Optimization: Improving Staffing to Improve Nursing Worklife

Therese A. Fitzpatrick, PhD, RN, FAAN, USA

Abstract

Purpose: The technical subsystem of an organization consists of the tools, techniques, procedures, skills, knowledge, and devices used by members of the social subsystem to accomplish tasks of the organization. The most direct impact of technology is upon organizational productivity, not surprising since organizations acquire technology to increase speed and efficiency.

Methods: Inevitably any survey of nursing worklife reveals issues around staffing and scheduling. Yet many traditional approaches still in use for planning and deploying human capital are not effective in meeting current organizational objectives. Internally, staffing offices are chaotic, budgets are exceeded, staffing is frequently misaligned, and dissatisfaction with work schedules abounds. Externally, a growing number of state legislatures are mandating nurse staffing levels. The growing misalignment between supply and demand suggests that the current methods used to project labor demand, and to budget, staff, and schedule nurses have become both increasingly more complex and less effective.

Results: The multifaceted staffing problems we now face cannot be solved using historic averages or simple algebraic formulas. Because there are multiple dimensions to each staffing subprocess that interacts with or is somehow impacted by other subprocesses, mathematical models are needed along with the power of computer science to simulate solutions for complex staffing problems. A growing body of evidence in a wide variety of diverse industries suggests that systematic and scientifically based process improvement that leverages mathematical optimization can produce a myriad of innovative solutions to intractable business problems. Logistics science offers new insight into planning and deploying clinical human capital.

Conclusion: Optimal outcomes are possible if there is recognition of the complexity and interconnectedness of the systems and processes involved in workforce planning and deployment. The process of optimizing human capital in a complex environment involves 3 distinct steps: (1) analysis or demand planning, (2) optimizing resources, and (3) executing the optimized model. This final session will outline how optimization modeling works for nurse staffing in order to improve the quality of nursing worklife.

References

Gavigan, M., Fitzpatrick, & Miserendino, C. (2016). Effective staffing takes a village: Creating the staffing ecosystem. *Nursing Economics*, 34(2), 58-65.
Fitzpatrick, T., & Brooks, B.A. (2010). The nurse leader as logistician: Optimizing human capital. *Journal of Nursing Administration*, 40, 69-74.

Contact

ThereseAFitzpatrick@gmail.com

F 16 - Direct Oral Anticoagulant Management in Patients Undergoing Cardiac Implantable Electronic Device Procedures

Trends in Direct Oral Anticoagulant Management in Patients Undergoing Cardiac Implantable Electronic Device Procedures

Christen R. Waddell, DNP, RN, CMC, NP-C, USA

Abstract

Purpose: Guidelines on how to manage DOACs in the periprocedural setting are necessary for patient safety; yet, in the United States and many areas of the world, there are currently no consensus guidelines that address this topic. This represents an opportunity for nursing science and leadership to standardize care and improve patient outcomes.

Methods: To evaluate DOAC management strategies in the periprocedural setting, we performed a retrospective chart review of all adult patients taking DOACs at the time of CIED procedures at our three hospital facilities from January 2012-June 2016. We analyzed frequency data regarding the number of days that the DOAC was held before and after the procedure, and if bridging with heparin was utilized. Data trends were assessed for any changes over the years as we have gained more experience with DOACs. We also analyzed for any trends associated with age, gender, location, patient comorbidities, concurrent medications, and calculated bleeding and thrombotic risk scores (HASBLED, CHA2DS2-VASc).

Results: Our study had a total of 309 qualifying cases. We found that the average number of days that the DOAC was held before the procedure was 2.2 days and the average number of days that the DOAC was held after the procedure was 1.5 days. This number did not vary widely by age, gender, location, patient comorbidities, concurrent medications, calculated bleeding and thrombotic risk scores (HASBLED, CHA2DS2-VASc), or across the different years of the study. Bridging with heparin occurred in 8.3% of cases.

Conclusion: Overall, our results show that providers manage DOACs in a fairly consistent manner without consensus guidelines. Given that DOACs are expected to eventually become the most commonly used oral anticoagulants and the majority of institutions do not have standardized protocols in place to address their perioperative management, we would recommend that professional societies develop consensus guidelines on how best to manage DOACs in the periprocedural setting to standardize care and improve patient outcomes (Flake et al., 2015; Oktay, 2015).

References

- Agno, W., Gallus, A. S., Wittkowsky, A., Crowther, M., Hylek, E. M., & Palareti, G. (2012). Oral anticoagulant therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*, *141*(2), e44S-e88S. doi: 10.1378/chest.11-2292
- Baron, T. H., Kamath, P. S., & McBane, R. D. (2013). Management of antithrombotic therapy in patients undergoing invasive procedures. *The New England Journal of Medicine*, *368*(22), 2113-2124. doi: 10.1056/NEJMra1206531
- Beyer-Westendorf, J., Gelbricht, V., Förster, K., Ebertz, F., Köhler, C., Werth, S., ... Weiss, N. (2014). Peri-interventional management of novel oral anticoagulants in daily care: Results from the prospective Dresden NOAC registry. *European Heart Journal*, *35*(28), 1888-1896. doi: 10.1093/eurheartj/eh557
- Daniels, P. R. (2015). Peri-procedural management of patients taking oral anticoagulants. *BMJ*, *351*(8018), h2391. doi: 10.1136/bmj.h2391
- Douketis, J. D., Spyropoulos, A. C., Spencer, F. A., Mayr, M., Jaffer, A. K., Eckman, M. H., ... Kunz, R. (2012). Perioperative management of antithrombotic therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*, *141*(2_suppl), e326S-e350S. doi: 10.1378/chest.11-2298
- Flaker, G. C., Theriot, P., Binder, L. G., Dobesh, P. P., Cuker, A., & Doherty, J. U. (2016). Management of periprocedural anticoagulation: A survey of contemporary practice. *Journal of the American College of Cardiology*, *68*(2). doi: 10.1016/j.jacc.2016.04.042

Garcia, D., Alexander, J. H., Wallentin, L., Wojdyla, D. M., Thomas, L., Hanna, M., ... Lopes, R. D. (2014). Management and clinical outcomes in patients treated with apixaban vs warfarin undergoing procedures. *Blood*, 124(25), 3692-3698. doi: 10.1182/blood-2014-08595496

Healey, J. S., Eikelboom, J., Douketis, J., Wallentin, L., Oldgren, J., Yang, S., ... Ezekowitz, M. (2012). Periprocedural bleeding and thromboembolic events with dabigatran compared with warfarin: Results from the randomized evaluation of long-term anticoagulation therapy (RE-LY) randomized trial. *Circulation*, 126(3), 343-348. doi: 10.1161/CIRCULATIONAHA.111.090464

Heidbuchel, H., Verhamme, P., Alings, M., Antz, M., Hacke, W., Oldgren, J., ... Kichof, P. (2013). European Heart Rhythm Association practical guide on the use of new oral anticoagulants in patients with non-valvular atrial fibrillation. *Europace*, 15(5), 625-651. doi: 10.1093/europace/eut083

Oktay, E. (2015). Will NOACs become the new standard of care in anticoagulation therapy? *International Journal of the Cardiovascular Academy*, 1(1), 1-4. doi: 10.1016/j.ijcac.2015.06.007

Schulman, S., Carrier, M., Lee, A. .Y. Y., Shivakumar, S., Blostein, M., Spencer, F. A., ... Douketis, J. D. (2015). Perioperative management of dabigatran: A prospective cohort study. *Circulation*, 132(3), 167-173. doi: 10.1161/CIRCULATIONAHA.115.015688

Sherwood, M. W., Douketis, J. D., Patel, M. R., Piccini, J. P., Hellkamp, A. S., Lokhnygina, Y., ... Becker, R. C. (2014). Outcomes of temporary interruption of rivaroxaban compared with warfarin in patients with nonvalvular atrial fibrillation: Results from the rivaroxaban once daily, oral, direct factor Xa inhibition compared with vitamin K antagonism for prevention of stroke and embolism trial in atrial fibrillation (ROCKET AF). *Circulation*, 129(18), 1850-1859. doi: 10.1161/CIRCULATIONAHA.113.005754

Contact

waddell.christen@mayo.edu

Factors Influencing Management of Direct Oral Anticoagulants in Patients Undergoing Cardiac Implantable Electronic Device Procedures

Marci Farquhar-Snow, MN, RN, CCRN, CMC, CNS, ACNP-BC, USA

Abstract

Purpose: Existing literature on anticoagulation management in the periprocedural setting suggests that decisions should be individualized to patient and procedure specific risks, yet there are limited studies on this subject (Baron, Kamath, & McBane, 2013; Daniels, 2015). This represents an opportunity for nursing science and leadership to standardize care and improve patient outcomes.

Methods: To gain more knowledge on how we have been choosing to manage DOACs in the periprocedural setting, we performed a retrospective chart review of all adult patients prescribed DOACs at the time of CIED procedures at our three facilities from January 2012-June 2016. We analyzed frequency data regarding how many days the DOAC was held before and after the procedure, and if they were bridged with heparin. We also collected data on contributing factors such as comorbidities, concurrent medications, calculated CHA2DS2-VASc and HASBLED scores, age, procedure type, facility location, and year to determine if there were any correlations between these factors and DOAC management decisions.

Results: Our study had a total of 309 qualifying cases. When analyzing for any contributing factors that were correlated with DOAC management utilizing Type 3 GEE analysis, we found the following statistically significant relationships: Subjects on dual antiplatelet therapy had their DOAC held for significantly less days after the procedure; subjects receiving a defibrillator implant had their DOAC held for significantly more days after the procedure; subjects receiving a pacemaker generator change had their DOAC held for significantly less days after the procedure; subjects receiving a defibrillator generator change had their DOAC held for significantly less days after the procedure.

Conclusion: Our results found that the type of procedure and the use of dual antiplatelet therapy were significantly related to DOAC management decisions in the perioperative period surrounding CIED procedures. Although research has shown that the bleeding risk of the procedure and the patient's renal function should be taken in to consideration, we did not find a statistically significant correlation with these factors and DOAC management (Heidbuchel et al., 2013). To ensure patient safety in the future, we

would recommend that professional societies develop consensus guidelines on how best to manage DOACs in the periprocedural setting to assess for risk factors and to standardize care.

References

- Agno, W., Gallus, A. S., Wittkowsky, A., Crowther, M., Hylek, E. M., & Palareti, G. (2012). Oral anticoagulant therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*, *141*(2), e44S-e88S. doi: 10.1378/chest.11-2292
- Baron, T. H., Kamath, P. S., & McBane, R. D. (2013). Management of antithrombotic therapy in patients undergoing invasive procedures. *The New England Journal of Medicine*, *368*(22), 2113-2124. doi: 10.1056/NEJMra1206531
- Beyer-Westendorf, J., Gelbricht, V., Förster, K., Ebertz, F., Köhler, C., Werth, S., ... Weiss, N. (2014). Peri-interventional management of novel oral anticoagulants in daily care: Results from the prospective Dresden NOAC registry. *European Heart Journal*, *35*(28), 1888-1896. doi: 10.1093/eurheartj/ehf557
- Daniels, P. R. (2015). Peri-procedural management of patients taking oral anticoagulants. *BMJ*, *351*(8018), h2391. doi: 10.1136/bmj.h2391
- Douketis, J. D., Spyropoulos, A. C., Spencer, F. A., Mayr, M., Jaffer, A. K., Eckman, M. H., ... Kunz, R. (2012). Perioperative management of antithrombotic therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*, *141*(2_suppl), e326S-e350S. doi: 10.1378/chest.11-2298
- Flaker, G. C., Theriot, P., Binder, L. G., Dobesh, P. P., Cuker, A., & Doherty, J. U. (2016). Management of periprocedural anticoagulation: A survey of contemporary practice. *Journal of the American College of Cardiology*, *68*(2). doi: 10.1016/j.jacc.2016.04.042
- Garcia, D., Alexander, J. H., Wallentin, L., Wojdyla, D. M., Thomas, L., Hanna, M., ... Lopes, R. D. (2014). Management and clinical outcomes in patients treated with apixaban vs warfarin undergoing procedures. *Blood*, *124*(25), 3692-3698. doi: 10.1182/blood-2014-08595496
- Healey, J. S., Eikelboom, J., Douketis, J., Wallentin, L., Oldgren, J., Yang, S., ... Ezekowitz, M. (2012). Periprocedural bleeding and thromboembolic events with dabigatran compared with warfarin: Results from the randomized evaluation of long-term anticoagulation therapy (RE-LY) randomized trial. *Circulation*, *126*(3), 343-348. doi: 10.1161/CIRCULATIONAHA.111.090464
- Heidbuchel, H., Verhamme, P., Alings, M., Antz, M., Hacke, W., Oldgren, J., ... Kichof, P. (2013). European Heart Rhythm Association practical guide on the use of new oral anticoagulants in patients with non-valvular atrial fibrillation. *Europace*, *15*(5), 625-651. doi: 10.1093/europace/eut083
- Oktay, E. (2015). Will NOACs become the new standard of care in anticoagulation therapy? *International Journal of the Cardiovascular Academy*, *1*(1), 1-4. doi: 10.1016/j.ijcac.2015.06.007
- Schulman, S., Carrier, M., Lee, A. Y. Y., Shivakumar, S., Blostein, M., Spencer, F. A., ... Douketis, J. D. (2015). Perioperative management of dabigatran: A prospective cohort study. *Circulation*, *132*(3), 167-173. doi: 10.1161/CIRCULATIONAHA.115.015688
- Sherwood, M. W., Douketis, J. D., Patel, M. R., Piccini, J. P., Hellkamp, A. S., Lokhnygina, Y., ... Becker, R. C. (2014). Outcomes of temporary interruption of rivaroxaban compared with warfarin in patients with nonvalvular atrial fibrillation: Results from the rivaroxaban once daily, oral, direct factor Xa inhibition compared with vitamin K antagonism for prevention of stroke and embolism trial in atrial fibrillation (ROCKET AF). *Circulation*, *129*(18), 1850-1859. doi: 10.1161/CIRCULATIONAHA.113.005754

Contact

farquharsnow.marci@mayo.edu

Complication Rates Associated with Direct Oral Anticoagulants in Patients Undergoing Cardiac Implantable Electronic Device Procedures

Michelle L. Alland, MSN, RN, FNP-C, USA

Abstract

Purpose: There is limited outcome data on bleeding and thrombotic complications in patients taking DOACs at the time of procedures (Beyer-Westendorf et al., 2013). This represents an opportunity for nursing science to study DOAC management in this setting to reduce complications and optimize patient outcomes.

Methods: To gain more knowledge on bleeding and thrombotic complication rates, we performed a retrospective chart review of all adult patients prescribed DOACs at the time of CIED procedures at our three facilities from January 2012-June 2016. We reviewed frequency data regarding bleeding and

thrombotic complication rates and analyzed for any statistically significant correlation with DOAC management in the periprocedural period to include how many days the DOAC was held before and after the procedure, and if they were bridged with heparin. We also analyzed the data for any statistically significant correlation between complication rates and patient comorbidities, concurrent medications, procedure type, facility, and year.

Results: Our study had a total of 309 qualifying cases. The complication rates in our study were low, with three bleeding complications and no thrombotic complications. The three bleeding complications were hematomas in advanced age individuals taking rivaroxaban, however these patient specific factors were not statistically significant as the low numbers of complications prohibited us from running statistical analysis of the complication rates in relation to DOAC management and contributing patient specific factors.

Conclusion: Decisions on how to manage anticoagulation in the periprocedural period consider the patient and procedure specific bleeding and thrombotic risks (Daniels, 2015). Overall, our results show us that performing CIED procedures on patients taking DOACs is safe from a bleeding and thrombosis standpoint regardless of the procedure-specific bleeding and thrombotic risks. They were also safe regardless of the length of time DOACs were held before, after, or bridged in the periprocedural setting. To ensure patient safety in the future, we would recommend that professional societies develop consensus guidelines on how to best manage DOACs in the periprocedural setting to standardize care and reduce potential complications.

References

- Ageno, W., Gallus, A. S., Wittkowsky, A., Crowther, M., Hylek, E. M., & Palareti, G. (2012). Oral anticoagulant therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*, *141*(2), e44S-e88S. doi: 10.1378/chest.11-2292
- Baron, T. H., Kamath, P. S., & McBane, R. D. (2013). Management of antithrombotic therapy in patients undergoing invasive procedures. *The New England Journal of Medicine*, *368*(22), 2113-2124. doi: 10.1056/NEJMra1206531
- Beyer-Westendorf, J., Gelbricht, V., Förster, K., Ebertz, F., Köhler, C., Werth, S., ... Weiss, N. (2014). Peri-interventional management of novel oral anticoagulants in daily care: Results from the prospective Dresden NOAC registry. *European Heart Journal*, *35*(28), 1888-1896. doi: 10.1093/eurheartj/eht557
- Daniels, P. R. (2015). Peri-procedural management of patients taking oral anticoagulants. *BMJ*, *351*(8018), h2391. doi: 10.1136/bmj.h2391
- Douketis, J. D., Spyropoulos, A. C., Spencer, F. A., Mayr, M., Jaffer, A. K., Eckman, M. H., ... Kunz, R. (2012). Perioperative management of antithrombotic therapy: Antithrombotic therapy and prevention of thrombosis, 9th ed: American College of Chest Physicians evidence-based clinical practice guidelines. *Chest*, *141*(2_suppl), e326S-e350S. doi: 10.1378/chest.11-2298
- Flaker, G. C., Theriot, P., Binder, L. G., Dobesh, P. P., Cuker, A., & Doherty, J. U. (2016). Management of periprocedural anticoagulation: A survey of contemporary practice. *Journal of the American College of Cardiology*, *68*(2). doi: 10.1016/j.jacc.2016.04.042
- Garcia, D., Alexander, J. H., Wallentin, L., Wojdyla, D. M., Thomas, L., Hanna, M., ... Lopes, R. D. (2014). Management and clinical outcomes in patients treated with apixaban vs warfarin undergoing procedures. *Blood*, *124*(25), 3692-3698. doi: 10.1182/blood-2014-08595496
- Healey, J. S., Eikelboom, J., Douketis, J., Wallentin, L., Oldgren, J., Yang, S., ... Ezekowitz, M. (2012). Periprocedural bleeding and thromboembolic events with dabigatran compared with warfarin: Results from the randomized evaluation of long-term anticoagulation therapy (RE-LY) randomized trial. *Circulation*, *126*(3), 343-348. doi: 10.1161/CIRCULATIONAHA.111.090464
- Heidbuchel, H., Verhamme, P., Alings, M., Antz, M., Hacke, W., Oldgren, J., ... Kichof, P. (2013). European Heart Rhythm Association practical guide on the use of new oral anticoagulants in patients with non-valvular atrial fibrillation. *Europace*, *15*(5), 625-651. doi: 10.1093/europace/eut083
- Oktay, E. (2015). Will NOACs become the new standard of care in anticoagulation therapy? *International Journal of the Cardiovascular Academy*, *1*(1), 1-4. doi: 10.1016/j.ijcac.2015.06.007
- Schulman, S., Carrier, M., Lee, A. Y. Y., Shivakumar, S., Blostein, M., Spencer, F. A., ... Douketis, J. D. (2015). Perioperative management of dabigatran: A prospective cohort study. *Circulation*, *132*(3), 167-173. doi: 10.1161/CIRCULATIONAHA.115.015688
- Sherwood, M. W., Douketis, J. D., Patel, M. R., Piccini, J. P., Hellkamp, A. S., Lokhnygina, Y., ... Becker, R. C. (2014). Outcomes of temporary interruption of rivaroxaban compared with warfarin in patients with nonvalvular atrial fibrillation: Results from the rivaroxaban once daily, oral, direct factor Xa inhibition compared with vitamin K antagonism for prevention of stroke and embolism trial in atrial fibrillation (ROCKET AF). *Circulation*, *129*(18), 1850-1859. doi: 10.1161/CIRCULATIONAHA.113.005754

Contact

alland.michelle@mayo.edu

F 17 - Enhancing Health/Wellness of Students, Faculty and Staff in Academic Settings: Evidence-Based Strategies for Success

Enhancing Health/Wellness of Students, Faculty and Staff in Academic Settings: Evidence-Based Strategies for Success

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN, USA

Abstract

Purpose: Academia is a fertile setting to improve population health of 33 million people who live in work in institutions of higher learning. A key strategy to promote healthy lifestyle behaviors includes targeting students, faculty and staff at multiple levels of health promotion, including individual activities, the use of the social environment to promote health, addressing the larger institutional culture, and implementing health policy. Utilizing key national intervention initiatives in the field of health promotion can be fundamental to improving the health of a university. The purpose of this symposium is to discuss the importance of creating a culture of wellness in academic settings that supports implementing wellness programs, activities and resources at multiple levels of health promotion.

Methods: Various methods will be presented in this symposium, including: 1) an evidence review of the current state of population health, including the health of the nursing profession; 2) the incorporation of innovative strategies into educational pedagogy to improve the health of nursing students and promote wellness throughout the nursing profession. Various methods of integrating wellness into curricula include: a faculty wellness toolkit; the concept of "lecturcizing;" using national disease prevention initiatives, such as Healthy People 2020 and Million Hearts, as teaching tools and a means of improving student wellness; and incorporating a variety of assignments and projects related to wellness into nursing courses; 3) description of baseline data from a student wellness on-boarding study; and 4) the methods utilized in the Million Hearts Building Healthy Academic Communities (BHAC) and Ohio State challenge programs.

Results: According to the latest statistics, there over 3 million practicing Registered Nurses (including Advanced Practice Registered Nurses) in the U.S., which represents the largest sector of the health professions. Too often nurses fail to adequately care for themselves. As a result of not engaging in healthy lifestyle behaviors, nurses have higher rates of diabetes, hypertension, obesity and depression than physicians. Not being in optimal health contributes to high rates of burnout, early retirement, and a plethora of chronic conditions, including cardiovascular disease, depression, obesity, and musculoskeletal conditions. For the students enrolled in a RN-BSN course where wellness and self-care and discussed and promoted, participation rates were high with 61% completing all wellness activities and only 4% choosing not to engage in any wellness activities. Eighty percent of students who participated in the wellness activities reported either achieving their wellness goal or were close to achieving their wellness goal. Ninety-five percent of students wished to continue wellness activities in the course. Results from the Million Hearts program challenge saw high level of stress significantly correlated with race ($p=.02$), a diagnoses of at least one chronic condition ($p<.0001$), a BMI of 25-29.9 ($p=.04$), and those who ate 0-1 servings of fruit/vegetables per day ($p=.0002$). High level of stress was significantly correlated with being a smoker ($p=.05$), participants diagnosed with at least one chronic condition ($p<.001$), and a BMI of over 30 ($p=.05$).

Lastly, in regards to the health sciences graduate student wellness on-boarding study, overall, the lower healthy lifestyle beliefs were significantly associated with higher depression ($r = -0.37$, $P < 0.001$), higher anxiety ($r = -0.36$, $P < 0.001$), and higher stress ($r = -0.36$, $P < 0.001$). Significant negative correlations also existed between healthy lifestyle behaviors and depression ($r = -0.36$, $P < 0.001$), healthy lifestyle behaviors and anxiety ($r = -0.30$, $P < 0.001$), and healthy lifestyle behaviors and stress

($r = -0.22$, $P = 0.02$). Positive and significant correlations existed between healthy lifestyle behaviors and healthy lifestyle beliefs ($r=0.52$, $P < 0.001$). Additionally, depression, anxiety, and stress are highly correlated with each other (pair-wise correlation coefficients of 0.60-0.81).

Conclusion: Addressing the health and wellness of students, faculty and staff in academic institutions, as well as the broader culture and environment, is a critical step in improving population health outcomes. As it relates to the field of nursing, emphasizing the health of the provider, not just the patient, needs to start during entry into the profession with nursing education. In addition, national health initiatives, outlined in this presentation, such as Million Hearts, and local programs, such as a student wellness on-boarding intervention, can be successful methods for educating and encouraging populations to adopt healthy lifestyle behaviors.

References

Bass, K. & McGenney, K. (2013). U.S. Physicians set good health example. *Gallup*. Retrieved from <http://www.gallup.com/poll/157859/physicians-set-good-health-example.aspx>

Eisenberg, D., Hunt, J., & Speer, N. (2013). Mental health in American Colleges and Universities. *The Journal of Nervous and mental Disease*, 201(1), 60-67.

Melnyk, B. M., Hrabec, D. P., & Szalacha, L. A. (2013). Relationships among work stress, job satisfaction, mental health, and healthy lifestyle behaviors in new graduate nurses attending the nurse athlete program: a call to action for nursing leaders. *Nursing Administration Quarterly*, 37(4), 278-285.

Contact

Melnyk.15@osu.edu

Incorporating Wellness into Nursing Education

Kate E. Gawlik, DNP, RN, CNP, ANP-BC, FNP-BC, USA

Abstract

Purpose: Despite the central role of nursing in patient health promotion and education, current nursing pedagogy lacks integration of student wellness and self-care. The purpose of this presentation is to discuss the rising need to integrate wellness and self-care into nursing education and place nursing at the forefront of national health promotion initiatives.

Methods: Faculty are incorporating innovative strategies into their educational pedagogy to improve the health of nursing students and promote wellness throughout the nursing profession. Various methods of integrating wellness into curricula include: a faculty wellness toolkit; the concept of "lecturcizing;" using national disease prevention initiatives, such as Healthy People 2020 and Million Hearts, as teaching tools and a means of improving student wellness; and incorporating a variety of assignments and projects related to wellness into nursing courses. An exemplar of an optional, multi-dimensional wellness program that was integrated into a large online RN-BSN course will be discussed. Students were asked to identify a wellness goal at the beginning of the semester. Each week, students were given a short wellness activity to complete. Examples of wellness activities were such things as guided imagery, dancing videos, and trying a new healthy recipe. At the end of each week, students were asked to submit a document stating they completed the wellness activity and how they were progressing with their wellness goal. Student participation rates were tracked and a follow-up survey was administered.

Results: Participation rates were high with 61% completing all wellness activities and only 4% choosing not to engage in any wellness activities. Eighty percent of students who participated in the wellness activities reported either achieving their wellness goal or were close to achieving their wellness goal. Ninety-five percent of students wished to continue wellness activities in the course.

Conclusion: Emphasizing the health of the provider, not just the patient, needs to start during entry into the profession with nursing education. Nurses need to demonstrate leadership by practicing and advocating for health promotion, disease prevention and population health.

References

- Chen, C.J., Chen, Y.C., Sung, H.C., Hsieh, T.C., Lee, M.S., & Chang, Y.C. (2015). The prevalence and related factors of depressive symptoms among junior college nursing students: A cross-sectional study. *Journal of Psychiatric and Mental Health Nursing*, 22, 590-598.
- Gawlik, K. & Melnyk, B. (March/April 2015). Integrating Million Hearts® into nursing & interprofessional educational curricula and community settings: A key strategy for improving population health across the United States. *Journal of Professional Nursing*.
- Ludwig, A., Burton, W., Weingarten, J., Milan, F., Myers, D., and Kigler, B. (2015). Depression and stress amongst undergraduate medical students. *BMC Medical Education*, 15(141), 1-5. doi:10.1186/s12909-015-0425-z

Contact

Gawlik.2@osu.edu

Findings from the Building Healthy Academic Communities Million Hearts® Challenge Program

Megan E. Amaya, PhD, CHES, AFAA, USA

Abstract

Purpose: Cardiovascular disease (CV) is the leading cause of death for both men and women in the United States. The Million Hearts initiative emphasizes consistent, evidence-based interventions and education to increase public awareness of preventive lifestyle modifications to reduce CV morbidity and mortality by focusing on the “ABCS” of care. “A” is for aspirin therapy, “B” is for blood pressure control, “C” is for cholesterol management and “S” is for smoking cessation. Targeting management via the ABCS has been shown to prevent more deaths than other clinical preventive services.

Methods: A prospective study design was used to examine trends and correlations among the data. Institutional and individual members of the National Consortium for Building Healthy Academic Communities (BHAC) were asked to participate in the program. Participants from those academic institutions were able to access the free, online program via the e-learning website of a college of nursing housed within a large public land grant University in the mid-west region of the United States. Participants who opted to enroll in the BHAC Million Hearts program joined an online educational program that consisted of the following: 1) an overview of the national Million Hearts initiative; 2) understanding their biometric numbers; 3) improving CV health through healthy lifestyle behavioral changes and 4) managing stress through stress reduction techniques. An anonymous 12-item survey was developed and administered to all participants after they completed the education content.

Results: Analysis was completed for the BHAC Consortium as a whole, and for results at the host institution for BHAC, a majority of the participants were female (81%), between the ages of 20-29 (60%), white (65%), and a spouse/same-sex domestic partner of a faculty/staff member (61%). A majority were non-smoking (85%), ate 2-3 servings of fruits/vegetables per day (47%) and exercised less than 75 minutes per week (32%). 72% responded with no diagnosis of a chronic condition, had a normal body mass index (50%) and scored a 5-8 on the perceived stress scale (40%). High level of stress was significantly correlated with race ($p=.02$), participants diagnosed with at least one chronic condition ($p<.0001$), a BMI of 25-29.9 ($p=.04$), and those that ate 0-1 servings of fruit/vegetables per day ($p=.0002$). For the sub-category of the host institution, a majority of the participants were female (74%), between the ages of 30-39 (30%), white (83%), and a staff member (62%). A majority were non-smoking (90%), ate 3-4 servings of fruits/vegetables per day (43%) and exercised less than 75 minutes per week (32%). 68% responded with no diagnosis of a chronic condition, had a normal body mass index (38%) and scored a 0-4 on the perceived stress scale (39%). High level of stress was significantly correlated with being a smoker ($p=.05$), participants diagnosed with at least one chronic condition ($p<.001$), and a BMI of over 30 ($p=.05$).

Conclusion: The Million Hearts national initiative, as outlined by the intervention components “ABCS” can be a successful method for educating and encouraging populations to adopt healthy lifestyle behaviors. Elevated perceived levels of stress are often observed with the diagnosis of a chronic

condition. Reducing stress and managing chronic condition(s) through behavior change is an ideal way to improve population health.

References

- Centers for Disease Control and Prevention (2013, August 28). *Heart disease facts*. Retrieved from <http://www.cdc.gov/heartdisease/facts.htm>
- Egan, B.M., et al. (2011). Impacting population cardiovascular health through community-based practice network: update on an ash-supported collaborative. *Journal of Clinical Hypertension*, 13 (8), 543-550.
- U.S. Department of Health and Human Services (n.d.). Guidance Regarding Methods for De-identification of Protected Health Information in Accordance with the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule. Retrieved from <http://www.hhs.gov/ocr/privacy/hipaa/understanding/coveridentities/De-identification/guidance.html>
- World Health Organization (2011). *Global status report on noncommunicable diseases 2010*. Geneva, World Health Organization.

Contact

Amaya.13@osu.edu

Mental Health and Healthy Lifestyle Behaviors in First-Year Health Sciences Graduate Students

Jacqueline Hoying, PhD, RN, NEA-BC, USA

Abstract

Purpose: Mental health disorders account for nearly one half of the disease burden for young adults in the United States and the prevalence of depression among college students has increased from 10% in 2000 to a current rate of 15%. The college years are frequently a transition period when students are gaining independence from their parents and developing healthy lifestyle behaviors. However, during this critical phase in development, college students tend to have poor dietary habits and low physical activity levels that may contribute to obesity and related health conditions in later life. The American College Health Association National College Health Assessment-II identified the leading impediments to academic success reported by college students as being stress (30%), anxiety (21%), sleep problems (20%), and depression (14%.) With poor healthy lifestyle habits and a high degree of burden from mental health disorders, there is an urgent need to develop and test interventions to improve the healthy lifestyle behaviors, mental health and academic outcomes in college youth.

Methods: This is a descriptive study of the baseline variables and correlates of healthy lifestyle behaviors of first year graduate students participating in a wellness onboarding study. First year graduate students from 7 health sciences colleges (Dentistry, Health and Rehabilitation Medicine, Nursing, Optometry, Pharmacy, and Veterinary Medicine) were invited to participate in the study. Consent was obtained online. The study consisted of the completion of a personalized wellness assessment, biometric screen, completion of a personalized wellness plan, and then random assignment to either wellness coaching by a Family Nurse Practitioner (FNP) student trained in COPE (Creating Opportunities for Personal Empowerment), a cognitive behavioral skill building program and wellness coaching or counseling about healthy lifestyle resources available and encouragement follow their individual wellness plan. **Analysis:** Descriptive statistics were used to summarize sample characteristics and baseline measures. Pearson correlation coefficients were used to test the pair-wise correlations between healthy lifestyle beliefs, healthy lifestyle behaviors, depression, anxiety, and stress. Chi-square statistics were used to compare the healthy lifestyle behavior risks factors across groups.

Results: 107 students participated in this study. Fifty-nine percent of participants were < 25 years of age, 31% participants were between the ages of 25 and 34, and 10% of the participants were > 35 years of age. The majority of the sample was White, not of Hispanic origin (70%), followed by Asian/Pacific Islander at 10%, Hispanic (7.5%), and Black, not of Hispanic origin (5.6%). The majority of the students were never married (80%) and did not have children (92%). Participants were from Nursing (39%), Veterinary Medicine (23%), Medicine (22%), Pharmacy (6%), Health and Rehabilitation (4%) and

Dentistry and Optometry (2% each). Nineteen percent of the sample described their health as excellent, followed by very good 18%, good 49%, fair 12% and poor 1%. More than half of the participants saw a consistent healthcare provider (60%). Overall, 44% of the total students had elevated symptoms of depression and 43% had elevated symptoms of anxiety. In addition, 88% of the total first year graduate students had elevated stress levels. In addition, lower healthy lifestyle beliefs were significantly associated with higher depression ($r = -0.37, P < 0.001$), higher anxiety ($r = -0.36, P < 0.001$), and higher stress ($r = -0.36, P < 0.001$). A significant negative correlations also existed between healthy lifestyle behaviors and depression ($r = -0.36, P < 0.001$), healthy lifestyle behaviors and anxiety ($r = -0.30, P < 0.001$), and healthy lifestyle behaviors and stress ($r = -0.22, P = 0.02$). Positive and significant correlations existed between healthy lifestyle behaviors and healthy lifestyle beliefs ($r = 0.52, P < 0.001$). Additionally, depression, anxiety, and stress were highly correlated with each other (pair-wise correlation coefficients of 0.60-0.81).

Conclusion: Understanding similarities in baseline correlations among mental health and healthy lifestyle behaviors among first year graduate students can guide interventions to improve mental health and healthy lifestyle behaviors in this at-risk population.

References

- American College Health Association. American College Health Association-National College Health Assessment II: Reference Group Executive Summary Spring 2015. Hanover, MD: American College Health Association; 2015.
- Conley, C., Durlak, J., Kirsch, A. (2015). A Meta-Analysis of Universal Mental Health Prevention Programs for Higher Education Students. *Society for Prevention Research*. 16, 487-587.
- Eisenberg, D., Gollust, S., Golberstein, E. & Hefner, J. (2007). Prevalence and Correlates of Depression, Anxiety, and Suicidality among University Students. *American Journal of Orthopsychiatry*. 77(4), 534-42.
- Keating, S. D., Guan, J., Pinero, J. C. & Bridges, D. M. (2005). A meta-analysis of college students; physical activity behaviors. *Journal of American College Health*. 54(2); 116-25.
- Kolodinsky, J., Harvey-Berino, J. R., Berlin, L., Johnson, R. K., & Reynolds, T. W. (2007). Knowledge of current Dietary Guidelines and Food Choice by College Students: Better Eaters have higher Knowledge of Dietary Guidance. *Journal of the Academy of Nutrition and Dietetics*. 107(8), 1409-13.

Contact

hoying.80@osu.edu

J 07 - Psychological Stress and Multi-Omics Interactions on Health Disparities Among African Americans

Genetic and Perceived Racism-Discrimination on Blood Pressure Among African-Americans in the Jackson Heart Study

Jacquelyn Taylor, PhD, PNP-BC, RN, FAHA, FAAN, USA

Abstract

Purpose: Hypertension is a common disease, affecting over 78 million adults in the US every year (Go et al., 2014). African Americans are disproportionately affected by this disease, with an earlier age of onset as well as higher rates of complications than adults of other racial/ethnic backgrounds (Nwankwo, Yoon, Burt, & Gu, 2013). The etiology of hypertension is complex and multifactorial. Studies have identified social, biological, environmental, and genetic risk factors for hypertension, but few studies have considered the ways in which these risk factors interact or work together in elevating risk among African Americans. Social factors such as experiences of discrimination related to skin color have been associated with high blood pressure in diverse populations, especially in low-income groups (Gravlee & Dressler, 2005; Sweet, McDade, Kiefe, & Liu, 2007). Further, although self-reported race has been associated with poor mental and physical health outcomes in African Americans (Monk, 2015), little is known about the gene-environment interaction that may exacerbate poor outcomes.

Methods: Both GWAS and candidate gene analyses were utilized to study the relationship between everyday (ED) and major life discrimination (MLD) with increases in systolic (SBP) and diastolic (DBP) blood pressure among African Americans in the Jackson Heart Study. Known predictors of blood pressure, such as age, sex, BMI, antihypertensive use and smoking status, were assessed in a multiple regression model including all predictors. Using multiple linear regression models, we assessed the associations between each predictor discrimination variable including and outcome variables (i.e., SBP and DBP) adjusted for age, sex, BMI, antihypertensive use and current smoking status. We used multiple linear regression models to test for association between each SNP and the blood pressure phenotypes (i.e., SBP and DBP). Each SNP was tested for additive effects in association with the outcome of interest in a test with one degree of freedom. We also tested the SNP × perceived discrimination interaction effects of SBP and DBP using multivariable linear mixed models with age, sex, BMI, antihypertensive medication use and top 10 Principal Components of the GWAS data as covariates.

Results: A total of 2,937 participants had both phenotypic and genetic data and were included in analyses for this study. This sample had a mean age of 55 years old, and the majority of the sample were female, obese, non-smokers, had hypertension, and were on antihypertension medication. Mean SBP and DBP were 126.8 and 79.1 mmHg, respectively. Overall, discrimination reported among participants in our sample was low. Multiple linear regression indicates no association between discrimination and blood pressure after adjusting for age, gender, BMI, antihypertensive medication use and current smoking status. Subsequent candidate gene analysis identified five SNPs (rs7602215, rs3771724, rs1006502, rs1791926, and rs2258119) that interacted with discrimination and SBP, and three SNPs (rs2034454, rs7602215, and rs3771724) that interacted with discrimination and DBP. Most notably, there was a significant SNP × discrimination interaction for two SNPs on the SLC4A5 gene: rs3771724 (MLD: SBP $p=.034$, DBP $p=.031$; ED: DBP: $p=.016$) and rs1006502 (MLD: SBP $p=.034$, DBP $p=.030$; ED: DBP $p=.015$).

Conclusion: Our data add to the evidence supporting an association between SNPs in the SLC4A5 gene and increases in blood pressure in one of a number of sample populations of AA reporting similar results, thus showing the replicability of the SLC4A5 gene across various samples (Barkley et al., 2004; Taylor et al., 2012; Taylor, Sampson, Taylor, Caldwell, & Sun, 2013). Replication with similar epidemiological samples is required to determine the role of genes and psychological stressors in the development and expression of hypertension among this understudied population.

References

- Barkley, R. A., Chakravarti, A., Cooper, R. S., Ellison, R. C., Hunt, S. C., Province, M. A., . . . Family Blood Pressure Program. (2004). Positional identification of hypertension susceptibility genes on chromosome 2. *Hypertension*, *43*(2), 477-482. doi:10.1161/01.HYP.0000111585.76299.f7 [doi]
- Go, A. S., Mozaffarian, D., Roger, V. L., Benjamin, E. J., Berry, J. D., Blaha, M. J., . . . American Heart Association Statistics Committee and Stroke Statistics Subcommittee. (2014). Executive summary: Heart disease and stroke statistics--2014 update: A report from the American heart association. *Circulation*, *129*(3), 399-410. doi:10.1161/01.cir.0000442015.53336.12 [doi]
- Gravlee, C. C., & Dressler, W. W. (2005). Skin pigmentation, self-perceived color, and arterial blood pressure in puerto rico. *American Journal of Human Biology : The Official Journal of the Human Biology Council*, *17*(2), 195-206. doi:10.1002/ajhb.20111 [doi]
- Monk, E. P., Jr. (2015). The cost of color: Skin color, discrimination, and health among african-americans. *AJS; American Journal of Sociology*, *121*(2), 396-444.
- Nwankwo, T., Yoon, S. S., Burt, V., & Gu, Q. (2013). Hypertension among adults in the united states: National health and nutrition examination survey, 2011-2012. *NCHS Data Brief*, *(133)*(133), 1-8.
- Sweet, E., McDade, T. W., Kiefe, C. I., & Liu, K. (2007). Relationships between skin color, income, and blood pressure among african americans in the CARDIA study. *American Journal of Public Health*, *97*(12), 2253-2259. doi:AJPH.2006.088799 [pii]
- Taylor, J. Y., Sampson, D., Taylor, A. D., Caldwell, D., & Sun, Y. V. (2013). Genetic and BMI risks for predicting blood pressure in three generations of west african dogon women. *Biological Research for Nursing*, *15*(1), 105-111. doi:10.1177/1099800411419026 [doi]
- Taylor, J. Y., Wu, C. Y., Darling, D., Sun, Y. V., Kardia, S. L., & Jackson, J. S. (2012). Gene-environment effects of SLC4A5 and skin color on blood pressure among african american women. *Ethnicity & Disease*, *22*(2), 155-161.

Contact

jacquelyn.taylor@yale.edu

Effects of Perceived Racial Discrimination and DNA Methylation on Blood Pressure Among African-American Women

Veronica Barcelona de Mendoza, PhD, MSN, RN, APHN-BC, USA

Abstract

Purpose: Hypertension (high blood pressure) is the most frequently seen condition in primary care settings in the United States (James et al., 2014), affecting approximately 78 million adults (Go et al., 2014). African American females have the highest rate of hypertension (49%) compared to African American males (44%), White males (37%) and White females (32%) (Go et al., 2014). The etiology of hypertension is complex and though several biological, environmental and genetic risk factors have been established, few studies have examined the interactive effects that are unique to African American women. Independently, both discrimination and genetics have been associated with high blood pressure (Gravlee, 2009; Taylor, Sun, Hunt, & Kardia, 2010). Few studies, however, have examined how gene-environment interactions that may result in poorer health outcomes for African American women. Our hypothesis was that women with higher levels of racial discrimination will have elevated blood pressures, more deleterious methylation sites on proposed candidate genes, and women with more DNA methylation and higher levels of racial discrimination will have higher blood pressures.

Methods: Baseline data collected between April 2015 and January 2016 from the Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure Study (InterGEN) were utilized for the present study (N = 81). InterGEN is an ongoing prospective cohort study in Connecticut that aims to examine the independent and combined effects of genetic and psychological factors on blood pressure among African American women and their three to five year old children over time. Full study procedures have been described elsewhere (Crusto, Barcelona de Mendoza, Connell, Sun, & Taylor, 2016; Taylor, Wright, Crusto, & Sun, 2016). To be eligible, women were: (a) ≥ 21 years old; (b) self-identified as African American or Black; (c) English speakers; (d) did not have a psychiatric or cognitive disorder; and (e) had a biological child three to five years old. Racial discrimination was measured using three scales: the Race-Related Events Scale (RES), Experiences of Discrimination (EOD) scale and the Major Discrimination (MD) scale. Blood pressure, height, weight, and saliva for DNA analyses were collected at

the initial study visit together with the measures of discrimination. Candidate gene analyses was utilized to study the relationship between discrimination and increases in systolic (SBP) and diastolic (DBP) blood pressure. Linear regression models were used to examine main effects of discrimination on blood pressure, controlling for age, education, and antihypertensive medication use. Multivariable linear regression models were also used to test for association between each SNP and the blood pressure phenotypes (i.e., SBP and DBP). Mixed linear models were used to test SNP × perceived discrimination interaction effects of SBP and DBP

Results: A total of 81 women contributed data for the present study. A total of 81 women contributed demographic, clinical and genomic data for analyses. Demographic data indicate (Table 1) that most women were between the ages of 30-39, had a normal BMI, and an annual household income of less than \$15,000. Women were most commonly insured by Medicaid (64%), followed by government/ACA insurance (19%) and private insurers (9%). Approximately 15% of women reported ever having received a diagnosis of high blood pressure (n=12) and fewer reported current hypertension medication use (7%, n=6). Most women had higher achieved some college or graduated college (60%). Mean systolic blood pressure was 113.1 mm Hg, and diastolic was 72.3 mm Hg. Overall, women reported relatively few experiences with discrimination based on the three measures (RES, EOD, and MD). A series of linear regression models were then run to examine main effects of experiences of discrimination on systolic and diastolic blood pressure. Models were adjusted for age, education and taking blood pressure medications. Race related events, experiences of discrimination (situational and frequency measures) and major life discrimination were not associated with systolic or diastolic blood pressure in unadjusted or adjusted models. Major life discrimination related to race was associated with a statistically significant increase in systolic blood pressure only ($\beta=4.00$, SE 1.8, $p=0.030$), but this effect was not sustained after adjustment ($\beta=1.73$, SE 1.4, $p=0.235$). Gene and gene-environment analyses will also be presented.

Conclusion: Preliminary analyses suggest that discrimination may be associated with blood pressure in our sample. Ongoing gene and gene-environment analyses will demonstrate whether an interactive effect is present.

References

- Crusto, C. A., Barcelona de Mendoza, V., Connell, C. M., Sun, Y. V., & Taylor, J. Y. (2016). The Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure Study (InterGEN): Design and methods for recruitment and psychological measures. *Nursing Research*, *65*(4), 331-338. doi:10.1097/NNR.000000000000163 [doi]
- Go, A. S., Mozaffarian, D., Roger, V. L., Benjamin, E. J., Berry, J. D., Blaha, M. J., . . . American Heart Association Statistics Committee and Stroke Statistics Subcommittee. (2014). Executive summary: Heart disease and stroke statistics--2014 update: A report from the American Heart Association. *Circulation*, *129*(3), 399-410. doi:10.1161/01.cir.0000442015.53336.12 [doi]
- Gravlee, C. C. (2009). How race becomes biology: Embodiment of social inequality. *American Journal of Physical Anthropology*, *139*(1), 47-57. doi:10.1002/ajpa.20983; 10.1002/ajpa.20983
- James, P. A., Oparil, S., Carter, B. L., Cushman, W. C., Dennison-Himmelfarb, C., Handler, J., . . . Ortiz, E. (2014). 2014 evidence-based guideline for the management of high blood pressure in adults: Report from the panel members appointed to the Eighth Joint National Committee (JNC 8). *Jama*, *311*(5), 507-520. doi:10.1001/jama.2013.284427 [doi]
- Taylor, J. Y., Sun, Y. V., Hunt, S. C., & Kardia, S. L. (2010). Gene-environment interaction for hypertension among African American women across generations. *Biological Research for Nursing*, *12*(2), 149-155.
- Taylor, J. Y., Wright, M. L., Crusto, C. A., & Sun, Y. V. (2016). The Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure (InterGEN) Study: Design and methods for complex DNA analysis. *Biological Research for Nursing*, doi:1099800416645399 [pii]

Contact

veronica.barcelona@yale.edu

Parenting Stress and DNA Methylation Among African-Americans in the Intergen Study

Michelle Wright, PhD, RN, USA

Abstract

Purpose: The experiences of parenting can cause stress related to work, life events, environment, marital relationship, daily hassles, and child rearing responsibilities. African American (AA) mothers have higher levels of parenting stress than mothers of European Ancestry (EA), which can contribute to adverse health outcomes in both child and mother. Parenting stress among AA populations has been correlated with risk factors associated with health disparities in AA populations. This suggests parenting stress may contribute to overall maternal stress, influencing health outcomes of the mother and child similar to other forms of psychological stress. For example, in a previous study we observed higher diastolic blood pressure in AA caregivers reporting higher levels of parenting stress (Jacquelyn Y Taylor, Washington, Artinian, & Lichtenberg, 2007). Chemical modifications to the genome that do not alter the nucleotide sequence may alter gene expression are referred to as epigenetic changes, and recent evidence has implicated epigenetic alterations, such as changes in DNA methylation (DNAm), in the pathogenesis of complex disease states (Wright, Ralph, Ohm, & Anderson, 2013). General life stress and financial stress, have been associated with altered DNAm in AA populations (Chen, Miller, Yu, & Brody, 2016), although the relationship between parenting stress and DNAm have not yet been described. The purpose of this study was to examine the relationship between maternal parenting stress and DNAm among African American mothers and their children.

Methods: This study evaluated epigenome-wide DNAm in 74 mother-child dyads involved in our current prospective study examining the intergenerational impact of genetic and psychological factors on blood pressure. Extensive details on recruitment and statistical methods have been described elsewhere (Crusto, Barcelona de Mendoza, Connell, Sun, & Taylor, 2016; J. Y. Taylor, Wright, Crusto, & Sun, 2016). Briefly, AA mothers were recruited from the community who had a child between the ages of 3-5 years of age. Baseline demographic data and the Parenting Stress Index – Short Form (PSI) (Abidin, 1995) was obtained via audio self-assisted interviewing software. Saliva samples were collected from mothers and children for DNAm analyses with the Illumina Infinium Methylation EPIC (850K) BeadChip. PSI scores were calculated per instructions in the protocol manual (Abidin, 1995). DNAm data were assessed for quality and preprocessing using an established analytic pipeline for DNAm array data (J. Y. Taylor et al., 2016). Descriptive statistics were completed to describe the sample and linear mixed models were used to evaluate DNAm (dependent variable) in mothers and children related to maternal parenting stress levels (primary independent variable) controlling for age and maternal smoking status. Models evaluating DNAm in children also controlled for sex of the child. All analyses were conducted in the R statistical computing environment controlling for cellular proportions significance was determined using a false discovery rate (FDR) of 0.05.

Results: Our maternal participants had a mean age of 32.35 years old and 24 percent indicated that they smoke cigarettes. The mean age of our children was 3.73 years old and 35 percent male. Significant variation in maternal DNA methylation in 95 CpG sites was associated with levels of parenting stress. Notably, the relationship between parenting stress and DNAm was inversely proportional at most sites (87%) had decreased DNAm with higher levels of parenting stress. Notably, we identified a change in DNAm associated with poly(ADP-ribose) polymerase-1 (*PARP-1*), which plays a key role in stress signaling. We did not identify any significant association with child DNAm related to maternal parenting stress. However, the observed DNAm patterns in the children mirrored DNAm patterns observed in their mothers.

Conclusion: Our study results suggest that parenting stress is associated with differential DNAm in mothers experiencing higher levels of parenting stress. Since the study did not collect multiple samples for DNAm over time, it is unclear if the DNAm differences observed were a direct result of parenting stress or were pre-existing differences that contribute to the mother's response or perceived level of parenting stress. Altered DNAm in *PARP-1* warrants further follow-up as the gene is known to play a key role in cellular function and response to stress. Alterations in the *PARP-1* gene have been associated with genome instability, shorter lifespans, and spontaneous tumors in animal models (Luo & Kraus, 2012). Further studies are needed to determine if differences in DNAm at *PARP-1* are associated with altered protein production or other measurable health effects.

References

- Abidin, R. R. (1995). *Parenting Stress Index*. Lutz, FL: Psychological Assessment Resources.
- Chen, E., Miller, G. E., Yu, T., & Brody, G. H. (2016). The Great Recession and health risks in African American youth. *Brain, Behavior, and Immunity*, 53, 234–241. <http://doi.org/10.1016/j.bbi.2015.12.015>
- Crusto, C. A., Barcelona de Mendoza, V., Connell, C. M., Sun, Y. V., & Taylor, J. Y. (2016). The Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure Study (InterGEN). *Nursing Research*, 65(4), 331–338. <http://doi.org/10.1097/NNR.0000000000000163>
- Luo, X., & Kraus, W. L. (2012). On PAR with PARP: cellular stress signaling through poly(ADP-ribose) and PARP-1. *Genes & Development*, 26(5), 417–32. <http://doi.org/10.1101/gad.183509.111>
- Taylor, J. Y., Washington, O. G. M., Artinian, N. T., & Lichtenberg, P. (2007). Parental stress among African American parents and grandparents. *Issues in Mental Health Nursing*, 28(4), 373–87. <http://doi.org/10.1080/01612840701244466>
- Taylor, J. Y., Wright, M. L., Crusto, C. A., & Sun, Y. V. (2016). The Intergenerational Impact of Genetic and Psychological Factors on Blood Pressure (InterGEN) Study: Design and Methods for Complex DNA Analysis. *Biological Research For Nursing*. <http://doi.org/10.1177/1099800416645399>
- Wright, M. L., Ralph, J. L., Ohm, J. E., & Anderson, C. M. (2013). DNA methylation in complex disease: applications in nursing research, practice, and policy. *Nursing Outlook*, 61(4), 235–241.e4. <http://doi.org/10.1016/j.outlook.2013.04.010>

Contact

michelle.lynn.wright@emory.edu

J 08 - Improving Nursing Care and Outcomes for Patients Living With End-Stage Renal Disease

Sodium-Restricted Diets and Symptoms in End-Stage Renal Disease: A Randomized Controlled Trial

Maya Nicole Clark-Cutaia, PhD, ACNP-BC, RN, USA

Abstract

Purpose: The purpose of this presentation is to explore the effect of dietary sodium restriction on patient quality of life and hemodialysis related symptom profiles. Dietary sodium intake independently increases the risk of mortality in end stage renal disease (ESRD)^{1,2}. It plays a significant role in hypertension, hypervolemia, and left ventricular hypertrophy (LVH), and blunts the effectiveness of hypertensive agents³. In addition, the hypervolemia associated with excessive dietary sodium intake results in the need for more intense fluid removal during hemodialysis (ultrafiltration), resulting in symptoms such as pain, cramps, hypotension, nausea, and vomiting during hemodialysis (HD) treatment sessions^{4,5}. Although sodium restriction is a universal recommendation for ESRD management, the National Kidney Foundation (NKF) recommendation of 2400 mg per day is consensus-based per the Dietary Approaches to Stop Hypertension (DASH) studies, not an evidence-based recommendation from data derived from a hemodialysis population. In addition, The Dietary Guidelines for Americans 2010 and American Heart Association (AHA), recommend further restriction of dietary sodium intake to 1500 mg per day for persons with hypertension and/or kidney disease, middle-aged and older adults, and African Americans, though there is also little empiric evidence to support this recommendation in the general population and none in the hemodialysis population⁶. Therefore, it remains to be demonstrated that a diet with such sodium restrictions is attainable, sustainable, safe or beneficial.

Methods: We conducted a double-blinded randomized controlled trial of 42 ESRD patients undergoing hemodialysis therapy. Patients were randomized into one of three dietary sodium intake groups. Primary outcomes were quality of life and symptom scores as operationalized by the Kidney Quality of Life and Palliative Outcome Scale-Renal Assessments.

Results: There was no statistically significant difference in symptom scores, though participants reported clinical improvement in symptoms.

Conclusion: The findings from this study provides the first data from a randomized controlled trial on the effectiveness of reduced dietary sodium intake in hemodialysis patients to inform evidenced based practice, patient education, and nursing care quality.

References

- ¹ Thomas, MC, Moran, J, Forsblom, C, et al. The association between dietary sodium intake, ESRD, and all-cause mortality in patients with type 1 diabetes. *Diabetes Care*. 2011; 34(4): 861-866.
- ² Clark-Cutaia, M., Sommers, MS., Anderson, E., & Townsend, R. Design of a randomized controlled clinical trial assessing dietary sodium restriction and hemodialysis-related symptom profiles. *Contemporary Clinical Trials Communications*. 2016; 3: 70-73. doi:10.1016/j.conctc.2-16.04.002.
- ³ Brook, RD, Appel, LJ, Rubenfire, M, et al. Beyond medications and diet: alternative approaches to lowering blood pressure: a scientific statement from the American Heart Association. *Hypertension*. 2013: published online before print April 22, 2013, 10.1161/HYP.0b013e318293645f.
- ⁴ Clark-Cutaia, M, Ren, D, Hoffman, L, Burke, LE, Sevick, MA. Adherence to hemodialysis dietary recommendations: influence of patient characteristics, self-efficacy and perceived barriers. *Journal of Renal Nutrition*. 2014; 24(10): 92-99. DOI: 10.1053/j.jrn.2013.11.007
- ⁵ Stiller, S, Bonnie-Schorn, E, Grassmann, A, Uhkenbusch-Koerwer, I & Mann, H. A critical review of sodium profiling for hemodialysis. *Seminars in Dialysis*. 2001; 14(5): 337-347.
- ⁶ Smyth, A, O'Donnell, MJ, Yusuf, S, Clase CM, Teo, KK, Canavan, M, Reddan DN, & Mann JF Sodium intake and renal outcomes: a systematic review. *Am J Hypertens*. 2014; 10: 1277-84. DOI: 10.1093/ajh/hpt294.

Contact

Nurse-Sensitive Indicators and Patient Transition Safety in Outpatient Hemodialysis Units

Charlotte Thomas-Hawking, PhD, RN, USA

Abstract

Purpose: Outpatient hemodialysis centers are the most common site of long-term hemodialysis therapy for persons with ESRD in the United States (U.S.). Although hemodialysis in an outpatient setting is a routine mode of treatment, it is a complex and potentially hazardous procedure⁷. Patient shift changes in outpatient hemodialysis units occur several times a day and are high-volume, error-prone patient transition periods that can threaten patient safety⁸⁻¹⁰. These transition periods in hemodialysis units are associated with adverse events that have been independently linked with hospitalization and mortality in hemodialysis patients¹¹. Despite the patient safety challenges in outpatient hemodialysis units, little attention has been allocated to assessing the patient safety cultures of these health care settings. Consequently, there is little evidence on which to guide strategies to ensure patient safety during peak transition times. A concern expressed by nephrology nurse leaders, nurse managers, and staff nurses is the need for more attention on the impact of the contributions of nephrology nursing on quality of care, patient safety, and outcomes in settings where nephrology nurses provide care^{12, 13}. Thus, the impact of nurse-sensitive indicators (RN staffing, workload, hemodialysis practice environment support, adequacy of nursing care processes) on the safe transition of patients during these periods in outpatient hemodialysis units, merit attention. The purpose of this study was to 1) describe nurses' ratings of patient transition safety during patient shift changes and 2) examine the impact of nurse sensitive indicators on patient transition safety in outpatient hemodialysis units.

Methods: A secondary analysis of data collected in a sample of 422 registered nurses who worked in outpatient hemodialysis facilities in the United States was conducted. Multiple linear regression and ordinary least squares path analysis with bootstrap samples was conducted to examine direct and indirect effects of nurse-sensitive indicators on patient transition safety.

Results: High RN workloads, unsupportive dialysis practice environments, and missed nursing care were independent predictors of unsafe patient transitions. These variables explained 33% of variance in patient transition safety. Additionally, missed nursing care is an important operant mechanism (i.e., mediator) in the relationships between nursing structures (RN staffing, RN workload, practice environment support) and patient transition safety in outpatient dialysis units.

Conclusion: The findings from this study can inform the design and evaluation of innovative care models that target modifiable nursing structures and care processes to improve the safe transition of patients during patient shift changes in outpatient hemodialysis settings.

References

- ⁷ Holley, JL. Dangerous dialysis. AHRQ Web M&M. Morbidity & Mortality Rounds on the Web. Agency for Healthcare Quality PSNet. Retrieved from <http://webmm.ahrq.gov/case.aspx?caseID=224>.
- ⁸ Clancy, CM. New research highlights the role of patient safety culture and safer care. *Journal of Nursing Care Quality*. 2011; 26(1): 193-196.
- ⁹ Garrick, R, Klinger, A, & Stefanchik, B. Patient and facility safety in hemodialysis: Opportunities and strategies to develop a culture of safety. *Clinical Journal of the American Society of Nephrology*. 2012; 7: 680-688. <http://dx.doi.org/10.2215/CJN.06530711>.
- ¹⁰ Himmelfarb, J. Optimizing patient safety during hemodialysis. *JAMA*. 2010; 306(15): 1701-1708.
- ¹¹ Obialo, CI, Hunt, WC, Bashir, K, & Zager, PG. Relationship of missed and shortened hemodialysis treatments to hospitalization and mortality: observations from a US dialysis network. *Clinical Kidney Journal*. 2012; 5: 315-319. doi: 10.1093/ckj/sfs071.
- ¹² Thomas-Hawkins, C, Flynn, L, Lindgren, T, & Weaver, C. Nurse manager safety practices in outpatient hemodialysis units. *Nephrology Nursing Journal*. 2015; 42(2): 125-133,147.

¹³ Ulrich, B & Kear, T. Patient safety culture in nephrology nurse practice settings: Initial findings. *Nephrology Nursing Journal*. 2014; 41(5): 459-475.

Contact

charlot@sn.rutgers.edu

Stakeholder Perspectives on Care Transition Needs of Patients on Hemodialysis Therapy

Olga F. Jarrín, PhD, RN, USA

Abstract

Purpose: Rehospitalization rates among ESRD patients are twice that of the entire Medicare population and a third of those cases occur among young patients between 20 and 44 years of age.¹⁴ The purpose of this study is to understand the factors associated with frequent and potentially avoidable hospitalizations within the hemodialysis patient population from the perspectives of patients and their family caregivers, as well as interdisciplinary healthcare providers from both outpatient and inpatient settings.

Methods: We used an exploratory study design with mixed qualitative methods that included structured interviews with patients and caregivers, focus groups with health care providers, and research collaborations to maximize our understanding of factors associated with potentially avoidable hospitalizations among patients on hemodialysis. Patient demographic and clinical information was collected through chart review and a pre-interview oral survey including the Kidney Quality of Life and Palliative Outcome Scale-Renal Assessment^{15, 16} for patients, and Coleman's Family Caregiver Tools¹⁷ to assess self-efficacy, caregiver burden, and engagement in care. Interviews were conducted with 20 patients and 10 family caregivers in a large, outpatient hemodialysis clinic. Multiple focus groups were held with four renal physicians, five registered nurses, a patient care technician and five health care professionals including social workers, nutritionists, and a nurse practitioner working in the hemodialysis outpatient setting. Descriptive and thematic analyses were conducted and preliminary findings were presented in a second round of focus groups with health care providers to clarify meaning and interpretation of multiple, and at times conflicting, participant perspectives.

Results: Caregivers reported high self-efficacy and involvement in caregiving. Health care providers identified socio-economic and community factors that contribute to poor patient outcomes, and identified organizational policies, procedures, and systems factors that may contribute to poor patient outcomes. Personal relationships between groups of patients, and between patients and staff, promote better patient outcomes, potential to enhance and leverage social aspect of hemodialysis care to improve outcomes. In addition, there may be potential for expansion of palliative and hospice care and expansion of integrated nutrition and sleep hygiene.

Conclusion: The findings from this study and recommendations for expanded nursing care models can inform the development of a nurse-led transitional care and home visiting program^{18, 19} to support care transitions in the hemodialysis patient population.

References

¹⁴ Korevaar, JC, Merkus, MP, Jansen, MA, Dekker, FW, Boeschoten, EW & Krediet, RT. Validation of the KDQOK-SF: A dialysis-targeted health measure. *Quality of Life Research*. 2002; 11: 437-447.

¹⁵ United States Renal Data System. 2015 USRDS annual data report: Epidemiology of kidney disease in the United States. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, MD, 2015.

¹⁶ Hays, RD, Kallich, JD, Mapes, DL, Coons, SJ, & Carter, WBN. Development of the kidney disease quality of life (KDQOL) instrument. *Qual Life Res*. 1994; 3(5): 329-38.

¹⁷ Coleman, EC, Roman, SP, Hall, KA, & Min, SJ. Enhancing the care transitions intervention protocol to better address the needs of caregivers. *Journal of Healthcare Quality*. 2015; 37(1): 2-11.

¹⁸ Naylor, MD, Aiken, LH, Kurtzman, ET, Olds, DM, & Hirschman, KB. The importance of transitional care in achieving health reform. *Health Affairs*. 2011; 30(4): 746-54.

¹⁹ Bradway, C, Trotta, R, Bixby, BM, et al. A qualitative analysis of an advanced practice nurse-directed transitional care model intervention. *The Gerontologist*. 2012; 52(3): 394-407.

Contact

olga.jarrin@rutgers.edu

J 09 - Translational Research: Dissemination and Implementation of Interventions From Research to Practice

Implementation of Project Students are Sun Safe (SASS) in Rural and Underserved High Schools

Lois J. Loescher, PhD, RN, FAAN, USA

Abstract

Background: Skin cancer is a major public health issue in the US and Arizona with overexposure to ultraviolet radiation (UVR) a known cause. Most people living near the rural Arizona-Mexico border are Hispanic; skin cancer incidence is rising within that population. Youth are prone to UVR overexposure and increased skin cancer risk, yet few skin cancer prevention programs target rural and underserved youth. Schools are ideal intervention settings, but teachers have limited time and resources to provide skin cancer prevention education. For 5 years, health educators and researchers at the University of Arizona (UA) have successfully implemented Project Students are Sun Safe (SASS) in urban schools. In the current model, UA health sciences students (peer leaders) take a one-semester skin cancer prevention academic course, consisting of online modules on skin cancer epidemiology, types, prevention and communication, followed by in-person skills training and evaluation. Trained peer leaders implement, in community classrooms, a brief PowerPoint™ SASS lesson (basic epidemiology, skin structure, skin cancer types, UVR and protection strategies, and tanning consequences), reinforced by three interactive activities. Adapting this model for high school students will allow further dissemination of SASS.

Purpose: To: a) adapt the SASS hybrid training for high school student peer leaders (accounting for culture, age, developmental stage, and literacy); b) engage the trainees to implement SASS in rural, border-area classrooms; c) evaluate feasibility and effectiveness of the peer training and the peer-to-peer education; and d) sustain SASS within the community.

Methods: Using a CBPR framework, our UA research team and community stakeholders adapted the SASS training modules and classroom lesson. Eighteen students from three border-area high schools completed the online training and online pretest and posttest measuring skin cancer prevention knowledge, attitudes, beliefs and behaviors.

Results: The majority of trainees were female, Hispanic, and had skin cancer risk factors: 83.3% lived in Arizona for 14+ years, and over 70% reported fair skin and propensity to sunburn, with 35.3% having two or more sunburns in the past 12 months. Following training, sun-safety knowledge improved ($p = .002$), perceived seriousness ($p = .000$) and risk ($p = .02$) were more favorable, and self-reported sun safety behaviors improved, including wearing a wide-brimmed hat ($p = .005$), applying SPF 30+ sunscreen, and wearing sunglasses (both $p = .000$). From December 2016 to April 2017, the trainees will implement SASS to about 500 peer students in border-area classrooms; we anticipate that 250 will complete pretest and the posttest evaluations by May 2017.

Conclusions: We successfully adapted SASS sun-safety training to Hispanic youth who had stronger skin cancer risk factors than we anticipated. We will report findings of SASS implementation in classrooms. Our community partner ultimately will integrate the SASS training into its menu of student training activities to sustain dissemination into rural and underserved communities.

References

- Davis, R., Loescher, L.J., Rogers, J., Spantonos, D., Snyder, A., Koch, S., Harris, R.B. (2014). Evaluation of Project Students are Sun Safe (SASS): A university student-delivered skin cancer prevention program for schools. *Journal of Cancer Education*. [Epub ahead of print] PubMed PMID: 2541782
- Finch, L., Janda, M., Loescher, L.J., Hacker, E. (2016). Can skin cancer prevention be improved through mobile technology interventions? A systematic review. *Preventive Medicine*. 90, 121-132. doi:10.1016/j.ypmed.2016.06.037.
- Cariou, C., Gonzales, M., and Krebill, H. Adapting and implementing an evidence-based sun-safety education program in rural Idaho, 2012. *Preventing Chronic Disease*. 11, 130268. DOI: <http://dx.doi.org/10.5888/pcd11.130268>

Contact

loescher@email.arizona.edu

Implementation of a Diabetes Self-Management Intervention for Mexican-American Families in the Arizona-Mexico Border Region

Marylyn M. McEwen, PhD, RN, FAAN, USA

Abstract

Background: The 50 million Hispanics who represent 16% of the U.S. population are disproportionately affected by diabetes (12.8%) when compared to non-Hispanic Caucasians (7.6%). The chronic and complex trajectory of type 2 diabetes (T2DM) requires daily engagement in self-management activities and occurs in a family environment. Diabetes self-management education and support (DSME/SS) builds knowledge, skills and abilities for successful T2DM self-management, decreases A1C and weight, reduces A1C by 1%, has a positive effect on other clinical indicators and health care costs. But, there is a paucity of evidenced-based lifestyle modification programs tailored to Hispanic culture and integrate family members into the intervention. We report on the refinement and testing of a 3-month culturally tailored family-based T2DM DSME/SS intervention on behavioral and biological outcomes.

Purpose: The purpose of this study was to refine, expand (Phase I), test and evaluate the effectiveness of a culturally tailored family-based intervention to improve behavioral and biological outcomes for Hispanic adults with T2DM and their family members (Phase II).

Methods: In Phase I we used a CBPR approach to engage a Family Action Board (FAB) (n=24) to refine and expand a culturally tailored individual-based T2DM DSME/SS intervention to a family-based intervention. In Phase II we used a randomized, two group experimental design, participants with T2DM and a family member (n=87 dyads) completed questionnaires, biological measurements, immediately following intervention, and at 6 months post intervention.

Results: The FAB participated in intervention revision, improving the reach of the family level intervention. Participants with T2DM ranged in age from 38 to 73 (M=54, SD=9); family members from 18 to 88 (mean=48, SD=16), most had less than a high school education (73% participant; 53% family member), family income was \$20,000 or less (69% participant; 58% family member). Participants had significant intervention effects for total self-management activities (p=.001), total self-efficacy (p=.003), and total diabetes distress (p<.001) with self-management and self-efficacy being sustained for 6 months. Family members had significant intervention effects for total family self-efficacy (p=.016), pedometer steps (p=.016), and pedometer miles (p=.008) with family self-efficacy being sustained for 6 months.

Conclusions: We are in the second translational research phase. We used CBPR to improve the reach of the study and promotoras and a diabetes educator to improve intervention effectiveness. Further research is required to strengthen the impact of the intervention on targeted outcomes before dissemination and adoption of the intervention can occur.

References

- McEwen, M.M., Pasvogel, A. & Murdaugh, C. (2016). Family efficacy for diabetes management: Psychometric Testing. *Journal of Nursing Measurement*, 24(1):32-43. doi: 10.1891/1061-3749.24.1.E32.
- McEwen, M.M. & Murdaugh, C. (2014). Partnering with a family action board to expand a diabetes intervention for Mexican American family members. *Diabetes Educator*, July/August, 40 (4).

Contact

marylynm@email.arizona.edu

Dissemination and Implementation of Colon Cancer Screening Program for Latinos Living Near the U.S.-Mexico Border

Laura Szalacha, EdD, RN, USA

Abstract

Background: The recent trends in increased colorectal cancer (CRC) screening test utilization are not mirrored in poor and minority populations. CRC screening rates are particularly low for those who do not identify a primary care provider or clinic and who also have lower levels of education, income, and insurance. We will detail this process of conducting a dissemination and implementation study in the context of our present funded D & I program: Navigation from Community to Clinic to promote CRC Screening in Underserved Populations (*Navegantes por Salud*).

Purpose: Combing two successful programs of research, we developed and tested a community to clinic tailored navigation intervention using a dissemination (randomized phase) and implementation (non-randomized phase). The final outcome measured was a) clinic attendance and, b) CRC screening. We also examined the roles and responsibilities of the statistician and/or methodologist in a D&I study and how those procedures and practices differ from those in a randomized control trial. This includes the design of a study, appropriate models or theoretical frameworks, frameworks for evaluation (i.e., RE-AIM), measurement issues, concerns of fidelity and re-invention or adaptation of successful interventions and the diffusion of innovation principles.

Methods: We randomized 232 sites to General Education +Tailored Navigation and 116 General Education only. In phase one, all participants received group education on cancer screening and risk. Those in the general education group received up to 5 reminder calls, and those in the navigation group received up to 10 calls from navigators who assisted them with barriers using a tailored message bank. In phase two, all those who attended a clinic received tailored navigation from a trained study navigator, through a combination of in-person meetings and phone calls.

Results: Of the 389 people enrolled, 25% made clinic appointments and of those, 61% complete colon cancer screening. We will frame our discussion with the 5 core values for D & I proposed by the NIH: rigor and relevance, efficiency, collaboration, improved capacity, and cumulative knowledge with specific examples from the present D & I study.

Conclusions: As such we have demonstrated that community-engaged cancer screening programs in Arizona are feasibility and acceptability (*Reach*), are *Effective*, and that *Adaptation* is necessary for success.

References

Menon, U, Belue R, Wahab S, Rugen, K, Kinney, A, Maramaldi, P, Wujcik, D, Szalacha, L. (2011). A Randomized Trial Comparing the Effect of Tailored Communication to Motivational Interviewing on Colorectal Cancer. *Annals of Behavioral Medicine*, 42 (3), 294-303.
RE-AIM. (n.d.). Retrieved October 28, 2016, from <http://www.re-aim.hnfe.vt.edu/>

Contact

drlsruzalacha@email.arizona.edu

Dissemination and Implementation of a Cervical Cancer Screen and Treatment Program in Ethiopia

Usha Menon, PhD, RN, FAAN, USA

Abstract

Background: Cervical cancer incidence and mortality are rising in Ethiopia. With low resources for cancer treatment and no population-based screening program in the country, prevention of cervical cancer is a key strategy to decreasing incidence. Approximately 95% of women have never been screened for cervical cancer. Visual inspection with acetic acid followed by cryotherapy or Loop Electrosurgical

Excision Procedure (LEEP) treatment is an efficacious and accepted method for cervical cancer control in low and middle income countries.

Purpose: The purpose of this presentation is to describe dissemination and implementation research in the context of a cervical cancer screen and treat program in Gondar, Ethiopia.

Methods: A non-profit US organization called GO DOC GO trained 17 nurses and physicians to perform visual inspection with acetic acid (VIA), cryotherapy, and LEEP. The program was implemented at the University of Gondar, Ethiopia, GYN clinic in October, 2014. Providers were trained over 3 days with half a day of pathophysiology and clinical presentation followed by two and half days of observation and supervised procedures.

Results: All women offered the program accepted and 402 women were screened. The incidence of pre-cancer and invasive cancer was 36% (n=142) and 15% (n=6), respectively. In logistic regression models predicting cervical lesions, controlling for age and education, each pregnancy was associated with 11 times the odds of presenting with lesions (CI=113-121, $p<0.01$). Controlling for age, education and parity, those with an HIV diagnosis had 3.24 times the odds of presenting with lesions (CI=190-550, $p<0.0001$) than those with out a diagnosis of HIV; 2 people were referred for additional testing and diagnoses.

Conclusions: The SVA program was safe, acceptable, and feasible in Gondar city, Ethiopia. Challenges were garnering the trust of women; establishing partnership with providers; IRB approvals across multiple institutions; Translation to ensure content equivalence; Shortage of materials such as acetic acid, purified CO2 gas, and LEEP wires, and inadequate space and occasional power interruption.

References

RE-AIM. (n.d.). Retrieved October 28, 2016, from <http://www.re-aim.hnfe.vt.edu/>

Contact

umenon@email.arizona.edu

J 10 - Advancing Science in Community-Engaged Research: Increasing Capacity to Reach Diverse Populations and Address Health Disparities

Community-Engaged Strategies for Recruitment and Retention of Asian Immigrant Women in a Church-Based Randomized Trial

Hae-Ra Han, PhD, RN, FAAN, USA

Abstract

Background: Ensuring adequate representation of underrepresented populations in clinical research is an essential part of the recruitment and retention process. To achieve this goal, it is vital that researchers engage stakeholders that serve or represent these communities in the development, implementation, and evaluation of recruitment and retention strategies. Cumulative evidence suggests that effective community engagement can overcome social and structural barriers to clinical research participation such as mistrust, stigma, or lack of adequate health knowledge that are common among ethnic minority communities (Centers for Disease Control and Prevention, 2011). Community engagement occurs via an iterative process by actively soliciting the knowledge, experience, and values of selected individuals to represent a broad range of interests including recruitment and retention (George, Duran, & Norris, 2014). Community health workers (CHWs) have been noted as an effective recruitment and retention agent when targeting culturally and linguistically isolated ethnic minority women for cancer screening intervention programs. Yet, there is little published documentation about recruitment and retention strategies used by CHWs as a key group of interest in research.

Purpose: The purpose of this study was to explore effective recruitment and retention strategies used by CHWs in a church-based randomized clinical trial designed to promote breast and cervical cancer screening among Korean immigrant women in the United States.

Methods: We conducted 4 focus groups with 23 CHWs who enrolled Korean immigrant women in a church-based randomized trial to promote mammogram and Papanicolaou tests and retained them for 6 months (Han et al., 2016). Trained bilingual research assistants conducted interviews in Korean. Using an inductive content analytic approach, focus group data were analyzed. Two trained research assistants worked independently to identify common themes across focus groups.

Results: Four themes emerged in relation to effective strategies for recruitment: personal networks, formal networks at churches, building on trust and respect, and facilitating a nonthreatening environment. These main themes characterized CHWs' experiences related to recruitment through seven relevant subthemes: approaching people that I know, building on existing church groups, expanding personal network through referrals, public announcement in church bulletin/newsletter or by pastor, use of church directory, dovetailing an existing meeting or random encounters (often with food), and kind explanation/making them comfortable. The themes related to effective retention included: trust and realizing benefits. These themes were supported by five subthemes: good existing relationship, CHW competency, genuine attention and care, contributions to the church, and fulfilling additional needs of the participants using community resources.

Conclusions: The findings suggest that qualified, well-trained CHWs can recruit and retain hard-to-reach immigrant women in a randomized trial by using multiple culturally sensitive strategies. Most themes identified in the study pertained to varying types of quality and characteristics of the CHWs; hence, for successful recruitment and retention, CHWs in a randomized intervention trial should be active, trustworthy, and culturally sensitive in their community. Addressing benefits of the participants and responding sensitively about their needs was also confirmed as useful retention strategies in this study. Sufficient training and ongoing support for CHWs would be important for CHWs to expand their social networks beyond immediate personal networks, maintain trust relationships, and help participants realize the benefits of study participation.

References

1. Centers for Disease Control and Prevention. (2011). Principles of community engagement (2nd ed.). Clinical and Translational Science Awards Consortium, Community Engagement Key Function Committee Task Force on the Principles of Community Engagement. Available at: https://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf.
2. George, S., Duran, N., & Norris, K. (2014). A systematic review of barriers and facilitators to minority research participation among African Americans, Latinos, Asian Americans, and Pacific Islanders. *American Journal of Public Health, 104*(2), e16-31.
3. Han HR, Song Y, Kim M, Hedlin HK, Kim K, Lee BH, Roter D. (2016). Breast and Cervical Cancer Screening Literacy Among Korean American Women: A Community Health Worker-Led Intervention. *American Journal of Public Health. Nov 17*:e1-e7. [Epub ahead of print]

Contact

hhan3@jhu.edu

Training and Consultation are Effective Strategies to Build Capacity for Community Engaged Research

Cheryl Dennison Himmelfarb, PhD, RN, ANP, USA

Abstract

Purpose: There is increasing recognition and acceptance that traditional research approaches have, for the most part, failed to solve rising health disparities. To address the complexity of factors contributing to health disparities, we must conduct research that better reflects the context of individuals' experience and lives through meaningful engagement of individuals and communities in the research process. Community engaged research (CER) requires that communities have the capacity to participate as full partners; communities are consulted for their research priorities; all stakeholders are respected, valued and rewarded for their time and expertise, effective implementation and dissemination strategies, and public support for research (NIH 2016; Ahmed & Palermo 2010; Michener 2012). A CER approach can enable researchers to conduct research and produce results which may be more directly translated to improve health and eliminate disparities thus positively impacting the health and well-being of communities. The body of science supporting CER is growing and there is a need at most institutions to build capacity for use of CER methods. The purpose of this paper is to describe institutional efforts to build capacity for CER among researchers, students and our local community through education and training, establishment of translational research communities for investigators, and the development of Community Research Advisory Councils (C-RACs) and report iterative evaluation data and implications for future capacity building efforts..

Methods: We have applied a multi-prong strategy to build capacity for CER. Through the Johns Hopkins Institute for Clinical and Translational Research (ICTR), we have implemented the following strategies: 1) Offer expert consultations, trainings and resources to better equip faculty, staff and students to collaborate with community on research activities, and 2) Support activities that promote the meaningful involvement of patients and community members throughout the research process—from topic selection through design and conduct of research to dissemination of results. CER consultations provide researchers the opportunity to meet with a panel of community members to obtain feedback and guidance at any stage of the research process. The CER consultations are conducted by the C-RAC's Research Review Committee, a panel of community member stakeholders - with key insights and knowledge of patient/community experience, interests and research design. The panel includes health professionals, community leaders, communication specialist, patient advocates, students, and local residents.

The two C-RACs are fully supported by the ICTR: Johns Hopkins East Baltimore and Johns Hopkins Bayview. In the past year, we have conducted the following three training workshops. 1) In the "Dissemination Workshop: How to Communicate and Share Research Findings with the Public", we described the role of dissemination in the research process and effective dissemination plans. Attending

were 80 participants representing 16 advisory boards and 12 community based organizations. 2) In the “Nuts & Bolts of Community and Patient-Engaged Research” training, we provided an introduction to community-based participatory research principles, patient engagement, role of community members in research, and strategies to improve dissemination. There were 150 attendees (53% JHU researchers/students, 47% members of the community). 3) In the “Community-Engaged Recruitment” workshop, we provided introduction to community-based participatory research principles, patient engagement, and role of community members in research, with specific guidance on effective approaches to enhance research participant recruitment and retention efforts. Attendees included 180 research staff and investigators engaged in research participant activities.

Results: The two C-RACs were formed in 2009 and are fully supported by the ICTR: 1) Johns Hopkins East Baltimore (25 members) and Johns Hopkins Bayview (18 members). C-CRAC membership has evolved and we see a need enhance the diversity of membership in terms of ethnic and racial identity as well as representation of additional stakeholder groups. C-RAC members have identified the need for additional training in the community advisory board member role, with more intense training for those interested in serving as co-investigators (e.g., on PCORI projects) as well as the need for the ICTR to establish a directory of community research advisory councils at JHU to facilitate communication and coordination of CER activities. Investigators initiating CER consults reported that the service provided an efficient and effective approach to engaging communities in research. Several have sought ongoing feedback on their study design, implementation and evaluation through the consult service. We also identified the need to better prepare investigators to respectfully communicate with C-RAC members.

Participants in the various trainings stated that the description of CBPR principles, hearing the ‘how I did it’ part, learning about the social problems community partners face, and learning how to identify community assets through a case study example were the most useful approaches. In addition, respondents identified hearing from community members during panel discussions, breakout sessions through which they were given a chance to work on CBPR projects, and learning how research positively impacts the community as the features that they most valued. However, some noted researcher resistance to the suggestions offered by community participants during the breakout sessions. C-RAC members rated the topics discussed as very useful for their work (93%) with the most useful information identified to be the list of questions used to assess the risks and benefits of research. They reported an opportunity to apply what they learned to research projects (64%) and reported increased capacity to evaluate risks and benefits of health research (72%). Respondents recommended that future workshops describe the full continuum of research process from planning (development of a research question) to community dissemination of research results, protection of study participants as well as additional time to network.

Conclusions: The C-RAC provides a valuable platform to support CER. However, both C-RAC members and researchers require training to maximize benefit. Practical training targeting audiences with didactic and hands-on activities can be a useful tool to enhance capacity of academic and community partners for CER. Furthermore, our evaluation suggests that the training contributed to an increase in capacity and confidence of CAB members. Evaluation of long-term impact of CER trainings that involve academic and community partners together—such as ours—on the development of sustainable community-based research efforts is warranted. Evaluating the longer term impact of educational workshops is needed to prioritize and provide rationale for continuing to offer trainings and guide the trainers in selection of topics and skill building exercises for future trainings.

References

- NIH 2016. Clinical and Translational Science Award U54. Reissue of RFA-TR-14-009 (<https://grants.nih.gov/grants/guide/rfa-files/RFA-TR-14-009.html>).
- Clinical and Translational Science Awards Consortium Community Engagement Key Function Committee Task Force on the Principles of Community Engagement. PRINCIPLES OF COMMUNITY ENGAGEMENT, SECOND EDITION. NIH Publication No. 11-7782, Printed June 2011
- Michener et al. Aligning the Goals of Community-Engaged Research: Why and How Academic Health Centers Can Successfully Engage with Communities to Improve Health Acad Med. 2012 March ; 87(3): 285–291. doi:10.1097/ACM.0b013e3182441680.

Contact
cdennis4@jhu.edu

Church-Based Recruitment of African Immigrants: Evidence and Lessons Learned from the Afro-Cardiac Study

Yvonne Commodore-Mensah, PhD, RN, USA
Joycelyn Cudjoe, BSN, RN, USA
Cheryl Dennison Himmelfarb, PhD, RN, ANP, USA

Abstract

Purpose: The United States (US) is experiencing its highest immigration rate since the 1930s. African immigrants (AIs) are a growing yet understudied immigration population in the US. The Migration Policy Institute estimates a 40-fold increase in the size of this population between 1960 and 2007, from 35,555 to 1.4 million.¹The existence of hundreds of African-initiated churches signifies the growing demographic importance of AIs in the US. AIs have created their own social, cultural and religious institutions to meet their needs as they face the challenges of integration into the US society. Churches go beyond the fulfillment of spiritual needs and serve as an important avenue to foster their social and cultural identity in AIs. Because a large proportion of AIs attend churches on a regular basis, churches may be a promising venue for understanding the cardiovascular health and health needs of AIs.

Historically, AIs and African Americans have been studied as a homogenous racial group, although health outcomes may differ due to differences in socioeconomic status, culture and genetic admixture.²Given the growing size of AIs, a paradigm shift in approach to research, gathering health information and program planning is required to reflect the diversity of Blacks in the US. Like other immigrant groups, AIs experience many challenges to maintaining ideal cardiovascular health upon migrating to the US. They face challenges with obtaining adequate health care coverage, access to needed healthcare services and navigating the complex US healthcare system.

Methods: In this presentation, we will discuss the evidence and lessons learned from the Afro-Cardiac Study³, a cross-sectional epidemiological study of Ghanaian and Nigerian-born AIs residing in the Baltimore-Washington, D.C metropolitan area. We recruited participants from seven churches that serve the AI population in the US to accomplish the study goal of examining the cardiovascular disease risk of AIs and the association with acculturation. The evidence and lessons learned from this study are outlined below.

Results: Churches are feasible settings for engaging AIs in community-based research: Churches and other religious institutions are increasingly popular settings in which to conduct community-based research because they are relatively stable institutions with frequent attendees over many years. Churches provide timely and cost-effective access to a rapidly changing population of new AIs. Several of the churches that participated in our study included health as part of their mission and had existing and robust health ministries which assisted with coordinating the recruitment of participants for the study. Since churches attendees are from diverse socioeconomic backgrounds, in the Afro-Cardiac Study, we were able to recruit a sample that spanned the socioeconomic ladder including homemakers, taxi drivers, lawyers, educators, nurses, technicians and physicians.

Religious leaders play an integral role in recruitment of AIs: Engaging religious leaders in the AI community is an essential step in community engagement. In our experience, leaders of churches that serve the AIs were eager to meet a variety of social and health needs of their congregation and surrounding community. They served as gate-keepers to ensure that the research procedures did not unduly burden the congregation and provided tangible benefits. They believed that assisting with the medical needs of their members was an important aspect of their mission. The leaders were aware of, and described several health needs of their congregations including hypertension management and control as well as healthy weight maintenance. The leaders understood the importance of the

dissemination of research findings, and also requested that we give presentations to the congregation on topics related to cardiovascular health.

Partnership development and building trust is critical: Recruitment of participants into community-based research is particularly challenging when working with AIs who traditionally have not been well served by health programs or research. A critical step in recruiting participants from the AI community is establish trust and credibility within the community. The endorsement of the research by the community leaders afforded credibility to our research. Since a number of AIs may not have legal status, it is important to communicate that maintaining confidentiality is an important component of the proposed study and that data will be published and reported on the aggregate level. Methods to ensure confidentiality must be clearly communicated and enforced through-out the research study.

Research procedures should be time- and resource-efficient: It is important that research procedures are efficient and require minimal time commitment by the church and congregation. The principal investigator should ensure that the size of the research team is adequate to ensure that the research procedures are completed within the allotted time for the study. Creating a standardized protocol and providing training opportunities for all the research team members is critical to ensure data integrity and efficiency of procedures. The research team should make every effort to minimize disruptions of the church service unless permission is granted by the church leadership.

Limitations: There are limitations and challenges to consider in using churches as recruitment sites for research. Participants recruited from churches may not be representative of the larger AI population. Participants in our study may have underreported smoking behavior due to social and religious desirability, and health behaviors of church attendees may differ from non-attendees; these aspects may limit the generalizability of our results. Smaller churches may not have adequate space for research procedures. Hence, the research team should meet in advance with the church leadership to determine space needs and strategies for overcoming this challenge.

Conclusion: In summary, churches or religious institutions provide a familiar and reassuring environment for targeting high risk or “hard to-reach” groups such as AIs. Our experience in the Afro-Cardiac Study suggests that churches have a high potential to play an important role in the health of AIs. Hence, health-care providers, researchers and community-based organizations should consider this setting as a viable avenue for engaging AIs in research and delivering and testing culturally-sensitive interventions to improve cardiovascular health and other health conditions.

References

1. Gambino CP, Trevelyan EN. The foreign-born population from Africa: 2008-2012. <http://www.census.gov/content/dam/Census/library/publications/2014/acs/acsbr12-16.pdf>. Updated 2014. Accessed 3/4/2015, 2015.
2. Commodore-Mensah Y, Dennison Himmelfarb CR, Agyemang C, Sumner AE. Cardiometabolic health in African immigrants to the United States: A call to re-examine research on african-descent populations. . *Ethnicity & disease*. 2015;25(3):373-380.
3. Commodore-Mensah Y, Hill M, Allen J, et al. Sex differences in cardiovascular disease risk of Ghanaian and Nigerian-born West African immigrants in the United States: The afro-cardiac study. *J Am Heart Assoc*. 2016;In press.

Contact

ycommod1@jhmi.edu

Contribution of Community-Research Advisory Councils to Research Institutions: An Effective Strategy to Inform Community-Engaged Research

Sabianca Delva, BSN, RN, USA

Abstract

Purpose: To describe strategies on how to partner with community-research advisory councils to inform community-engaged research.

Methods: The Johns Hopkins Center for Clinical and Translational Research organized the Community Research Advisory Council (C-RAC) to serve a representative group of key stakeholders of the East Baltimore city and Bayview community. The C-RAC was designed to ensure that research proposals are relevant and responsive to the priorities of target populations in the Baltimore community by seeking input from patients, families, healthcare professionals, advocates, and stakeholders who live, work, or serve a specific target population. The council chapters meet four times a year with researchers and conducts community related events and programs throughout the year (i.e. disaster preparedness education, blood pressure screenings and flu vaccine inoculation) throughout the year in partnership with academicians. The mission of the C-RAC is to safeguard the health of Baltimore City residents while supporting the advancement of patient centered research within the Johns Hopkins institution. The C-RAC carries out its mission by 1) evaluating and reviewing health research, 2) informing researchers about community interests and preferences, 3) sharing health and research information and 4) supporting community and faith-based projects. To facilitate attendance, meetings are held in the evening to ensure optimal representation of all interest groups.

Results: Since their establishment in 2009, the Johns Hopkins East Baltimore and Bayview community research advisory councils have informed Hopkins researchers on multiple research projects in the recruitment, cultural sensitivity, research design and dissemination phases of their proposed projects. They have contributed to repairing the strained tie between the Hopkins institution and its surrounding community. They have been a part of the movement to improve the health of Baltimore city residents by conducting health fairs and by providing education to vulnerable populations within the community.

Conclusions: Research institutions should aim for synergistic collaboration with community research advisory councils for developing and maintaining partnerships within their respective communities and to eliminate health disparities, especially when employing a CER approach.

References

- Chen, P., Diaz, N., Lucas, G., & Rosenthal, M. S. (2010). Dissemination of results in community-based participatory research. *American Journal of Preventive Medicine*, 39(4), 372-378. <http://dx.doi.org/10.1016/j.amepre.2010.05.021>
- Kaiser, B. L., Thomas, G. R., & Bowers, B. J. (2016). A Case Study of Engaging Hard-to-Reach Participants in the Research Process: Community Advisors on Research Design and Strategies (CARDS)®. *Research in Nursing & Health*.
- Newman, S. D., Andrews, J. O., Magwood, G. S., Jenkins, C., Cox, M. J., & Williamson, D. C. (2011). Community advisory boards in community-based participatory research: A synthesis of best processes. *Prev Chronic Dis*, 8(3), A70.

Contact

sdelva1@jhmi.edu

J 11 - Nursing Research on Sexual Assault: Utilizing Data to Increase Knowledge and Improve Practice

Descriptive Study of 2,300 Sexual Assault Victims: Identifying Vulnerabilities to Promote Healthy Communities

Leslie W. Miles, DNP, APRN, PMHNP-BC, USA

Abstract

Purpose: According to a United States survey, nearly 1 in 5 women and 1 in 71 men reported being raped at some time in their lives (Black et al., 2011). Population surveys from different countries indicate sexual violence rates vary from 15% to 71% (World Health Organization [WHO], 2016). The negative consequences of sexual assault have been well documented worldwide. The WHO (2016) reported increased poor physical health effects including abdominal pain, back pain, fibromyalgia, gastrointestinal disorders, headaches, limited mobility and poor overall health. Adverse mental health outcomes (posttraumatic stress disorder [PTSD], depression, substance abuse and use) associated with sexual assault are also well documented (Zinzow et al., 2011; Zinzow et al., 2012). To combat sexual violence, studies are needed to increase our understanding of this crime and its victims through aggregated descriptive data.

There are very few studies exploring descriptive data on sexual assault victims and crime factors obtained from forensic medical examination charts. One large-scale study of 1,172 patients seen for forensic examination following sexual assault found that victims were more likely to be female, young (less than 25 years of age), and acquainted with the perpetrator (Avegno, Mills, & Mills, 2004). A similar study of 2,541 female victims seen for a forensic examination in Denmark were found to be primarily young (15-24 years) and to have known the perpetrator (Larsen, Hilden, & Lidegaard, 2014).

Exploring descriptive data regarding victims of sexual assault helps to identify vulnerable populations, an initial first step in developing prevention strategies. In this study, the following descriptive data of victims was collected: age, gender, race, alcohol and/or drug consumption, prior history of mental and physical illness, and prior history of sexual assault.

Data on rape crime factors provides information on variables related to the crime and suspect. The following descriptive data on rape crime factors was collected: relationship between victim and suspect, degree of lethality (strangulation, physical force, and use of a weapon), physical injuries, anogenital injuries, multiple suspects, and suspected drug-facilitated assault.

In many countries, specially educated health care providers care for victims of sexual assault. In the United States, sexual assault nurse examiners (SANE) are usually the first medical contact for victims, post assault. However, victims have contact with a variety of professional care providers, including nurses, prior to becoming a victim. All health care providers have a professional responsibility to understand the phenomena of sexual assault by using available data. With an increased understanding of the specific vulnerabilities for being a victim of sexual assault, nurses are positioned to identify populations at risk, educate individuals and communities, and implement evidence based practice prevention strategies.

Methods: Setting: Four sites in the western United States with established SANE programs providing 24/7 care for victims of sexual violence. All sites have a 4-year university with campus police.

Sample: Retrospective, exploratory study design with data obtained from hard copy charts of Sexual Assault Examination Forms (2010-2014) completed by SANEs when providing care to sexual assault victims ($N = 2,350$). Inclusion criteria: a) adolescent or adult sexual assault victims, ages 14 and older; b) completion of full forensic examination including written history of assault and sexual assault kit collection by SANE c) assault occurred in the State, d) assault was reported to law enforcement.

Methods: De-identified data was coded into SPSS software for statistical analysis by the research team of four investigators. Ten percent of the examination forms were recoded to ensure reliability of at least $\kappa > .80$, with a final κ across all variables of .955, indicating high reliability of the data. Chi square analysis explored the associations between the variables.

Self-reported mental illnesses were categorized according to groupings as listed in the *Diagnostic and Statistical Manual of Mental Disorders, IV- TR (DSM-IV)*. Data about preexisting mental health conditions was also derived from self-disclosure about current medications. Psychotropic medications were then coded into common classification and uses categories.

Results: The age of victims ranged from 14-93 years, with 45% of the victims from 17 to 24 years old. Minorities with higher amounts of victimization included black victims (3.4% compared to census finding of 1.3% in Utah population) and American Indian victims (2.9% compared to census findings of 1.2% in Utah population). Less than half of the victims reported alcohol consumption (47%) and drug use (12%). Almost one-third of the victims reported prior history of sexual assault.

A significant number of sexual assault victims (35%) reported a current history of mental health illness. Over 40 % of victims were currently taking psychotropic medications (antipsychotics, anti-anxiety, antidepressants, mood stabilizers, stimulants, and sleep aids). When compared to a United States mental illness prevalence rate of 18% (SAMSHA, 2012), the study finding of a 45% rate of mental illness in one western state is extremely high. The most frequently identified mental illnesses included: depression 19.6%; anxiety 14.3 %; bipolar 8.1%; posttraumatic stress disorder 4.8%; and psychotic disorders 2.2%.

Overall, psychotropic medication use in the study population was higher (40 % versus 15%) compared to the only available national medication data source (Medco, 2010). Common medication classes were: antidepressants (34.5%), anti-anxiety (19.5%), atypical antipsychotics (12.8%); bipolar (11.4%); sleep aid (11%), and stimulants (6.3%). Each of these medication category findings were higher than reported data (Medco, 2010). Results are indicative that having a current mental or physical illness increases a victim's vulnerability to being sexually assaulted.

Stranger assaults accounted for 18% of the sexual assaults with the majority of the assaults perpetrated by known suspects: acquaintance (60%), spouse/partner (7%), other known relationships (5%, such as family member, boss or teacher), and ex-boyfriend (5%). The variables assessing increased lethality in sexual assault cases were weapon involved (10% of cases) and strangulation (12% of cases). Multiple suspect rapes occurred in 10% of the cases, while suspected drug-facilitated assaults occurred in 17% of rapes. Physical injuries were documented in 74% in cases and anogenital injuries noted in 60% of cases.

Conclusion: Unfortunately, sexual violence is widespread in our global society. The findings from this study aid in our understanding of sexual assault victims and crime factors. It was found that a high percentage of victims were between the ages of 17-24 years, indicating higher degree of vulnerability for this younger age group. Races with increased victimization included Black Americans and American Indians. A key finding in this study was the increased percentage of victims who self-disclosed mental illness and use of psychotropic medications. These research findings suggest that persons who suffer with any mental illness (mild to severe) are at higher risk for being a victim of sexual assault. These findings have important future clinical and research implications to develop evidence based nursing care practices and in implementing community prevention strategies for identified vulnerable groups in our population. The findings on rape crime factors confirm that most sexual assault victims know the suspect. Community education programs on healthy relationships may be instrumental in decreasing sexual violence.

References

Avegno, J., Mills, T.J., Mills, L.D. (2009). Sexual assault victims in the emergency department: analysis by demographic and event characteristics. *The Journal of Emergency Medicine*, 37(3), 328-334.

Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., Chen, & Stevens, M. R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Larsen, M-L., Hilden, M., & Lidegaard, O. (2015). Sexual assault: A descriptive study of 2500 female victims over a 10-year period. *BJOG: An International Journal of Obstetrics and Gynecology*, 122, 577-584.

Medco (2010). America's State of Mind Report. Retrieved from <http://apps.who.int/medicinedocs/documents/s19032en/s19032en.pdf>

Substance Abuse and Mental Health Services Administration, Results from the 2012 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-47, HHS Publication No. (SMA) 13-4805. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2013. Retrieved from http://www.samhsa.gov/data/NSDUH/2k12MH_FindingsandDetTables/2K12MHF/NSDUHmhfr2012.htm

World Health Organization (2016). Violence against women fact sheet retrieved from <http://www.who.int/mediacentre/factsheets/fs239/en/>.

Zinzow, H. M., Amstadter, A.B., McCauley, J. L., Ruggiero, K. J., Resnick, H. S., & Kilpatrick, D. G. (2011). Self-rated health in relation to rape and mental health disorders in a national sample of college women. *Journal of American College Health* 59(7), p.588-594. doi: 10.1080/07448481.2010.520175.

Zinzow, H. M., Resnick, H.S., McCauley, J. L., Amstadter, A. B. Ruggiero, K. J., & Kilpatrick, D. G. (2012). Prevalence and risk of psychiatric disorders as a function of variant rape histories: results from a national survey of women. *Social Psychiatry and Psychiatric Epidemiology*, 47(6), p.893-902. doi: 10.1007/s00127-011-0397-1.

Contact

leslie-miles@byu.edu

Understanding Peri-Traumatic Symptoms of Sexual Assault: Transforming Nursing Care of Victims World-Wide

Linda Mabey, DNP, RN, PMHCNS-BC, USA

Abstract

Purpose: Sexual assault is a world-wide mental and physical health epidemic (Dartnall & Jewkes, 2013) and often results in peri-traumatic symptoms, such as loss of memory, or changes in consciousness or awareness (van der Kalk, 2014). Nurses across the globe treat victims of sexual assault and need to be knowledgeable about peri-traumatic symptoms of sexual assault in order to provide evidenced-based care. The purpose of this presentation is discuss how the care of sexual assault victims can be transformed through improved understanding of the prevalence of peri-traumatic symptoms, and the alterations in brain function that underlie these symptoms (Valentine, Mabey, & Miles, 2016, Wheeler, 2014). The presentation is based on the results and implications of a large retrospective chart review ($n=2350$) of sexual assault nurse examiner records, exploring the prevalence of peri-traumatic symptoms of sexual assault, and factors associated with vulnerability to them. Background information on the neurobiological mechanisms which produce peri-traumatic symptoms will be discussed, and nursing implications will be explored utilizing a case study. Next steps in improving the care of sexually assaulted will be proposed.

Methods: A retrospective chart review of 722 sexual assault victims was completed to identify peri-traumatic symptoms from written statements by sexual assault nurse examiners on a chart section inquiring about victims' reports of loss of consciousness or awareness. Themes related to victims' disclosures of peri-traumatic symptoms were identified from both male and female victims using Nvivo10 software. The emerging themes included loss of consciousness, alteration of awareness, memory loss, tonic immobility, and dissociation from self and/or environment. These themes were then coded as variables in SPSS for analysis of study sample of charts from 2,350 sexual assault victims. Frequencies were calculated for variables measuring peri-traumatic symptoms. These themes were then transferred as variables into SPSS to calculate frequencies. Chi-square tests of association were completed to identify factors associated with loss of memory or change in consciousness or awareness. Logistic regression was conducted on the predictor variables with statistical significance from the Chi-square tests of association. The logistic regression model was especially important to explore if the predictor variables explain all of the occurrence of changes in or loss of consciousness, awareness or memory, or if there

might be other factors such as the neurobiological effects of sexual assault trauma that influence changes in or loss of consciousness, awareness or memory.

Results: The majority of sexual assault victims (54%) who had a forensic examination reported loss of memory, or changes in consciousness or awareness. Themes identified from victims' statements about loss or change in consciousness or awareness included loss of consciousness, changes in feelings of awareness, memory loss, symptoms of dissociation, and symptoms of tonic immobility. Factors associated with peri-traumatic symptoms of memory impairment and loss of consciousness or awareness identified through Chi-square tests of association were: use of drugs prior to the assault ($X^2 = 9.645$, $df=1$, $p=.002$); use of alcohol prior to the assault ($X^2= 126.011$, $df = 1$, $p= .000$); suspected drug facilitated assault ($X^2= 178.246$, $df = 1$, $p = .000$); strangulation ($X^2= 208.610$, $df = 2$, $p= .000$); and history of sexual assault prior to age 14 ($X^2= 7.100$, $df = 2$, $p = 0.029$). The logistic regression model predicted 71.5% of the cases in which victims reported a loss in consciousness or awareness, but failed to classify 28.5% of the cases. These results indicate variables not measured in this study impact victims' peri-traumatic loss of consciousness or awareness during a sexual assault.

Conclusion: The findings from this study indicate that a significant portion of victims, 28.5%, reporting peri-traumatic symptoms following sexual assault of loss of consciousness and memory loss have these symptoms without the statistically significant predicting variables of use of alcohol or drugs, suspected drug-facilitated assault, and strangulation. We postulate that the victims experience loss of or changes in consciousness and memory loss due to the brain's response to the traumatic event of the rape. Peri-traumatic symptoms have significant consequences for sexual assault victims, including rendering them unable to defend themselves at the time of the attack and difficulties describing the attack to health care providers and law enforcement personnel. Nurses should conduct sexual assault victim interviews and examinations with the knowledge of how peri-traumatic symptoms present, and provide nursing care utilizing trauma-informed approaches that do not further traumatize victims (Substance Abuse and Mental Health Services Administration, 2015). They can act as advocates for victims of sexual assault by improving the process of sexual assault examinations, and educating healthcare providers and community justice system partners about peri-traumatic symptoms of sexual assault. Finally, because sexual assault is a global health issue affecting individuals, families, communities, and nations, nurses must be in the forefront of a world-wide effort to improve the care of victims of sexual assault.

References

- Dartnall, E., & Jewkes, R. (2013). Sexual violence against women: The scope of the problem. *Best practice and Research Clinical Obstetrics and Gynaecology*, 27, 3-13.
- Substance Abuse and Mental Health Services Administration (2015). Trauma-informed care and alternatives to seclusion and restraint. Accessed from <http://www.samhsa.gov/nctic/trauma-interventions>.
- Valentine, J., Mabey, L., & Miles, L. (2016). Neurobiology of trauma. In A. F. Amar, & L. K. Sekula, (Eds.), *A practical guide to forensic nursing* (pp. 303-320). Indianapolis, IN: Sigma Theta Tau International
- van der Kolk, B. (2014). *The body keeps the score*. New York: Viking.
- Wheeler, K. (2014). The neurophysiology of trauma and psychotherapy. In K. Wheeler (Ed.), *Psychotherapy for the advanced practice nurse* (pp. 53-93). New York, NY: Springer

Contact

linda-mabey@byu.edu

Sexual Assault Evidence Kits: Interprofessional Research on Submission Rates and Implications on Practice

Julie Valentine, PhD, RN, CNE, SANE-A, USA

Abstract

Purpose: The purpose of this presentation is to share findings from an interprofessional, retrospective study evaluating the submission rates of 1,874 sexual assault kits from multiple sites in a Western state in the United States, explore the predicting variables associated with sexual assault kit submissions, and discuss the implications of these findings on the community and state. Over the past few years, numerous

reports have been published in the United States regarding large amounts of unsubmitted sexual assault kits found in LE custody indicating that many SAKs were not submitted to crime laboratories for analysis (Telsavaara & Arrigo, 2006; Strom & Hickman, 2010; Sacco & James, 2015). Yet, the discovery of unsubmitted sexual assault kits does not provide information on the actual submission rates of sexual assault kits and their predicting variables. This study focused on sexual assault kit submissions in Utah, a Western state in the United States, in locations with established SANE programs. As in most areas of the United States, the submission of sexual assault kits to the state crime laboratory for analysis has been up to the discretion of law enforcement.

Few studies have been completed on exploring the submission rates of sexual assault kits. The National Institute of Justice reported that the number of untested sexual assault kits throughout the United States is unknown, as most jurisdictions do not track submission rates of collected sexual assault kits or the amount of sexual assault kits in evidence storage facilities (Ritter, 2011). The studies that have been completed indicate that sexual assault kit submission rates are highly variable and based upon the jurisdiction in which the rape occurred (Fallik & Wells, 2015). In one study examining the submission rates of sexual assault kits collected at a sexual assault nurse examiner program in a large Midwestern county, it was found that 58.6% of SAKs were submitted to the crime laboratory for analysis (Patterson & Campbell, 2012). In another study focused on the submission rates of sexual assault kits collected at a sexual assault nurse examiner program from adolescent victims in two Midwestern communities, 59.3% were submitted to the crime laboratory (Shaw & Campbell, 2013).

In the limited studies exploring the predicting variables related to sexual assault kit submissions, a consensus of predicting variables has not been determined. In one study it was found that sexual assault kits were more likely to be submitted if the victim had physical injuries and the law enforcement agencies had high levels of engagement with the forensic nursing program (Patterson & Campbell, 2012). Another study on adolescent victims found that sexual assault kits from younger teens (13-15 years old), non-white victims, and victims of highly assaultive rapes were more likely to be submitted (Shaw & Campbell, 2013). This study adds valuable knowledge to understanding decision-making practices related to sexual assault kit submissions, a topic area with minimal research.

Methods: Data was entered by from 1,874 sexual assault examination forms completed by forensic medical/nurse examiners into SPSS 20 statistical database. Approximately 200 variables were coded for each sexual assault case. As this was an interprofessional research study, data was linked from the sexual assault examination forms with data from the state crime laboratory. Forensic scientists from the crime laboratory received information on all fully collected SAKs including victims' names, date of assault, date of SAK collection, and law enforcement agency and case number to track SAKs and determine if submitted to crime laboratory. Reliability of the data entry was evaluated by recoding 10% of the examination forms, resulting in a final kappa across all variables of .955. Descriptive data analysis was completed on all variables. Generalized estimating equation logistic regression analysis was completed to evaluate legal and extralegal variables associated with SAK submission.

Results: It was found that within a year of the assault only 22.8% of sexual assault kits were submitted by law enforcement to the state crime laboratory for analysis. An additional 15.4% were submitted in late 2014 through 2015 following community and media pressure for law enforcement to submit SAKs in storage. Sixty-two percent of SAKs were found not submitted; therefore, they remain in law enforcement custody, have recently been submitted, or have been destroyed. The site or jurisdiction of the sexual assault was found to be the primary factor affecting submission of sexual assault kits.

Statistical analysis of generalized estimating equation logistic regression controlling for site variability examined legal and extralegal characteristics statistically significant in predicting if SAKs submitted or not. Variables that increased odds of SAK submissions: male victims (46% more likely) and suspected drug-facilitated assaults (25% more likely). Variables that decreased odds of SAK submissions: victim used drugs prior to assault (22% less likely), victim bathed or showered following rape (17% less likely), victim with physical or mental impairment (17% less likely), and victim knew the suspect (16% less likely).

The results from this interprofessional study on the community and state include media attention, community discussions on improving response to sexual assault, increased submission rates of sexual assault kits by law enforcement, and increased reporting by victims for sexual assault forensic medical examinations. The study findings also lead to significant policy and statewide legislative changes, including legislation mandating submission and testing of all sexual assault kits.

Conclusion: SAKs not submitted by law enforcement to the state crime laboratory for analysis indicates justice denied for victims of rape. The findings represent an inequity of justice, as there is great variability between SAK submission rates within the study sites. For example, in adjacent counties (Site B and C) the SAK submission rate within a year of assault for Site B was 4.1%, while Site C was 37.5%; submission rate from Site C is almost ten times the submission rate from Site B. This extreme variability of SAK submission rates suggests that subjectivity and bias within law enforcement agencies largely determines if SAKs are submitted or not.

Most jurisdictions do not track their SAKs from evidence collection through DNA analysis. Studies in other areas of the United States of similar methodology to this study have found SAK submission rates of approximately 60%. This study found SAK submission rate of only 22.8% within a year of the assault, almost 1/3 the submission rates in other studies.

The only legal characteristic found to predict SAK submissions was if the rape was a suspected drug-facilitated assault. The finding that SAKs collected from male victims were 46% more likely to be submitted indicates gender bias within law enforcement. The other variables predicting SAK submissions relate to characteristics of the victim or relationship between victim and suspect, not crime factors.

The findings from this interprofessional study linking forensic nurses and scientists generated widespread attention to issues related to sexual assault and sexual assault kits resulting in statewide policy changes. The multiple community forums and media stories triggered a community outcry to make statewide improvements in the response to victims of sexual assault. The overarching goal is that as the state improves in its response to sexual assault, communities will become safer and healthier with decreased incidences of sexual assault.

References

- Fallik, S., & Wells, W. (2015). Testing Previously Unsubmitted Sexual Assault Kits: What Are the Investigative Results? *Criminal Justice Policy Review*, 26(6), 598-619.
- Patterson, D., & Campbell, R. (2012). The problem of untested sexual assault kits: Why are some kits never submitted to a crime laboratory? *Journal of Interpersonal Violence*, 27(11): 2259-2275.
- Ritter, (2011). The road ahead: Unanalyzed evidence in sexual assault cases. National Institute of Justice Special Report. Retrieved from <https://www.ncjrs.gov/pdffiles1/nij/233279.pdf>
- Sacco, L.N., & James, N. (2015). Backlog of sexual assault evidence: In brief. Congressional Research Service. Retrieved from <https://www.fas.org/sgp/crs/misc/R44237.pdf>
- Shaw, J., & R. Campbell, R. (2013). Predicting sexual assault kit submission among adolescent rape cases treated in forensic nurse examiner programs. *Journal of Interpersonal Violence*, 28(18), 3400-3417.
- Strom, K. J., & Hickman, M.J. (2010). Unanalyzed evidence in law-enforcement agencies. *Criminology & Public Policy* 9(2): 381-404.
- Telsavaara, T. V. T., & Arrigo, B.A. (2006). DNA evidence in rape cases and the Debbie Smith Act: Forensic practice and criminal justice implications. *International Journal of Offender Therapy and Comparative Criminology*, 50(5), 487-505.

Contact

julie-valentine@byu.edu

J 12 - Addressing the Global Burden of Alcohol Use in Nursing Curricula

Integrating Alcohol-Use-Related Content in Nursing Curricula

Deborah S. Finnell, DNS, RN, FAAN, USA

Abstract

Purpose: There is a strong evidence base for alcohol screening, brief intervention, and referral to treatment (SBIRT). Screening is an essential first step for nurses in detecting persons who are at-risk because of alcohol consumption. Based on the risk level, evidence-based interventions can be feasibly delivered by nurses and such interventions are acceptable to patients (Broyles, et al, 2012). Findings across studies including various providers on alcohol-related outcomes following interventions reveal that interventions delivered by nurses had the most effect in reducing quantity of alcohol consumption (Platt et al., 2016). For those persons who could benefit from alcohol specialty treatment, nurses are in key roles as the most trusted healthcare providers who have the most sustained contact with patients to refer them to treatment and facilitate their access to, and linkage with treatment.

The purpose of this presentation is to illustrate how faculty in a nursing school have integrated alcohol-related content in prelicensure and master's curricula. The curricular map will be used to demonstrate how specific teaching/learning modules have been integrated across the nursing curricula.

Methods: Curricular mapping has been completed to guide the placement and timing of teaching/learning modules related to alcohol and other substance use. Learning objectives were developed for multiple educational modules, including screening, motivational interviewing, brief intervention, referral to treatment, neurobiology, and FDA-approved medications for alcohol use disorder. In turn, each module and respective objectives were mapped to the particular course where it is delivered. Faculty subject matter experts developed each module and in turn were filmed in delivery of the content. The videos ensure that all students receive the same information and that the education and delivery are sustainable. Faculty subject matter experts also worked with actors to develop videos of nurse-delivered screening, brief intervention, and referral to treatment. These videos serve as exemplars for students prior to their delivery of these strategies in the clinical setting.

Results: Compared with the current amount of content in nursing curricula in the US, integrating content in courses has resulted in a 3-fold increase in exposure.

Conclusion: The proposed implementation model can be utilized by nurse educators wishing to provide an optimal integrative program of alcohol education.

References

- Broyles, L. M., Rosenberger, E., Hanusa, B. H., Kraemer, K. L., & Gordon, A. J. (2012). Hospitalized patients' acceptability of nurse-delivered screening, brief intervention, and referral to treatment. *Alcoholism: Clinical and Experimental Research*, 36(4), 725-731.
- Platt, L., Melendez-Torres, G. J., O'Donnell, A., Bradley, J., Newbury-Birch, D., Kaner, E., & Ashton, C. (2016). How effective are brief interventions in reducing alcohol consumption: Do the setting, practitioner group and content matter? Findings from a systematic review and metaregression analysis. *BMJ Open*, 6(8), e011473.
- Savage, C, Dyehouse, J, & Marcus, M. (2014). Alcohol and health content in nursing baccalaureate degree curricula. *Journal of Addictions Nursing*, 25(1), 28-34.

Contact

dfinnel1@jhu.edu

Alcohol Screening, Brief Intervention, and Referral to Treatment: Evidence for Use in Older Adults

Bryan R. Hansen, PhD, RN, APRN-CNS, ACNS-BC, USA

Abstract

Purpose: Alcohol use among older adults has been identified as a significant and potentially growing public health problem with the growing entry of the baby boomer cohort in older adulthood (Le Roux, Tang, & Drexler, 2016). As adults age, they become more sensitive to the effects of alcohol, are more likely to have one or more health conditions requiring medication, and more likely to encounter interactions between alcohol and health conditions or medications. There is also an increased risk of malnutrition with alcohol use (Barry & Blow, 2016). Heavy alcohol use and alcohol withdrawal have been implicated as risk factors for cognitive impairment and the development of delirium (Bommersbach, Lapid, Rummans, & Morse, 2015). Therefore, the purpose of this presentation is to examine the evidence for alcohol screening, brief intervention, and referral to treatment for older adults.

Methods: The application of Screening, Brief Intervention, and Referral to Treatment (SBIRT) to the care of older adults is well supported by the literature. Screening is recommended for all older adults and several alcohol screening instruments have been developed and validated for use with older adults, including the Short Michigan Alcoholism Screening Test – Geriatric Version (SMAST-G) and the Alcohol Use Disorders Identification Test short form (AUDIT) (Bommersbach et al., 2015). Brief intervention has been well-established in the literature as a highly effective tool for adults under age 60 and the few studies validating its use among older adults have found similar results (Barry & Blow, 2016). Referral to treatment is especially important among older adults who are at-risk or currently engaging in heavy alcohol use. Older adults' reduction in alcohol use must be carefully monitored and managed to avoid complications such as delirium, seizures, and other adverse health outcomes for which they are at substantial risk (Bommersbach et al., 2015).

Results: This content is included in a teaching and learning module, which is integrated in the nursing curriculum for pre-licensure nursing program.

Conclusion: SBIRT is a recommended for use with older adults, but special care must be used for those at highest risk or those currently with heavy alcohol use to minimize the risk of harm. Incorporation of this content into nursing curricula is suggested to enhance the nursing care of older adults and promote positive health outcomes.

References

- Barry, K. L., & Blow, F. C. (2016). Drinking across the lifespan: Focus on older adults. *Alcohol Research: Clinical Reviews*, 38(1), 115-120.
- Bommersbach, T. J., Lapid, M. I., Rummans, T. A., & Morse, R. M. (2015). Geriatric alcohol use disorder: a review for primary care physicians. *Mayo Clin Proc*, 90(5), 659-666. doi:10.1016/j.mayocp.2015.03.012
- Le Roux, C., Tang, Y. L., & Drexler, K. (2016). Alcohol and Opioid Use Disorder in Older Adults: Neglected and Treatable Illnesses. *Curr Psychiatry Rep*, 18(9). doi:10.1007/s11920-016-0718-x

Contact

bhansen3@jhu.edu

Alcohol Screening, Brief Intervention, and Referral to Treatment for Nurses Working with Persons with HIV/AIDS

Michael Sanchez, DNP, CRNP, FNP-BC, USA

Abstract

Purpose: Alcohol use among people living with HIV (PLWH) can have deleterious effects on health outcomes. Some of the consequences associated with alcohol use are include unsustained viral suppression, poor adherence to antiretroviral treatment (ART), increased risk taking leading to a higher likelihood of HIV transmission, increased risk for neurocognitive decline and depression, and increased mortality rates. Thus, addressing alcohol use is important for promoting the health of PLWH.

The purpose of this presentation is to illustrate a guided step-by-step intervention for nurses working with PLHW to screen, provide brief intervention and referral to treatment.

Methods: A guide published by the Center for Disease Control and Prevention served as the framework for educating nurses working with PLHW on alcohol screening and brief intervention. Educational content was developed to provide the rationale for alcohol screening and introduce the learner to established measures for screening. An algorithm was developed to guide the nurse from assessment of alcohol consumption to assessment of harm and possible alcohol use disorder and corresponding interventions. Sample scripts were written to illustrate how the nurse-patient conversation flows through the process. These conversations will focus on identifying and addressing alcohol-toxicity beliefs, and discussing the impact of alcohol use and skipping doses of ART.

Results: This content is included in a teaching and learning module for nursing students. The module is integrated in the nursing curriculum for our pre-licensure program.

Conclusion: By using the guided step-by-step intervention offered in this presentation, nurses working with PLHW can screen, provide brief intervention and referral to treatment. This evidence-based set of clinical strategies will also facilitate nurses' engaging in a patient conversation based on the level of alcohol-related risk. These conversations will focus on identifying and addressing alcohol-toxicity beliefs, and discussing the impact of alcohol use and skipping doses of ART. The overall goal of these nurse-led interventions is to promote positive health outcomes in this population.

References

- Cohn, S. E., Jiang, H., McCutchan, J. A., Koletar, S. L., Murphy, R. L., Robertson, K. R., . . . Williams, P. L. (2011). Association of ongoing drug and alcohol use with non-adherence to antiretroviral therapy and higher risk of AIDS and death: Results from ACTG 362. *AIDS Care*, 23, 775-785. doi:10.1080/09540121.2010.525617
- Justice, A.C., McGinnis, K.A., Tate, J.P., Braithwaite, R.S., Bryant, K.J., Cook, R.L., ... & Kraemer, K.L. (2016). Risk of mortality and physiologic injury evident with lower alcohol exposure among HIV infected compared with uninfected men. *Drug and Alcohol Dependence*, 161, 95-103. doi:10.1016/j.drugalcdep.2016.01.017
- Pellowski, J. A., Kalichman, S. C., Kalichman, M. O., & Cherry, C. (2016). Alcohol-antiretroviral therapy interactive toxicity beliefs and daily medication adherence and alcohol use among people living with HIV. *AIDS Care*, 1-8. doi:10.1080/09540121.2016.1154134

Contact

msanchez@jhu.edu

L 05 - Transforming Nursing Knowledge, Education, and Practice Through Pre-Briefing and Debriefing

Simulation Pre-Briefing: Supporting Competency and Judgment Development in Nursing Learning

Karin Page-Cutrara, PhD, RN, Canada

Abstract

Purpose: The purpose of this experimental study was to describe a newly developed model-based, structured prebriefing intervention and its effect on nursing students' competency performance, clinical judgment, and their perceived prebriefing experience, and to describe its application to teaching practice. Prebriefing begins the simulation process and introduces the participants to the simulation, learning experience (Chamberlain, 2015; Rudolph, Raemer, & Simon, 2014). However, little nursing education research is available on this activity, and how it relates to the development of nursing knowledge and practice. Reflection theory and concept mapping underpinned the development of a model on which this intervention was based, to prepare students for meaningful simulation learning (Decker et al., 2010; author, 2014).

Methods: An experimental group-randomized design was used to compare the intervention group, which received structured prebriefing and the control group, which received customary orientation activities. This study was conducted at a university school of nursing in Canada. Baccalaureate nursing students (N = 76) in a traditional four-year program, who were enrolled in a fourth-year medical-surgical course, participated. Competency performance, clinical judgment, and the perceptions of the prebriefing experiences in each group were examined, in addition to the relationship between simulation performance and students' self-rated prebriefing experience. Scores from the *Creighton Competency Evaluation Instrument* and the *Prebriefing Experience Scale* were analyzed using parametric and non-parametric statistics.

Results: A statistically significant difference was demonstrated between groups for competency performance ($p < 0.001$), clinical judgment ($p < 0.001$) and prebriefing experience ($p < 0.001$). No relationship was found between students' self-perceptions of prebriefing experience and the researcher-rated simulation performance.

Conclusion: Theory-based, structured prebriefing can impact nursing student competency performance, clinical judgment and perceptions of prebriefing, and may enhance meaningful simulation learning. A detailed description of the model-based prebriefing intervention worksheet will be provided, and an interactive discussion of possibilities for its use in varied academic and clinical settings, with global applications, will be facilitated. Prebriefing, as the first phase of simulation, has implications for transforming nursing knowledge, education and practice throughout the entire simulation process, and beyond.

References

- Chamberlain, J., 2015. Prebriefing in nursing simulation: A concept analysis using Rodger's methodology. *Clin. Simul. Nurs.* 11 (7), 318–322. <http://dx.doi.org/10.1016/j.ecns.2015.05.003>
- Decker, S., Moore, A., Thal, W., Opton, L., Caballero, S., Beasley, M. (2010). Synergistic integration of concept mapping and cause and effect diagramming into simulated experiences. *Clinical Simulation in Nursing*, 6 (4), e153–e159. <http://dx.doi.org/10.1016/j.ecns.2009.11.010>
- Page-Cutrara, K. (2014). Use of prebriefing in nursing simulation: A literature review. *Journal of Nursing Education*, 53(3), 136-141. doi:10.3928/01484834-20140211-07
- Rudolph, J. W., Raemer, D. B., & Simon, R. (2014). Establishing a safe container for learning in simulation: The role of the presimulation briefing. *Simulation in Healthcare*, 9(6), 339-349. doi: 10.1097/SIH.0000000000000047.

Contact

kcutrara@yorku.ca

Using Debriefing for Meaningful Learning to Foster Clinical Reasoning and Transform Nursing Practice

Kristina Thomas Dreifuerst, PhD, RN, CNE, ANEF, USA

Abstract

Purpose: The purpose of this exploratory, quasi-experimental, pre-test-post-test study was to discover the effect of the use of the Debriefing for Meaningful Learning (DML) method of debriefing on the development of clinical reasoning in traditional prelicensure nursing students in a BSN program in the United States. Debriefing has been found to be the most significant part of a simulation experience on student learning (Shinnick, 2011). DML is one evidence based method of debriefing that can be used in simulation and other clinical and educational settings to uncover and foster thinking and acting like a nurse. DML is a systematic process for debriefing in which different aspects of the relationship between thinking and actions practice are uncovered, reflected upon and explicated to generate new meanings and understandings which foster clinical reasoning (Author, 2015).

Methods: Clinical reasoning was measured in 238 participant students from a traditional baccalaureate program in a School of Nursing located in the United States (US) who took an adult health course that incorporated simulation experiences into the curriculum. Participants were assigned to either the experimental or control group where DML was compared to customary debriefing using the Health Sciences Reasoning Test (HSRT) and the Debriefing Assessment for Simulation in Healthcare®–Student Version (DASH®–SV) with four supplemental questions about the DML (DMLSQ) process, during the post-debriefing assessment.

Results: The data revealed that there was a statistically significant difference in the change in scores between pre-test and post-test for those who used the DML as compared to the control when the relative difference between mean scores was calculated and a Mann-Whitney-Wilcoxon test was performed, $U = 3973.5$, $W = 10759.5$, $Z = -6.059$, $p = 0.000$.

Conclusion: The findings from this study are important because they represent the incremental impact of learning by students from one DML debriefing intervention. DML did not teach students the content on the HSRT test, or how to take the test, but rather how to think about clinical information and decision-making within the context of simulated patient care. By actively modeling reflection-in-action, reflection-on-action, and reflection-beyond-action, the student not only debriefs the clinical experience but also anticipates how to use this knowledge and information in other clinical contexts and builds clinical reasoning skills. The literature on learning offers two possible explanations. The DML strategy may have been either so innovative that it stimulated learning and adoption, or so credible that it affirmed how students were already reasoning and supported their ability to be confident in how they reason through clinical situations. Since this research has been replicated with similar findings to this original research (Forneris et al., 2015), the former explanation is further supported.

These study findings have led to the adoption of DML in schools of nursing and clinical practice settings across the United States, Canada, China, the United Kingdom and Australia. DML was also chosen as the debriefing method for the National Council of State Boards of Nursing National Simulation Study (Hayden et. al., 2014) and regulatory bodies in the US and Canada have begun adopting language advocating the use of evidence-based debriefing practices by schools of nursing. This session will include a detailed description of DML and an interactive discussion of the implications from these findings for transforming nursing knowledge, education and practice globally including regulation changes that are beginning to be seen in the United States that are correlated to use of DML.

References

Author, (2015). Getting Started With Debriefing for Meaningful Learning. *Clinical Simulation in Nursing*, 11(5), 268-275. doi:10.1016/j.ecns.2015.01.005.

Forneris, S. G., Neal, D. O., Tiffany, J., Kuehn, M. B., Meyer, H. M., Blazovich, L. M., . . . Smerillo, M. (2015). Enhancing Clinical Reasoning Through Simulation Debriefing: A Multisite Study. *Nursing Education Perspectives*, 36(5), 304-310.

Hayden, J., Smiley, R., Alexander, M. A., Kardong-Edgren, S., & Jeffries, P. J. (2014). NCSBN National Simulation Study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, 5(2), Supplement, S2-S40.

Shinnick, M. A., Woo, M., Horwich, T. B., & Steadman, R. (2011). Debriefing: The Most Important Component in Simulation? *Clinical Simulation in Nursing*, 7(3), e105-e111. doi:10.1016/j.ecns.2010.11.005

Contact

kristina.dreifuerst@mu.edu

Transforming Debriefing by Exploring Faculty Preparation and Use with the Debriefing for Meaningful Learning Inventory

Cynthia Sherraden Bradley, PhD, RN, CNE, CHSE, USA

Abstract

Purpose: The purpose of this study was to look at the relationship between training received in debriefing using an evidence based debriefing method and the application of that training into educational practice. Debriefing is the most significant component of simulation, and faculty report varied ways of receiving training (Wazonis, 2015) yet the impact of debriefer training on how a debriefing method is applied has not been reported. Although training of debriefers in the use of a structured debriefing method is recommended by regulating bodies and international nursing organizations following the methods used in the NCSBN National Simulation Study (Alexander et al., 2015; Jeffries, Dreifuerst, Kardong-Edgren & Hayden, 2015), a description of its impact on the understanding and application of debriefing is unknown.

An evidence-based debriefing method adopted widely across nursing curricula is Debriefing for Meaningful Learning©(DML). DML promotes the development of clinical reasoning among nursing students, yet little is known regarding how debriefers trained in this method use it, or the resulting impact on nursing knowledge and practice (Dreifuerst, 2015).

Methods: To measure the understanding and application of the central concepts of DML, the DML Inventory (DMLI) was developed using the Debriefing for Meaningful Learning Evaluation Scale (Author & Dreifuerst, 2016) and psychometrically tested for validity. The DMLI was then used to quantify the debriefing behaviors of 234 debriefers during simulation debriefing with baccalaureate nursing students.

Results: Statistically significant differences were found between debriefers in their understanding and application of DML, based on the training sources received. The DMLI data revealed that DML trained debriefers consistently apply DML behaviors after receiving training, and application increased in consistency with multiple training sources. Statistically significant interactions were found between groups in the application of DML and understanding of the central concepts of the method.

Conclusion: This study contributes to the growing body of knowledge of debriefing and provides a tested instrument to be used for assessing debriefers using DML. The findings demonstrate the impact of the type of training on how structured debriefing methods are implemented, which could improve future debriefing training for simulation and clinical experiences. This session will include a description of the development, testing, and use of the DMLI and an interactive discussion of implications from these findings for transforming nursing knowledge, education and practice globally.

References

- Alexander, M., Durham, C. F., Hooper, J. I., Jeffries, P. R., Goldman, N., Kardong-Edgren, S., Kesten, K. S., Spector, N., Tagliareni, E., Radtke, B., & Tillman, C. (2015). NCSBN simulation guidelines for prelicensure nursing programs. *Journal of Nursing Regulation*, 6(3), 39-42. doi: [http://dx.doi.org/10.1016/S2155-8256\(15\)30783-3](http://dx.doi.org/10.1016/S2155-8256(15)30783-3).
- Author & Dreifuerst, K. T. (2016). Pilot testing the debriefing for meaningful learning evaluation scale. *Clinical Simulation in Nursing*, 12(7), 277-280. doi: 10.1016/j.ecns.2016.01.008.

Dreifuerst, K.T. (2015). Getting Started With Debriefing for Meaningful Learning. *Clinical Simulation in Nursing*, 11(5), 268-275. doi:10.1016/j.ecns.2015.01.005.

Jeffries, P. R., Dreifuerst, K.T., Kardong-Edgren, S., & Hayden, J. (2015). Faculty Development When Initiating Simulation Programs: Lessons Learned From the National Simulation Study. *Journal of Nursing Regulation*, 5(4), 17-23.

Wazonis, A. R. (2015). Simulation Debriefing Practices in Traditional Baccalaureate Nursing Programs: National Survey Results. *Clinical Simulation in Nursing*. doi:10.1016/j.ecns.2014.10.00

Contact

cbradley@ucmo.edu

L 15 - Educating for Person-Centredness: Leading Collaborative Research

Leading Collaborative Research with a Person-Centred Academic Culture Project

Brendan G. McCormack, PhD, DPhil (Oxon), BSc (Hons) (Nurs), PGCEA, RGN, RMN, United Kingdom

Abstract

Purpose: This presentation will share the results of our 18-month collaborative research project that has focused on generating a person-centred academic environment in nursing. Person-centredness and person-centred practice is now a common discourse in nursing and health care generally. Significant developments have occurred in Scotland, across the UK and internationally in the development of person-centred nursing and healthcare services. However, a similar pace of development has not been evident in nursing education programmes. It remains the case that there are few person-centred nursing curricula and at best most have 'the person-centred course' as a part of the curriculum. This is an issue that we at xx University have been addressing over the past 24 months. A key part of this work has been creating an academic environment that 'lives' person-centred values in all aspects of our work.

Methods: We have used case study methodology to evaluate the existing programme of culture change in the Division of Nursing and develop transferrable principles for other academic departments. The case study methodology of Simons (2009) has been used, where the primary purpose for undertaking a case study was to explore the particularity and the uniqueness of the single case. The single case being 'The Division of Nursing'. Simons' methodology has been developed for education contexts and so is particularly suitable for this case study research.

Results:

1. *Understanding a person-centred culture in action and stories of stakeholders*
We have identified the key characteristics of the person-centred culture in the Division of Nursing. We have collated self-assessment data (routinely collected data; reflective accounts; stakeholder evaluation data) collected in 2014 (baseline data) and compared with rounds of key-stakeholder data (claims, concerns, issues) collected in 2015 and 2016
2. *Developing a shared interpretation and meaning making*
Themed data from the key characteristics of a person-centred culture will be presented for critique.
3. *Agreeing transferable principles*
We will propose person-centred culture principles that are transferable across the university system. The findings from the previous stages will be presented for participants to discuss and critique. A set of transferable principles will be proposed and implementation issues surfaced. A position statement on 'person-centred Environments for HEIs' will be presented.

Conclusion: Further investigation is required to explore the culture of academia and the lessons to be learned from implementing a person-centred culture within an academic environment.

References

O'DONNELL, D, COOK, N. AND BLACK, P. (in progress) Person-centred Nursing Education, in B. MCCORMACK AND T. MCCANCE (in progress) *Person-centredness in Nursing and Healthcare: Theory and Practice*. Wiley, Oxford

SCHEIN, E.H. 2004. *Organizational Culture and Leadership*, 3rd Edn. San Francisco: John Wiley & Sons Inc.

Contact

bmccormack@gmu.ac.uk

Leadership within an International Community of Practice for PhD Students: Person-Centred Practice Research

Janet Dewing, PhD, United Kingdom

Abstract

Purpose: To tell the story of the evolution of the international CoP, share outcomes and outputs from the CoP Background. Communities of Practice (CoPs) are formed by people who engage in social or collective learning in a shared area of interest; in this case, all the members were connected through PhDs at one university in Scotland and underpinned by values and research approaches consistent with person-centredness. The learning culture is an important factor affecting the quality of doctoral education (Lahenius 2012; Shacham and Cohen 2009) yet PhD students often report a dissonance between the expectations of being engaged with practising researchers and a community of peers and other experts and their experiences. We will show how the CoP has developed through a collaboration between student learners and professoriate learners. Given the social learning underpinnings, particular attention is given to process review and to evaluation in the CoP among the growing international membership with members at different stages in their research and lifelong learning.

Methods: A participatory approach was used along with evaluation questions. Data was collated retrospectively over the last 2 years from the CoP facebook page and concurrent data was collected from critically creative reflections across a number of the CoP members.

Results: The CoP members are committed to learning how to do their own research more authentically and to advancing our knowledge on person-centred practice and theory. Members help and support each other, and challenge each other in various ways. They build relationships that enable them to learn from each other and they care about each other and their relationships. The QMU CoP for PhD students appears to be evolving into a hybrid between a social learning community and a distributed virtual network crossing multiple countries and organisational boundaries (Fischer et al 2007).

Conclusion: A model of joint professional and academic learning is emerging that has relevance for professional development and research capacity building in the topic of person-centredness and in the university. Although Wenger (2001) makes it clear that the technology itself is secondary to social and cultural aspects, as we evolve into a more geographically distributed CoP, we have a greater need to understand how technology affects social learning within the CoP and how we can use it more creatively.

References

- FISCHER, G. & MARKUS ROHDE, M. AND WULF, V. 2007. Community-based learning: The core competency of residential, research-based universities. *Computer-Supported Collaborative Learning*, 2, 9-40.
- LAHENIUS, K. 2012 Communities of practice supporting doctoral studies. *Journal of Education Management* 10 (1) 29-38.
- Shacham, M. and Cohen, Y. O 2009 Rethinking PhD learning incorporating communities of practice. *Innovations in Education and Teaching International* 46 (3) 279-292

Contact

jdewing@qmu.ac.uk

The MSc Person-Centred Practice Framework Curriculum: Underpinning Philosophy and Model

Savina Tropea, PhD, RN, United Kingdom

Abstract

Purpose: This presentation will focus on the philosophy underpinning the new MSc Person-centred Practice Framework curriculum in the Division of Nursing at Queen Margaret University, Scotland, and on the curriculum model that was co-created by the team; it will also discuss issues around the role of curriculum in changing and transforming the present (Pinar 2012).

Methods: The curriculum underpinning philosophy builds around a blend of humanistic and constructivist theories (McCormack and McCance 2010, Schunk 2004). Three of the main strands of this philosophy are: the centrality of the concepts of 'personhood' (of the person/learner) and of 'person-centredness'; the inter-relationship between person-centred teaching and learning (facilitation) and the development of person-centred practitioners (at Master Level); the development of practice (praxis). The continuum between 'product' and 'process' in designing the MSc Person-centred Practice curriculum will be also discussed. Emphasis will be placed on the process of identification of shared values and beliefs, in particular on the use of critical dialogues to develop a shared understanding of commonly used terms, locally and globally, in current policy documents (such as person and people centred care, child and family centred care) with a view at reaching shared definitions. The use of creative visual representations to capture and synthesise, first of all, the key concepts and principles in the form of a 'ripple' and then to embed these in a new curriculum model will be also presented.

Results: The implementation process culminated in the co-creation of the innovative Hourglass Curriculum which highlights the collaborative nature of learning and of practice, and the dynamic and evolving nature of a curriculum grounded in practice and aimed at developing and improving practice, in collaboration with different stakeholders.

Conclusion: Tentative conclusions will be put forward for consideration. The achievement of a consensus on the values and beliefs about the learning process is of paramount importance in curriculum development (Keating 2010). This initiative has provided impetus to engage in a dialogue within the division, to revise our undergraduate BSc Hons curriculum and other post-graduate pathways within the MSc Person-centred Framework.

References

- KEATING, S. 2010. *Curriculum development and evaluation in nursing* 2nd ed New York: Springer Publishing Company.
- McCORMACK, B. and McCANCE, T. 2010. *Person-centred nursing: theory and practice* Wiley-Blackwell.
- PINAR, W.F. 2012 Subjective and social reconstruction. In: *What is curriculum Theory?* 2nd ed. New Your: Routledge, pp. 207-238.
- SCHUNK, D.H. 2004. *Learning Theories: an educational perspective* 4th ed Upper Saddle River: NJ: Merrill and Prentice Hall

Contact

stropea@gmu.ac.uk

R 07 - Building Evidence-Based Practice in a Complex System: The Visionary Approach in the U.S. Air Force

Building a Program to Bring Evidence-Based Practice to the U.S. Air Force Nursing Enterprise

Lynn Gallagher-Ford, PhD, RN, DFPNAP, NE-BC, USA

Abstract

Purpose: To describe the need for an evidence-based approach to healthcare decision making and practice to deliver best care and outcomes and discuss how this goal was met through education and collaboration.

Methods: In a new era of healthcare, success will be achieved through collaborative relationships and development of teams that can deliver evidence-based, patient-centered care to improve healthcare safety, patient and clinician outcomes, and demonstrable returns on investments. The development of evidence-based practice (EBP) knowledge, skills, and attitudes along with creation of organizational cultures and infrastructures that support EBP is a comprehensive strategy that can effectively propel organizations toward achieving and sustaining these goals and meeting required healthcare mandates. Many healthcare organizations have identified that their staff are not competent in EBP as demonstrated by clinicians' and leaders' lack of EBP knowledge, skills and attitude. These organizations are seeking opportunities build such competence and capacity in their settings. The Center for Transdisciplinary Evidence-based Practice has worked with a wide range of both clinical and academic organizations to build and sustain EBP with significant results achieved.

A unique opportunity emerged when a CTEP leader and a USAF Nursing leader participated in a Magnet site visit as community partners of an Ohio Children's Hospital. The relationship that grew out of that chance meeting led to the development of a rich and robust EBP program at Wright Patterson Medical Center, and ultimately across the USAF nursing enterprise.

Results: This session will highlight the innovative work of The Center for Transdisciplinary Evidence-based Practice (CTEP) in advancing EBP through a collaborative relationship with the nursing enterprise of the United States Air Force (USAF) to create a successful EBP education and follow-up program that is delivering improved care and significant outcomes. The details related to forging an effective relationship between these enterprises to develop and deliver an EBP education program to meet the unique needs of this complex, global enterprise will be highlighted. The characteristics of the original education program designed and implemented including: the evidence-based educational pedagogies and interventions utilized to assure the successful sharing of EBP knowledge and skills; the multiple tracks offered with specific content for different practitioners (front-line clinicians, EBP mentors, educators, organizational leaders) and; the structured follow-up sessions utilized to reinforce knowledge acquisition and promote implementation of EBP initiatives. The impact of planned and ongoing discussions between the collaborating entities, that led to further customization of the education program as the EBP capacity at the USAF is forming and growing, and performing, will also be presented.

Conclusion: Collaboration and innovation can forge relationships to transform traditional organizations into evidence-based organizations that deliver best practice and improved outcomes.

References

- Melnyk BM, Fineout-Overholt E, Gallagher-Ford, L, Kaplan, L. (2012). The State of Evidence-Based Practice in US Nurses: Critical Implications for Nurse Leaders and Educators. *Journal of Nursing Administration*, 42(9), 410-417.
- Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5-15.

Melnyk, B.M., Fineout-Overholt, E. (2016). *A test of the ARCC© model improves implementation of evidence-based practice, healthcare culture, and patient outcomes*. Manuscript submitted for publication.
Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia, PA: Wolters Kluwer Health.

Contact

gallagher-ford.1@osu.edu

Implementation of Programs and Infrastructures to Sustain Evidence-Based Decision Making and Practice

Penelope F. Gorsuch, DNP, RN, ACNP-BC, CCNS, CCRN-K, NEA-BC, USA

Abstract

Purpose: To describe the collaborative, innovative work of two organizations that transformed a highly complex, global healthcare enterprise from a tradition-based approach to care to an evidence-based approach to decision-making and care to achieve improved outcomes.

Methods: The collaboration and synergy between The Center for Transdisciplinary Evidence-based Practice (CTEP) and the United States Air Force nursing enterprise facilitated the development of strategies set forth from the Institute of Medicine (IOM) (2001) *Crossing the Quality Chasm*. We will present three successful academic and nursing enterprise collaborative programs: 1) educational process for EBP, 2) developing specific teams of EBP Mentors, 3) creating EBP councils.

Results: The first program was an effort in collaboration with CTEP to develop the skill set needed for problem-solving that integrates the best evidence from well-designed studies as well as internal evidence with clinical expertise and patient preferences and values to inform practice decisions. As this was a new skill set for our clinicians and leaders, it required structured education in a systematic approach because in order for an EBP culture and environment to be actualized ... "a standardized process must be used for teaching, implementing and sustaining evidence-based decision making" (Melnyk & Fineout-Overholt, 2015). The second initiative was forged from lessons learned from the initial structured education programs, when we recognized the critical importance of leadership participation and support in building effective and sustainable EBP programs. A grant was applied for and awarded to determine if providing an intensive EBP education program combined with a structured follow up Military Nursing Teams composed of representatives from three levels of practice: An Executive Leader, a Clinical Leader, and a Direct Care Clinician was an effective strategy to develop evidence-based competence, practice and culture. The teams that participated in the grant program were from military healthcare organizations from around the globe and represented both inpatient and ambulatory environments. The unique opportunity and the expected outcomes of this project is to demonstrate how these evidence-based Tri-Level teams are effective in changing practice as well as building and sustaining an evidence-based practice culture in their respective organizations. The third initiative focused on the development of an organized EBP structure and process configuration, that included both a centralized EBP core and a facility-based component, would provide the needed support to assure ongoing development and sustainability of an evidence-based approach to care and decision making across the global USAF nursing enterprise.

Conclusion: A strategic, planned approach to: building EBP knowledge, skills and attitude; creating EBP infrastructure and support, and; leading an EBP culture can effectively transform highly complex, global healthcare enterprises.

References

Melnyk BM, Fineout-Overholt E, Gallagher-Ford, L, Kaplan, L. (2012). The State of Evidence-Based Practice in US Nurses: Critical Implications for Nurse Leaders and Educators. *Journal of Nursing Administration*, 42(9), 410-417.
Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5-15.

Melnyk, B.M., Fineout-Overholt, E. (2016). *A test of the ARCC© model improves implementation of evidence-based practice, healthcare culture, and patient outcomes*. Manuscript submitted for publication.
Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia, PA: Wolters Kluwer Health.

Contact

penelope.gorsuch@gmail.com

Outcomes of an Evidence-Based Practice Transformation Across the USAF Nursing Enterprise

Dorothy A. Hogg, MSN, MPA, WHNP-BC, USA

Abstract

Purpose: To describe the plan set in motion by leaders in the US Air Force nursing enterprise to achieve a healthcare delivery paradigm where research, evidence-based practice (EBP), and quality improvement experts come together to create, translate, and implement best practices that generate high- quality, cost-effective patient outcomes (Melnyk, 2015).

Methods: A new paradigm is required that teams up research, evidence-based practice (EBP), and quality improvement experts to create, translate, and implement best practices that generate high- quality, cost-effective patient outcomes (Melnyk, 2015). In order to support this paradigm, infrastructure and support are essential for success. The USAF nursing enterprise has set a plan in motion to achieve this goal by establishing A Clinical Inquiry Cell concept. This concept is being pilot tested at the 711 Human Performance Wing (HPW), at the United States Air Force School of Aerospace Medicine (USAFSAM). The Clinical Inquiry Cell includes Nurse Scientists, Nursing EBP experts, and other Allied Health research specialists. Research and EBP specialists will be utilized to capitalize on their expertise, allowing for facilitated translation of evidence to nursing practice and patient care. The Cell is targeting variances in current practices at Air Force medical facilities and is connecting the clinical staff with current, relevant literature to implement evidence-based decision making and practice changes. Additionally, the EBP expert/Clinical Nurse Specialist is able to connect front-line practitioners and leaders at the medical facilities to the Nurse Scientists when evidence is found to be insufficient and research initiatives are indicated. The EBP expert/Clinical Nurse Specialist then continues to serve as a liaison as the practitioners and researchers work together to conduct research that is needed to address current clinical challenges.

Results: Lessons learned from this pilot project will be discussed along with how the results will be utilized to inform and improve the Clinical Inquiry Cell concept before expanding to other Clinical Inquiry Cells across disciplines.

The proposed Clinical Inquiry Cell structure is expected to optimize and standardize evidence-based care, and ultimately inform policies, procedures, and practices across the continuum of care for our patients and families, in all settings in the USAF. As we continue to learn from our pilot Clinical Inquiry Cell in collaboration with our CTEP partners, we will further define how to establish and disseminate best practices.

Conclusion: Strategically planned processes and structures for implementing an evidence-based practice/research/QI approach to decision making and practice can be successfully implemented across a highly complex, global healthcare enterprise to drive best practice and deliver improved outcomes.

References

Melnyk BM, Fineout-Overholt E, Gallagher-Ford, L, Kaplan, L. (2012). The State of Evidence-Based Practice in US Nurses: Critical Implications for Nurse Leaders and Educators. *Journal of Nursing Administration*, 42(9), 410-417.
Melnyk, B. M., Gallagher-Ford, L., Long, L. E., & Fineout-Overholt, E. (2014). The Establishment of Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses in Real-World Clinical

Settings: Proficiencies to Improve Healthcare Quality, Reliability, Patient Outcomes, and Costs. *Worldviews on Evidence-Based Nursing*, 11(1), 5-15.

Melnyk, B.M., Fineout-Overholt, E. (2016). *A test of the ARCC© model improves implementation of evidence-based practice, healthcare culture, and patient outcomes*. Manuscript submitted for publication.

Melnyk, B. M., & Fineout-Overholt, E. (2015). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). Philadelphia, PA: Wolters Kluwer Health.

Contact

Dorothy.a.hogg.mil@mail.mil