

# 25<sup>th</sup> INTERNATIONAL NURSING RESEARCH CONGRESS

## Conference Proceedings

ENHANCED ABSTRACTS  
OF ORAL AND POSTER  
PRESENTATIONS



24-28 July 2014  
**HONG KONG**



Sigma Theta Tau International  
Honor Society of Nursing®



**CHAMBERLAIN**  
*College of Nursing*

# **25<sup>th</sup> International Nursing Research Congress**

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### **Enhanced Abstracts of Oral and Poster Presentations**

**Held 24-28 July 2014**

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**Sigma Theta Tau International  
550 West North Street  
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# Glossary

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

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

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

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

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

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

# Introduction

The Honor Society of Nursing, Sigma Theta Tau International (STTI) conducted its 25th International Nursing Research Congress at the Hong Kong Convention and Exhibition Centre, 24-28 July 2014. More than 800 nurses from around the world gathered at the congress, which had as its theme “Engaging Colleagues: Improving Global Health Outcomes.”

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

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

# Format for Citing Papers

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Example:

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# Part I: Plenary Sessions

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## OPENING PLENARY

### Evidence-Based Nursing Practice: A Panel Discussion

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*Hester C. Klopper, PhD, MBA, RN, RM, FANSA, South Africa*

*Irmajean Bajnok, RN, MScN, PhD, Canada*

*Laura Cullen, DNP, RN, FAAN, USA*

*Craig Lockwood, RN, MNSc, PhD, Australia*

*Brendan McCormack, DPhil (Oxon), BScN (Hons), PGCEA, RGN, RMN, United Kingdom*

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

*Kathleen M. White, PhD, RN, NEA-BC, FAAN, USA*

#### Purpose

Discussion various programs of evidence-based practice in the nursing profession.

#### Target Audience

All nurses.

#### Abstract

Panel presentation from six evidence-based experts regarding perspective programs. Moderated by STTI President, Hester Klopper.

#### Contact

[abstracts@stti.org](mailto:abstracts@stti.org)

## PLENARY SESSION 2

### Engaging Colleagues: Improving Global Health Outcomes

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*Hester C. Klopper, PhD, MBA, RN, RM, FANSA , South Africa*

#### Purpose

Discuss nursing's potential effect on global health.

#### Target Audience

The target audience for this presentation is academics, practitioners, researchers and educators with an interest in the global health agenda.

#### Abstract

Health is central in development and has been identified as a critical indicator for sustainable development. Three of the Millennium Development Goals (MDGs) focused specifically on health. The question and debate for the future is how the Sustainable Development Goals (SDGs) post-2015 should reflect health, as these goals shape agendas and determine resource allocation. In this session the status of the achievement of the MDGs will be evaluated, the changing global health agenda will be explored and some insights shared into how health could be linked to the SDGs post-2015. Specific attention will be given to health outcomes that are important indicators of achieving sustainability. Nurses are the largest group of health professionals, and often the only available human resource for health in communities, and will play a critical role towards sustainable development by reducing the burden of disease. How nurses can strengthen health systems through being engaging will also be given attention during this plenary session.

#### References

WHO. 2012. Positioning Health in the Post-2015 Development Agenda. WHO discussion paper. October 2012

#### Contact

[ceo.fundisa@edunurse.co.za](mailto:ceo.fundisa@edunurse.co.za)

## CLOSING PLENARY

### The Quest for Excellence in International Nursing Research

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*Stephanie L. Ferguson, PhD, RN, FAAN, USA*

#### Purpose

To discuss international nursing research challenges and provide potential strategies to overcome them.

#### Target Audience

All nurses.

#### Abstract

There are multiple issues facing the 21st century. Challenges in developing countries may lead to obstacles to providing health care. Challenges including poverty, chronic disease, an aging population and an inability to provide or utilize technological innovations provide the ability for nurses to expand their roles as healthcare providers. By assuming leadership roles, expanding nursing education and staying at the forefront of research nurses can advocate for good health, equality and justice.

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#### Contact

[drsferguson@gmail.com](mailto:drsferguson@gmail.com)

## Part II: Special Sessions

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### A 02 - SPECIAL SESSION: Fostering Global Citizenship in Nursing Education: The Role of the United Nations

*Hester C. Klopper, PhD, MBA, RN, RM, FANSA*  
*K. Joanne McGlown, PhD, MHHA, BS, RN, FACHE*

#### Purpose

The presentation will discuss global citizenship in nursing education. It begins by defining global citizenship – why it is important in nursing education and how it is taught.

#### Target Audience

The target audience includes: educators, clinical nurses, students and administrators.

#### Abstract

The session will begin with a power point presentation for background information, then progress to examples of successful programs on teaching global citizenship and a discussion of United Nations programs in developing global citizens. The implications of ECOSOC status will be discussed, including the opportunities for STTI and our members that exist with this status. The future vision of STTI's relationship with the UN will also be explored, with discussion of how attendees may best use the information from this presentation.

#### Contact

[ceo.fundisa@edunurse.co.za](mailto:ceo.fundisa@edunurse.co.za)

## **B 01 - SPECIAL SESSION: Educational Scholarships**

*Eric Chan, DMgt, MBA, RN, FACN*

### Purpose

The purpose of this presentation is to explore the current status of educational scholarships and discuss whether it can be used as an effective HRH tool.

### Target Audience

The target audience of this presentation is for practicing clinicians, academic leaders, administrators who are interested in maximizing the contributions educational scholarships HRH and global health.

### Abstract

As we move towards the final years for the Millennium Development Goals (MDGs)" the issue of shortage of human resources for health (HRH) remains high on the global agenda. HRH shortage still existed in many countries or different corners of a country which are impacting on the delivery of health care. There are many types and models of educational scholarships being offered by educational institutions, service organizations, local or national health authorities across the globe. Can we see the use of educational scholarships as one of the tools for the HRH retention, capacity building and enhancing access to care for global health? What are the experiences so far on the use of educational scholarships? Have they been beneficial? Does it help to manage the migration of HRH? Are there any opportunities for international collaborations? These issues will be explored. This session will provide a forum for discussion on what models and types educational scholarship are being offered across the globe. Participants will be invited to contribute through experience sharing and discussion.

### Contact

[lschan@cihe.edu.hk](mailto:lschan@cihe.edu.hk)

## **B 02 - SPECIAL SESSION: Celebrating the Asia Region's Excellence and Advancements in Research and Scholarship Development**

*Claudia K. Y. Lai, PhD, RN*

*Misae Ito, RN, RMW, MSN, PhD*

*Alice Yuen Loke, PhD, RN*

*Mi Soon Song, RN, PhD*

*Pei-Shan Tsai, PhD*

*Alice K. Y. Wong, PhD*

*Shela Akbar Ali Hirani, MScN, BScN, IBCLC, AdvDipECD*

*Sally Wai-Chi Chan, PhD, MSc, BSc, DipEd, RN, RMN, FHKCERN*

### Purpose

After joining this session, the participants will be able to 1. describe the state of scholarship development in the presenting countries/cities; 2. identify the areas of success in the Asia Region with regard to research development and scholarly work 3. discuss the opportunities and barriers relating to regional and international research and collaboration.

### Target Audience

The target audience of this presentation is any participants who are interested in learning about research and scholarship development in the Asia Region.

### Abstract

The goal of this special session is to showcase the excellence in nursing scholarship in Asia and also recognize the Asian nurse leaders in their contribution to the profession and society. Five chapters in the Asia Region will present the work undertaken by their own chapter and leaders over the years. These five chapters (in alphabetical order) are the Lambda Alpha-at-Large (Korea), the Lambda Beta-at-Large (Taiwan), the Pi Iota (Hong Kong), the Rho Delta (Pakistan), and the Upsilon Eta Chapter. They will portrait the development of their own country's nursing research and scholarship. Not only will they discuss research utilization and collaboration in their own country, but also they will introduce their own nurse scholars. The lists of prominent nurse leaders and their publications from the four presenting chapters will be distributed during the Session. We hope to introduce our nurse leaders to each other and create a platform for the sharing of expertise through our presentation. The intended outcome is to create a formal platform for Asian nurse leaders for scholarly exchanges. The ultimate goal is to form a STTI Asian Alliance of Nurse Researchers - a network of Asian nurse scholars and researchers to realize the mission and vision of the STTI in the regional context. Our goal is a positive response to the President's Call to Action – to serve locally, transform regionally and lead globally.

### Contact

[claudia.lai@polyu.edu.hk](mailto:claudia.lai@polyu.edu.hk)

## **B 06 - SPECIAL SESSION: Exposing Quality of Life and Deadly Health Disparities: Using Research to Change Health Care Policy**

*Carol Estwing Ferrans, PhD, RN, FAAN*

### Purpose

to trace Dr. Carol Ferrans' research trajectory from its earliest beginnings in quality of life and health disparities, over 30 years, including how she used research findings as a tool to strategically to shape and create changes in healthcare policy and legislation.

### Target Audience

novice and experienced researchers and clinicians, interested in quality of life and health disparities, including how to use research findings as a tool to strategically to shape and create changes in healthcare policy and legislation.

### Abstract

At this meeting in Hong Kong, Dr. Carol Ferrans will be inducted into the International Nurse Researcher Hall of Fame of Sigma Theta Tau International. The purpose of this presentation is to trace her research trajectory from its earliest beginnings in quality of life and health disparities, over 30 years, including how she used research findings as a tool to strategically to shape and create changes in healthcare policy and legislation. Since the early 1980s when quality of life was a new concept, she has been an advocate for the voice of the patient in QOL assessment, developing a conceptual framework for QOL and instrument to capture the patient's viewpoint. The Ferrans and Powers Quality of Life Index (QLI) was introduced in 1985 and since then has been translated into 21 languages and used in 30+ countries, in every continent except Antarctica. To date, 48 published studies provide support for the instrument's reliability and validity, and 27 intervention studies have demonstrated its sensitivity in detecting change in QOL. More than 250 studies using the QLI have been published to date by nurses, physicians, psychologists, physical therapists, and other health care professionals. It is one of the most popular instruments for cardiac rehabilitation and pulmonary rehabilitation programs across the USA. Dr. Ferrans' program of research also has focused on understanding and reducing disparities in cancer. In 1987 Dr. Ferrans conducted one of the earliest comparisons of QOL of African American and white breast cancer survivors, and reported various psychological sequelae of surgery, including significant depression persisting years after treatment. Building on this work, Dr. Ferrans conducted a study with 16 participating institutions across the country, examining the barriers to participation in cancer screening, long-term effects of cancer, and QOL of African American survivors of breast, colon, and prostate cancer. In her next study, Dr. Ferrans examined the factors contributing to late-stage diagnosis of breast cancer in economically disadvantaged African American and Hispanic women. She found that delay in seeking diagnosis of a suspicious breast symptom was twice that previously reported in the literature, and that cultural beliefs and fear were major contributing factors. Next, she developed an instrument that correctly identified cultural beliefs contributing to later stage of breast cancer at diagnosis for African American and Hispanic women. Her team's published findings were cited by the American Cancer Society in their 2011 guidelines for breast cancer screening. Dr. Ferrans then developed a short film on DVD to address these beliefs, which was endorsed by the American Cancer Society. Evaluation of the DVD demonstrated that cultural beliefs could be changed in a single viewing. Dr. Ferrans currently has reached more than 8,500 women with the DVD. Her research and advocacy work culminated in the creation of the Illinois Reducing Breast Cancer Disparities Act, designed to improve access to screening and the quality of mammography throughout Illinois. This work provides a model for the effective dissemination of research findings to create wide-ranging changes in health care and policy.

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Contact

[cferrans@uic.edu](mailto:cferrans@uic.edu)

## **B 07 - SPECIAL SESSION: Global Research Collaborations to Prevent and Respond to Intimate Partner Violence**

*Nancy Glass, PhD, MPH, MSN, BSN, BS*

### Purpose

The purpose of the presentation is to provide detailed information on a productive global research collaboration to prevent and respond to intimate partner violence.

### Target Audience

The target audience of this presentation are researchers and clinicians who work in the area of women's health and violence prevention.

### Abstract

Gender based violence (GBV), including intimate partner violence (IPV) is a significant and widespread public health issue. Among women globally, 1 in 3 women report physical or sexual violence in their lifetime, most typically at the hands of their male partner. IPV is associated with numerous negative physical and mental health consequences, yet few IPV interventions have been proven effective in reducing the negative health and social consequences of IPV for women and their families. Safety planning is the most widely advocated intervention to reduce IPV, yet the vast majority of abused women never access safety planning services. Our challenge is to increase women's access to safety planning, with the opportunity to consider their unique priorities (e.g. privacy, feelings for partner, severity of violence, social support/status) and level of danger in the relationship during and when ending an abusive relationship. Therefore, a global collaboration of researchers from the U.S., Canada, Australia, New Zealand and Hong Kong have come together in a collaborative research effort to conduct rigorous clinical trials in each country to evaluate the effectiveness an interactive, personalized safety decision aid delivered via internet and/or smartphone application ("App") to improve safety and health for women in abusive intimate relationships. The safety decision aid is adapted to the context of each country by the lead investigators and their teams with support of collaborators in the other countries. The investigators have shared resources and expertise to support each other in obtaining research funding to implement the clinical trial with common outcomes for comparisons across the diverse countries. Findings from the US based trial (completed in May 2014), preliminary findings from ongoing trials in New Zealand and Canada, and details on the start-up of the research studies in Australia and Hong Kong will be provided during the presentation.

### Contact

[nklass1@jhu.edu](mailto:nklass1@jhu.edu)

## **C 01 - SPECIAL SESSION: Women's Health and Sleep Research: A Health Ecology Exemplar for Dialogue on the Keys to Building a Research Career**

*Joan L. Shaver, PhD, RN, FAAN, FWAN*

### Purpose

to describe the building of a research program in women's health and sleep science according to a health ecology framework, emphasizing knowledge outcomes, meaning for clinical practice, and science growth potential and to emphasize through dialogue lessons learned and tips for success as a clinical scientist.

### Target Audience

novice and mid-career nursing scholars in academia or practice, students contemplating an academic faculty career or practice inquiry and senior researchers -all invited to enrich audience dialogue.

### Abstract

This session will involve interactive dialogue between the audience and presenter related to the strategies and skills needed for the building of an interdisciplinary research program as an academic clinician scientist. An exemplar of midlife women's health and sleep science according to a health ecology framework will be outlined. Revealed will be the research program outcomes, meaning for clinical practice and science growth potentials. Going beyond the typical Q & A, integrated will be opportunity for presenter and audience ideas, lessons learned and tips. Content to include how to: optimize success in attaining research funding through persuasive proposal writing; power pack a proposal to support the next proposal; gain skill in self-critique and 'how to play the game'; and prepare for outcomes that support or refute hypotheses; all important to developing and sustaining a research program.

### Contact

[jshaver@arizona.edu](mailto:jshaver@arizona.edu)

## C 02 - SPECIAL SESSION: Using the Internet to Reach Teens with Type 1 Diabetes

Margaret Grey, DrPH, RN, FAAN

### Purpose

to share the results of a program of research on improving outcomes for youth with diabetes

### Target Audience

nurse scientists, pediatric nurses and people interested in translational research.

### Abstract

In this presentation, the results of a series of studies about a psycho-educational intervention developed to improve outcomes in adolescents with type 1 diabetes will be described. Based on descriptive research findings, the author developed the intervention and translated it into an internet delivery format which has been tested in a large randomized clinical trial. Translational research is now being conducted.

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### Contact

[margaret.grey@yale.edu](mailto:margaret.grey@yale.edu)

## C 06 - SPECIAL SESSION: A Life Long Quest in Women's Health through Internet Research Methodology

*Eun-Ok Im, RN, MPH, PhD, CNS, FAAN*

### Purpose

The purpose of this presentation is to introduce Dr. Im's program of research in women's health and Internet research and to discuss her most recently completed multi-ethnic Web-based study on midlife women's menopausal symptom experience.

### Target Audience

The target audience of this presentation is nurses who are working with midlife women, are interested in midlife women's health issues, are interested in Web-based research methods, and are interested in developing a research program in women's health.

### Abstract

This session presents Dr. Im's program of research in women's health and Internet research. Her beginning research question is presented with her former experience in oncology units and women's health. Her history of developing her research program is presented with evolving research questions. Then, her most recently completed study on a Web-based multi-ethnic study on menopausal symptoms among four major ethnic groups of midlife women is presented with implications for future research. The study aimed to explore ethnic differences in menopausal symptom experience among four major ethnic groups in the U.S. (Whites, Hispanics, African Americans, and Asians). The study was theoretically based on a feminist perspective. This cross-sectional study included two phases: (a) a quantitative national Internet survey and (b) four qualitative ethnic-specific online forums. The Internet survey was conducted among 512 midlife women using multiple instruments including questions on background characteristics and health and menopausal status and the Midlife Women's Symptom Index. Four ethnic-specific online forums were conducted among 90 midlife women using 7 online forum topics. The Internet survey data were analyzed using multiple regression analyses and cluster analyses. The online forum data were analyzed using thematic analysis. The findings indicated that there were significant ethnic differences in the total number.

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### Contact

[eunim@nursing.upenn.edu](mailto:eunim@nursing.upenn.edu)

## C 07 - SPECIAL SESSION: A Research Journey: To Boldly Go Forward

*Usha Menon, PhD*

### Purpose

The purpose of this presentations is to inform participants about developing and implementing a research trajectory in an academic setting.

### Target Audience

The target audience for this presentation is academic and clinical researchers and faculty engaged in tenured or tenure-track positions.

### Abstract

The development of a successful career requires passion, persistence, teamwork, and mentorship. In my research career, I have focused on reducing disparities in the early detection of cancer among the poor, elderly, underserved and/or minorities. Cancer is a deadly disease that kills many people worldwide, yet the irony is that for certain cancers, early detection can lead to a complete cure and lives saved. Through the testing of targeted and tailored interventions, my team has moved from efficacy testing to testing dissemination and implementation designs. The use of rigorous models of cultural targeting and individual tailoring of education can enhance relevance, effect, and sustained impact. Nurses are ideally placed to lead translational efforts through dissemination and implementation. In addition to describing my research journey, in this session, I will address designs, models, and readiness for translational research and strategies for career development and mentoring.

### Contact

[menon.48@osu.edu](mailto:menon.48@osu.edu)

## **C 13 - SPECIAL SESSION: International Leadership Opportunities**

*Suzanne Prevost, PhD, RN, COI*

### Purpose

Describe volunteer positions within STTI as well as qualifications and time commitments required.

### Target Audience

All attendees.

### Abstract

Suzanne Prevost, Chair of the Leadership Succession Committee will discuss opportunities for serving as a volunteer leader in the Honor Society. Open positions and position descriptions will be identified during this session as well as qualifications and time commitment required.

### Contact

[sprevost@ua.edu](mailto:sprevost@ua.edu)

## **D 01 and J 07 - SPECIAL SESSION: Research Abstracts, Proposals and Grant Writing: Basics from Start to Finish**

*Lois Sarah Marshall, PhD, RN*

### Purpose

to provide the novice researcher the basics to write a research abstract, proposal, and/or grant for submission.

### Target Audience

New nurse researchers and nurses seeking grants

### Abstract

This presentation will provide the novice researcher the basics to write a research abstract, proposal, and/or grant for submission. This session will enable participants to gain a basic understanding of the steps of the abstract/proposal/grant writing process in order to enable them to put forth a submission in the future. Participants will be able to interact with some past recipients of STTI small research grants who will provide practical information on the writing, submission, and follow-up process.

### Contact

[lsm4556@aol.com](mailto:lsm4556@aol.com)

## D 02 - SPECIAL SESSION: Reducing HIV Health Disparities Among Hispanics Through Culturally Tailored Intervention Science

*Nilda (Nena) Peragallo Montano, DrPH, RN, FAAN*

### Purpose

The purpose of this presentation is to discuss a program of research, SEPA, on HIV Prevention and Health Disparities among minority populations. SEPA intervention (Salud/Health, Educación/Education, Promoción/Promotion, y/and Autocuidado/self-care) is an evidence based HIV prevention intervention for Hispanic women.

### Target Audience

The target audience of this presentation is nurses and other health care professional working in HIV prevention at different settings, interested in the development of culturally specific interventions, and /or working with minority populations.

### Abstract

Introduction: Globally, HIV continues to be one of the leading causes of death. At the end of 2012, there were more than 35 million people living with HIV worldwide. In the U.S., the incidence of HIV is increasing more rapidly among racial and ethnic minorities, representing over 72% of new HIV cases and 65% of those currently living with HIV. Interventions to prevent HIV are needed for Hispanic women at all ages. SEPA (Salud/Health, Educación/Education, Promoción/Promotion, y/and Autocuidado/self-care), an HIV prevention intervention for Hispanic women has been demonstrated to be efficacious for decreasing HIV risk behaviors. The purpose of this presentation is to discuss a program of research to develop, test, adapt and disseminate SEPA. The aims of this presentation are to: (1) describe the development and impact of the SEPA intervention and its successful implementation in different settings and diverse Hispanic groups, and (2) discuss future opportunities and challenges in research with diverse communities. Methods: SEPA is an evidenced-based HIV risk reduction intervention initially designed for Mexican and Puerto Rican women living in Chicago. In the first SEPA randomized controlled trial (SEPA I), 657 Hispanic women between 18 and 44 years old were assigned to SEPA or to a delayed-intervention control group. Women completed structured interviews at baseline and 3 and 6 months post-baseline. SEPA was culturally tailored and consisted of six weekly sessions, two hours each. The groups were conducted in Spanish or English according to participants' preference. After this trial, SEPA was successfully adapted and implemented in different settings and among diverse Hispanic communities, including: "Mano a Mano", an initiative for women, men, and health care workers in Chile (R01TW-03-007769-5; RO1007674-5; R01TW006977); I-STIPI, a web-based intervention for Chilean young women; SEPA-O, for Hispanic women age 50 and above; and SEPA II, for Hispanic women in South Florida. SEPA III, an effectiveness trial, is being implemented in a real world setting by community agency personnel to reduce the gap between research and practice. Much of the recent work on SEPA is conducted within the Center of Excellence for Health Disparities Research: El Centro (NIH/MCHMD P60MD002266). Results: In SEPA I, SEPA was found to increase condom use and improve HIV knowledge, partner communication and risk reduction behavioral intentions, and to decrease perceived barriers to condom use. Similar results were reported in the second randomized clinical trial, SEPA II, and women who received the SEPA intervention also reported a reduction in intimate partner violence. The adaptations of SEPA have also had an impact in HIV prevention among diverse Hispanic groups. These adaptations have maintained the core elements of the original SEPA intervention. Conclusion: SEPA has been shown to be efficacious for reducing HIV risk among Hispanic women and provides evidence that HIV/AIDS prevention interventions must be developed and disseminated in the community and culturally tailored to the targeted population of the intended program. SEPA has contributed to research on health disparities and HIV prevention by providing a culturally specific and evidence based intervention that can be implemented in different settings.

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## Contact

[nperagallo@miami.edu](mailto:nperagallo@miami.edu)

## D 06 - SPECIAL SESSION: Nurses and Tobacco Control: An Intersection of Research and Health Care Policy

Linda Sarna, PhD, RN

### Purpose

The purpose of the presentation is to present an intersection of research and health care policy focused on nurses and tobacco control.

### Target Audience

The target audience of the presentation is practicing nurses, faculty and researchers.

### Abstract

This presentation will highlight the evolution and intersection of an international program of research in lung cancer and tobacco control as model for changing nursing practice and health care policy. Dr. Sarna's initial program of research focused on the quality of life and symptoms experienced by patients with lung cancer, the leading cause of cancer death worldwide. Dr. Sarna was one of the first to publish about the quality of life concerns experienced by women with lung cancer, the leading cause of cancer death among women in the U.S. since the mid 1980's, and about issues faced by lung cancer survivors. Tobacco use, rarely routinely collected in nursing research at the time, emerged as a variable impacting symptoms and quality of life. Tobacco use is the leading cause of preventable death and the one risk factor that cuts across all four noncommunicable diseases (NCDs) targeted by the United Nations for global action. Although evidence-based interventions for tobacco dependence treatment are available, they are underutilized by health care providers. After surveying barriers that nurses reported in supporting tobacco control, four major areas were identified: 1) limited knowledge and skills about the problem; 2) limited nursing leadership, 3) limited nursing scholarship, and 4) smoking among nurses. Dr. Sarna addressed these barriers through her research and advocacy, especially through the Tobacco Free Nurses initiative. She helped to shape policy about the role of nurses in tobacco control with nursing organizations, including the American Nurses Association, the Oncology Nursing Society, the International Society of Nurses in Cancer Care, the International Council of Nurses; and multidisciplinary groups, including the American Society of Clinical Oncology, the Institute of Medicine, the National Cancer Institutes, and the World Health Organization (WHO). She has surveyed tobacco-related content in schools of nursing in the U.S. and Asia and tested educational interventions to grow capacity among nurses in the U.S., China, the Czech Republic and Eastern Europe. She has promoted nursing research in the field and published a synthesis in an Annual Review of Nursing Research. In collaboration with the WHO she co-authored a monograph about strategies to enhance the nurses' role in addressing NCDs which helped to influence nursing policy. Nurses contributed to the knowledge and understanding of the dangers of smoking among women through participation in the Nurses' Health Study (NHS), the largest and longest running study of women's health in the world. Dr. Sarna's analysis of data from the NHS described the impact of smoking on female nurses' survival and quality of life. She monitored smoking among health care professionals using the Current Population Supplement-Tobacco Use Supplement, published in a special issue of JAMA focused on the 50th anniversary of the Surgeon General Report on smoking and health. Dr. Sarna also has provided leadership in policies surrounding exposure to secondhand smoke. She led the efforts to create a tobacco-free campus at UCLA; and co-authored a resolution from the American Academy of Nursing for all schools of nursing to be tobacco-free.

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### Contact

[lsarna@sonnet.ucla.edu](mailto:lsarna@sonnet.ucla.edu)

## **D 07 - SPECIAL SESSION: Creating Academic Service Partnerships for Education, Practice and Research**

*Joyce J. Fitzpatrick, PhD, RN, FAAN*

*Mary T. Quinn Griffin, PhD, RN*

*Carol Porter, DNP, MPA, RN*

*Maria Vezina, EdD, RN*

*Sylvia Fung, RN, FAAN*

*Agnes Tiwari, PhD, RN, FAAN*

*Sophia Chan, PhD, RN, FAAN*

### Purpose

The purpose of this presentation is to showcase exemplars of education, practice and research partnerships.

### Target Audience

The target audience includes leaders in nursing education, practice and research.

### Abstract

This presentation describes a four-prong partnership model to enhance nurse involvement and quality of care. The partnership consists of two academic institutions (one in the USA and one in Hong Kong) and two acute care services, one a Magnet-designated hospital in the USA and one the major provider of services for the population of Hong Kong. Several components of the partnership will be described, including student exchanges, particularly among doctoral students, faculty collaborative research projects, expert clinician exchange programs, site visits from one acute care facility to another, study tours among key personnel. Particular emphasis will be on the experiences of visiting scholars at the partner institutions, including the following topics: enhancing the organizational culture, approaches to quality improvement; patient safety and quality of care and value of patient and staff education. Another exemplar that will be addressed is the 4-week study tour for Hong Kong nurse leaders who visited the US hospital. Components of the study tour included leadership and management roles, change strategies, creating excellence within an organization, positive practice environments for nursing personnel, and patient quality and safety outcomes. A research example that will be described is focused on health professional students' understandings of end-of-life issues. Other collaborative projects include initiatives comparing health care educational, administrative, and leadership structures and styles including examination of quality and access of health care, in the partnership countries. Plans for collaborative research include identifying existing projects at the partner institutions that connect faculty, students, and practicing nurses. Metrics to measure success will include the number of participants who take advantage of the collaborative opportunity and the number of joint presentations and publications in scholarly journals with coauthors from partner countries. Key aspects of the successful ongoing partnership will be described, and lessons learned will be identified so as to provide a foundation for future initiatives.

### Contact

[jfitzpatrick@hotmail.com](mailto:jfitzpatrick@hotmail.com)

## **E 01 - SPECIAL SESSION: Transitional Care Using Telehealth: Fewer Emergency Unplanned Admissions and Improved Quality of Life and Functional Ability**

*Mary Courtney, PhD, MHP, BAdmin (Acc), RN  
Chiung-Jung (Jo) Wu, RN, BN, MN, (ICU), DrHlthSc*

### Purpose

The purpose of this presentation is to overview an Australian program of research to: (a) develop, implement and evaluate effectiveness of multidisciplinary transitional care interventions on preventing emergency hospital readmissions in older people 'at risk' of poor outcomes; (b) compare cost-effectiveness of innovative strategies including exercise and/in-home and telephone follow-up.

### Target Audience

The target audience of this presentation is: - health service administrators - nurse managers - nurse educators - health policy decision-makers - health service researchers

### Abstract

Prof Courtney's research program involves the development, trial and evaluation of innovative discharge planning and transitional care models that span across hospital and community health sectors and include hospital and in-home assessment, exercise strategies and telephone follow-up interventions with 'at-risk' community-living older adults (1,2,3,4) This presentation focuses on results of her previous clinical trials in 'general hospitalised medical patients' and presents findings published in Journal of American Geriatric Society (JAGS) and PlusOne which demonstrate significantly few emergency hospital readmissions (22% intervention, 47% control, P = .007) and emergency GP visits (25% intervention, 67% control, P

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### Contact

[Mary.Courtney@acu.edu.au](mailto:Mary.Courtney@acu.edu.au)

## **E 02 - SPECIAL SESSION: The Resilience in Illness Model: Dialogue on Applicability in Other Illness Conditions and Difficult/Traumatic Life Circumstances**

*Joan E. Haase, RN, PhD, FAAN*

### Purpose

The purposes of this presentation are to: (1) describe research on the Resilience in Illness Model (RIM) in adolescents/young adults with cancer; (2) discuss and encourage dialogue around potential adaptations of RIM to guide resilience research related other illness conditions, difficult life circumstances and/or traumatic events (e.g., war, natural disasters).

### Target Audience

The target audience for this presentation are individuals interested in resilience adolescents/young adults facing chronic illness, researchers interested in exploring adaptation of the Resilience in Illness Model and measures to other populations and difficult life circumstances, and students interested in models for developing a program of research using mixed methods.

### Abstract

**Background.** Individuals who develop a positive approach to deal with difficult life circumstance and/or traumatic events are often called “resilient”. In the United States, the Institute of Medicine and National Institutes of Health identified research on positive health concepts, such as resilience, as a priority. Over her 35 year career as a nurse researcher, Dr. Joan Haase developed the Resilience in Illness Model (RIM) in adolescents/young adults (AYA) with chronic illnesses, especially cancer. The resulting RIM explains large amounts of variance in outcomes of self-transcendence (62%) and resilience resolution (67%) for AYA with cancer. In 2011, the Nursing Discipline Committee of the Children’s Oncology Group (a cooperative pediatric oncology research group in North America, Australia, New Zealand and parts of Europe) adapted the RIM as the organizing framework for their research. Dr. Haase and her colleagues are currently conducting multi-site randomized controlled clinical trials through the Children’s Oncology Group to evaluate interventions to enhance resilience in AYA and their parents. Outcomes from the therapeutic music video intervention study for AYA undergoing hematopoietic stem cell transplant for cancer showed significant improvement in several RIM factors, compared to the control group. These studies support RIM as a useful framework to guide the research and RIM measures were sensitive to group differences. **Purpose.** American and international nurse researchers have asked about applicability of the RIM in other chronic illness conditions, other age groups, and other difficult and/or traumatic life circumstances, such as war or natural disaster. Because further research is needed to evaluate the RIM’s applicability in other illnesses and circumstances, the purposes of this session are to: 1) describe the current RIM and ongoing interventions; and, 2) foster dialogue among session attendees regarding how the RIM may be useful and/or adapted for research on other illness conditions and/or traumatic life situations. **Methods.** In this session Dr. Haase will: 1. Describe the current RIM as developed through model development and intervention studies in AYA with chronic conditions. 2. Describe protective factors in the RIM and lead audience dialogue about the ways these factors may be useful to improve resilience in other cultures and individuals facing other illnesses and/or traumatic events (e.g. illness, war, natural disaster). Protective factors include: spiritual perspective, including spiritual beliefs and practices; social integration, including communication and perceived support from health care providers, friends, and the community; family environment, including family adaptability, cohesion and communication; courageous coping, including confrontive, optimistic, and supportant coping; and hope-derived meaning. 3. Discuss risk factors that may negatively influence positive health outcomes and lead audience dialogue regarding how these are similar and different in other cultures, illness conditions or circumstances. Risk factors in the RIM include: illness related distress (uncertainty and symptom distress) and defensive coping (emotive, evasive, and fatalistic coping). 4. Describe the mixed methods approach used to develop the RIM measure model and lead audience dialogue about resilience-related measurement issues. **Outcomes.** Participants will gain knowledge regarding factors that influence resilience outcomes and explore potential adaptations and applications of the RIM internationally.

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## Contact

[johaase@iupui.edu](mailto:johaase@iupui.edu)

## E 06 - SPECIAL SESSION: Nurses, Healthcare Processes, Partnerships and Patient Outcomes

Robin Newhouse, PhD

Yutao Xiang, MD, PhD

### Purpose

The purpose of this presentation is to describe nurses' work and work environment and the linkages to patient outcomes.

### Target Audience

The target audiences of this presentation are clinical and administrative nurses and researchers interested in understanding how nurses work and work environment effect patient outcomes.

### Abstract

This session will focus on a program of research linking nurses' work and work environment to patient outcomes through studies conducted in the United States and China. Two acute care health system multi-site intervention studies to improve care for people with heart failure will be described. Multi-site survey data collected from nurses in China will be discussed. The implications of study results to clinical practice, research and administration will be identified.

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### Contact

[newhouse@son.umaryland.edu](mailto:newhouse@son.umaryland.edu)

## **F 01 - SPECIAL SESSION: Global Advisory Panel on the Future of Nursing**

*Hester C. Klopper, PhD, MBA, RN, RM, FANSA*

*Cathy Catrambone, PhD, RN, FAAN*

### Purpose

explain the need for GAPFON, and how it is positioning itself through global regional meetings to address critical issues for nursing within the context of global health

### Target Audience

All nurses interested in the future of nursing globally.

### Abstract

This session will explain the purpose and goals of the recently formed Global Advisory Panel on the Future of Nursing (GAPFON), which was envisioned and facilitated by Sigma Theta Tau International (STTI). STTI President Hester Klopper and President-elect Cathy Catrambone will explain the need for GAPFON, and how it is positioning itself through global regional meetings to address critical issues for nursing within the context of global health.

### Contact

[ceo.fundisa@edunurse.co.za](mailto:ceo.fundisa@edunurse.co.za)

## F 02 - SPECIAL SESSION: WHO Collaborating Centers Advancing Global Nursing Leadership and Fostering Collaboration

*Phyllis Sharps, PhD, RN, FAAN*

*Debra Jackson, RN, PhD*

*Rachel Blankstein Breman, MSN, MPH, RN*

### Purpose

The purpose of this special session is to convene current WHO CCs and potential future CCs to discuss the international collaboration opportunities through the WHO CC network. Discussions will showcase how these centers's relationships and resources can be leveraged to advance global nursing leadership, research, and practice.

### Target Audience

The target audience for this special session would be universities, schools of nursing, leaders in nursing and others who are interested in learning more about global nursing and possible opportunities to collaborate globally.

### Abstract

The Johns Hopkins University Center for Global Nursing World Health Organization Collaborating Center (WHO CC) in collaboration with University of Technology Sydney's, WHO CC will present current and past accomplishments of their WHO CCs. There are a variety of forms for WHO CCs such as research institutes, parts of universities or academies, which are designated by the WHO to carry out activities that support WHO activities. Currently there are over 800 WHO collaborating centres in over 80 Member States working with WHO on areas such as nursing, midwifery, occupational health, communicable diseases, nutrition, mental health, chronic diseases, information and health technologies. This session will focus on WHO CC's that are nursing and midwifery specific. There will be a brief overview of the WHO CCs network's global presence, the application/designation process and how a WHO CC is a key strategy for international nursing leadership development and collaboration. Examples from several Nursing and Midwifery WHO CCs representing each area of the world will be discussed. How these centers collaborate to advance global nursing leadership, research, and practice will demonstrate how WHO CCs can leverage relationships and scarce resources. The system of CC's is at the forefront of Global Nursing Leadership and Collaboration. The combined impact for nursing research, practice and education is monumental. Nursing and Midwifery WHO CCs collaborate with universities, ministries of health, governments, non-governmental organizations, and others to provide leadership, support and advocacy. This session will provide participants with strategies to improve their institutions global nursing activities, how to network with WHO CC to expand collaborative networks to advance nursing leadership globally.

### Contact

[psharps1@jhu.edu](mailto:psharps1@jhu.edu)

## F 06 - SPECIAL SESSION: Sustaining Evidence-Based Nursing Practices for Fall Prevention in Hospitalized Oncology Patients

Laura Cullen, DNP, RN, FAAN

### Purpose

The purpose of this presentation is to promote discussion and sustained use of evidence-based fall prevention.

### Target Audience

The target audience is nurses from a variety of settings with responsibility for leading and evaluating EBP for fall prevention, nurse leaders establishing and expanding an EBP program, or nursing faculty teaching EBP and systems leadership.

### Abstract

**Aim:** This study aimed to identify factors that sustain evidence-based fall prevention for hospitalized oncology patients by examining patient factors (characteristics reported in incident reports 2009-2012 and patient interviews regarding their perspectives of fall risks and prevention); nursing interventions (documented for patients who fell 2009-2012); and nursing staff surveys regarding fall prevention knowledge and self-efficacy. **Background:** Fall prevention is an important quality indicator and nursing concern for hospitalized oncology patients. In fact, 3-20% of hospitalized patients fall with 60% related to toileting, adding \$4000 in cost. Up to 50% of patients are at risk and almost half who fall suffer injuries. Fractures account for 35% of nonfatal injuries but 61% of costs. Cancer patients who fall often experience severe injuries due to underlying medical conditions. Falls add to length of stay, costs and fear of falling leading to less ambulation, which contributes to weakness, imbalance and further risks. Hospital fall prevention must address both patient risk factors and context. Limited evidence exists to specifically guide fall prevention for oncology patients. Moreover, capturing patients' perceptions is important but largely missing. **Sample/Methods:** Human subjects' protection approval was obtained from the IRB. A convenience sample of 39 adult oncology patients hospitalized less than 3 days, receiving inpatient cancer treatment, and communicated in English were interviewed regarding fall risk, fall prevention, getting assistance, communication with the team, routine nursing assessment, and use of equipment to prevent falls. Oncology nursing staff (n=52 registered nurses [RNs], 18 nursing assistants [NAs]) completed a survey on self-efficacy and knowledge of fall prevention and an AHRQ context assessment. Descriptive statistics were used to summarize findings. **Results:** Patients averaged 58.9 years of age, 36% report falling in the past five years, 18% with injury; however, 56% reported not being at fall risk while hospitalized. Yet, 77% reported an injury risk if they fell during hospitalization; and 36% reported assistance to the bathroom was not at all important. Patients' identified being careful (30%) and getting help (30%) as important. Only 27% of RNs and no NAs report involvement in interdisciplinary planning for fall prevention; 65-83% of RNs and NAs reported consistently using safe-handling equipment; 56-62% of RNs and NAs report ambulating patients to reduce fall risk; and 72-87% indicate hospital leaders are engaged in fall prevention. 25% of RNs and 39% of NAs reported they leave patients alone in the bathroom to provide privacy. **Conclusions:** Oncology patients have unique perceptions about fall prevention that may not match the evidence. Consistent use of evidence-based fall prevention can be challenging. Interdisciplinary planning for fall prevention, and the NA role were under-utilized. Fall prevention has been largely relegated to nursing. Clinicians must merge patient perspectives and EBP recommendations within daily interdisciplinary planning. **Implications for practice:** Effective fall prevention is needed for hospitalized oncology patients. Practices that engage patients in understanding their risks along with collaborative individualized fall prevention strategies are needed and effects of these practices need further study. More effective training is also needed for fall prevention that engages all interdisciplinary team members.

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## Contact

[laura-cullen@uiowa.edu](mailto:laura-cullen@uiowa.edu)

## **G 01 - SPECIAL SESSION: Helping Patients and Families Enrich the Quality of their Lives during Cancer**

*Ruth McCorkle, PhD, FAAN*

### Purpose

The purpose of this presentation is to present an overview of the impact a nursing intervention by advanced practice nurses had on patient and caregiver outcomes in cancer.

### Target Audience

The target audience of this presentation is clinicians, educators, and researchers.

### Abstract

In this session an overview of a program of research in cancer care will be presented. The research program will demonstrate the impact the intervention has had on patient and caregiver outcomes. Critical nursing behaviors that were essential in effecting the outcomes will be described. Clinical and policy changes related to the program of research will be discussed and future areas of research will be recommended.

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### Contact

[ruth.mccorkle@yale.edu](mailto:ruth.mccorkle@yale.edu)

## G 02 - SPECIAL SESSION: Leadership and Person-Centredness: Time for Change!

*Brendan G. McCormack, DPhil(Oxon), BSc (Hons) Nursing, PGCEA, RGN, RMN*

### Purpose

challenge dominant leadership paradigms and propose new ways of understanding leadership in a person-centred culture.

### Target Audience

anyone concerned with creating effective workplace cultures.

### Abstract

In the past 10-15 years, healthcare services (particularly in the UK) have been rocked by various 'scandals' that have largely focused on a lack of dignified, compassionate, respectful and indeed unsafe practices from practitioners (of many disciplines). The outcome in most of these has been the loss of many lives, particularly vulnerable children, older people and people with disabilities (such as intellectual disability). Whilst nothing about the exposed practices can be condoned in any way, the reports clearly demonstrate the importance of a person-centred culture, i.e. a culture that treats all stakeholders as persons and one in which the values of personhood are lived out in all parts and at all levels of an organisation. However the reality is that despite the rhetoric of person-centredness, such cultures are not dominant in healthcare settings and for most people (staff and patients) they experience 'person-centred moments' at most. Research by McCance et al shows through narrative analysis that patients and staff recognise these moments of person-centredness but also recognise that in between these moments there are long periods/gaps where person-centredness is not the dominant way of being. Indeed, many care environments are 'psychologically unsafe' and that this issue needs to be addressed if a person-centred approach to practice is to be realised. One characteristic of a person-centred workplace culture is situational leadership. However, for leaders to enable such a culture, they need to be able to flourish in their role. The expectations on leaders to be the holders of the space in which effectiveness of services happens is enormous. But within these expectations, how do we help nurse leaders to flourish as persons? In this presentation I will address this issue and propose that we need to rethink the role of leaders and ensure that they have the necessary conditions for their own flourishing.

### Contact

[bmccormack@gmu.ac.uk](mailto:bmccormack@gmu.ac.uk)

## G 06 - SPECIAL SESSION: Towards Improved Safety by Examining the Complexities of Health Care

*Elizabeth Manias, RN, MPharm, PhD*

### Purpose

The purpose of this presentation is to consider the complexities of health care practice by examining communication practices in health care, interventions for medication adherence and measurement of patient safety through risk screening tools.

### Target Audience

The target audience of this presentation is researchers and clinicians with an interest in communication in health care, medication adherence and development of risk screening tools.

### Abstract

The overarching theme of this special session is the need to consider the complexities of health care practice in order to make a difference and improve care. The focus of this special session is to examine three main areas of my research. These three areas comprise: communication in health care, medication adherence and patient safety. My work on communication in health care has involved the use of audio-recording and video-recording observations of how patients, family members, and health professionals interact with each other about managing medications in hospital settings. Critical ethnography has been effectively used in examining communication processes in ward rounds, handovers and informal interactions has contributed to repositioning and shifting researchers' and health professionals' thinking about the importance of observing actual clinical practice. Knowledge gained on these real experiences has been fed back to nurses and other health professionals in hospitals at the local level and contributed to changes in health professionals' thinking and in medication activities. My communication research into medications has culminated in the development and publication of a conceptual framework on medication communication. This framework delineates the link between medication management and communication. It provides a structured approach in examining the defining attributes, environmental and sociocultural influences, and consequences of communication. In the area of medication adherence, I have collaborated to develop novel, consumer-centred interventions aimed at improving blood pressure and medication adherence for consumers with diabetic-kidney disease of English speaking and non-English speaking backgrounds, and consumers with osteoarthritis and other chronic conditions. These interventions have included video-recorded information of the barriers to medication-taking experienced by consumers and steps they have taken to resolve these barriers. Implementation of these interventions have led to improved medication-taking behaviours, better blood pressure control and improved patient engagement with health professionals about how to manage medications more effectively at home. Research in patient safety has involved development and evaluation of three risk screening tools: self-administration of medication by patients in hospital; the risk of representation to the emergency department by homeless people; and the risk of medication mismanagement by people of non-English speaking backgrounds. Prior to developing these tools, interviews and focus groups have been undertaken with patients and health professionals to determine their perspectives of the particular issue. Audits have been conducted to determine the effects of explanatory variables on outcomes variables. The resulting tools have been tested in the actual environments in which they are to be used, thereby enabling utility to be measured. These tools are used by nurses who work in rehabilitation units, outpatient units and emergency departments.

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Contact

[emancias@unimelb.edu.au](mailto:emancias@unimelb.edu.au)

## G 07 - SPECIAL SESSION: Preventing Complications Associated with Tube Feedings

*Norma Metheny, RN, PhD, FAAN*

### Purpose

The purpose of this presentation is to describe the research-basis for guidelines to test feeding tube placement and to prevent complications associated with tube feedings. The significance of signs of gastrointestinal intolerance as predictors of aspiration will also be discussed.

### Target Audience

The target audience of this presentation is nurses who provide care to tube-fed patients of all ages.

### Abstract

The session will include a discussion of evidence to support or refute a variety of commonly used methods to determine feeding tube placement. Among the methods to be evaluated are: pH testing of feeding aspirates, observing the appearance of feeding tube aspirates, auscultation for a bubbling sound over the epigastric region as air is injected through the tube, electromagnetic monitoring, and carbon dioxide detection devices. Because the pH method is the most widely recommended bedside placement method, factors that may affect its accuracy will be reviewed; among these are the use of gastric acid inhibitors and recent feedings. Variations in methods used to detect feeding tube placement will be discussed in relation to a patient's age and severity of illness. The pros and cons of the various methods will be reviewed and recommendations will be offered, based on the most current research findings. A comparison of the efficacy of a variety of methods to assess for aspiration will be presented. Methods to reduce risk for aspiration will be explored; among these are positioning of the head of the bed, positioning of the feeding tube within the gastrointestinal tract, and monitoring for signs of gastrointestinal intolerance to feedings. Controversy regarding the usefulness of gastric residual volumes as a predictor for aspiration risk will be discussed. Other possible indicators of gastrointestinal intolerance to feedings (such as hypoactive bowel sounds and vomiting) will be reviewed. Current guidelines issued by major practice organizations (including the American Society for Parenteral and Enteral Nutrition, the American Association of Critical Care Nurses Practice Alerts, and the National Patient Safety Agency) will be compared and discussed.

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### Contact

[methenna@slu.edu](mailto:methenna@slu.edu)

## H 01 - SPECIAL SESSION: From Evidence to Practice and Policy Making: Promoting the Health Care Quality of Children with Asthma in Taiwan

*Li-Chi Chiang, RN, PhD*

### Purpose

1. To understand the research methodology by asking the clinical PICO's. 2. To realize the nursing knowledge construction by clinical research questions for evidence-based practice. 3. To demonstrate the health care policy making strategies based on the studies' results.

### Target Audience

The target audience of this presentation is for young scholars, clinicians, PhD candidate, and nursing scientist to share the experience for closing the gap from evidence to practice by the example of promoting quality care of children with asthma in Taiwan.

### Abstract

Background: Asthma is the most common chronic illness of children in Taiwan. As a pediatric nurse, developed a series studies to explore the problems of their quality of life and tailor series nursing intervention to improve their quality of life is our responsibilities. Advocating the needs of children and family and designing the appropriate nursing intervention for them are the challenge and accountability of nurses. Dissemination the quality care by clinical application and health care policy making for continuous education of health care providers is the most important strategies for knowledge translation. Series Research: From evidence-based perspective, we asked the clinical questions (PICO) by answer the meaning, diagnosis, therapy of PICO's to assess the impact of asthma on children and families, and examine the various nursing intervention to promote the quality care of children with asthma. Results: The self-management behaviors scale of parents was developed by triangulation method. The predictors of self-management behaviors of parents were explored by a clinical survey. We developed the Asthma-related Quality of Life (ARQOL) to measure the impacts of chronic asthma by a qualitative study and a psychometric evaluation. SEAT (Self-Efficacy for Asthma Teaching) was developed to evaluate the teaching efficacy of health care providers, and it could be used for the preparation for the asthma education among health care providers. A hospital-based health education was tailored to improve their self-management for children with asthma. Relaxation techniques for reducing the anxiety of children with asthma was examined by a RCT. Developing an asthma home control inventory for patient-centered care was proved to reduce asthma sign/symptoms and increase the peak flow. Family-centered empowerment was developed to increase the quality care. Application: Practice: Three instruments could be used as the diagnosis tools for assessing the asthma disease impacts on life, the competency of parents' self-management, and the teaching efficacy of health care providers. Knowledge translation was disseminated by the national-wide asthma education for primary nurses, school nurses, and community nurses in Taiwan. TAC (Taiwan Asthma Council) was established to revise the GINA guidelines for updated knowledge translation. Establishing the evidence for childhood asthma care is continuous

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Contact

[lichi514@seed.net.tw](mailto:lichi514@seed.net.tw)

## H 02 - SPECIAL SESSION: Global Epidemics of Type 2 Diabetes and Cardiovascular Disease: Nursing Opportunities for Prevention and Management

*Deborah Chyun, PhD, RN, FAHA, FAAN*

### Purpose

To present the state of the knowledge on the prevention and management of cardiovascular disease in adults with type 2 diabetes.

### Target Audience

Educators, clinicians and researchers who have an interest in reducing the global burden of cardiovascular disease and type 2 diabetes.

### Abstract

Cardiovascular disease (CVD) is the leading cause of death throughout the world. Type 2 diabetes (T2DM) is not only an important risk factor for the development of CVD, but a prognostic marker for CVD-related morbidity and mortality. An additional challenge is that individuals with T2DM frequently do not display symptoms of coronary artery disease (CAD) and therefore CAD is often discovered late in the disease process. This session will explore the challenges in the prevention, detection and management of CVD in adults with T2DM through the current literature, as well as through the presenter's program of research. Specific areas of focus include: identifying individuals with T2DM who have an increased risk of CVD events; screening for asymptomatic myocardial ischemia and factors associated with asymptomatic CAD and subsequent CAD-related events; and cognitive-behavioral interventions to reduce CVD risk in adults with T2DM. The research evidence will be synthesized and provide a basis for nursing interventions aimed at reducing the risk of CVD and its complications in adults with T2DM. The session will also provide an opportunity for discussion by audience members on clinical and research strategies to address the global burden of both CVD and T2DM.

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Contact

[dc116@nyu.edu](mailto:dc116@nyu.edu)

## **H 06 - SPECIAL SESSION: Science Supporting the Practice of Acute/Critical Care Nursing**

*Martha A.Q. Curley, RN, PhD, FAAN*

### Purpose

1. Discuss several converging phenomena that will stimulate new programs of nursing research. 2. Describe data supporting the positive impact of nurse-led interventions on patient outcomes. 3. Envision a future where data supports nurses practicing to the fullest extent of their clinical expertise.

### Target Audience

Nurses interested in acute/critical care nursing practice.

### Abstract

This is truly an exciting time for nurse scientists who support the practice of nursing. Numerous investigations now link nurse-led interventions to improved patient outcomes. These data support a new reconfigured autonomous role for nurses practicing within acute care environments. This session will invite the audience to share a vision for acute care nursing practice; one that is patient and family centered, one where nurses create a healing environment for patients and their families, one where nursing practice is differentiated based on nursing expertise, and one where the practice of nursing is supported by systems that enhance nursing's capacity to optimize patient and family outcomes. This vision of nursing practice is supported by Nursing Science.

### Contact

[curley@nursing.upenn.edu](mailto:curley@nursing.upenn.edu)

## **H 07 - SPECIAL SESSION: Interventions to Improve Physical Functioning and Psychological Adjustment in Advanced Heart Disease**

*Cynthia M. Dougherty, RN, BSN, MN, ARNP, PhD*

### Purpose

The purpose of this presentation is to highlight nursing and interdisciplinary interventions that have been developed and tested to improve outcomes in populations with advanced cardiovascular disease: coronary artery disease, heart failure and cardiac arrhythmias.

### Target Audience

nurses, nurse practitioners, nurse researchers, nursing educators, physicians,

### Abstract

In developing a program of research in advanced heart disease, this session overviews the development of a body of knowledge related to human responses to sudden cardiac arrest both for survivors and their family members and the development and testing of nursing interventions to improve health outcomes after sudden cardiac arrest and advanced heart disease. The results of this research program are enhanced physical and psychosocial health and to reduced health care costs in persons with advanced heart disease and their family members. Within the program of cardiovascular nursing research, four foci will be addressed: Nursing intervention models to enhance adjustment, exercise interventions to improve function, cardiovascular disease management interventions, and end of life care in severe heart disease.

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### Contact

[cindyd@uw.edu](mailto:cindyd@uw.edu)

## **I 01 - SPECIAL SESSION: The Nurse Faculty Leadership Academy: Outcomes from Leadership Development Mentoring in Three Domains**

*Deborah F. Cleeter, BSN, MSN, MEd, EdD*

*Pamela H. Mitchell, PhD, RN*

*Jackie L. Michael, PhD, APRN, WHNP-BC*

### Purpose

To describe outcomes of the Nurse Faculty Leadership Academy within three domains: individual leadership development; advancing nursing education through a team leadership project; expanding scope of influence: organization, community, and profession.

### Target Audience

Nurse educators and those interested in pursuing intentional leadership development.

### Abstract

The Nurse Faculty Leadership Academy (NFLA) is an intense international leadership development experience designed to facilitate personal leadership development, promote nurse faculty retention and satisfaction, foster academic career success, and cultivate high performing, supportive work environments in academe. Scholars in the NFLA are selected through a competitive process and work throughout the twenty two month experience within a triad that includes a leadership mentor and faculty advisor. The academy curriculum is built upon the foundation of three domains: individual leadership development, advancing nursing education through leadership of team projects, and the Scholars' expanded scope of influence within their sponsoring academic institutions, the community, and the profession. Outcomes within each of the academy's three domains achieved by the Scholars of the first cohort will be presented. The impact of the NFLA and its relationship to the future of leadership in nursing education will be described.

### Contact

[DebCleeter@comcast.net](mailto:DebCleeter@comcast.net)

## I 02 - SPECIAL SESSION: Structuring Caring Science Data for Operations and Outcomes.

*John Nelson, PhD, MS, BSN  
Jacqueline Brown, RGN*

### Purpose

to provide examples of how data has been structured for context to maximize interpretation of data for application of findings within operations and outcomes management.

### Target Audience

The target audience is staff nurses, leaders in health care, data/quality managers, or caring science research who want to understand how to build context specific models of caring science to maximize application of data in outcomes and operations.

### Abstract

This session includes two sub-sessions regarding how caring science is structured for culture and context. The first portion of the presentation will focus on how caring is structured using frameworks like Relationship Based Care, Planetree, and Caring Behaviors Assurance Strategy (CBAS). The second portion of the presentation will review how the structure of caring was established in 75% of the hospitals in Scotland using CBAS. Structuring data based on a model of care delivery like Relationship Based Care, Caring Behaviors Assurance System, Planetree, or other care delivery systems can assist with data management. Using a model of care delivery system to structure data can assist with measuring the predictors and outcomes proposed to be impacted by the model of care. Structuring data in this manner can organize complex data for the purpose of interpretation and application of data. This session will provide examples from organizations that use structural phenomenology to structure the study of caring within specific models of care delivery, specifically Relationship Based Care (RBC), and Caring Behaviors Assurance System (CBAS). A deeper examination of one of the models of care delivery, CBAS, will give an overview of person centred healthcare across Scotland, specifically focusing on the seven aspects of quality identified as most important by patients through surveys and feedback. Referred to as the 7 C's; caring, compassion, collaboration, clear communication, clean environment, continuity of care and clinical excellence. The Chief Nursing Officer for Scotland requested designing of a system that would assess caring and compassion at the patient interface; provide one to one feedback and development to staff on findings; deliver a cultural change program measured against a set of owned and agreed caring and compassion standards; create a system of reporting from ward to board and introduce a program to address caring for staff and building a resilient workforce. This work was commissioned by the Chief Health Professions Office for NHS Scotland, and overseen and coordinated at the Executive Nurse Director level. The presentation will demonstrate how this program has been developed and where at local ward and hospital level, measures of caring are monitored alongside interventions of care and patient and staff outcomes.

### Contact

[jn@hccenvironment.com](mailto:jn@hccenvironment.com)

## **I 07 - SPECIAL SESSION: Getting Published in Nursing Journals: Strategies for Success**

*Susan Gennaro, DSN, RN, FAAN*

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

### Purpose

enable those attending to ask specific questions of the editors of Worldviews on Evidence-Based Nursing and the Journal of Nursing Scholarship about writing and getting published.

### Target Audience

Any nurse interested in submitting their work for publication.

### Abstract

This session will be participatory and enable those attending to ask specific questions of the editors of Worldviews on Evidence-Based Nursing and the Journal of Nursing Scholarship about writing and getting published. The broad issues that will be covered include: - getting started in the writing process - the publication process - how to respond to peer reviews - ethics of publication.

### Contact

[journal.nursingscholarship@nyu.edu](mailto:journal.nursingscholarship@nyu.edu)

## I 11 - SPECIAL SESSION: Basic Principles and Applications of Community-Based Participatory Research to Advance Nursing Science in HIV Prevention

*Deborah Koniak-Griffin, RNC, EdD, FAAN*  
*Adeline Nyamathi, ANP, PhD., FAAN*

### Purpose

The purpose of this session is to introduce participants to Community-Based Participatory Research (CBPR) as an approach to research with vulnerable populations and to provide case illustrations of how to effectively apply the method.

### Target Audience

The target audience are nurse researchers and graduate students in countries across the globe who share an interest in conducting community-based participatory research (also known as community-partnered research).

### Abstract

This session introduces participants to Community-Based Participatory Research (CBPR) and provides case illustrations of research applying this approach. Participants learn how CBPR, also known as community-partnered research, differs from traditional research; the rationale for using the approach and historical grounding in nursing; fundamental principles of how CBPR is conducted; and strategies to facilitate the planning of research in collaboration with the communities. The workshop also includes information on establishing effective community advisory boards. Guidelines are provided for implementation and evaluation of CBPR. The Anderson Community Partnership Model is presented with its process phases (Pre-engagement; engagement; community assessment; intervention design; implementation, evaluation, dissemination; and sustainment). Case illustrations of CBPR studies in the U.S. and India involving high-risk young parents and adults are provided by two internationally acclaimed nurse researchers. In these examples, participants learn how community partners were involved in the planning, intervention design, implementation and evaluation phases of the studies. Application of CBPR principles led to development of culturally-relevant, theory-based interventions for the prevention of HIV and other infections as well as sustainable strategies to improve the physical and mental health of those affected by HIV/AIDS. Furthermore, case scenarios of the impact that CBPR has on the lives of the participants involved will be presented, which in many cases, can be life-changing. This includes a bright future which promotes ongoing education, fulfillment of family aspirations, and an ongoing motivation and passion to continue work in the community. For high-risk young mothers and fathers, concern about the well-being of their child (parental protectiveness) served as a motivator of positive behavior change to improve their life course. The session concludes with considerations for improving CBPR studies involving community-academic partnership.

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### Contact

[dkoniak@sonnet.ucla.edu](mailto:dkoniak@sonnet.ucla.edu)  
[anyamath@sonnet.ucla.edu](mailto:anyamath@sonnet.ucla.edu)

## **J 01 - SPECIAL SESSION: The Geriatric Nursing Leadership Academy: Outcomes across the Care Continuum**

*Deborah Cleeter, RN, MSN, EdD*

*Irene Fleshner, RN, MHA*

*Claudia Jean Beverly, RN, PhD, FAAN*

### Purpose

Describe outcomes from three cohorts of the GNLA within the practice settings of acute care, long term care facilities, and community agencies.

### Target Audience

Nurses interested in leadership development and the care of older adults.

### Abstract

Across practice settings, significant needs exist for improvement in delivery models, advancements in practice outcomes, and preparing the next generation of leaders in gerontological nursing. The Fellows of the first three cohorts of the national Geriatric Nursing Leadership Academy (GNLA) have achieved impressive outcomes within the three curricular domains: individual leadership and career development, advancement of practice through leadership of interprofessional team projects, and expanded scope of influence at the organizational, community, and professional levels. Fellows of the GNLA were positioned to lead practice change within acute care settings, long term care facilities, and community arenas. Through the rigorous intellectual and experiential learning platform of the GNLA, dedicated leadership mentoring, faculty advisement and strategic partnerships with senior executives of the sponsoring healthcare organizations, opportunities were created for the preparation and positioning of these Fellows as leaders. Outcome data for each of the three domains and exemplars of specific achievements of Fellows within acute care settings, community health agencies, and long term care facilities will be presented.

### Contact

[debcleetersli@comcast.net](mailto:debcleetersli@comcast.net)

## **J 02 - SPECIAL SESSION: Use of Caring Theory in Culture and Context in Scotland and Cameroon**

*John Nelson, PhD, MS, BSN  
Relindis Moffor, BS, RN*

### Purpose

to identify how theory must be used within consideration of context and how theory can be used in various clinical populations and settings.

### Target Audience

Administrator, nurses, healthcare providers, and/or researchers who are using or interested in using caring science for operations and/or research. Also HIV/AIDS workers. Also any community health workers interested in innovative methods of food sustainability.

### Abstract

This session includes two sub-sessions regarding how caring science theory was selected and used in two different cultures and context. The first sub-session will review how Swanson's theory of caring was a better fit for the culture of Scotland than was Watson's theory. The second sub-session will review how Watson's theory of caring science was used to assess the farming needs of women living with AIDS a village in Cameroon, Africa. The first portion of this session will review how two different theories of caring were tested for the purpose of developing a caring science model of research that was appropriate for the context of Scotland. Theoretical models that fit the context are important to minimize error in data and maximize the ability to implement findings operationally in clinical care. This presentation will review how Watson's and Swanson's theory in caring science were both tested and how a decision was made to use Swanson's theory for examining caring science in an acute care hospital in Scotland. Central within the discussion was the discussion of measuring spirituality within the construct of caring. Results will identify how measures and interventions related to caring science must match the culture. The final model that used Swanson's theory and addressed spiritual needs of the patient population will be presented. Presenters of this session were asked by an international agronomy research group to assist with innovative ways to assess food sustainability in vulnerable populations. A village in Cameroon, comprised of women living with AIDS, was selected to evaluate how caring science could be used to not only assess the farming needs, but to assess if caring might enhance their CD4 counts. A pilot study was conducted, using Watson's 10 concepts of caring, to assess needs related to farming and food sustainability within the village. This presentation will review the results from the pilot study, the process of implementing findings from pilot study and plans for ongoing interventions and research to support these women who are living with AIDS in Cameroon.

### Contact

[jn@hccenvironment.com](mailto:jn@hccenvironment.com)

## K 02 - SPECIAL SESSION: Caring Science in Asia

Grace K. I. Lok, MEd, MNS, RN  
Michelle MingXia Zhu, PhD, MNS  
Margaret May Alojipan Ga, MAN, RN

### Purpose

to establish an understanding how nurses in select locations in Asia approach the concept of caring; Filipino nurses in clinical care in the Hospice and ICU setting and Chinese nurses use of curriculum to train student nurses in competence of caring.

### Target Audience

Researchers, nurses, administrators, educators, or students of nursing or healthcare interested in caring science and the application within context and culture. It is also intended for anthropologists, theorists, or healthcare workers interested in learning about caring science within culture.

### Abstract

This session includes two sub-sessions regarding caring science in Asia. The first portion of the presentation will examine caring experiences of nurses employed in hospice care and the intensive care unit (ICU) in the Philippines. The second sub-session will look at how Chinese nurses apply caring science using the concept of **Essence of Caring Science**. The first sub-session, **Essence of Caring Science**, presents a study conducted in the Philippines that utilized Van Manen's method in analyzing the essential meaning of the nurses hospice and ICU experience. Six activities are used to examine and understand the experience: (1) turning to the nature of the lived experience; (2) exploring the experience as we live it, (3) reflecting on essential themes; (4) describing the phenomenon through the art of writing and rewriting; (5) maintaining a strong relation to the phenomenon; and (6) balancing the research context by considering parts and whole. The thematization process, used to detail the bits and pieces of reality, consists of four reflections: (1) profile of co-researchers, textual transcription of their experiences and individual themes; (2) composite themes arising from co-researcher's experiences; (3) interlaced theme on common ground and; (4) elicit eidetic insight or the vivid gist of the theme. The eidetic insight captured in the lived experiences of Hospice Nurses included Holistic Care and Touching the Soul. It represented the shared experiences of the co-researchers. Eidetic insight from the lived experiences of ICU Nurses can be presented by a Carative Transfiguration: Nurses moving harmoniously with Medical Technologies. ICU Nurses cannot work alone, they need the help of the life sustaining devices, and have adapted to the technology but they believe that machines cannot replace Nurses. The second sub-session of session III, presents a curriculum of nursing in Macau (a Special Administrative Region of China), which encompasses with the educational ideology of **From Person to Person** is designed from the high virtues inherited from Traditional Chinese culture. The philosophy of **From Person to Person** in Chinese and the practical concept of nursing Caring are merged into the curriculum and intended to nurture the nursing students to become a professional nurse with both excellent character and competence of caring. Results from the client **From Person to Person** caring competence shown that success of the curriculum.

### Contact

[lokain@kwnc.edu.mo](mailto:lokain@kwnc.edu.mo)

## **K 07 - SPECIAL SESSION: Publishing: A Career Road for You?**

*Susan Gennaro, DSN, RN, FAAN*

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

### Purpose

The purpose of this presentation is to provide career pathways for nurse scientists interested in publication.

### Target Audience

The target of this presentation is nurse scientists whether in the clinical or academic arena.

### Abstract

The editors of Journal of Nursing Scholarship and Worldviews on Evidence Based Practice will discuss how being involved in publications help an academic career trajectory. How to become a reviewer, editorial board member, associate editor and editor will all be discussed.

### Contact

[journal.nursingscholarship@nyu.edu](mailto:journal.nursingscholarship@nyu.edu)

## **L 02 - SPECIAL SESSION: Partnership-Based Health Care: Applying Principles of Caring to Entire System**

*Teddie Potter, PhD, MS, RN*

### Purpose

The purpose of this presentation is to demonstrate the connection between caring science and cultural transformation theory in order to further strengthen the application of principles of caring at the systems level.

### Target Audience

Nurses and other health care professionals working in direct patient care, education, and/or research. This session will also interest professionals from social science and humanities fields as well as interprofessional and cultural change theorists.

### Abstract

We know that Caring Science is very effective in relations with patients and families. We also know it is a key pillar of the nursing profession. However we sometimes lack the resources or tools to effectively apply caring science at the systems level. This presentation has several objectives. The first is to introduce the audience to two new theories for nursing practice, education, and research: The BASE of Nursing Practice, and Cultural Transformation Theory. Attendees will learn how these theories can support the application of Caring Science at a systems level. The second objective is to give attendees the tools and knowledge to evaluate their own organizations on the domination-partnership continuum. Finally, the presentation will prepare attendees to apply principles of partnership-based health care throughout the health care system including: faculty-student relationships in health care education, patient-and family-centered care, intra-professional relationships, interprofessional relationships, relationships with communities, and relationships with the environment. Nursing has a long history that includes both domination and partnership. It is time to develop skills, resources, and a shared language so we can apply partnership-based health care to promote improved outcomes for our patients, increased career satisfaction for our professionals, and sustainable health care systems globally.

### Contact

[tmpotter@umn.edu](mailto:tmpotter@umn.edu)

# Part III: Evidence-Based Practice Oral Presentations

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## A 12 - Reflective Writing Influencing Evidence-Based Practice

### Using Reflective Writing as a Nursing Intervention: Review of the Literature

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Monica Kennison, EdD, RN, USA

#### Purpose

To review the literature on studies that examined the effects of expressive writing interventions on physical and mental health outcomes and describe implications for evidence based practice.

#### Target Audience

Practicing nurses and nurse educators

#### Abstract

Over twenty years ago in a groundbreaking study, participants who engaged in an expressive writing intervention about emotionally-laden experiences showed positive changes in health outcomes when compared with those in a neutral writing control group. The effects lasted several weeks after the writing intervention concluded. Since then, a number of studies have indicated that written disclosure about stressful experiences improves measures of physical and mental health in clinical and non-clinical populations. For instance, expressive writing has been linked to: fewer physician visits, increases in T-helper cell growth, drops in blood pressure and heart rate, and improvements in mood. Additionally, writing about stressful events appears to increase meaning making and lead to fewer intrusive thoughts.

While these studies have been primarily in the fields of psychology and medicine, nursing has begun to investigate expressive writing as a low-cost effective intervention. The purpose of this presentation is to review the literature on the effects of an expressive writing intervention on measures of physical and mental health outcomes. The presentation describes implications for evidence based practice including guidelines for practitioners who want to study the effects of a minimally-structured writing intervention in select populations.

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#### Contact

[monica\\_kennison@berea.edu](mailto:monica_kennison@berea.edu)

## A 12 - Reflective Writing Influencing Evidence-Based Practice

### Reflective Journaling: Using a Blog with Undergraduate Senior Practicum Nursing Students

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*Indra Hershorin, PhD, RN, CNE, USA*

#### Purpose

This purpose of this presentation is to share information on innovative technologies that can be used in clinical. The development and benefits of using a blog as a collaborative activity for reflective journaling in the clinical setting will be discussed.

#### Target Audience

The target audience for this session is faculty, clinical educators, nurses and students.

#### Abstract

Blogs (web logs) are a phenomenon of the Internet. Web-based technology such as a blog supports collaborative learning that enrich learning performance both for individual knowledge construction and group knowledge sharing (Yang, 2009). Blogs afford students the opportunity to share their ideas and to provide each other with feedback. The advancement of technologies has created new opportunities for learning, teaching, and assessment in nursing and blogs can be a useful means for nurse educators to communicate with students and facilitating effective group collaboration in clinical.

Thirteen (13) undergraduate nursing students in their senior practicum clinical rotation were invited to participate in a blog created on the Blackboard course management system. Each week students were required to write their personal learning objectives, to critique the objectives, and to reflect on their learning. The instructor read the blogs each week and provided feedback to students. The blogging activity was conducted over four weeks with students and an end-of-semester questionnaire was given.

Result of the questionnaire survey showed that the students unanimously preferred the weekly online blog versus completing the written assignment at the end of the rotation. All students (100%) felt that the blog served as a tool to communicate with the instructor and to keep connected with their peers. In addition, the students commented that the blog was quick and easy, it help saved time, allowed them to share their clinical experiences with their peers, and receive weekly feedback from the instructor.

The opportunity to instantly publish on the web encouraged student participation, provided them with a chance to read the thoughts authored by their peers, and to interact with the instructor. Blogs can be a useful tool for nurse educators to establish a nurturing communication space that enhances students' reflection of their clinical learning.

#### References

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#### Contact

[ihershorin@barry.edu](mailto:ihershorin@barry.edu)

## A 13 - Evaluating Nursing Education

### Objective Knowledge Assessment in Nursing Education: An Update on the Evidence-Based Knowledge Assessment in Nursing (EKAN) Instrument

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*Amy Hagedorn Wonder, PhD, RN, USA*

*Darrell Spurlock, PhD, RN, NEA-BC, USA*

#### Purpose

To provide an overview of the Evidence-based Knowledge Assessment in Nursing (EKAN) instrument development process and findings from a multi-site instrument validation pilot study. To present how the EKAN can facilitate global networking on objective educational measurement, student performance, and development of programs and faculty to enhance student learning.

#### Target Audience

The target audience will be faculty, program coordinators, and academic leaders involved in baccalaureate nursing education around the world.

#### Abstract

Providing effective, evidence-based nursing care requires an assortment of knowledge, skills, and attitudes related to locating, evaluating, and integrating research evidence into nursing practice. Ideally, the development of evidence-based practice (EBP) knowledge, skills, and attitudes begins early in one's professional preparation for nursing. Prelicensure nursing education programs have accepted the challenge of preparing students with the knowledge, skills, and attitudes for EBP but have lacked an effective, objective way to measure educational outcomes students achieve from these efforts. Though several tools are available to measure students' attitudes toward EBP, existing instruments to measure EBP knowledge (one component of competence) are limited and rely predominantly on self-reports of achievement. Other instruments are designed for specific populations such as medical students (Anderson, & Stickley, 2002; Frohna, Gruppen, Fliegel, & Mangrulkar, 2006; Illic, 2009; Ramos, Schafer, & Tracz, 2003), and have yet to be tested in nursing. The National Council Licensure Examination for Registered Nurses (NCLEX-RN) is the current standard for prelicensure nursing competency assessment for entry into practice in the United States. Yet this exam does not test students' knowledge of EBP principles per se (NCSBN, 2009), leaving nursing education programs with virtually no method to evaluate the effectiveness of their curricular revision and instructional activities at their school or to compare their students' achievement with other programs nationally or internationally.

To bridge this measurement gap, the Evidence-based Knowledge Assessment in Nursing (EKAN) instrument was developed to objectively measure nursing students' knowledge of EBP principles. The EKAN is based on the Quality and Safety Education for Nurses (QSEN) competencies and the American Association of Colleges of Nursing (AACN) Essentials of Baccalaureate Education for Professional Nursing Practice. These frameworks articulate the requisite knowledge, skills, and abilities for the entry-level, generalist roles of caregiver and coordinator of care to enable the safe, high quality care associated with EBP (AACN, 2008; Cronenwett et al., 2007). The QSEN competencies and AACN Essentials have resulted in widespread curricular redesign and developmental progression models to promote competency acquisition for different levels of nursing education (AACN, 2013; Barton, Armstrong, Preheim, Gelman, & Andrus, 2009; Brady, 2011). The creation of an instrument based on these models provides a reliable and valid way for faculty to measure EBP competency achievement in prelicensure nursing education. Using the EKAN, educators can more effectively evaluate not only student-level knowledge, but also curricular content and teaching strategies along with needs for faculty development to support student learning.

This presentation will provide an overview of the EKAN instrument development process and findings from a multi-site instrument validation pilot study. The use of item-response theory (IRT) modeling, specifically Rasch modeling, enables the EKAN to accommodate testing for a variety of nursing program types, settings, and student populations. Rasch modeling enables discrimination of student ability and

item difficulty with greater instrument stability across samples (Tavakol & Dennick, 2013), presenting an opportunity for a global initiative to enhance education and promote best practice.

Through the use of a common instrument, educators around the world can explore ways to continue to enhance student performance by collaborating on innovative ways to develop programs, teaching strategies, and faculty. Interactive discussion among session participants will focus on identifying innovative and unique strategies to foster student EBP knowledge development and how attendees might become involved in further research with the EKAN.

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## Contact

[awonder@indiana.edu](mailto:awonder@indiana.edu)

## A 13 - Evaluating Nursing Education

### The Utilization of Adult Learning Models to Increase Course Evaluation Scores in a Historically Poorly Evaluated, Graduate Level, APRN Pharmacology Course

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Keith Bryan Haynie, DNP, RN, FNP-BC, USA

#### Purpose

To provide a systematic review of the implementation of diverse adult learning models employed in an Advanced Practice Pharmacology course and its outcomes.

#### Target Audience

Educators at undergraduate, graduate and doctoral levels.

#### Abstract

The online Pharmacological Principles of Clinical Therapies- N543, a foundational course for Nurse Practitioner students at the UNM College of Nursing, had been a historically poorly student evaluated course. Student IDEA scores were consistently low in all areas, and the course was consistently identified by UNM College of Nursing faculty as a course in need of significant improvement.

Co-Instructors Drs. Keith Haynie & Roy Addington strategically employed two models of adult learning. The two models utilized were; the revised Bloom's Taxonomy of Learning Objectives (Krathwohl, 2002), and the Adult Learning Models (Pawlak & Bergquist, 2013). Students were asked to read the text in preparation for the online learning activities-*factual and conceptual knowledge*. Each student was then assigned a specific drug class/topic to create an informative paper or power-point presentation to engage their peers and facilitate their learning- *procedural knowledge and metacognitive knowledge*. Another student was then asked to respond to the presenters' information by teasing out alternative points of view, therapies, and any additional information they believed their peers would benefit from- *procedural and metacognitive knowledge*. Test questions were derived exclusively from these paired presentations, which encouraged all students to read and stay abreast of the shared knowledge and even ask their peers for any needed clarification-*metacognitive knowledge*. The instructors managed the course through supervision, additional information, knowledge or practice caveats. This type of learning environment is respectful of Adult Learning Models 3 & 4 where an environment is created for learning transformation to occur, it is created and allows the adult learner to give "voice" to their existence knowledge base and wisdom with application to new topics.

#### References

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#### Contact

[khaynie@salud.unm.edu](mailto:khaynie@salud.unm.edu)

## A 13 - Evaluating Nursing Education

### Evaluation of the Master Instructor Concept in an Accelerated Baccalaureate Program

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Stephanie Black, MSN, RN, USA

Terry Throckmorton, PhD, RN, USA

#### Purpose

to report on the implementation and evaluation of the master instructor concept in an accelerated baccalaureate program.

#### Target Audience

nursing faculty and educational administrators.

#### Abstract

Based on the concepts presented in Ken Bain's book *What the Best College Teachers Do*; A Master Level Instructor demonstrates and provides an authentic learning environment that will challenge and support students as they strive to understand and apply complex concepts in simulated and live clinical situations. The best instructors assist their students learn through mechanisms that affect a sustained, substantial and positive impact on how students think.

The expectations of a Master Level Instructor at Chamberlain College of Nursing include:

1. **1. Creates a natural critical learning environment (Facilitation; Active Learning)**
  1. Assigns *challenging tasks* that help students to *rethink* their assumptions, develop authentic *ideas*, and *examine* their mental models of reality.
  2. Works collaboratively with faculty and peers to provide opportunities to *try, fail, and receive feedback* in advance of and separate from any summative judgment of their effort.
3. **2. Gets students' attention and keeps it (Active Learning; Content Management)**
  1. Incorporates *active learning strategies* that are responsive to students' needs and learning style.
  2. Provides *relevant content* for students through *application* to real life concepts.
3. **3. Starts with the student rather than the discipline (Facilitation)**
  1. *Challenges faulty learning models and creates new ones* that are effective within a collaborative environment.
2. **4. Gets commitment from students (Content Management)**
  1. Ensures *equal commitment of both faculty and students to class, coursework, and learning. Explains how each specific rule, regulation, or assignment is supported by the learning objectives of the course.*
2. **5. Helps students learn outside of class (Integration)**
  1. Develops course activities that promote learning outside of class.
  2. *b. Promotes curiosity to expand application of learning.*
3. **6. Engages students in disciplinary thinking (Relevance)**
  1. Guides students to professional education with journals and texts from the profession.
2. **7. Creates diverse learning experiences (Relevance)**
  1. Integrates instructional *strategies* that promote *lifelong learning*.

2. Uses *evaluation methods* that support *strategic learning* rather than promoting deep learning.

In order to evaluate this program student satisfaction scores we reviewed before and after standard lecture method and again before and after Master Instructor sessions where the same concepts were taught.

In addition, student test grades for the course were compared between the standard lecture instruction and the Master Instructor instruction. Finally faculty satisfaction scores were evaluated comparing standard lecture instruction and Master Instruction modes of teaching.

Initially students were somewhat resistant to the active class participation that was required of them in the Master Instruction approach. By the end of the course session student evaluation scores were positive. Scores on course exams were higher in the Master Instructor sessions compared to the standard lecture instruction sections.

A detailed analysis will be provided in the presentation.

#### References

Bain, K. (2011). What the best college teachers do. Boston, Massachusetts: Harvard University Press.

#### Contact

[sblack@chamberlain.edu](mailto:sblack@chamberlain.edu)

## A 14 - Simulation Based Learning Technologies

### Standardized Patient Simulation for Evidenced-Based Practice with First Semester BSN Student

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*Pamela J. Hodges, PhD, RN, USA*

*Karen G. Mellott, PhD, RN, USA*

#### Purpose

The purpose of this presentation is to share learning outcomes using evidenced based practice with simulation and standardized patients among 83 undergraduate first semester BSN students.

#### Target Audience

The target audience of this presentation includes BSN faculty/educators, anyone interested in simulation and standardized patients, or educators interested in EBP. This “Active learning” teaching strategy provides a dynamic/safe environment for making mistakes & developing confidence; plus allows for interaction with patients in a safe clinical setting.

#### Abstract

**Purpose:** The best strategy of incorporating evidenced based practice (EBP) concepts into first semester undergraduate nursing curricula is not well established. Since new nurse graduates may have a 2 year delay in translating research to practice, the purpose of this project is to illustrate how first semester BSN students use initial EBP skills during an interaction with standardized patients (SPs) in a simulation lab. Safe communication is key to reforming how evidence is formulated and used to enrich the value and effectiveness of health care. Improvement in patient safety, patient satisfaction, and the value of health care all depend on the improvement in communication. Effective communication skills are an essential component in providing safe patient care. This experience allowed students to interact with patients in a safe environment prior to going into an actual clinical setting.

**Design:** Descriptive, mixed methods design

**Setting:** School of nursing clinical performance lab in suburban university

**Participants/Subjects:** All nursing students (n=83) in the first fundamentals medical/surgical course of the BSN program participated in a simulation experience with SPs as part of a clinical skills lab learning experience.

**Methods:** Students were provided written instructions, objectives, and the rotation matrix 1week before the lab. The SPs were cognitively and physically prepared with extremely realistic presentation of conditions using moulage. Every 15 minutes, students rotated among four SP vignettes (shingles, decubitus, colostomy, cellulitis). Students conducted physical assessments, developed nursing diagnoses, and considered appropriate interventions. After rotating through vignettes, students met for 30 minutes to debrief with faculty. A Likert style tool evaluating student satisfaction, critical thinking, course application and lab organization plus a comment section for open remarks about communication, critical thinking and individualized care was completed at session end.

**Outcomes:** The Likert scale included a range of strongly disagree to strongly agree regarding several criteria. Of those who chose agree to strongly agree, 84% were satisfied with the experience, 88% “used critical thinking rather than memorization”, 89% said project “helped me apply coursework to real-life” and 91% stated “session coincided with other parts of the course”. Of those who chose disagree to strongly disagree, only 16% stated “lab content was organized”. Student comments were reviewed using content analysis; the following themes found: “Communicating like a nurse”, “Thinking like a nurse”, “Confidence in getting to know the patient”, and “Decreased anxiety”.

**Implications:** First semester BSN students can apply initial EBP skills in simulated experiences with SPs. Educators should provide learning experiences promoting these skills early in the curriculum. Future research can determine 1) the relationship of student reflective journaling on the internalization of EBP

knowledge and practice and 2) the best distribution of EBP communication, critical thinking, and patient centered care attributes throughout the curriculum.

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### Contact

[hodgespj@stthom.edu](mailto:hodgespj@stthom.edu)

## **A 14 - Simulation Based Learning Technologies**

### **Examining the Use of a Digital Clinical Patient in the Online Classroom Environment**

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*Linda M. Gibson-Young, PhD, CNE, USA*

#### Purpose

The purposes are 1) to examine student perceptions when using digital standardized examinations with history and assessment findings and documentation, 2) to explore relationships between student use of digital patient with learning style and SOAP note scores, and 3) to evaluate faculty perception when using digital patient .

#### Target Audience

The target audience of this presentation is any nurse, nurse leader, or nursing educator promoting learning in an online or distance classroom.

#### Abstract

Background: While there are a number of instructional products designed to educate undergraduate nursing students, the quality of these products vary, and there is a shortage of quality products that can be used for advanced practice graduate nursing students. To address this need, Shadow Health™ introduced a new and innovative Digital Clinical Experience™ (DCE) in 2012. The DCE is a 28 year old African-American female named Tina Jones. As faculty, I utilize Tina Jones in a fully-online advanced health assessment course. In order to prepare students for the valuable time they spend face-to-face in resource-intensive clinical laboratories, faculty must provide opportunities online for their students to learn and reinforce the knowledge necessary to effectively apply advanced health assessment skills and techniques and further develop diagnostic reasoning and skills.

The purpose of this presentation is to present student perceptions of digital standardized examinations and to explore relationships between student use of a digital patient with learning styles.

Results: Student learning styles\* were assessed prior to course with 70 % Visual, 30% Auditory, and 50% Kinesthetic (\*Percentages exceed 100% r/t multiple learning styles). Feedback from students prior to DCE was positive, with some concerns related to lack of experience and new technology. Three themes obtained post-DCE included a more comprehensive understanding of content, practice in questioning and collecting history, and improved feedback with documentation.

Discussion: This presentation will relate the issue of technologies with online education to all disciplines and will identify innovative teaching strategies to use with such challenges.

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### Contact

[linda.gibson-young@ucf.edu](mailto:linda.gibson-young@ucf.edu)

## B 12 - Preparing Students as Catalysts for Change

### The Role of Preparatory Activities in Clinical Education for the Pre-Licensure Nursing Student

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Laureen E. Turner, MA, MSN, BSN, USA

#### Purpose

The purpose of this presentation is to disseminate information gained from a study exploring preclinical preparation activities and their impact on clinical education.

#### Target Audience

The target audience for this presentation is clinical educators and nursing school administrators.

#### Abstract

**Purpose:** This study explores preclinical preparation activities (PPA) in nursing education. **Significance:** The clinical environment represents the cornerstone of nursing education, where theory, psychomotor skills, and critical thinking converge. Existing literature demonstrates limited data on PPA. This paper investigates forms and student perceptions regarding PPA. **Methods:** A survey tool was created in tandem with existing research and faculty consultation. This survey was distributed to students (N=541) and clinical faculty (N=94). 298 students and 34 faculty returned the survey. **Analysis:** Quantitative data was cleaned and analyzed using Stata 13. Qualitative student data was analyzed for underlying themes. Authors assessed internal validity by correlating similar questions ( $r = 0.6111$ ). **Results:** The most common forms of PPA assignment included "student assigned patient - student gathers information" (37.3 percent) and "unit staff assigned patient - student gathers information" (33.6 percent). More than 50% of students agreed or strongly agreed with statements indicating PPA importance; however, mean comparison tests indicate no significant differences in perception of clinical activities between those who perform PPA and those who do not with the exception of sleep and clinical informatics skills. The study also analyzes the impact of PPA on stress and sleep, finding that students believe PPA increases stress and decreases sleep quantity. **Conclusions:** Factors affecting student perception of PPA include: timing of assignment, time spent on the assignment, stress, and anxiety. The findings suggest that students receive diminishing returns on time spent on PPA; nevertheless,, PPA may indeed enhance learning and safety. **Implications:** The findings provide insight into the usefulness of PPA from a student perspective and explore how these activities might be conducted.

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Contact

[lturner@usfca.edu](mailto:lturner@usfca.edu)

## B 12 - Preparing Students as Catalysts for Change

### Educating Nursing Students as Change Agents: A Case Study

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Tanya R. Friese, BS, BSN, MSN, USA

#### Purpose

The purpose of the presentation is to describe a case study using the Model of Situated Learning in Leadership to educate generalist entry master's-level nursing students leading efforts to develop programs that improve the quality of care and outcomes for individuals from at-risk populations.

#### Target Audience

The target audience of this presentation is nursing faculty members, nurse educators, community based organizations, and medical center leadership

#### Abstract

In 1996, the Institute of Medicine Committee on Public Health proposed a model of engagement and collaboration of public health, community, and hospital partnerships to improve population health. Nearly seventeen years later, supported by aspects of the Affordable Care Act (ACA), this initiative requires a nursing workforce with leadership capabilities to transcend boundaries between the two sectors. At our college of nursing, faculty who teach public and community health nursing collaborate with the university medical center and community based organizations to develop caring and responsible nurses with clinical reasoning who are patient advocates and innovators capable of problem-solving and development and implementation of changes that improve outcomes in complex health care systems. Using the Model of Situated Learning in Leadership as a framework, students at Rush University College of Nursing (part of a large academic medical center with Magnet® recognition for excellence in nursing practice) are educated as change agents. Students to work with community partners, conduct a community assessment, identify areas of need, and gather data to support and evaluate the changes. Faculty coached students lead the needed changes, integrating coursework including organizational leadership, health care policy, epidemiology, biostatistics, and finance with project experiences. A case-study of using this model for education in leadership is nursing student involvement (with faculty guidance) in ongoing efforts at the medical center to improve the care of patients with intellectual disabilities and developmental disabilities. The experience provides real-life lessons in leadership to strengthen care coordination between regulatory agencies, family, and community supports and to bridge the gap between inpatient care and public health to improve the quality of care for an at-risk group of patients.

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### Contact

[tanya\\_r\\_friese@rush.edu](mailto:tanya_r_friese@rush.edu)

## B 12 - Preparing Students as Catalysts for Change

### Innovative Community Placements: Enhancing Students Experiences with Diverse Population

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*Ivy Tuason, RN, MSN, FNP-BC, USA  
Ruth Trudgeon, RN, MSN, PHN, USA  
Stephanie Cornett, BS, USA*

#### Purpose

The purpose of this presentation is to explore the role of innovative community placements (ICP) in providing nursing students with comprehensive experiences with diverse population.

#### Target Audience

The target audience for this presentation are nursing students, faculty, and clinicians.

#### Abstract

**Background:** The recent focus on community and population based health care in nurse education means that effective clinical experiences within the community are an essential component of the nursing program. However, two factors have made this harder to do over the last decade as student nurse enrollment has increased annually but at the same time budget cuts have led to reductions in many traditional community health services. Therefore more students are competing for a limited number of spots in traditional community sites such as clinics, public health agencies and schools. This has led to a trend of implementing innovative community placements (ICP) in non-traditional sites within communities. Use of ICP increases student engagement, initiative, and critical thinking. Students were able to put into practice concepts such as community action, social justice and diversity.

Western University of Health Sciences is a non-for-profit private health professions university. The university offers graduate education and has nine colleges. The College of Graduate Nursing offers a variety of nursing tracks including the Master of Science of Nursing-Entry. The MSN-E offers a pathway for students with baccalaureate degrees in other fields to obtain RN licensure and then continue with graduate courses to obtain a Master of Science in Nursing degree. Community Health Nursing is required in the pre-licensure program. The university is located in Pomona, California. Pomona is a diverse community with over 72% Hispanic/Latino population. The median household income is \$28, 407.

**Purpose:** To explore the role of ICP in providing nursing students with comprehensive experiences with diverse population.

**Methods:** Eight out of the 58 MSN-E students were assigned to transitional housing complex for their 2-unit Community Health Nursing clinical. Students participating in this clinical site worked with the Laurel apartment dwellers in the Pomona area. This population consisted of low income families living in low cost housing. Most apartments included more than one family with children of all ages. Large portions of the population are Hispanic, with few Caucasian and African American families. Students predominantly conducted tutoring for children in the apartments (ages range from 4 to 15). During these tutoring sessions, students took the opportunity to educate the children about healthy eating and safety. The students also collaborated with dental medicine students to provide dental care to the children in the apartments. A garden project was started in order to provide healthy food choices and to teach the apartment dwellers about the therapeutic effects of gardening. Students also taught safety to the families through disaster preparedness. While working with this population, students had the ability to work with professionals in the community such as food banks, homeless outreach organizations, local substance abuse and mental health facilities, and the area police department.

The traditional sites included school nursing, community based clinic, and public health agencies.

A 10-item Likert scale survey to evaluate clinical experiences was created and validated by two faculties. The first 3 questions were about opportunities to interact with community organizations, diverse

population, and collaboration with other disciplines. The rest of the questions inquired about student perceptions in patient centered care, safety, understanding and respecting culture and diversity.

**Results:** Total of 48 students responded, 42 from traditional sites and 6 from the ICP site. Overall, the ICP group scored higher than the traditional clinical groups. ICP group scored slightly lower on the last three questions pertaining to the perceptions of patient centered care.

**Limitations:** Small sample size of ICP group may have affected the mixed findings of the study. Survey tool may need to be retested for reliability and validity.

**Implications:** ICP may provide similar experiences as traditional sites to fulfill Community Health Nursing requirements. In addition, ICP experiences may provide better opportunities to provide comprehensive experiences with diverse population.

This is the first implementation of ICP experience, on-going evaluations and additional ICP sites are needed to provide more students with these types of diverse learning experience. Future research will focus on qualitative data to explore students lived experience with ICP. In addition community outcomes should be measured to evaluate the effectiveness of students' interventions such as increase attendance in tutoring and wellness activities classes.

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#### Contact

[rtrudgeon@westernu.edu](mailto:rtrudgeon@westernu.edu)

## B 13 - Academic Program Development

### Development and Implementation of a Team-Based Learning Module: An Academic Perspective

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*Jenny Morris, RN, BSc, PhD, PGDipEd, United Kingdom*

#### Purpose

To share the experience of developing and implementing a team-based learning module in a second year undergraduate nursing programme. The time and effort associated with development and implementation will be highlighted, as will be the views of the academic team, plus the students' results.

#### Target Audience

Nurse educators as well as educators in any other specialism.

#### Abstract

Team-based learning (TBL) was developed as a method of ensuring the benefits of small group teaching with large groups of 200+ students (Michaelsen, 2002). To implement TBL a course/module is divided into learning units each of which follows a specific sequence of activities: (i) out-of-class preparation; (ii) 'readiness assurance process' of individual and team testing, plus the opportunity for team appeals; and (iii) application activities in which teams work on problems (Parmelee & Michaelsen, 2010). Students are also required to provide feedback on each team member's contribution to team working. Teams of between 5-7 students are formed in advance in a way that ensures team diversity (e.g. by grade, nursing specialty).

To implement TBL a significant amount of preparation is required by the academic team (Andersen, Strumpel, Fensom, & Andrews, 2011); plus a clear understanding of, and commitment to dialectical questioning to facilitate deep learning and foster student engagement (Lane, 2008).

The aim of this presentation is to report the process and outcome of implementing TBL in a second year evidence-informed decision making (EIDM) module in a BSc Nursing programme in England. The focus will be on the development work required to implement TBL; and the perceived value of TBL as observed by the academic team. Student results will also be presented. The methods and results describing the student perspective have been presented elsewhere.

**Design:** A post-intervention evaluation involving structured interviews with members of the teaching team involved in both the development of the module and the implementation (n=8 excluding the author JM).

**Data Collection:** A planning log was kept by the module leader (JM) recording the timeframe and work required. Interview questions focused on the process around development and implementation, and the perceived value of TBL.

**Data Analysis:** A timeline reporting key deadlines and decisions was extracted from the planning log. The interviews were digitally recorded to aid documentation and interpretation, and Atlas.ti 6 was used to aid the information sorting process. Thematic analysis was used guided by the interview questions.

**Results:** (1) Planning for TBL Implementation - In order to prepare the team for TBL which was new to all of us, the module leader engaged in several academic development activities: studied TBL literature (pedagogical and evaluation), participated in a workshop led by Larry Michaelsen the originator of TBL, joined the TBL Collaboration listserv, attended the TBL Collaboration annual conference.

The preparatory work required for TBL implementation was undertaken over a nine month period led by the module leader. The key stages were as follows: (i) Preparation of the teaching team; (ii) division of the 257 students into five main groups, subdivided into a total of 44 teams of between five and six students.; (iii) structuring the module into four learning units and identifying/developing the learning resources for each unit; (iv) timetabling and room organisation; (v) development and review of test and application activity resources for each unit; (vi) preparation of team folders, student handbook, tutor notes, induction material etc.

A sub-group from the academic team was formed to review the resources and materials developed which were then subsequently reviewed by the whole teaching team (n=10 including the module leader). Team meetings were organised to ensure all understood the TBL process, what was required, and to ensure parity in how the student groups were facilitated. A checklist documenting all actions and dates of approval was developed and maintained by the module leader.

## (2) Results from the Academic Team Interviews - Perceptions of TBL Prior to Implementation

All referred to previous difficulties associated with students not engaging with the subject material, nor undertaking required reading and therefore coming unprepared to taught sessions. There was deliberation about whether TBL would result in more engagement and consequently deeper learning. Whilst all made positive comments about using TBL despite none having had previous experience of the strategy, there was also a degree of apprehension.

Facilitating the TBL Sessions: One of the key features of TBL is the emphasis on using dialectical questioning to help develop learning and engage students. Whilst most of the academic team did not find this a problem, they did recognise the challenges associated with eliciting information and probing students to establish levels of knowledge and understanding, rather than 'providing' students with 'answers'.

TBL and EIDM: Most of the academic team felt that TBL helped address some of the challenges previously experienced when teaching EIDM such as students not preparing for sessions, and consequently not engaging with the subject; nor applying the concepts learned to a wider context. The multiple choice question tests were seen as beneficial because the students had to complete the preparatory work for each module unit in order to succeed. The team working processes were seen to help those struggling to understand the subject concepts; and also demonstrate the level of knowledge and understanding to those students able to explain concepts to others.

The preparatory work and team-based discussions were considered to help students understand the language of EIDM through the level of engagement more readily than with more didactic methods. It was suggested that through the application activities TBL helped contextualise EIDM in clinical practice which was essential if students were to understand the centrality of EIDM to the provision of efficient and effective health care.

General Perceptions of TBL: The academic team thought that overall TBL worked well. The preparatory work meant that students had to take responsibility for their learning which as well as being beneficial for helping ensure the module learning outcomes were achieved, was also seen as aiding the development of lifelong learning skills especially around learning how to learn, working independently; and also effective team working which is integral to professional practice.

The majority of the academic team indicated that the appeal process worked well and contributed to the students' learning, although one member of the team thought it was too much work for little benefit for the students. There was a mixed response to the application activities with some members of the team indicating they worked well and that the students engaged with this element; but three members of the team did not see the benefit of this part of the TBL process. A team review meeting scheduled halfway through the module indicated that this might be due to the fact that the dialectical questioning technique and facilitation processes were not being implemented as required to fully engage the students.

By the end of the module, all members of the academic team indicated significant learning had taken place about the process and pedagogical value of TBL. Preparing for the sessions was seen as key to successful implementation, as was the effective use of dialectical questioning. Having two members of the team facilitating each large group was seen as advantageous and helped ensure smooth running of the sessions. Having a strong and engaged teaching team was highlighted as being essential to successful implementation by one member of the team.

(3) Student Results - The mean score for the individual tests was 52.64, and 82.67 for the team tests. The overall pass rate for the module was 89% which was 10% higher than the results for the EIDM module for the previous academic year; 20% scored over 70% and a further 39% between 60-69%. Perhaps of most interest, however, was the change in scores between the lowest quartile for the

two modules. The lowest quartile was 56% for the TBL module (median 62%), compared with 40% for the non-TBL module (median 50%) completed in the previous year.

Conclusions: There was significant effort required on the part of the module leader to prepare the team, as well as the resources and materials required prior to this first implementation of TBL. It was felt that a minimum of nine months should be allowed for this process for those new to TBL. However future implementation with the same module will not be so time consuming as the materials have been prepared and can be reused. The interviews with the academic team indicated that TBL was a successful strategy to use with EIDM, requiring students to be prepared for sessions resulting in greater student engagement, and deeper learning. Student results indicated higher attainment than in a previous year, with a significant shift in results towards higher grades. A testament to this successful implementation is the fact that TBL will continue to be used for the next academic year and is being considered for use with other modules.

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### Contact

[jenny.morris@plymouth.ac.uk](mailto:jenny.morris@plymouth.ac.uk)

## **B 13 - Academic Program Development**

### **Designing a Faculty Development Program for the Effective Use of Analytic Grading Rubrics**

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*Candice Phillips, PhD, APRN, CNM, RN, CNE, USA*  
*Rachel Choudhury, MSN, MS, RN, CNE, USA*

#### Purpose

The purpose of this presentation is to share the development of a faculty educational program to promote effective use of standardized analytic rubrics for student assessment in nursing courses.

#### Target Audience

Nurse Educators, Nurse Administrators, Faculty Development Specialists, Curriculum Specialists

#### Abstract

Higher education literature recognizes the vital role that assessment tools exert on improving student academic performance (Howell, 2011). Benefits of using analytic grading rubrics have been noted to include: increased student understanding of instructor expectations (Oakleaf, 2008) and more meaningful grading experiences due to clearly stated evaluative criteria (Brescian, Zelna & Anderson, 2004). An analytic rubric, which allows for separate evaluation of each component of the assignment, has been shown to provide objective formative feedback to guide student performance (Oakleaf, 2009). In addition, studies of administrative and pedagogical advantages to using grading rubrics have been documented (Solan & Linardopoulos, 2011). Despite the growing body of research on rubrics as assessments of student performance and how students perceive them, few published findings focus on the rigorous use of standardized rubric tools in instructional and program assessments, or on the perceptions of faculty who use these standardized assessment tools (Reddy & Andrade, 2010).

This evidence-based presentation will discuss the development of a faculty educational program to promote effective use of standardized analytic rubrics for student assessment in nursing courses. The program development is based on our findings from a previous research study regarding faculty perceptions about the use of standardized assessment tools. This study involved faculty participants across thirteen campuses of a prelicensure baccalaureate nursing program from various regions of the United States. Systematic assessments were evaluated for pedagogical advantages to improve teaching-learning practices in the nursing program. The goals of the faculty educational program related to the use of standardized analytical rubrics include: (a) enhancing teaching effectiveness, (b) promoting an objective and reliable basis for student performance assessment, and (c) developing an efficient grading process. Faculty enrichment regarding the effective use of assessment tools fosters internal consistency within the nursing program's curriculum to support overall program assessment.

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### Contact

[cphillips2@chamberlain.edu](mailto:cphillips2@chamberlain.edu)

## B 14 - Nursing Workforce Collaboration

### Activation Planning: Preparing a Workforce for Expansion into a New Healthcare Facility

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*Katherine Pakieser-Reed, PhD, RN, USA*

*Sally Black, RN, MSN, MBA, USA*

*Emily Lowder, PhD, RN, USA*

#### Purpose

The purpose of this presentation is to identify strategies and guidelines on transitioning to a new hospital facility and describe how our organization adapted them to the expansion of our adult hospital. We will focus on workforce training, move-in day, and the re-opening of units in the previous hospital facility.

#### Target Audience

The target audience of this presentation is organizational nursing leaders, managers, and administrators in clinical practice and education.

#### Abstract

**Background and Purpose:** An organization faces many challenges when building a new healthcare facility and preparing to move or expand into this facility. Strategies to plan and implement such a move have been described in the literature. Guzman, Nering, and Salamandra (2008) outline the use of specific project management tools and the application of the nursing process (assess, plan, implement, and evaluate) in organizational transition planning. The scope of a successful transition plan must address the roles and responsibilities of organizational members, licensing and regulatory requirements, a transition budget, move planning, and management of change related to transition (Guzman et al., 2008). Since the physical transition to the new facility is at the heart of a move or expansion project, other authors focus on specific guidelines for occupancy or activation planning. According to Wilson, Hejna, and Hosking (2004), "Activation planning involves anticipation of and control over two types of issues: logistical and operational" (p. 359). Logistical issues address facility-related aspects such as new equipment, readiness for occupancy, and a move-in sequence. Operational issues include implementing novel processes and practices within the new environment, which in turn drive education, training, and orientation efforts for staff. Recommendations for success include using multidisciplinary teams, developing a database for activation issues, timely decision making, real-time communication, adequate staff training and orientation time, and simulation of operational procedures (Wilson et al., 2004). Focusing on staff education, Stichler and Ecoff (2009) outline five key areas to address: new clinical competencies, life safety training, training on new equipment, workflow exercises, and general orientation.

Despite these guidelines, there are few reports describing successful transitions to new hospital facilities. Those that exist outline moving into a replacement hospital, with full occupation of the new facility as the end result (Duffy, Pearson, & Waters, 2002; Ecoff & Thomason, 2009). There is little published on expanding into a new healthcare facility and re-purposing the previous facility for continued use. Using the Iowa Model of Evidence Based Practice to Promote Quality Care (Titler et al., 2001), our purpose was to adapt the new facility transition strategies found in the literature and apply them to our adult hospital expansion project. In particular, we focused on activation planning surrounding workforce education, patient move-in day, and the re-opening of units in the previous hospital facility.

**Methods:** The expansion of our medical center, with the opening of a new adult hospital facility in February 2013, provided an opportunity to utilize activation planning as a transition strategy. First, we employed this strategy to develop and implement a training program for staff who would interact with and within the new facility. Beginning six months prior to the move-in date, lists of new equipment and technology were compiled to address the logistical aspects of the transition. Examples included wireless phones for nursing staff, the use of patient status boards, and expanded telemetry monitoring capacity. New safety measures and expected changes in practice were catalogued to address the operational aspects of the transition. These included more containment isolation rooms, easily accessible medication and supply rooms, and centrally located interdisciplinary workrooms.

Following identification of new clinical competencies, learning paths were created for the 173 individual roles within the organization. Training was built by vendors, educators, and internal clinical experts, and five methods of delivering the education were identified: station, class, on-line, mock room, and tour. Based on recommendations in the literature, employees were oriented and trained using a step-wise approach followed by simulation. Phase one included training on basic new equipment and safety measures, while department-specific training occurred in phase two; each phase took place over six weeks. Subsequent “Day in the Life” simulation scenarios allowed staff to test the new systems and workflows in real time. Issues that arose from these simulations were systematically logged, prioritized, and addressed prior to the move.

Second, activation planning was applied to move-in day. Both the new and previous hospital facilities are on the same medical campus within a two block radius, connected by underground tunnels. The patient transport sequence, pathways between buildings, and timeline of the move were carefully designed. Two weeks prior to the move, staff members began daily rehearsals of patient transfers. Revisions to move-in day plans were made based on feedback generated by testing the system in advance.

As part of organizational expansion, multiple units in the previous facility were designated for re-purposing. On move-in day, these inpatient units were decommissioned. Activation planning was again applied to identify and address logistical and operational issues. These included refurbished single occupancy patient rooms, relocation of the inpatient dialysis unit, and creation of a short-stay unit. Following structural and equipment updates, the units were sequentially re-opened beginning three days post-move and continuing throughout the following year.

**Findings:** Over 200 educators, vendors, and internal clinical experts assisted in designing the training program, which resulted in the education of 2500 clinical and procedural staff. The training program was completed under budget; reduction of training hours without loss of content occurred as the curriculum continued and was refined. For example, training was originally budgeted at 20 hours per registered nurse but was delivered in less than 16 hours total. Weekly lists of questions from each training station were compiled and answered by clinical experts. These answers refined the curriculum and became the source of a Frequently Asked Questions document for staff. The over 1500 issues that arose from “Day in the Life” simulations were addressed based on priority, with critical problems resolved first and less urgent matters deferred until after the move.

On move-in day, 157 patients were safely transferred to the new hospital facility in 6 hours and 58 minutes, and ten inpatient units were successfully opened. Over 2000 staff, faculty, and volunteers participated. Feedback from patients and families regarding the move was uniformly positive. The operating rooms, pre- and post-operative care units, pharmacy, and blood bank were also subsequently moved and opened in the new facility.

In the previous adult hospital, fourteen inpatient units designated for re-purposing were decommissioned. Based on assessment of patient care and space requirements, five units have been updated and reopened since March 2013, with two additional unit openings planned. The demand for additional geographic space due to increased clinical program volume continues to drive our hospital expansion project.

Since move-in day in February 2013, the need for additional training was identified through staff requests and assessments by clinical educators. Nursing staff completed in-services to improve knowledge and skills in telemetry use for cardiac monitoring. Unit secretaries underwent refresher training on new modalities for tracking patients and contacting staff members. As planned prior to the move, vendors returned for in-situ training on new patient care tools and equipment to help staff troubleshoot. Training to ensure accurate and current familiarity with technology, workflows, and clinical practices in both facilities is ongoing.

**Conclusions/Implications for Practice:** As academic medical centers build new hospital facilities and prepare to move their workforces into these facilities, a systematic approach to staff training and patient-care transition is critical for success. Based on the Iowa Model, we utilized strategies from the literature and adapted them to our organizational expansion project. Activation planning identified and addressed logistical and operational hurdles for training staff members, ensuring a safe and efficient move-in day, and re-opening units in the previous facility. Despite constraints of cost, construction, regulatory issues,

and trainee scheduling, the training program was delivered on-time and under-budget. This was accomplished with support from organizational leadership and by continuous performance improvement while delivering the educational curriculum. Simulations of new workflows and of move-in day were instrumental to ensure safe practices and transitions in patient care. Activation planning continues to inform the expansion of our medical center within the previous facility as our adult inpatient population grows. As noted by others, transition planning is resource-intensive, lengthy, and complex. However, the reward of a successful transition is a well-trained workforce confident to safely care for patients in an environment that facilitates the quality of that care. Sharing and disseminating information about our experience in activation planning and implementation for a new facility hospital expansion project may be valuable to other organizations facing similar challenges.

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### Contact

[Katherine.Pakieser-Reed@uchospitals.edu](mailto:Katherine.Pakieser-Reed@uchospitals.edu)

## B 14 - Nursing Workforce Collaboration

### Fostering Healthy Work Environments: Diversity and Health Equity Competencies for Managers

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*Rani Hajela Srivastava, RN, MScN, PhD, Canada*

*Janet Mawhinney, MA, Canada*

*Kristin Cleverley, RN, MSc, PhD, CPMHN, Canada*

#### Purpose

describe an initiative aimed at developing manager competencies for diversity and equity in a hospital setting as part of best practice guideline implementation for embracing diversity and cultural competence

#### Target Audience

senior administrators, clinicians, managers and directors, organizational development consultants, diversity and equity champions, academics

#### Abstract

Although it is well recognized that 21<sup>st</sup> century health system transformation requires a foundation of equity and cultural competence, this goal continues to be challenging and elusive. Healthcare providers and organizations need to navigate complex, intersectional layers of diversity and social determinants in order to develop effective strategies to achieve equity and quality care for all. The purpose of this interactive presentation is to describe an innovative approach to equity education being used to guide the development of individual and organizational capacity for cultural competence and equity. The initiative was undertaken as part of the Best Practice Spotlight Organization initiative to foster a healthy work environment. The initiative consisted of a one day interactive workshop which was evaluated through a pre and post -test design. The pre/post survey is a self administered tool that focuses on application of awareness and knowledge on diversity and equity issues. The tool is based on existing literature and was developed for this initiative to specifically focus on the best practice guideline recommendations.

Pedagogy is the art and science of how something is taught and how students learn it. Our innovative approach to equity pedagogy is based on a broad understanding of diverse identities and marginalized communities and reflects an understanding of culture as patterns and culture as power. Our model combines three key paradigms: 1) a human rights foundation and analysis of privilege, power and marginalization; 2) an anchoring to professional practice expectations and quality care; and 3) an integration of adult education principles and a developmental approach to the acquisition of knowledge and skills on issues of power and inequality. It recognizes that individuals always bring a range of knowledge, life experience and skill on diversity issues and it engaging multiple levels of learners to disrupt prejudice and bias, while maintaining a positive learning edge for all is both challenging and necessary. Our approach is grounded in evidence of health disparities and concepts of privilege and marginalization. It invites students /health care providers to explore strategies for navigating the layers and intersections of both privilege and marginalization at the same time, while avoiding the too frequent pitfalls of diversity education which can (inadvertently) reinforce simplistic identity silos, hierarchies of oppression or a guilt response – none of which are useful for health practitioners or service organizations. We have found that this approach resonates with health professionals and provides a clear 'bottom line' of equity practice expectations while equipping staff to recognize the complexities of the application of principles into practice. The deeper level understanding and ability to apply in practice is fundamental to health system transformation.

Our model and approach has been developed over several years of diversity education in a large urban hospital as well as academic settings. Our context is one of the most diverse cities in the world that is home to the largest Aboriginal and LGBT populations in Canada; where almost 50% of the city residents are racialized people and immigrants who speak over 160 languages. In this context diversity must be understood as a complex multiplicity of identities and effectively educating staff (and students) in a framework on diversity and health equity is requisite to ensuring quality care.

In a health care context managers have a dual responsibility for cultural competence in clinical care to achieve health equity while effectively addressing issues of workforce diversity. This can be particularly challenging in a unionized environment where fairness is often translated into “treating everyone the same”. The core objectives for the workshop included: understanding the impact of health inequities on diverse and marginalized groups; identifying the impact of power dynamics and diversity in managing teams and fostering a healthy workplace; and developing strategies and approaches to addressing diversity and health equity in leadership. Strategies were grouped under three key domains: self awareness, cross cultural communication and translating awareness of health equity into actions to promote inclusivity.

Results indicate that the approach is effective in increasing awareness, knowledge, as well s the ability to apply it to practice, Diversity & Health Equity Tool illustrated increased knowledge, skills, and competencies of managers and the gains were maintained over time

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#### Contact

[rani\\_srivastava@camh.net](mailto:rani_srivastava@camh.net)

## B 14 - Nursing Workforce Collaboration

### Becoming a Better Interprofessional Practitioner: How Does it Happen; What is the Impact

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*Doris Grinspun, RN, MSN, PhD, LLD (hon), OONT, Canada*

*Irmajean Bajnok, RN, MSN, PhD, Canada*

*Althea Stewart-Pyne, RN, BScN, MScN, Canada*

#### Purpose

The purpose of this presentation is to highlight evidence related to interprofessional practice, share an evidence based model of professional practice, and discuss strategies for enhancing interprofessional practice.

#### Target Audience

Nurses, patients, clients, interprofessional health-care providers, managers and faculty

#### Abstract

Interprofessional care is comprehensive care provided by multiple health-care professionals working collaboratively within their scope of practice and it is important in all health-care settings to enhance health outcomes and patients' experiences, reduce costs and facilitate a healthy work environment for all providers. Interprofessional models of care have been gaining attention as the healthcare system seeks a model that is patient-focused and emphasizes health-care professionals working collaboratively within their full scope of practice.

Interprofessional care in a healthy work environment is a product of synergy among health-care teams, who demonstrate expertise in its six key domains, fundamental for transforming work environments to a collaborative interprofessional environment. The six themes are: 1. Care expertise; 2. Shared power; 3. Collaborative leadership; 4. Optimizing profession, role and scope; 5. Shared decision making and 6. Effective group functioning. When interprofessional care has been successfully implemented and sustained, continuous improvement quality and safety occur on three levels—for patient/clients, for interprofessional providers and for the organization and system.

There are many evidence-based processes that can be used to enhance interprofessional care. To do this individuals practitioners can contribute to interprofessional practice cultures by:

- Practising and collaborating with colleagues, patients/clients and families in a way that fosters respect, trust and understanding;
- Understanding their roles and expertise, reflecting on their practice, being confident in their own abilities, and expertise, knowing the standards and boundaries of their practice and recognizing when it's time to turn to other team members; and
- Developing communication and conflict-management skills.

Teams of interprofessional staff are often acutely aware of the power differentials that exist when they work across disciplines. It is important for teams to:

- Building a collaborative environment through recognizing and understanding power and its influence on everyone involved;
- Creating balanced power relationships through shared leadership, decision making, authority, and responsibility;
- Including diverse voices for decision making;
- Sharing knowledge with each other, openly; and
- Working collaboratively with patients/clients and their families to plan and deliver care.

It is important for all health care professionals to be aware of their contribution to the interprofessional team and their "team intelligence quotient". This presentation will incorporate a discussion of power as it relates to the interprofessional team, and an opportunity for self assessment of the six interprofessional competencies.

Contact

[dgrinspun@mao.org](mailto:dgrinspun@mao.org)

## C 12 - EBP Moving Global Practice

### Measuring Endoscopic Performance for Colorectal Cancer Prevention Quality Improvement in a Gastroenterology Practice

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*Karen A. Hande, DNP, MSN, BSN, RN, ANP-BC, USA*

#### Purpose

to demonstrate a DNP project to assess and improve adherence to colon cancer prevention (CRC-P) benchmarking measures in a gastroenterology practice. Performance gaps and causes of deficiencies will be presented. Practice changes for improvement in the quality and effective delivery of CRC-P care will be emphasized.

#### Target Audience

nurses with a role in quality improvement for the delivery of care within his or her own domain of practice. Nurses seeking how to improve patient outcomes and sustain levels of excellence in the delivery of care by translating, evaluating, and applying science to practice will benefit from this presentation.

#### Abstract

Colorectal cancer (CRC) is the third leading cause of cancer death in the United States, but the majority of cases are thought to be preventable by the use of screening colonoscopy. A gastroenterology private practice lacked quality measures to evaluate the practice's efforts to prevent CRC. This project assessed the practice's adherence to CRC prevention (CRC-P) benchmarking measures regarding colonoscopy performance. Colonoscopy performance data were gathered from a retrospective review of 90 charts using a modified form of The Colorectal Cancer Prevention Data Collection Form. The practice stakeholders and the project leader reviewed the data, identified practice deficiencies, conducted root cause analysis, and developed practice changes to implement. System issues were discovered as the root cause for practice deficiencies. Implementing the prioritized recommendations and routinely benchmarking care were warranted to ensure effective practice to improve outcomes for CRC-P. Achieving higher-value care has led to increased efforts to improve systems for measuring care, using these measures for quality improvement and directly linking quality outcomes to reimbursement.

#### Contact

[karen.a.hande@vanderbilt.edu](mailto:karen.a.hande@vanderbilt.edu)

## C 12 - EBP Moving Global Practice

### Munchausen By Internet: A Netnographical Case Study

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*Cynthia A. Witney, RN, MHA, DipTch (Nsg) GradDipAdmin (Hlth), Australia*

*Joyce Hendricks, PhD, RN, RM, Australia*

*Vicki Cope, PhD, RN, RM, MHS, Australia*

#### Purpose

The purpose of this presentation is to highlight through a case study, how a member of an online support community for breast cancer sufferers was identified as possibly suffering from a factitious disorder and how the member was managed to leave the site without causing distress to other members.

#### Target Audience

The target audience of this presentation is health professionals, who are members of online support communities or who are employed to provide online evidence-based education, advice and support for those with a life threatening disease, their family and friends.

#### Abstract

The Internet is a global phenomenon that provides a conduit for people to meet and collaborate without ever meeting face to face. As such, issues of truthfulness and trust are ongoing for all those who choose to click the mouse and enter cyberspace. This paper presents a case study drawn from a wider research project using netnography (Kozinets, 2010) where a purpose built www site called [www.breastcancerclick.com.au](http://www.breastcancerclick.com.au) or 'the Click' was developed and managed.

Netnography has been used for more than a decade by researchers in the consumer and marketing field, thus is not now a new term and is widely accepted by these researchers as the preferred term to describe ethnographic research applied to the study of online communities and cultures (Kozinets, 2010). When Crotty's scaffolding for research is applied to netnography, a relatively new research methodology, it appears that it can be positioned in one of two ways, either under the category of ethnography as a variation of ethnography (Crotty, 1998, p. 5), or because of the way the study is pursued per online observation and interaction between researcher and research participants, as a new type of methodology.

'the Click' is a member only online therapeutic community set up to support people with breast cancer and their family and friends. This case study reveals that a member of this online community was identified with behaviors consistent with a factitious disorder the more extreme type of which is referred to as Munchausen Syndrome. When Munchausen Syndrome occurs online it is referred to as Munchausen by Internet. If the person also fabricates illnesses for immediate family members online it is known as Munchausen by proxy by Internet (Cunningham & Feldman, 2011, p. 185). The aim of this case study is to highlight how nurses and others can identify members of health related online support communities who are untruthful, using some of the aids to diagnosis of a factitious disorder and management strategies developed by Feldman (2000).

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#### Contact

[c.witney@ecu.edu.au](mailto:c.witney@ecu.edu.au)

## C 12 - EBP Moving Global Practice

### The Impact of Computerized Clinical Decision Support on Diagnostic Accuracy in Nurse Practitioners

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*MaryJo Vetter, MS, RN, ANP, GNP, DNP, USA*

#### Purpose

The presentation describes computerized clinical decision support (CCDS) as intervention with the potential to improve clinical processes and health outcomes. Integration of this innovation in practice benefited from using an implementation science framework to inform the development, implementation and evaluation of an improvement project to promote adoption of this technology.

#### Target Audience

The target audiences are all clinicians and administrators interested in computerized clinical decision support and the use of an implementation science methodology to promote innovation in practice.

#### Abstract

Clinical decision support (CDS) at the point of care is an evidence based intervention that has demonstrated incremental positive impact on quality of health care delivery over the past two decades. CDS information technologies help close the gap between healthcare provider knowledge and performance. CDS systems offer the potential to improve overall care safety, foster evidence based practice, optimize cost effectiveness and reimbursement for care, enhance patient education, and meet regulatory reporting requirements. CDS systems have been studied extensively and identified as an evidence based intervention that can positively impact practitioner performance in the areas of medication prescription, preventive care, disease management and diagnostic accuracy.

This practice improvement project tested the impact of a newly acquired electronic clinical decision support system on diagnostic accuracy among nurse practitioners (NPs) functioning in a community based setting. Nurse practitioners delivering primary care in a home visiting practice are especially vulnerable to lack of knowledge support as they are mobile in the community and often feel isolated from peers and experts who can support clinical decision making. A CDS accessed via wireless broadband was viewed as a means to assist these clinicians to deliver care based on best practice recommendations obtainable via laptop or smartphones at the time of the patient encounter. To ensure adoption of electronic decision support systems, the approach to integration is best accomplished by involving end-users throughout the process. In addition to a pilot group of NPs who were representatives of the workforce, other organizational stakeholders were engaged to provide tangible support and necessary resources for successful adoption of this innovation in practice. A structured conceptual model of Evidence Based Practice Improvement (EBPI) enhanced with elements of the Promoting Action on Research Implementation in Health Sciences (PARIHS) framework was used to guide the development, implementation and evaluation of the improvement initiative and ultimately informed decision making about CDS dissemination strategies for the entire practice. Using an implementation science approach helped illuminate the internal and external evidence that informed parameters of the work and elicited both patient and clinician input in the process. Attention to the culture of the practice setting including leadership attributes and availability of project evaluation support defined the local context of the improvement effort. The nature of the facilitation required to ensure adoption of the CDS system was designed to be flexible based on the nature of the evidence, the expectations of stakeholders and the purpose of this evidence based practice change.

Data collection was comprised of small tests of change (Plan, Do, Study, Act cycles) at the local practice level. Results informed refinement of CDS implementation processes that facilitated improvement in the correctness of medical diagnosis and appropriateness of substantiating clinical documentation over time. Clinician volunteers participated in vendor demonstrations and selection of the CDS system for the practice. A baseline chart audit was conducted using an audit tool that sought to identify that the primary diagnosis accurately reflects the current, most significant reason for the clinical encounter and that the secondary diagnoses are identified and substantiated in documentation found in the review of systems,

history of present illness, diagnostic tests and physical examination. Clinical documentation elements must be linked to the chosen ICD-9 code which was expected to be of the highest diagnostic specificity. After training on the CDS system, charts of each participant were audited for the next three months to assess the impact of the CDS system availability on diagnostic accuracy. After several improvement cycles produced acceptable diagnostic accuracy results on chart audit, a focus group with the pilot NPs was conducted to determine the level of satisfaction with the CDS system and input on CDS system dissemination strategies to promote integration of decision support systems across the practice. In this practice setting, use of a CDS system by nurse practitioners was effective in impacting the outcome of diagnostic accuracy. Qualitative and quantitative data informed multiple strategies to guide ongoing improvement efforts aimed at sustaining long term results.

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## Contact

[MaryJo.Vetter@vnsny.org](mailto:MaryJo.Vetter@vnsny.org)

## C 14 - Incivility in Nursing Practice

### Bullying and Its Prevention Among a National Sample of Israeli ICU Nurses

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*Freda DeKeyser Ganz, RN, PhD, Israel*

#### Purpose

to describe the prevalence of bullying as well as what measures were taken to prevent it, as perceived by a national sample of Israeli ICU nurses.

#### Target Audience

all nurses, but especially ICU nurses

#### Abstract

**Purpose:** The purpose of this study was to describe the prevalence of bullying as well as what measures were taken to prevent it, as perceived by a national sample of Israeli ICU nurses

**Background:** Bullying refers to repeated, offensive, abusive, intimidating, or insulting behaviors; abuse of power; or unfair sanctions that make recipients feel humiliated, vulnerable, or threatened, thus creating stress and undermining their self-confidence (Embree, & White, 2010; Hutchinson, Wilkes, Jackson & Vickers, 2010; Murray, 2009; Rowell, 2005; Yildirim & Yildirim, 2007). This phenomenon has been shown to be widespread within nursing in many different countries around the world (For example, Johnson & Rhea, 2009; RCN, 2002; Vessey, DeMarco, Gaffney & Budin, 2009; Yildirim & Yildirim, 2007).

Bullying has been shown to have both physical and psychological consequences for the victim (Murray, 2009; Rowell, 2005; Katrini) and to affect patient care (Woelfle & McCaffrey, 2007), leading to decreased job satisfaction and increased burnout (Laschinger, Grau, Finegan & Wilk, 2010).

There has been some literature that has described how to prevent bullying (Katrini, Atabay, Gunay & Cangarli, 2010). These measures include increased awareness about the potential presence of bullying and the development of institutional protocols that call for the documentation of bullying with disciplinary action against it (Katrini, et al., 2010; Lewis, 2006; MacIntosh, 2006)

At present there are no reports that describe the prevalence of bullying among nurses in Israel nor are there reports of what actions are taken to prevent its occurrence. Furthermore, no study was found that investigated bullying only among critical care nurses, despite the fact that these units have been shown to have a high prevalence of bullying.

**Methods:** This was a cross sectional, correlational, descriptive survey.

**Sample:** The sample was a convenience sample of 155 ICU nurses. Members of the Evidence Based Practice Subgroup of the Israeli Society of Cardiology and Critical Care Nursing recruited ICU nurses from five medical centers. As the primary purpose of the study was to describe the prevalence of bullying and its perceived prevention, it was determined that data collectors would try and recruit a maximum amount of respondents without concern for statistical power.

**Data collection:** Data were collected after institutional and ethical approval at each institution. Head nurses were contacted and asked to approve participation of members of their units. A pilot test of the initial 25 respondents was conducted. Questionnaires were found to be clear and so the results of the pilot were included in the final results. Questionnaires were administered according to the preference of the local administration, either in staff meetings or participants were approached individually on their respective units. All responses were placed in an envelope at a central location and were anonymous.

**Instruments:** Three questionnaires were used:

- a. Demographic and work characteristics questionnaire, including personal demographic and work-related data.
- b. Negative Acts Questionnaire-Revised: a 22 item, Likert-style questionnaire developed by Einarsen, and colleagues in 1994 and revised in 2009 (Einarsen, Hoel & Notelaers, 2009)

to measure the level of exposure to bullying in the workplace. It was found to have acceptable levels of reliability and validity.

- c. **Bullying Prevention Questionnaire:** developed by the investigators to determine measures currently available to prevent bullying. This questionnaire contains 42 items on a 4 point Likert scale and lists measures conducted by institutions, units and individuals. The questionnaire is based on a review of the bullying literature and underwent content review.

**Data Analysis:** Descriptive statistics were conducted on all of the questionnaires. Bivariate analyses were conducted to determine if there are any demographic or work characteristic variables associated with bullying or perceived prevention. Those characteristics found to be significantly associated were used as predictor variables in a logistic regression model with bullying as the criterion variable.

**Results:** The sample consisted of 155 ICU nurses. The majority of the sample was female (n=102, 69%), married (n=112, 77%) and Jewish (n = 96, 67%). Most worked as staff nurses (n=111, 76%), had a baccalaureate nursing education (n=87, 60%) with post-basic ICU certification (n=122, 83%) with a mean age of 41.3 (SD= 9.9) and 11.5 years experience as an ICU nurse (SD=9.0).

Almost one third of the respondents (n= 43, 29%) reported being the victim of some bullying, although no one reported being bullied on a daily basis. The mean total score on the NAQ-R was 33.3 (SD=11.6) with a mean item score of 1.6 (SD= 1.4) out of 5. The mean Bullying Prevention total score was 96.8 (SD=14.4, range: 48-140, out of a possible 168) with an item mean score of 2.4 (out of 4) (SD= 0.3); Results for the subscale scores were: institutional prevention: item mean= 2.7 (SD= 0.5); unit prevention: item mean = 2.2 (SD=0.4) and individual prevention: item mean 2.4 (SD=0.3).

A significant difference in the level of bullying was found between hospitals ( $F(4,155) = 2.7, p=.039$ ). The mean scores on the Prevention Scale was found to differ between type of unit ( $F(5,143) = 3.4, p=.006$ ) and hospital ( $F(4,155) = 2.9, p.026$ ). However post-hoc Bonferroni analyses did not find significant differences between specific hospitals or units. The Prevention Scale was found to significantly correlate with that of the NAQ-R ( $r = .58, p < .001$ ). No other variables were found to be associated with either the bullying or prevention scores, therefore regression models were not created.

**Conclusion:** An alarming percentage of nurses were found to have been victims of bullying in their workplace. The prevalence of bullying fell between levels presented in the literature (RCN, 2002; Johnson and Rhea, 2009; Yildirim & Yildirim, 2007). This result is despite current policies of zero tolerance for bullying. On the other hand, those who reported being bullied, were not bullied on a daily basis and levels were low to moderate for specific bullying actions.

The level of prevention was weak to moderate with little difference between measures taken by the individual, unit or institution. Prevention and perceived level of bullying significantly differed between hospitals and types of units while no other demographic or work characteristic was found to be associated. These results imply that bullying and its prevention happen for the most part at a unit and hospital level. Others have found some individual characteristics related to bullying but this finding was not seen in this study.

**Implications:** The results of this study suggest that on a policy and administrative basis, more measures must be taken and adhered to, related to prevention of bullying. Nurses must be educated to accept only a zero tolerance to bullying and to report bullying when confronted with it. More research should be conducted to determine what other factors are associated with bullying, and based on these results, to design interventional studies to prevent it.

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#### Contact

[freda@hadassah.org.il](mailto:freda@hadassah.org.il)

## C 14 - Incivility in Nursing Practice

### Come In...The Water's Warm: A New Nurse's Induction to a Hostile Environment

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Josiane Hickson, BSN, MA, EdD, RN, NE-BC, USA

#### Purpose

The purpose of this presentation is to: discuss characteristics of nursing hostility and the implications towards nursing practice; differentiate the role/responsibilities of nurses involved with nursing hostility; and discuss the strategies for discouraging nursing hostility and promoting a healthy work environment.

#### Target Audience

The target audience of this presentation is: nursing students, nursing educators, registered nurses, nursing leaders, and nursing administrators.

#### Abstract

The success for the future of the nursing profession has relied upon the cultivation, assimilation, professionalism, and satisfaction of newly licensed Registered Nurses (RNs). This presentation was prompted by the descriptive study which investigated the perceptions of nursing hostility and job satisfaction of new graduate nurses with less than three years of experience ( $N = 1,165$ ), comparing the working settings of Magnet and non-Magnet hospitals. An online survey was conducted using the Negative Acts Questionnaire-Revised (Einarsen, Hoel, & Notelaers, 2009), the McCloskey/Mueller Satisfaction Survey (Mueller & McCloskey, 1990), the Casey-Fink Graduate Nurse Experience Survey (Casey, Fink, Krugman, & Propst, 2004), and a demographic questionnaire, through an advertisement on Facebook which targeted individuals based on the specifications of this study's focus.

Findings indicated that RNs of Magnet and non-Magnet facilities had similar hostility and job satisfaction results. Magnet nurses ( $n = 226$ ) perceived nursing hostility significantly different than non-Magnet nurses ( $n = 939$ ); however, both groups reported a global perception of nursing hostility as new graduate nurses. Additionally, there was a statistically significant difference ( $p < .001$ ) indicating higher job satisfaction among Magnet RNs. Furthermore, perceptions of comfort, confidence, and support revealed marginal differences between both groups ( $p < .05$ ), though these attributes of satisfaction were higher among Magnet nurses.

Results indicated that RNs of Magnet facilities (48%) and non-Magnet facilities (49%) were classified as victims of bullying. More than 70% of Magnet and non-Magnet RNs identified their level of job satisfaction as moderately dissatisfied to very dissatisfied. More than 80% of RNs from both groups perceived a lack of comfort, confidence, and support in their current job.

The theory of oppression provided a model for understanding the dynamics and the effects of nursing hostility and job satisfaction of newly RNs. Based on this study's findings, greater consideration should be placed on: orientation/residency programs, collaborative partnerships between academia and service, zero-tolerance for behaviors that undermine a culture of safety, and addressing nursing hostility.

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Contact

[jh2647@tc.columbia.edu](mailto:jh2647@tc.columbia.edu)

## C 14 - Incivility in Nursing Practice

### The Pebble Effect: Stopping Incivility in Clinical Environments

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Cathleen Opperman, RN, MS, CPN, USA

#### Purpose

The purpose of this presentation is to demonstrate an effective method to move the common culture of many clinical practice settings from incivility, poor communication and low staff satisfaction to respectful, assertive and fulfilling professional practice.

#### Target Audience

The target audience for this presentation is interdisciplinary team members working in clinical environments. Managers, Administrators, Clinical Educators and Multidisciplinary Leadership will find this Workshop helpful.

#### Abstract

**Purpose:** **The Pebble Effect: Stopping Incivility in Clinical Environments** is a reporting of an effective educational strategy used to improve the communication patterns and staff engagement of a 400 bed hospital. Requests in our annual learning needs assessments, as well as feedback from continuing education programs identified a strong desire by interdisciplinary clinical staff to eliminate coworker incivility, horizontal hostility, bullying, lateral violence and intimidation.

**Background:** The literature review identified incivility as a widespread problem in healthcare. Whether labeled as coworker incivility, horizontal hostility, bullying, lateral violence or intimidation, it is known to contribute to missed communication, moral distress, preventable errors, low patient satisfaction and staff turnover. The challenge was that simply inservicing staff to “be nice and patient with each other” is not effective in changing deep rooted behavior. The literature described numerous educational activities which focused individually on the knowledge, skills and attitudes needed to reshape the culture and therefore change the behaviors. However, no educational intervention described a combination of all three of these components. Through the efforts of a small group of clinical Educators, we developed a day-long interactive Workshop based on Kathleen Bartholomew’s *“Ending Nurse to Nurse Hostility,”* and Martha Griffin’s *“Teaching Cognitive Rehearsal as a Shield for Lateral Violence.”*

To encourage nursing staff initially to participate, we provided continuing education credits for the day. Soon, we realized that providing incentives were not necessary because the demand for the solution to this problem was so high, that we actually had waiting lists of 20 or more and other disciplines were finding the topic and content appropriate and desired as well. In fact, after participating, some managers were trying to scheduling all their staff to participate.

**Design approach:** The teaching strategy was a workshop design because changing behavior not only needed knowledge (through reading before the workshop and lecture during) but practice with the skills and a change in attitude regarding the tolerance of poor behaviors. The skills needed to respond in various situations include use of cognitive rehearsal and DESC formulated statements for initiating difficult conversations. These skills are practiced with role playing exercises and case scenarios in the workshop. The focus on attitudes is the most challenging, yet most essential, in order to make a change in the culture. With attitude, the educational activities need to help each individual recognize how they contribute to the environment that enables these poor behaviors. When asked, many staff said that “there are no problems with THAT on our unit,” yet in the next breath they describe how they “work around this person” or “avoid that person.” With stakes as high as the death of a patient, the first step to changing our culture is raising awareness that poor behaviors are present in our work area and choosing to avoid only condones them. The educational activities designed to change attitudes regarding incivility include self-reflection, telling stories of targets of incivility, and the “I can/We can” exercises.

A survey was completed before the workshop began and 6 months later to compare the change in perception of incivility. The survey asked participants to score “respect”, “support” and comfort with “sharing my opinions” with coworkers, charge nurses, supervisors, educators and managers. They scored

each individually. After the first two groups commented on how the workshop day changed their understanding of how much poor behavior was on their unit, many commented that they wanted to give different scores on the survey as a baseline. From these repeated comments, we started asking the groups to complete the survey at the beginning and at the end of the workshop day. The scores on respect and support of various members of the clinical team, as well as comfort communicating with each other, dropped over the course of the day. The comments explaining this were that at the beginning of the workshop they were not aware of how tolerant of poor behavior they had become and how the culture of the work group was unacceptable in this regard. One person even stated that when her Clinical Leader was “mean and unapproachable,” she now understands that this is “not a good management style of strength,” but instead it is disrespectful and causes moral distress. Therefore from the changes in scores from beginning to end of the workshop, we can conclude that awareness was heightened and attitudes open to change.

**Results:** The first offering of this workshop had over 50 participants with tremendous evaluations and word of mouth spread causing 4 subsequent workshops to be moved into the auditorium to accommodate 120 or more participants in each workshop. Over 650 interdisciplinary staff participated in the first 5 offerings. Anecdotal comments from unit managers described situations where they witnessed staff removing themselves from situations when others were gossiping or an increase in overheard compliments and “thank-yous” to coworkers. This caused one nurse practitioner to comment that “they sure drank the kool-aid.” Within a week of one workshop, this author received an email from a participant that used the DESC formula to assertively talk with someone about a misunderstanding and now feel a mutual respect for each other.

**Conclusions/ value of this presentation:** The 6 month survey results will be available during the presentation along with the agenda for the workshop and description of many of the educational activities. Clearly, in order to change a culture of incivility to one of inquiry, mutual respect and genuine concern for coworkers and patients, the knowledge, skills and attitudes must be included in educational endeavors.

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### Contact

[CSORNEDUC@aol.com](mailto:CSORNEDUC@aol.com)

## D 12 - Leadership in the Clinical Setting

### The Ankle Blood Pressure Study: An Exemplar Project of Mentoring, Leadership, and Collaboration to Promote Nursing Research

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*Rhonda E. Maneval, DEd, RN, USA*

*Kimberly A. Fowler, RN, MSN, USA*

#### Purpose

to describe the evolution of a clinical practice question from inception through completed research study, delineate the roles of the nurses involved, in particular the advanced practice nurse, and present the outcomes of the project, both from a practice and professional development perspective.

#### Target Audience

professional and advanced practice nurses engaged in evidence-based practice and nurse leaders responsible for advancing nursing evidence-based practice and research within their organizations.

#### Abstract

The purpose of this presentation is to describe the evolution of a clinical practice question from evidence-based practice project to research study and delineate the roles of all nurses involved, with particular attention to the role of the advanced practice nurse. Additionally, the presentation will focus on the outcomes of the project, both from a practice perspective as well as a professional development perspective. Strong leadership by the APN and the commitment to the mentoring process by the team contributed to project success. This project serves as an exemplar for those wanting to increase nurse engagement in research and nursing's influence within organizations.

In the Magnet® organization where this project took place, advanced practice nurses (APNs) are charged with providing guidance for staff nurses regarding EBP and research. The APNs at this institution are Master's prepared nurses who hold the title of Clinical Nurse Specialist (CNS). Involvement in research activities, including interpretation, translation, evaluation, and conduct of EBP and research, is an essential component of the CNS role as identified by the 2004 National Association of Clinical Nurse Specialists (NACNS) Statement on Clinical Nurse Specialist Practice and Education (NACNS, 2004). In addition, the American Association of Colleges of Nursing (AACN) Essentials of Master's Education in Nursing requires that graduates be prepared to lead the healthcare team in the implementation of EBP and serve as role models and mentors for evidence-based decision making in practice (AACN, 2011).

The project began when a BSN nurse approached the cardiovascular specialty CNS and cardiovascular nurse educator about the use of the ankle as an alternative site for blood pressure (BP) measurement. The BSN nurse relayed that she had observed this practice being done by her colleagues when the arm was not available for use. She wanted to know if an ankle BP was an acceptable option. The BSN nurse was encouraged by the CNS to investigate this clinical question by participating in Research Roundtable (Harne-Britner & Schafer, 2009). Research Roundtable is a collaborative effort, led by a team of CNSs, in which staff nurses and senior baccalaureate nursing students, with the support of academic nurse faculty, investigate clinical questions. Research Roundtable enables nurses to bring clinical questions forward and to work with a group to explore the available evidence and determine if a practice change is warranted or if additional research is needed. Under the guidance of the CNS, evidence related to this EBP project was examined, and it was determined that there was a lack of evidence to either support or discontinue the use of ankle BPs. The CNS met with the BSN nurse and the cardiovascular nurse educator, who together decided that the next step would be the development of a formal research proposal. To facilitate this work, the CNS recommended that the nurse apply for a Nursing Research Fellowship. With the support from the team, the nurse was granted the Research Fellowship, which provided release time for scholarly work and development of the proposal. The CNS contacted the academic nurse researcher and elicited her support and expertise for the project. In addition, the CNS served as a mentor to the BSN nurse in the writing of the proposal and championed the proposal through the approval processes, which included the Nursing Research Council and the institutional review board. The study was granted approval. Upon initiation of the study, the team was assembled, which included

the BSN nurse, CNS, cardiovascular nurse educator, and the academic nurse researcher. Roles were delineated, and the timeline established.

During initiation of the study the nurse researcher served as a mentor and guide to the team regarding study design, methods, and data analysis. The CNS ensured the integrity of the research process by obtaining institutional review board approval, managing consent procedures, piloting data collection tools, and monitoring the integrity of the data collection process. The BSN nurse served as the lead data collector and recruited other nurses to the data collection team. She mentored her peers in the data collection process and shared information about the study with other nurses on the unit and throughout the organization.

In order to assess BP reading agreement between the arm and the ankle, the team performed a series of 3 readings for each subject and 2 sets of readings were recorded, 1 for the arm and the second for the ankle. The results for all 3 tests and 6 pairings indicate that the readings taken at the arm are significantly different ( $P < .001$ ) from those taken at the ankle. Four composite mean readings (arm systolic, arm diastolic, ankle systolic, and ankle diastolic) were computed for each subject across his/her 3 measurements. The mean (SD) arm systolic reading was 129.59 (16.13) mm Hg, whereas the mean ankle systolic reading was significantly higher at 153.05 (15.55) mm Hg ( $P < .001$ ). This was also true for the diastolic readings, with a mean (SD) arm diastolic BP of 72.27 (8.93) mm Hg and mean (SD) ankle diastolic BP of 82.62 (10.66) mm Hg ( $P < .001$ ). The difference in scores for each subject was also calculated. The mean difference in ankle systolic readings was determined to be 23.49 mm Hg (95% confidence interval [CI], 21.44-25.54) higher than arm reading. For diastolic BP, the mean difference in ankle readings was 9.35 mm Hg (95% CI, 8.23-10.46) higher than arm readings. Bland-Altman analysis (Bland & Altman, 1995) revealed that there was considerable variation in the difference scores by individual subjects. The SD of the difference in systolic BP was 13.65 mmHg, and for diastolic, it was 7.41 mm Hg; therefore, it is estimated that 95% of patients could have ankle measurements of systolic BP readings that are 50.84 mm Hg above or -3.78mmHg below their arm measurements. For diastolic pressure, the ankle readings could be 24.14 mm Hg above or -5.52 mm Hg below the arm measurements. (For a full description of the study, detailed results, and limitations see Maneval, et, al., 2014). The data suggest that arm and ankle BP measurements are not comparable, and there was not a predictable relationship between the two measurements.

As a result of the study findings the quality of patient care was impacted through the development of a new practice guideline by the CNS for ankle BP measurements and the education of staff nurses. The findings of the study suggest that ankle BP measurements lack agreement, and often overestimate both systolic and diastolic BP, when compared with arm BP measurements; thus, individual differences in variation calls into question the practice of relying on ankle BP measurements in routine clinical practice. The CNS, aware that nurses are faced with a difficult dilemma when attempting to obtain BP measurements when the upper arm is not a viable option, crafted a new practice guideline to address this issue. The guidelines call for obtaining baseline arm and ankle BP measurements upon admission. Then, if ankle measurements become necessary, a comparison is to be made based upon the individual patient's arm and ankle systolic and diastolic differences. By doing this, the ankle BP measurement is understood in the context of the individual patient's BP measurements.

The CNS educated the nurses on the complexity of interpreting BP readings taken at the ankle and the importance of careful consideration of the meaning of the results for the individual patient. The importance of consistency in choice of extremity used and the need for careful charting of the location of each BP measurement was communicated as a crucial component of ankle BP measurement. The CNS worked to modify the electronic medical record so that alternative sites could be documented. The CNS has continued to facilitate the development of organizational policies that require baseline assessment of arm and ankle BP for select patients and the proper documentation of those results.

The project also enhanced opportunities for mentoring relationships which increased knowledge and confidence of the team in both the EBP process and research process. Mentoring occurred between the nurse researcher and the CNS, the CNS and the BSN nurse, and the BSN nurse and peers. The CNS also mentored the BSN nurse in the creation of a poster and podium presentation on the study for dissemination at both local and national conferences.

Additionally, leading the research project elevated the CNS's visibility and influence within the organization by clearly demonstrating the value of the CNS in the research process and the impact that nursing research has on nursing practice and patient outcomes. Participation by the BSN nurse demonstrated to peers, managers, and administrators the key role bedside nurses have in identifying clinical issues and supporting the research process through active engagement. As demonstrated by this project, nurses engaged in the EBP process and the conduct of original research influence nursing practice at the bedside, organizational level, and beyond.

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#### Contact

[rmaneval@temple.edu](mailto:rmaneval@temple.edu)

## D 12 - Leadership in the Clinical Setting

### Acknowledging and Enabling Point-of-Care Leadership: A Key to Clinical Nursing Excellence

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*Irmajean Bajnok, RN, MSN, PhD, Canada*

*Debra A. Bournes, BScN, MSc, PhD, Canada*

#### Purpose

The purpose of this presentation is to define and clarify the concept of leadership at the point-of-care and outline factors that support such leadership for positive outcomes for nurses and the health-care system. It will highlight the key pillars of point-of-care leadership supported by the related emerging evidence.

#### Target Audience

The target audience of this presentation is nurses in all roles, with particular focus on point-of-care nurses.

#### Abstract

Point-of-care nurses who have opportunities to engage in and be acknowledged for their leadership behaviours find it a source of inspiration, motivation, and confidence building. Leadership at the point of care is related to leadership behaviours that are informal rather than related to a formal leadership role. Point-of-care nurses regularly engage in leadership behaviours related to their direct clinical work where they make clinical decisions, consult with other team members and plan and carry out nursing treatment plans. In addition, many point-of-care nurses, because of their expert clinical knowledge, are involved in leading clinical change, quality improvement, evaluation or research initiatives as part of their clinical care roles.

A regional collaborative of nursing leaders has taken on the challenge of raising awareness of the impact of point-of-care leadership on clinical excellence, evidence based nursing practice, and nursing retention. The collaborative has established an initiative to widely disseminate the emerging evidence of the impact on organizations, nurses and practice when point of care leadership is enabled, expected and acknowledged. A common understanding of the concept has been developed, along with key strategies to support and foster this way of being in point-of-care practitioners. Key leadership behaviours form part of the framework of point-of-care leadership and include: build relationships and trust, contribute to an empowering work environment, contribute to an environment that supports knowledge integration, lead, support and sustain change, balance complexities and lead self.

Key target groups to influence related to point-of-care leadership include: front line/point of care nurses, nurse managers, executive leaders, other health care professionals, faculty, and students, researchers and health care organizations. The next steps for the collaborative involve sharing key messages with target groups and assisting them to acknowledge and enable point of care leadership. The presentation will reinforce the critical importance of spotlighting and fostering point-of-care leadership as a key driver of evidence based nursing practice, and the primacy of the practice domain of nursing.

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Contact

[ibajnok@rnao.org](mailto:ibajnok@rnao.org)

## D 13 - Practices Within Nursing Education

### Debunking the Myths about Private Sector Nursing Education

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*Susan L. Groenwald, PhD, RN, USA*  
*Connie R. Curran, EdD, RN, FAAN, USA*

#### Purpose

The purpose of this presentation is to identify common perceptions about private sector nursing education, and to engage participants in a discussion that helps debunk myths.

#### Target Audience

All those engaged in nursing education or clinical practice where students are trained or hired.

#### Abstract

A significant gap in knowledge about private sector ("for-profit") education currently exists, both in general and specific to nursing education. While myths and misperceptions abound, growth of private sector nursing education programs in the U.S. has sky-rocketed. The authors will facilitate a discussion in which common perceptions about private sector education are identified and discussed. Using available data, the authors will separate truth from fiction, and will compare and contrast strengths and weaknesses among all sectors of education at both the undergraduate and graduate level. The authors will suggest measures that could be used to assess the quality of nursing education programs, regardless of sector, and discuss how those measures could serve as the basis for evidence-based research in nursing education that could help standardize the way nursing programs are assessed for quality.

#### Contact

[sgroenwald@chamberlain.edu](mailto:sgroenwald@chamberlain.edu)

## D 13 - Practices Within Nursing Education

### Teaching/Learning Strategies to Integrate Genetics and Genomics into Undergraduate Nursing Education

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*Leighsa Sharoff, EdD, RN, NPP, AHN-BC, USA*

#### Purpose

To explore the implication of integrating genetics and genomics into nursing curriculum; identify essential competencies for nurses and explore innovative teaching/learning strategies to provide for active learning. Nurse educators will learn how to enhance their students learning process to become active participants as they learn to apply their knowledge.

#### Target Audience

the nurse educator. Providing our future nurses with the basic genetic literacy level is fundamental if nursing education is to remain at the forefront of health care. The implications of genetics and genomics for nurses are becoming more evident and nurse educators must prepare our future professionals.

#### Abstract

Genetic and genomic science is redefining the understanding of the continuum of human health and illness. As a new required competency for 21<sup>st</sup> century baccalaureate nursing students, providing crucial information as outlined by the AACN Essential Competencies for Genetics and Genomics is paramount for the nursing practice. How a nursing curriculum prepares these millennial nurses to function at their highest capacity depends on how genetics and genomics are integrated into the curriculum. Integrating genetics and genomics as a stand-alone course needs to be innovative and creative while teaching the scientific content. The implications of genetics and genomics for nurses are becoming more evident, not only in the care provided but also in the numerous medications administered. Genetic causes are being discovered for an increasing number of chronic illnesses and diseases. By exploring innovative and creative formats, nurse educators will learn how to enhance their students learning process to become active participants, engaged and focused as they learn to apply their knowledge of genetics and genomics. In addition, exploring group activities such as developing a Wiki on a specific genetic condition that will then be incorporated into a group presentation, provides for collaborative learning. This presentation will explore the application of a genetics and genomics course into an undergraduate curriculum to provide the most up-to-date information, utilizing innovative teaching strategies for the 21<sup>st</sup> century nursing student. Providing our future nurses with the basic genetic literacy level is fundamental if nursing education is to remain at the forefront of health care. This presentation will explore the implication of integrating genetics and genomics into nursing curriculum; identify essential competencies for nurses and explore innovative teaching/learning strategies to provide for active learning.

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#### Contact

[isharoff@hunter.cuny.edu](mailto:isharoff@hunter.cuny.edu)

## D 14 - Evidence-Based Practices Affecting Global Women's Health

### Implementing the Promotion of Ambulation and Upright Positioning During the First Stage of Labor

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*Shelley F. Conroy, EdD, MS, RN, CNE, USA*

*Laura H. Curtis, DNP, BSN, RN, CNM, USA*

#### Purpose

to describe how an evidence-based practice change was implemented regarding the promotion of ambulation and upright positioning during labor on a unit where 90-95% of the patients remained in bed. Nursing knowledge, satisfaction and patient outcomes were assessed after the practice change and their impact will be shared.

#### Target Audience

Nurses, nursing managers and leaders, nursing and childbirth educators and faculty who lead practice change, manage the delivery of care, and/or educate nurses and patients.

#### Abstract

Although mobility in labor for low-risk women is supported by professional organizations such as the American Academy of Pediatrics, American Congress of Obstetricians and Gynecologists, the Association of Women's Health, Obstetric and Neonatal Nursing, and the Royal College of Obstetricians and Gynaecologists, its use in some hospitals does not match this recommendation. This practice-change project introduced evidence-based guidelines regarding ambulation and upright positioning in a small labor and delivery unit in a large urban area in which approximately 90-95% of laboring patients remain in bed.

The aims of this project included: 1) establishing baseline knowledge and attitudes of unit staff regarding ambulation and upright positioning; 2) developing and implementing a guideline promoting the use of ambulation and upright positioning during the first stage of labor; 3) increasing patient satisfaction with the labor experience.

In order to translate the evidence into practice, evidence-based guidelines were developed and implemented to promote ambulation and upright positioning during the first stage of labor at a suburban hospital's labor and delivery unit using the Knowledge to Action (KTA) translational framework by Graham et al. (2006). KTA is appealing because it has the ability to be fluid in its steps if needed; however, it lays out a logical and sequential path for moving from knowledge to action and implementation.

Buy-in was sought from key stakeholders including: the Chief Nursing Officer (CNO), Chief of Obstetrics, Chief of Obstetrical Anesthesia, Director of the labor and delivery unit, Unit Nursing Supervisors, and key unit staff such as charge nurses and tenured OBTs. Letters of project endorsement from the Director of the unit and the CNO were received. Preparation of the unit staff began with educational in-services regarding the proposed change. During these in-services, knowledge and attitudinal assessments were collected before and after the in-service. These assessments were developed specifically for use during the project, and helped serve as points of specific data collection. During this time, the unit staff was introduced to the proposed practice change in a document titled, "Guidelines: Ambulation and upright positioning during the first stage of labor." This document served as a guide for the proposed practice change. The nurses and unit staff were also oriented to the data collection procedure for the purposes of the project during these meetings.

Pre-implementation baseline data was collected via chart review by the Project Manager to ascertain the frequency of patients' upright positioning and mobility as was currently practiced on the unit. During implementation, nurses used paper documentation regarding use of upright positioning and mobility during labor, patient demographics, length of labor, adverse maternal/fetal outcomes, type of labor (spontaneous, induction, or augmentation), type of anesthesia at delivery, cervical dilation at time of epidural anesthesia, and mode of delivery.

Thirty-three patients were included in the study project, 18 nurses were included in a pre-test and first post-test, and 15 nurses were included in a second post-test. Results indicated that during implementation, 89.2% of eligible patients participated in data collection and used ambulation and upright positioning during their labors. Nursing data suggested that nurses felt comfortable caring for mobile laboring women and believed they should have the option to do so. After implementation, an increased percentage of nurses responded they currently offer mobility in labor.

This study is the first in recent literature to assess nursing knowledge and attitudes towards the mobile labor patient. The results also agree with current literature in regards to the safety of ambulation and upright positioning, as well as patient desire to do so.

The findings of this project are similar to those of other studies. As in other studies, women find the use of ambulation and upright positioning during labor satisfying (Bloom et al., 1998; Frenea et al., 2004; Miquelutti et al., 2007; Stremmer et al., 2005). This study went a step further, asking the participant to rate her satisfaction with different positions using a Likert scale. These findings also agreed with existing literature and showed that the majority of participants liked the individual positions used over the course of their labor (Bloom et al., 1998; Frenea et al., 2004; Miquelutti et al., 2007; Stremmer et al., 2005). The data collected during the participants' labor revealed no NICU admissions for infants of any of the study participants, which also supports previous literature's findings of no adverse neonatal outcomes (Albers et al., 1997; Ben Regaya et al., 2010; Bloom et al., 1998; Karraz, 2003; Miquelutti et al., 2007; Stremmer et al., 2005; Vallejo et al., 2001).

This project also examined the nursing knowledge, attitudes, and beliefs surrounding ambulation and upright positioning during labor in order to facilitate the practice change. Overall, the nurses indicated good knowledge of the benefits of such positioning, and felt they were comfortable caring for these patients. However, it is noted that some knowledge deficits about the benefits of mobility in labor existed as evidenced by pre-test data, but these knowledge deficits decreased on the subsequent post-tests, in that 100% of nurses were answering correctly. After implementation, nurses agreed patients should have the option to be mobile. This finding suggests that, in this institution, nurses feel comfortable caring for and supporting patients who desire mobility during labor. Likert scale scores improved after the first post-test, suggesting the in-service given with the project manager was helpful in empowering the nurses' feelings and beliefs about ambulation and upright positioning. When the second post-test was given after cessation of patient data collection, the nursing Likert-scale scores changed. It appears that nurses, in general, had a tendency to answer on either extreme of the Likert scale. In future studies, it may be helpful to have a free-text section for comments from nursing staff about why they scored sections as they did.

As a result of this project, more patients ambulated and assumed upright positioning on this unit than had previously, and more nurses reported offering mobility in labor to their patients than prior to implementation. During implementation, 33 out of 37 eligible patients (89.2%) had data collected and used upright positioning and ambulation during their labor. This is noticeable improvement, as only 10-15% of patients were mobile during labor before implementation. Promoting upright positioning and mobility is an important step in empowering women and their care providers during labor, and is widely accepted among professional organizations.

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## Contact

[SFCONROY@PRODIGY.NET](mailto:SFCONROY@PRODIGY.NET)

## D 14 - Evidence-Based Practices Affecting Global Women's Health

### Effects of Herbal Tea on Postpartum Sleep Quality

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*Chung-Hey Chen, PhD, Taiwan*

#### Purpose

The purpose of the presentation is to examine the effects of German chamomile tea and Lavender tea on Taiwanese women's fatigue, depressive symptom, bonding with infant, and sleep quality during postpartum.

#### Target Audience

The target audience of this presentation is to all the health professionals.

#### Abstract

**Background:** Postpartum sleep disorder is a significant problem for postnatal women. Although influence factors that might predispose postnatal women to sleep disorder have been identified, few studies are made to test its intervention protocols. **Aim:** This study aimed to test the effects of herbal tea on postpartum sleep quality. **Methods:** A total of 120 normal postnatal women were randomly assigned to the experimental group I (n = 40), experimental group II (n = 40), or the control group (n = 40). The participants in experimental group I drank German chamomile tea and experimental group II drank Lavender tea respectively for two weeks. Outcome measures include Postpartum Sleep Quality Scale (PSQS), Edinburgh Postnatal Depression Scale (EPDS), Postpartum Fatigue Scale (PFS), and Postpartum Bonding Questionnaire (PBQ). All the participants completed the Demographic Data Form and pre-tests, 38 participants in German chamomile tea group, 35 in Lavender tea group, and 38 in control group completed the 2-week post-tests. 34 participants in German chamomile tea group, 35 in Lavender tea group, and 37 in control group completed the 4-week post-tests. **Results:** Postnatal women drinking 2-week Lavender tea showed significant effects on postpartum fatigue, depressive symptom, and bonding with infant. Postnatal women drank 2-week German chamomile tea could significantly improve physical symptoms-related sleep inefficiency and depressive symptom; the effects of German chamomile tea on improving depressive symptom can be extended over two weeks.

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#### Contact

[chunghey@mail.ncku.edu.tw](mailto:chunghey@mail.ncku.edu.tw)

## D 14 - Evidence-Based Practices Affecting Global Women's Health

### A Study on Teaching-Learning Methods to Promote Self-Directed Learning for Women's Health Nursing

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*Jiin Kim, PhD, RN, RNM, South Korea*

#### Purpose

It's gradually decreasing to get opportunities of clinical training for nursing students due to decreasing birthrate and patient safety-first policy in hospital. The purpose of this study is to develop Self-directed Teaching-learning methods of liaison between the school and clinical setting for women's health nursing.

#### Target Audience

The target audience of this presentation is nursing professors who are interested in teaching-learning methods.

#### Abstract

**Goal:** It's gradually decreasing to get opportunities of clinical training for nursing students due to decreasing birthrate and patient safety-first policy in hospital. The purpose of this study is to develop Self-directed Teaching-learning methods of liaison between the school and clinical setting for women's health nursing.

**Method:** The participants were 120 3rd grade nursing students of D college in Daegu city who had studied women's health nursing in 2013. Data were collected from March to June using self-reported questionnaires. Instruments were the ability of Self-directed learning(Cho, 2011) and 20-question multiple-choice test. These were used to evaluate for course outcome of the lecture. The data were analyzed by frequency, percentage and paired t-test through SPSS 14.0 pc version.

**Results:** The results of analysis are as followed.

First, the analysis showed that pregnancy induced hypertension(4.01) and bleeding problem(3.98) is the most interesting subjects.

Second, lecture(4.40), audiovisual education(4.24) and simulation(3.26) are preferred to the teaching method.

Third, there was a statistically significant positive correlation after self-directed teaching-learning method application( $p=.000$ ).

**Conclusion:** In spite of these results, it is recommended that further research be conducted with the large-scale samples from different areas and schools.

And it is recommended that teacher try to expose students to a variety of learning methods and to apply actively simulation-based teaching methods for promoting learners' autonomy. Also, the curriculum should be improved in order for students and teachers to have more choices about the outcome-based learning.

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#### Contact

[jiin0904@dhc.ac.kr](mailto:jiin0904@dhc.ac.kr)

## E 12 - Educational Simulation Strategies

### Enhancing Nursing Students' Medication Safety Competencies with a Pediatric Medication Simulation Experience

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*Donna M. Mesler, PhD, RN, CPNP, USA*

*Marcia Gardner, PhD, RN, CPNP, CPN, USA*

*Diane Stewart, MSN, RN, APNc, USA*

#### Purpose

The purpose of this presentation is to describe outcomes of a pediatric medication simulation experience in baccalaureate nursing students. Strategies for the development of outcome measures for a pediatric medication simulation experience and student responses will be discussed. Post-simulation competencies were retained in the clinical context.

#### Target Audience

The target audience of this presentation is nurse educators, graduate and undergraduate nursing students and anyone who works with simulation. Anyone who teaches or reviews medication administration with student nurses or novice nurses could benefit from this presentation.

#### Abstract

**Background and Problem:** Medication administration can absorb a significant amount of nursing time in the acute care setting, and medication errors have been reported to occur in as many as 47.5% of administrations (Holland, et. Al., 2012). Errors have been identified at all points in the medication administration process, from calculation of dosage to delivery of the dose to the patient, and in all patient populations, including the physiologically vulnerable pediatric population. Medication errors can be particularly devastating to pediatric patients as a function of physiologic differences from adults (Gonzales, 2010; Kaushal, Bates, Landrigan, McKenna, Clapp, Federico et al., 2001). Decreasing medication errors is a national safety goal, and error prevention must be, and is addressed in pre-licensure nursing curricula (IOM, 2011). However, evidence in support of the best education practices to address this important issue is scant. Traditional methods for ensuring medication administration and safety competencies often include dosage calculations tests coupled with medication administration experiences in the clinical setting. This model has become increasingly inadequate, as clinical sites that are able to provide the needed skills are increasingly in short supply (Butler & Veltre, 2009). To address this concern and facilitate the development of appropriate knowledge, skills and attitudes (KSAs), we developed and evaluated a medication administration safety competency simulation experience for a baccalaureate-level pediatric nursing course (Harder, 2010; Leigh, 2008).

**Methods:** The quality and Safety Education (QSEN) competencies were utilized to develop four simulations involving the process of medication administration to infants and children, incorporating pertinent knowledge, skills and attitudes (KSAs) for safe and effective nursing practice. Simulations were piloted in a group of eight students from a semester-long nursing of children course and were further utilized with 107 students in a subsequent semester. Analysis of student outcomes from the pilot project resulted in refinement and expansion of the scenarios. After completion of the simulation exercises, students completed a 10-question evaluation of the experience.

**Findings:** A majority of students demonstrated competencies related to planning for and administration of pediatric medications, accuracy of dosage calculation, knowledge of medication therapeutics, modification of interventions by developmental levels of children. Student feedback was uniformly positive. Students expressed increased understanding of components of medication administration to infants and children and confidence in their abilities to administer medications. They recommended additional focused simulation experiences. Post-simulation competencies were retained in the clinical context.

**Implications:** Further exploration of outcomes of such simulation experiences, related to quality and safety, will expand the evidence base for best educational strategies to promote medication

competencies. We plan to expand the use of this educational intervention, and collect skill, competency, safety, and nursing efficacy-related data in a multi-site study.

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### Contact

[Donna.Mesler@shu.edu](mailto:Donna.Mesler@shu.edu)

## E 12 - Educational Simulation Strategies

### A Comparison of Students' Perception on Effectiveness of Integrating Electronic Health Records into Simulation in Undergraduate Nursing Program

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Weihua Zhang, PhD, APRN, USA  
Darla Ura, MA, RN, ANP, BC, USA  
Barbara Kaplan, MSN, RN, USA

#### Purpose

The purpose of this presentation is to report the difference on simulation effectiveness perceived by the students in the group with and without utilizing electronic health records in simulation exercise. The findings of the study also provided an evidence based practice in teaching that could help other nursing educators.

#### Target Audience

The target audience of this presentation will be nursing educators either in academic settings or clinical settings.

#### Abstract

Background: Electronic Health Records (EHR) make real time point of care efficient. Interdisciplinary teams can view the most updated patients' progress thus ensuring safe and quality care. We implemented EHR into our existing simulation exercise and attempted to see a change in students' perception on effectiveness of the simulation in our undergraduate nursing program.

Purpose: The main purpose of this implementation is to assess the difference on simulation effectiveness perceived by the students in the group with and without utilizing EHR in simulation exercise.

Method: Cross-sectional design and convenience sampling were used to compare the effectiveness perception data collected from the students after the simulation in these two groups. The difference in perception was compared by using the t-test.

Result: There is no statistically significant change in students' perception ( $t = .79$ ,  $p = .42$ ) between the simulation (SIM) and the simulation with EHR integration (SIMEHR) group. The total score of the first 13 survey questions (which were the same questions used for both years) was used for the analysis. The total score of the first 13 questions was 34.07 in the SIMEHR group and 33.42 in the SIM group with 106 out of 110 participants in the survey in the SIMEHR group versus only 36 out of 99 students responded to the survey in the SIM group from the previous year. The confidence in providing care and knowing the patient by utilizing electronic health records has been reported as between somewhat agree to strongly agree.

Discussion and implication: Integrating EHR into simulation did not significantly change students' perception on simulation effectiveness. The implication from this study is that the integration of EHR into the simulation can be accomplished with careful prior planning with emphasis on introducing the strategies that enhance students' ability to get familiarized with the EHR system. Positively comments on students' ability and confidence in using the EHR and providing patient care further support this implication.

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Contact

[wzhang3@emory.edu](mailto:wzhang3@emory.edu)

## E 13 - Patient Safety Impacts on Evidence-Based Practice

### Nursing Students' Perceptions of Knowledge and Training during the Medication Administration Process

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*Kelly J. Betts, EdD, MNsc, RN-BC, USA*

#### Purpose

The purpose of this presentation is to present student nurses' perceptions of knowledge and training during the medication administration process

#### Target Audience

The target audience of this presentation is nursing education faculty in undergraduate nursing programs, nursing educators of various levels and clinical nurses who work as preceptors of students in the clinical hospital setting.

#### Abstract

Medication administration in nursing programs is a key skill that nursing students must master prior to graduating and entering the nursing workforce. Lack of pharmacology knowledge, safety, and skill proficiency is detrimental to the safety and welfare of patients. At the University of Arkansas for Medical Sciences College of Nursing baccalaureate program nursing students have demonstrated a lack of performance of the medication administration process as evidenced by anecdotal feedback from students and faculty, and post course evaluations. The purpose of this study was to examine nursing students' perceptions of their knowledge, skill proficiency, and safety during the medication administration process during the first year of nursing school with the intent of creating an instructional program that intends to improve nursing student performance. The conceptual framework utilized in this study was based upon the work of Benner and her attempt to capture skill competence and knowledge using the seven domains of nursing practice. The key research questions in this study focus on the students' perceptions of required knowledge, skill proficiency, and faculty instruction before, during, and after medication administration instruction. Results from the study were very similar to other literature regarding student's experiences with medication administration. Themes identified throughout the study indicated that students lacked skill proficiency and knowledge related to stress factors that occur during the clinical shift, fear of making medication errors, lack of knowledge regarding pharmacology, the complexity of the patients and the medications that patients receive, and positive feedback regarding their clinical instructors and buddy nurses on the clinical units. Since medication administration skill instruction affects nursing students globally, implications from this study can be used to better understand how students perceive their training for the medication administration process. This affects social change from a local perspective as faculty can develop more effective ways to teach nursing students how to safely administer medications hence promoting safe and positive outcomes for patients receiving medications administered by nursing students.

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#### Contact

[kbetts2@uams.edu](mailto:kbetts2@uams.edu)

## E 13 - Patient Safety Impacts on Evidence-Based Practice

### Nurses' Patient Safety Competencies in Korea

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Haena Jang, MSN, RN, South Korea  
Nam-Ju Lee, DNSc, RN, South Korea

#### Purpose

The purpose of this study is to investigate nurses' patient safety competencies (PSC) in Korea.

#### Target Audience

The target audience is educator and clinical nurse in both of college and clinical field of nursing.

#### Abstract

**PURPOSE:** The wave of patient safety emerged in the early 2000s with IOM's report 'To Err is Human: Building a Safer Health System' in the form of a sustained renovation of healthcare field (Kohn & Corrigan, 2000). Accordingly, intense criticism of the lack of healthcare profession's competency to assure patient safety has surfaced (Greiner & Knebel, 2003) and great attention has been shown to the question of how nurses prepare for patient safety in terms of attitude, skill, and knowledge. Yet so far, no definitive answer has been given to this question in Korea. The purpose of this study is to investigate nurses' patient safety competencies (PSC) in Korea.

**METHODS:** Data were collected from 346 nurses working in the three high-level general hospitals in the Metropolitan area, South Korea. This study used Patient Safety Competency (PSC) measurement tool for nursing students developed by Lee (2012) to assess nurses' competencies of patient safety. The PSC is a self-report questionnaires using Likert scale and includes attitude (18 items), skill (21 items), and knowledge dimension (6 items). Its internal reliability (Cronbach's alpha) in the original study was .90 (Lee, 2013) and it was .95 in the current study.

The PSC's validity was verified using content validity with four experts (three team leaders in quality improvement departments in high-level hospitals, one professor in college of nursing) in this study. The construct validity of PSC measurement tool was confirmed through experimental factor analysis (EFA) in this study. After the pilot survey with 11 nurses, main survey was conducted from January and February 2012.

The present paper was designed to test the hypothesis that nurses' patient safety competencies would differ by their length of clinical career and working units on the base of Benner's model of skill acquisition (Benner & Tanner, 1987).

The general characteristics were analyzed using descriptive statistics. The PSCs of participants were analyzed with t-test, one way ANOVA, and Chi-squared test.

**RESULTS:** There were significant differences in the total scores of PSC according to the previous experience of patient safety education and role, the length of clinical career, and current working units and hospitals. The longer clinical experience nurses had, the higher PSC scores reported. The nurses working in emergency rooms reported significantly higher scores in the total of PSCs than those who in the other working units (ward, operating room, intensive care unit). The mean of the total PSC scores for all participants was 3.93( $\pm$ 0.41); attitude, skill, and knowledge had mean values of 4.36( $\pm$ 0.37), 3.82( $\pm$ 0.52), and 3.30( $\pm$ 0.67), respectively.

**CONCLUSION:** The results of this study show that the length of clinical career and working units should be considered in applying interventions to enhance nurses' patient safety competencies. There was a gap among working units in the levels of nurses' PSCs, therefore, subsequent studies should investigate the relevant influence factors of this gap and make up the specific strategies to narrow this space.

We need to endeavor to continuously assess nurses' patient safety competencies in accordance with clinical career progress. Also, we should try to fill out the lack of competency through developing of systematic patient safety curriculum considering nurses' clinical career and working units to enhance nurses' integrated patient safety competencies.

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## Contact

[wisehaena@gmail.com](mailto:wisehaena@gmail.com)

## **E 14 - Using EBP Within the Elderly Population**

### **Fall Prevention Algorithm for the Older Adult Population: A DNP Project Utilizing Evidence-Based Practice and Translational Research**

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*Jeffrey Williams, DNP, RN, CCRN, CCNS, USA*

#### Purpose

The purpose of this presentation is to present a Doctor of Nursing Practice project that shows how translational research can be utilized to translate an evidence-based community dwelling older adult fall prevention algorithm into an algorithm for use in the acute care setting.

#### Target Audience

The target audience of this presentation is all clinical staff to include staff nurses, staff educators, nurse managers, nurse administrators, advanced practice nurses, and both undergraduate and graduate nursing students.

#### Abstract

**Significance /Background:** Prevention of falls in the older population is an important issue in patient safety. Assessing patients for fall risk is a standard part of the hospital admission process. The American Geriatrics Society (AGS), in collaboration with the British Geriatrics Society (BGS), revised and published an updated version of its previously published guideline entitled "Falls Prevention in the Older Person." The updated version is titled "2010 AGS/BGS Clinical Practice Guideline: Prevention of falls in older persons."

**Purpose:** The purpose of this project was to decrease the risk of falling in the older adult population during hospitalization with the utilization of an adapted evidence-based fall prevention algorithm. The decreased risk of falling will lead to a decrease in the number of falls in the older adult acute care patient.

**Intervention:** The intervention utilized an adaptation of the algorithm, established within the guideline for the prevention of falls in older persons living in the community within an acute care unit in those patients over 65 years of age.

**Evaluation:** Evaluation of the adapted algorithm occurred in a twofold process. First, the adapted algorithm was evaluated by comparing the number of falls and the fall rate before and after implementation of the algorithm. Second, the algorithm itself was evaluated with a simple survey given to the registered nurses on the pilot unit that evaluated multiple aspects including ease of use, the education received on the TUG test, the simplicity of the TUG test, and whether or not the adapted algorithm is a beneficial tool. The survey was given through Survey Monkey utilizing an online survey tool.

**Discussion:** Falls prevention in the older adult in the acute care setting must be a priority for all healthcare organizations. The importance of falls prevention in the older adult in the acute care setting must be reinforced at all levels of the healthcare organization. The older adult population is growing as will the

number of hospital admissions. Nurses provide most of the patient care and spend the most time with patients, which places nurses in the perfect position to be the champions of fall prevention. The use of an algorithm is simple and beneficial, allowing nurses to target specific safety related aspects of patient care. Through the use of the algorithm, healthcare organizations will be able to reduce the risk of falls in the older adult, thus reducing the number of falls in the older adult in the acute care setting.

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## Contact

[jsw082668@gmail.com](mailto:jsw082668@gmail.com)

## E 14 - Using EBP Within the Elderly Population

### Factors Affecting the BODE Index of Thai Older Adults with COPD

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Rewwadee Petsirasan, PhD, RN, Thailand

#### Purpose

I would like to share the clinical outcome of COPD patient in rural area to any nurse researcher.

#### Target Audience

Nurse researcher and staff nurse

#### Abstract

*Rationale:* The aim of this cross-sectional study was to explore factors attribute to the severity of COPD among older adults with COPD in southern part of Thailand.

*Methods:* This study was conducted with 105 older adults who are 60 years and above with diagnosed COPD for a year and recruited by using systemic random sampling technique. The subjects were assessed BODE index: the body-mass index (B), the degree of airflow obstruction (O) measured by FEV<sub>1</sub> percentage of the predicted value, dyspnea (D) measured by the modified Medical Research Council (MMRC) dyspnea scale, and exercise capacity (E) measured by the 6 minute walk distance (6MWD). The higher scores indicate a higher risk of death. Socio-demographic information, Personal Health Questionnaire Depression Scale (PHQ-9), smoking status, and other clinical data were collected. Descriptive and multiple regression analysis were applied for data analysis.

*Results:* Most patients (84%) were male; they had a mean (SD) age of 72(8) years and mild to severe COPD (FEV<sub>1</sub>% 69(10) predicted) with BODE index score 3(2) points. The study showed that BODE index scores related to age ( $r = .26, p < .01$ ), length of stay ( $r = .20, p < .05$ ), income ( $r = -.25, p < .05$ ) and depression ( $r = .26, p < .01$ ). The regression analysis shows that BODE index score were affected by age ( $p < .05$ ) and depression ( $p < .05$ ).

*Conclusion:* This study shows that the most affected older patients on the severity of COPD were age and depression. Therefore, nurse should be concerned the influence of depression on older adults with COPD.

#### Contact

[prewwadee@wu.ac.th](mailto:prewwadee@wu.ac.th)

## E 14 - Using EBP Within the Elderly Population

### What Impact Does Pharmacist Led Medication Reconciliation Strategies Have on Reduction of Medication Errors in the Older Adult?

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Lorraine A. Von Eeden, DNP, CPNP/ FNP, RN, USA

#### Purpose

The purpose of this presentation is to provide evidence-based information on pharmacist led medication reconciliation strategies and its effect on medication errors in the community dwelling older adult.

#### Target Audience

The target audience of this presentation are nurse practitioners, physicians, pharmacists and other health care personnel who work with the older adult community dwelling population.

#### Abstract

To study the role of the pharmacist in optimizing medication reconciliation strategies and the potential impact on medication related problems in community dwelling older adults Purpose

**Purpose:** To determine what effect a pharmacist-led intervention can have on medication reconciliation strategies /medication errors in the community dwelling older adult.

**Methods:** This review considered studies that evaluated the effects of medication reconciliation strategies on medication errors in community dwelling older adults. The target population was older adults, 65 years and older and living in the community. Excluded were any older adults with dementia or who were dependent on family members or other individuals for the provision of care. The primary outcome measure studied in this review was number of medication errors.

**Results:** This review yielded three studies for consideration; 2 level one randomized controlled trials (RCT's), and 1 level three prospective randomized comparative study. Each study presented evidence to support the positive outcomes of a pharmacist led medication reconciliation process on medication errors for community dwelling older adults. The way in which the pharmacist conducted the medication reconciliation process, however, varied greatly in each of these studies. Reconciliation processes included: medication reconciliation and review face-to-face with patients in the physician's office; home visits with patients; and a reconciliation process that stemmed from a team based approach to care.

**Implications for practice:** This review suggests that clinicians support pharmacist-led medication reconciliation, specifically for older adults residing in community settings. This support is integral to the health of the older adults in terms of identifying and preventing medication errors, and in the development of appropriate recommendations to primary care providers for appropriate medication adjustments.

**Implications for Research:** This review underscores the need for continued research in order to determine the effectiveness of pharmacist led medication reconciliation strategies on medication errors in the community dwelling older adults. Additionally, there is a need to develop more research initiatives that study medication reconciliation within a team-based approach; a need for more evidence-based information relating to interdisciplinary team functioning. Research should focus on who the members of the team are, roles and responsibilities of each team member, what facilitates the effectiveness of a team, and most importantly, the impact on medication errors. Additionally the context within which medication reconciliation is carried out, such as types of settings - in the patient's home, in the pharmacy, in the primary care provider's office - warrants future research.

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Contact

[lv01447n@pace.edu](mailto:lv01447n@pace.edu)

## F 12 - Patient Education and Treatment Modalities

### Enhancing Adherence to Treatment for Clients with Serious Mental Illness

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Valerie N. Markley, BSN, MSN DNP, USA

#### Purpose

to report the results of an intervention study using technology for communication among providers and clients between office visits to increase adherence to treatment for adults with serious mental illness in support of evidence based practice emphasizing the impact of the therapeutic alliance as conceived by Hildegard Peplau.

#### Target Audience

nurses and providers caring for clients with serious, chronic illnesses. The participants in this study were psychiatric clients; however, the review of literature and the intervention used could be applicable to working with clients with other chronic illnesses.

#### Abstract

Non-adherence to treatment is a common problem in many chronic disorders with higher rates among clients with mental disorders. Non-adherence to treatment greatly compromises the effectiveness of psychiatric treatment and is associated with higher rates of relapse, hospitalization, and increased health care costs. Hildegard Peplau's theory of the nurse-client relationship and Ludwig von Bertalanffy's general system theory provide a model for intervening to increase adherence. The study was conducted over a 90 day period in the outpatient service of a for-profit psychiatric hospital. The intervention involved communication between office visits by an advanced practice nurse who contacted clients via phone or email. Thirteen adult clients between the ages of 21 and 59 agreed to participate (four males and seven females). Patients' diagnoses included bipolar disorder, major depressive disorder, anxiety disorder, and post traumatic stress disorder. All of the participants were new to the clinic and had a history of inconsistent compliance with medications. Clients were asked to keep a daily log of psychotropic medications taken. They were considered as meeting the goal of adherence when taking the medication 75% of the time. Their attendance to psychiatric appointments was also recorded. Chi-Square tests indicated that APRN communication was significantly associated with consistent adherence to medications ( $\chi^2 (1, N = 13) = 13.00, p < .001$ ) and to psychiatric appointments ( $\chi^2 (1, N = 13) = 13.00, p < .001$ ). These results support the use of an evidence based intervention to enhance adherence to psychiatric treatment. Recommendations for further study include recruiting the psychiatric providers to provide the intervention and conducting a cost effectiveness analysis.

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## Contact

[markley@indiana.edu](mailto:markley@indiana.edu)

## F 12 - Patient Education and Treatment Modalities

### A Primary Health Care Campus Drive in Responding to a Research Study of University Students' Knowledge, Perception Towards Human Papillomavirus (HPV) Infection and Vaccination, and Acceptance of Vaccination for Themselves: Comparison Between Males and Fem

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Kar Yan Alice Wong, PhD RN, Hong Kong

#### Purpose

The purpose of this presentation is to showcase the involvement of first year nursing students in campus health by giving primary healthcare promotion activities on HPV prevention.

#### Target Audience

The target audience of this presentation are Nurse academics and nurse educators.

#### Abstract

**Background:** Human Papillomavirus (HPV) infection becomes one of the commonest sexually transmitted diseases (STDs) nowadays. The common types of HPV caused more than 70% of cervical cancers and 90% of genital warts worldwide. Two HPV vaccines were available since 2006, which were approved to be safe and effective in preventing HPV-related infections. The effectiveness is optimal in people before sexual activity. As the mean age of first sex in Hong Kong found was 20 years old, it is vital to understand the vaccination status, acceptance, knowledge and perception towards HPV infection and vaccination among Hong Kong undergraduates who is the target group of vaccination.

**Aim:** To train first year nursing students to promote primary health care (PHC) on campus during Summer 2013 by addressing the myth versus knowledge, perception and acceptance towards HPV infection and vaccination between male and female university students in Hong Kong.

**Method:** Former research findings obtained from self-administered questionnaire including socio-demographic characteristics, awareness, knowledge and perceptions of HPV infection and vaccination, sexual history, medical history of personal and significant others as well as vaccination status, was used in the study. The HPV prevention health pamphlets and mobile board games were used to achieve health prevention for both male and female undergraduates.

**Results:** Over a thousand peer-students-encounter of primary healthcare activities were conducted in following up the results based on former research study from 2243 of undergraduates participants. 14.6% (n=180) of female have received the vaccine when only 1.4% (n=1011) of male have initiated with a significant difference (p=0.000). The acceptance varied between genders as 20.7% of female accepted and 2.1% of male accepted (p=0.000). They had moderate knowledge level towards HPV when female scored higher significantly (p=0.000). The relationship between knowledge level and acceptance was shown in female group when the accepted one had higher knowledge. Perceptions which were assessed by the Health Belief Model (HBM) showed significant differences among them. Male had lower susceptibility, severity, benefits, cues to action and self-efficacy with higher barriers (all p=0.000). The relationship between all items of perceptions and acceptance were shown in female group when the relationship of perceived barriers and acceptance was shown in male group.

**Conclusion:** As PHC activity prepared students were using different purposive strategies for health education and promotions for undergraduates as the differences between genders and age group were identified.

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## Contact

[alice.ky.wong@polyu.edu.hk](mailto:alice.ky.wong@polyu.edu.hk)

## F 13 - Diverse Language Challenges Within Nursing Practice

### Beyond the Language Barrier: "See," "Hear," "Speak," "Help Me"

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*Shirin Badruddin Verasia, MSN, BSN, Saudi Arabia*  
*Shazia Arif, BSN, RN, Saudi Arabia*

#### Purpose

The purpose of this study is to focus on the importance of implementing a communication toolkit to enhance the communication between the nurse and the patient, to overcome the language barrier, provide safe effective patient care and provide excellent quality care.

#### Target Audience

health care professionals

#### Abstract

Language is an important means of communication. King Faisal Specialist Hospital & Research Centre employs staff from 87 different cultures; a significant number of these staff delivers front line care to patients and families. Statistics showed that staff nurses from 38 different nationalities are hired to work in King Faisal Specialist Hospital and Research Centre (KFSHRC) with 900 beds (Admission data, 2012). In the intensive care unit, when these new nurses arrive, their grasp of Arabic is limited. The uniqueness of this situation poses great challenges in day to day communication. Although the hospital supports the use of the English language in the workplace, the reality is that many patients and relatives are Arabic speaking only. The consequence of this is that a second party often carries out communication; usually consisting of the family, care givers or hospital interpreters. This can lead to confusion occurring between parties' e.g. interpretation of medical terminology, clarity, sharing of culturally sensitive information and the lack of confidentiality. This situation can be compounded by the patient's inability to understand, or that they may have hearing or language difficulties.

A systematic and comprehensive search was done in January, 2013, to access research studies on overcoming language barriers among health care professionals and patients. Various words and phrases were used to guide the search that included: communication, language barriers, language conflict, overcoming language barriers and strategies to reduce language barriers. Data bases such as CINAHL, Pubmed, Sage and Science Direct were used to guide the search. The search ranged from 2003 to 2012. A total of 230 articles appeared relevant, but after reading the abstracts only fifteen were found relevant to the study purpose.

Literature search highlighted that most of the studies were conducted in the western region but none of the studies were found in the Middle East. In addition, most of the studies have explored the perceptions and feelings of the health care professionals including expatriates nurses and doctors about caring for patients with different language. Studies have emphasized the use of interpreters but none of the studies focus on the interventions to overcome the language barriers.

The communication toolkit is an education tool for non- Arabic speakers by expediting learning of Arabic language skills.

This communication project was created using collaborative decision making, different units worked together to help create the toolkit.

Patients are at the focus point in this project raising the standards to ensure patient satisfaction is a vital aspect for the hospital. Nursing staff care, understand the culture and are experienced in the art of nursing Saudi patients; using these key aspects the nursing staff was able to develop the toolkit flipchart, which is sensitive to the Arabic culture. Maslow's Hierarchy of needs model was addressed as spirituality is one of the main components in the communication flipchart. Benner's Model has been addressed by nursing staff utilizing their experience and skills to draft a creative communication toolkit that attempts to address a gap in the language barrier within in the organization. The Communication toolkits aim is to overcome the language barrier, provide safe effective patient care and provide excellent quality care.

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## Contact

[f1502957@kfshrc.edu.sa](mailto:f1502957@kfshrc.edu.sa)

## **F 13 - Diverse Language Challenges Within Nursing Practice**

### **Connections for Learning: An Innovative Program to Support Culturally and Linguistically Diverse Students**

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*Robyn E. Nash, PhD, MHSc, BA, RN, RCNA, Australia*  
*Pamela M. Lemcke, RN, MLdsp, RCNA, Australia*  
*Rena Frohman, MA, GradCertArts, BA, Australia*

#### Purpose

Raise participants' awareness of a collaborative, co-curricular program that has been designed to support undergraduate and postgraduate students from culturally and linguistically diverse backgrounds in the Faculty of Health at a large university in Brisbane.

#### Target Audience

Academic staff who work with culturally and linguistically diverse student cohorts, and are interested in strategies to facilitate positive outcomes for students and teaching staff.

#### Abstract

Cultural, academic and social challenges can present significant obstacles to culturally and linguistically diverse (CALD) students' achievement of personal and professional goals. This paper reports on the Connections for Learning Program (CLP), a collaborative, co-curricular initiative that supports undergraduate and postgraduate CALD students in the Faculty of Health at QUT.

As expressed in the UNESCO Guidelines on Intercultural Education (2006), 'intercultural education cannot be just a simple 'add on' to the regular curriculum. It needs to concern the learning environment as a whole, as well as other dimensions of educational processes' (p. 19). Hence, the Connections for Learning Program team has intentionally designed the CLP to offer students a suite of learning opportunities that value-add to their course experience. The CLP's learning focus is underpinned by the value placed on the lived history that students bring to the learning experience. The program is oriented to minimising the linguistic challenges which can make learning more complicated, sometimes referred to as demystifying the 'hidden rules of academia', and enabling students to grow personally and academically.

The CLP comprises a suite of student-focussed strategies and capacity-building initiatives for academic staff and clinical supervisors. Based on a needs analysis undertaken in 2009, the Program addresses three focal areas of student need - Academic, Professional and Socio-cultural – through four key strategies: Language and Literacy, Workplace Preparation, Staff Development and Community Outreach. The model underpinning the CLP draws upon the four pillars of intercultural education: Learning to know; Learning to do; Learning to live together and Learning to be (UNESCO, 2006). Engagement in the

program has been substantial with more than 4,500 students participating in one or more CLP activities over 2010-2012 period.

Quantitative and qualitative data, gained through an action research framework, indicate that the CLP is having positive, sustained impact on academic and clinical outcomes. As an example, more than 70% of students identified in 2011 and 2012 as 'at-risk' of failing particular courses went on to pass these courses. These results are supported by feedback from clinical staff which highlights students' improved abilities to engage constructively with clinical practice.

Through its 4-pronged strategy and deliberative focus on creating safe, active learning environments, the CLP provides students with a powerful means to experience the 'joy of learning' (Wang et al, 2008). This is a strong catalyst for their engagement in the process and achievement of successful outcomes.

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#### Contact

[r.nash@qut.edu.au](mailto:r.nash@qut.edu.au)

## F 13 - Diverse Language Challenges Within Nursing Practice

### Validation of a Post-Entry English Language Assessment for Commencing Undergraduate Nursing Students

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*Paul J. Glew, EdD, RN, BN, BEd, GradCertClinSc (ICN), MAAppLing (TESOL), MN, Australia*

*Sharon Patricia Hillege, RN, RM, BHS, PGCert, PhD, Australia*

*Yenna Salamonson, RN, BSc, CCUCert, GDNEd, MA, PhD, Australia*

*Kathleen Dixon, RN, BA, MHA, PhD, Australia*

*Anthony Good, BSc (Hon), PhD, Australia*

*Lien Lombardo, BN, Australia*

#### Purpose

The purpose of this presentation is to discuss the validation of a post-entry English language assessment (PELA) for undergraduate nursing students through examination of the relationship between assessment of writing at course commencement using a PELA and responses to a validated survey instrument on levels of English language usage.

#### Target Audience

The target audience of this presentation is nursing educators who teach and support undergraduate nursing students in cohorts composed of diverse educational, linguistic and cultural backgrounds. These educators may be responsible for assessing the language and academic literacy skills of students at commencement and also during a nursing program.

#### Abstract

**Background:** The Australian society has become increasingly culturally and linguistically diverse as a consequence of migration and globalisation, and this diversity is reflected in students choosing to take up nursing studies in higher education (Salamonson et al. 2012). Similar trends are also reported in other developed countries, for instance, the United States (American Association of Colleges of Nursing, 2012). Although these students may meet a minimum entry requirement for university admission, some, in particular, those with English as an additional language (EAL) experienced slower rates of progression (Salamonson et al, 2011), which suggests that they may not be adequately prepared with the language and literacy skills necessary to successfully meet the linguistic demands of their studies. In response to this, a large Australian nursing school in Sydney used a post-entry English language assessment (PELA) tool to assess the writing skills of commencing undergraduate nursing students, to identify those requiring support, and to implement effective support interventions.

**Aim:** The primary aim of this study was to evaluate the utility of the PELA tool, for use with commencing undergraduate nursing students. The study also examined the relationship between students' performance in the PELA writing task and their levels of English language usage using the English language acculturation scale (ELAS), a previously validated instrument (Salamonson et al, 2013).

**Method:** Using a prospective survey design, between 2010 and 2013, commencing students who enrolled and completed a nursing communication unit (with a focus on academic literacy), and who attended a course commencement session were invited to complete a brief survey. In addition to socio-demographic information, students were also asked to complete the ELAS. A writing test using the PELA tool was also administered to grade students' writing skills, which took less than 20 minutes for students to complete. The PELA grading levels were based on a literacy criterion with Level 1 (proficient), Level 2 (borderline), and Level 3 (poor and requiring additional support). Students who received a Level 2 or 3 were recommended to undertake support interventions involving literacy workbook tasks, accessing essay planning podcasts, and attending consultations and workshops with literacy and English language specialist support staff. We sought participant's consent to link their completed survey and PELA to their enrolment status and academic grades. The university Human Research Ethics Committee approved the study. A *p* value of <0.05 was considered as statistically significant.

**Results:** Of the 3957 students who completed the nursing communication unit over the 4-year period, 2669 (67%) completed the ELAS, the PELA writing task, and provided consent for their enrolment status and grades to be linked. The following participant groups were significantly more likely to achieve Level 2 or 3 on their PELA writing task: a) non-Australian-born (chi-square: 520.6, *df.* 2,  $p < 0.001$ ); b) spoke other than English at home (chi-square: 490.2, *df.* 2,  $p < 0.001$ ); and c) international students (chi-square: 225.6, *df.* 2,  $p < 0.001$ ). There was an inverse and statistically significant relationship between participants' ELAS scores and PELA Levels ( $r = -0.52$ ,  $p < 0.001$ ), showing that participants with higher English language usage were more likely to achieve Level 1 in their PELA writing task. At follow-up, upon completion of the nursing communication unit, participants who achieved better levels in the PELA writing task were also significantly more likely to achieve higher scores in an essay assessment (chi-square: 40.2, *df.* 2,  $p < 0.001$ ), overall final mark (chi-square: 218.6, *df.* 2,  $p < 0.001$ ), and higher GPA (chi-square: 100.8, *df.* 2,  $p < 0.001$ ).

**Conclusion:** The results of this study underscore the importance of using a post-entry English language assessment as a screening tool for commencing students, particularly those at risk of academic underachievement. The study also revealed that students' performance on the PELA writing task have a direct relationship with student English language usage, and predicted academic performance in the nursing program.

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### Contact

[p.glew@uws.edu.au](mailto:p.glew@uws.edu.au)

## F 14 - EBP in the Global Clinical Setting

### Collaboration in the Chain of Stroke Care: Stroke After-Care, a Gap to be Closed

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*Bianca Ivonne Buijck, PhD, MScN, RN, Netherlands*

#### Purpose

to present the stroke after-care project of the Rotterdam Stroke Service in the Netherlands. For decades, the RSS forms a collaboration with 20 health care organizations in the care for stroke patients in the acute and chronically phase.

#### Target Audience

the group of nurses and researchers that are working in the field of care for stroke patients in the acute and chronically phase.

#### Abstract

**Background:** In the Rotterdam Stroke Service (RSS), numerous hospitals, nursing homes/rehabilitation centers and a home care organization collaborate to provide the best quality of care for stroke patients in the acute and chronically phase. After a stroke, patients are confronted with physical disabilities and changes in cognition and behavior. In spite, practice based research (RSS, 2010) shows that stroke patients do not receive adequate care and support in the home environment after discharge from the hospital, nursing home or rehabilitation centre. There is a lack of specialized care and support to learn to cope with disabilities and changing roles after stroke. This may lead to an increase of complications on all life domains, such as caregiver burden, alcohol and medication abuse, mobility problems and social isolation. Caregivers, children and spouses are faced with multiple challenges related to this vulnerable patient group. Patient target analysis shows that there is an increasing percentage of foreign residents in the Rotterdam area. This population is hard to reach for care due to cultural and language barriers. Furthermore, research shows that in the Rotterdam area residents have a more risk full life style than in other parts of the Netherlands (GGD, 2010). Therefore, two of the participants of the RSS, "Rotterdam Home Care" and "Laurens", initiated an ambitious project to improve after-care for stroke patients in their home environment.

**Method:** Eight hospitals, nine nursing homes, two rehabilitation centers and a home care organization are collaborative partners within the RSS. A taskforce was formed from individuals working in these organizations. In the project phase, three organizations participated in this project. From April 2012- November 2013, the taskforce had the goal to create a shared policy, monitor infra-structure, and design a research plan. The project was funded by ZonMW. During the project patients received out-reached nursing support consisting of home visits. The nurses collected demographic data, assessed functional abilities and used standardized checklists to record a wide range of problems that patients expressed. Lastly, focus group interviews among managers and nurses were held to determine the feasibility and applicability of the project. Informed consent of patients was obtained.

**Results:** One-hundred-forty-eight patients received out-reached nursing support. Patients were on average 68 years old. Sixty-eight patients were female. Of these patients, 85% have had a Cerebro Vascular Accident and 15% a Transient Ischemic Attack. The majority of the patients were discharged home from the hospital (86%). Patients had on average three contact moments with the nurse in the first three months after discharge. After stroke, patients reported changes concerning mobility of arm and leg (51% and 44% respectively), balance (42%), cognition (49%), communication (45%), emotion (32%), vision (10%) and behavior (9%). At baseline, 30% was unhappy with provided information. One year later, only four patients were unhappy with provided information. At baseline, 75% of the patients was happy with the support provided by health care professionals, one year later 80% of the patients was happy with provided support. In the focus group interviews, managers and nurses reported that fine-tuning of care and unity in the chain of stroke- care improves healthcare delivery. Nurses are able to detect problems in an early stage and, therefore, they can respond earlier on patient en informal caregiver needs. They feel that this ultimately can result in fewer readmissions to the hospital or rehabilitation unit.

**Discussion/conclusion:** Nurses, patients and managers are convinced that the stroke after-care project was successful in improving quality of care after stroke. Nevertheless, there is a major challenge for organizations to find financial recourses to conduct this project in the future in the Rotterdam area, because so far health care insurance does not cover the costs. Nevertheless, the participants of the RSS are continuing the project, aiming at making it care as usual. And since the project results are promising, the issue may be impactful in meetings with health care insurers.

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#### Contact

[bianca.buijck@rotterdamstrokeservice.nl](mailto:bianca.buijck@rotterdamstrokeservice.nl)

## F 14 - EBP in the Global Clinical Setting

### Barriers Impacting Rapid Access to Tertiary Care for Time Sensitive Critically Ill Patients

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*Scott M. Newton, RN, MHA, EMT-P, USA*

#### Purpose

to identify barriers that impact rapid interhospital transfers, review the problem, discuss variables, describe the impact, and summarize the evidence.

#### Target Audience

Nursing providers, leaders, administrators, educators, researchers, safety and quality officers.

#### Abstract

Introduction: Interhospital transfer of critically ill patients between community hospitals and tertiary care centers are common within the United States. Medicare data from 2005, identifies an interfacility critical care transfer volume of 47,820 (Iwashyna et al, 2009). Approximately 4.5% of all critical care patient admissions to community hospitals experiences an interhospital critical care transfer. The process for interhospital transfers is not optimized for favorable patient outcomes and is a significant problem to be addressed (Bosk, Vienot and Iwashyna, 2011).

Rapid access to tertiary care is paramount to the patient experiencing a time sensitive critical condition. Time sensitive critical conditions include acute ST-segment elevation myocardial infarction (STEMI) of which 30-50% are transferred to tertiary care (Iwashyna, 2012), acute stroke, major traumatic injury, non-traumatic surgical emergencies (such as intracranial hemorrhage, aortic dissection, neurovascular compromise, ruptured heart valve, etc.), and pediatric critical care (specialty expertise and skill at the tertiary care center). Delays in tertiary care may contribute to increased morbidity and mortality, a decrease in care system efficiency and effectiveness, an increase in costs of providing care, and a decrease in revenues for the tertiary care center (Ligtenberg et al, 2005).

The Problem: Barriers to tertiary care exist at the community hospital and the tertiary care center. Community hospital barriers include recognizing the need for tertiary care, regional knowledge of tertiary care resources, and sending provider's willingness or ability to present a case for transfer. Barriers existing at the tertiary care center depend upon the efficiency of the patient transfer request process (Warren et al, 2004). The patient transfer request process includes an initial telephone answering point, the ability to quickly contact on-call specialty care providers, availability of an appropriate specialty care bed, awareness of and access to bed availability information and a way to emergently transport patients by critical care transport teams (ambulance, helicopter or airplane). Practice is variable at referring community hospitals when making the decision to transfer a patient and tertiary care access is variable in the ability to receive a patient resulting in delays (Bosk, Veinot and Iwashyna, 2011).

**Variables and Factors:** Several variables contribute to the problem. Recognizing the need to transfer a patient with a critical diagnosis by the community hospital provider, may prevent efforts to initiate transfer early in the patient encounter. Community hospitals care team knowledge of available tertiary care resources and proximity to a tertiary care center. Existing bed capacity at the tertiary care center; without an available bed to receive the patient, the transfer cannot occur. The availability of an accepting specialty care provider at the tertiary care center; this is the provider who assumes care of the patient once they arrive. Availability of appropriate medical transport; this is the clinical team that will safely and quickly transport the patient between the sending community hospital and receiving tertiary care center. The correct specialty care nurse staffing; this is the nursing team that will care for the patient once they arrive to the tertiary care center. The efficiency of the patient referral process; the degree to which the telephone answering point is adequately equipped to quickly contact on-call specialty providers, interface with bed control for determining specialty bed availability, and to mobilize critical care transport teams impact overall access to tertiary care (Missouri Department of Health, 2010; Bosk, Veinot and Iwashyna, 2011).

**Clinical Context:** The community hospital setting typically involves the emergency department or the critical care unit. Staff involved includes emergency or critical care providers, nurses, ancillary (respiratory, laboratory, radiology, pharmacy, etc.) and support staff (clerical, housekeeping, central supply, etc.). The skill sets of these community hospital clinical providers may be exceeded by the needs of the patient that requires tertiary care. A time sensitive critical condition patient draws resources away from other patients and dilutes the overall capacity to deliver care for all the patients within the community hospital (Bosk, Veinot and Iwashyna, 2011). At the tertiary care center the setting includes the telephone answering point where the request for transfer is received, the specialty care unit where the patient will be admitted and any interventional areas such as the cardiac catheterization laboratory or the operating room. Staff at the tertiary care center involved includes the specialty care providers, critical care nurses, ancillary staff, support staff and the critical care transport team (nurse, paramedic, emergency medical technician). Administrative or clinical operations staff is responsible for facilitating communications between the community hospital and tertiary care center care teams, confirming placement of the patient in the correct patient care unit bed, and arranging the logistics of transport (Iwashyna, Christie, Moody, Khan, and Asch, 2009).

**Patients and Family Affected:** Barriers impact patients and families who are experiencing a critical illness. Time sensitive critical conditions such as acute STEMI, acute stroke and trauma have increased morbidity and mortality when time to tertiary care intervention is delayed (Jacobs et al, 2006). For example, the odds of receiving tertiary intervention for acute stroke is decreased by 2.5% for every minute of time of onset until arriving to definitive care at a tertiary care center when thrombolytics are not available or the community hospital care providers are unable or unwilling to administer the thrombolytics (Prabhakaran et al, 2011). Patient transfer delays result in patients being cared for longer at the community hospital without tertiary care, which may lead to a worsening of their clinical condition. This may result in extended, reduced patient mobility and autonomy, increased dependence on family support for daily living, increased costs of post-acute care (such as physical rehabilitation, chronic ventilator dependency, etc.) and lack of employability due to a prolonged recovery, residual physical or cognitive impairment and potential need for adaptive job skills retraining (Bosk, Veinot and Iwashyna, 2011).

**Impact on Communities and Care Systems:** Barriers to tertiary care result in reduced care system efficiency by reducing patient throughput. At the community hospital increased length of stay leads to decreased capacity to deliver care to the community because the patients are waiting to be transferred, consuming limited community resources (DeLia, 2007). Community hospitals have increased burdens to care for patients that exceed the resources available (such as nurses with specialty knowledge and skills). Critical condition patients also draw resources away from other patients, because patient acuity and instability requires community hospital staff to continuously care for the patient while waiting for transfer to a tertiary care center (Iwashyna, 2012). At the tertiary care center, diagnostic procedures performed at the community hospital are often repeated upon the patient's arrival due to issues such as variable image quality, conflicting diagnostic results or lack of clinical details from the community hospital (Jacobs et al, 2006). Repeated diagnostic procedures add cost and are generally not reimbursed by health insurance resulting in higher financial responsibility for the patient or tertiary care center. These issues contribute to the tertiary care center's reputation, and increase the risk of it becoming damaged

among community hospital providers, patients and families. A tertiary care center with a damaged reputation receives less patient referrals in the future, captures less of the market share in a region and has missed opportunities for revenue and growth (Iwashyna, 2012).

Impact on Society: Society's access to the healthcare system is decreased when access barriers to tertiary care exist. Patients, who would benefit from early intervention at a tertiary care center may become more ill, suffer complications and require more health care spending when access is delayed (Westfall et al, 2008). Tertiary care access barriers result in increased use of critical care resources at a higher cost (mechanical ventilation, vasopressors, invasive pressure monitoring) and increase the potential for complications such as hospital acquired infections, skin breakdown and prolonged mechanical ventilator use. These complications lead to an increased cost to society and persisting disabilities reduce the patients' contribution to society through shorter and less healthy lives (Entenssoro et al, 2005).

Summary: Patients who experience a time sensitive critical condition require rapid access to tertiary care. A consistent, barrier free process is important to the community hospitals, as they often do not have the capability to provide or sustain definitive care for time sensitive critical condition patients. Any barrier variable may cause a referring community hospital provider to abandon the process and keep the patient in the community hospital, or seek tertiary care services at an alternative or competing tertiary care system, that is less preferred or further away (Iwashyna et al, 2009). With the advent of health care reform in the United States, barriers impacting rapid access to tertiary care are a problem that is timely and relevant to the clinical, operational and financial performance of tertiary care centers and regional care systems.

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#### Contact

[snewton5@johnshopkins.edu](mailto:snewton5@johnshopkins.edu)

## **G 12 - Educational Strategies for Clinical Nursing Education**

### **A Faculty and BSN Student Care Delivery Model for Patients with Diabetes**

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*Patty M. Orr, EdD, MSN, BSN, USA*  
*Kempa (Kim) French, MSN, FNP-BC, USA*  
*Shondell Hickson, MSN, FNP, BSN, USA*

#### Purpose

The purpose of this presentation is to describe a community-based healthcare delivery model provided by nurse practitioner faculty and BSN students that uses the nurse practitioner as the provider and BSN students as disease managers and care coordinators and drives improved health status outcomes for patients with diabetes.

### Target Audience

The target audience of this presentation is nursing faculty, including nurse practitioner faculty and medical/surgical community health faculty, and baccalaureate nursing students. Community health center administrators would also benefit from the presentation.

### Abstract

The integrated, conceptual framework of faculty nurse practitioners (NPs) and BSN nursing students caring for a chronic disease population in the community clinic serves as a model of applied health service research. A teaching/learning clinical partnership environment serves as the pedagogy for effective, active synthesis of critical thinking and skills building with a focus on prevention by the BSN students. The care delivery model challenges faculty and nursing students to be part of the solution in providing an example of health system reform by driving improved clinical outcomes for people with chronic disease. In this study, NPs provide primary care and BSN students participate on a care delivery team with the faculty NPs. Student team members provide disease management and care coordination as a part of their BSN Community Health Curriculum. The care delivery team is evaluated based upon achievement of improved standard outcome metrics, such as HbA1c and blood pressure, for their assigned patient population. The care delivery team documents and provides evidence-based, disease-specific standard interventions and documents patient outcomes in the electronic health record. Nursing interventions administered by the BSN students promote patient adherence and include individual patient follow-up care calls, review of outcome goals, assistance in patient self-care and patient selection of healthy foods at the grocery store. The successful execution of the care delivery model has the potential for saving health care dollars by driving improved health status and preventing complications of diabetes and hypertension (Orr & Ciampini, 2014).

The primary research question is: Can a faculty/student nurse partnership care delivery model, by which students and faculty provide primary care and disease management interventions for a diverse population, significantly impact improvement in disease-specific, evidence-based outcomes? The second research question is: Can the faculty/student nurse partnership system of care provide a teaching/learning environment that supports the student nurse in: developing competencies in providing patient-centered care; working as an effective member of an interdisciplinary nursing team employing evidence-based practice; and using data in order to report outcomes and apply quality improvement tactics? Outcomes measured over a recent 6 month period indicate that both research questions are possible.

Literature to support this study centers on Institute of Medicine (IOM) recommendations, which serve as a guide to developing innovative systems of care delivery that offer the opportunity for improvement in the quality and safety for recipients of health care. Two central strategies proposed by the IOM include the use of systems for care delivery and the request to improve patients' knowledge about their treatment plans (Hurtado, Swift, & Corrigan, 2001; Kohn, Corrigan, & Donaldson, 2000). This model incorporates both central strategies.

Using funding from two community grants obtained by the school of nursing, the school of nursing care delivery model supports faculty NPs in delivering primary care for an underserved population with chronic disease. Through a student/teacher learning partnership, the study tests a model of health care delivery that offers innovation in clinical nursing education and subsequent student evaluation of clinical performance. The care delivery model supports faculty NPs practicing with BSN students to provide evidence-based standards of care for the identified population and to achieve improvement in the corresponding key disease-specific outcome metrics. BSN students learn evidence-based practice for managing and coordinating care for certain chronic disease, how to effectively influence change in patient behavior and how to assist patients in taking responsibility for self-care interventions that promote improvement in patient health status. Interventions are documented, measured and evaluated. Performance of faculty and students is based upon the achievement of evidence-based outcome metrics

for the target patient population. Students have an opportunity to experience measureable success in improving the health status for a diverse and underserved patient population. Faculty NPs and students know in advance the key goals for patient outcomes and are held accountable for results.

Tactics to facilitate an effective systems approach for care delivery include the use of culturally competent care, chronic disease management, a nurse-managed primary care medical home and use of evidence-based care guidelines. In reference to culturally competent care, the IOM addresses unequal treatment with specific recommendations to provide interventions which eliminate racial and ethnic disparities in healthcare and also makes the request for research to “provide a better understanding of the contribution of patient, provider, and institutional characteristics on the quality of care for minorities” (Smedley, Stith, & Nelson, 2003, p. 22). This study population includes primarily minorities and demonstrates effective strategies and tactics for culturally competent care that results in improved outcomes for an underserved population. Prior diversity training helped assure that faculty and students accept patients’ beliefs and values while providing care for the diverse and underserved study population.

Disease management interventions, in support of the primary care provider’s plan of care, assist the patient in actively contributing to their success in adhering to the plan of care and have been proven to drive improvement in achieving evidence-based care for large populations (Coberly et al., 2006; Coberly et al., 2007; Orr et al., 2006a; Orr et al., 2006b; Orr et al., 2006c). Follow-up support with ongoing disease management interventions integrated with culturally competent care assist the patient population in actively participating and receiving evidence-based care. These interventions contribute to improvements in the patient’s knowledge of their treatment plans.

An initial aggregate of participants cared for by the nursing/student partnership – care which includes follow-up calls, review of outcome goals, assisting the patient to practice self-care, and patient selection of healthy foods at the grocery store – shows an overall drop in HbA1c. During this 6-month study (which is still ongoing), participants’ aggregate HbA1c dropped 1 point (9.5 to 8.5). The most significant changes occurred with participants who saw a decrease in HbA1c of 11.8 to 7.3, 11 to 6.8, and 13.1 to 10. As of December 2<sup>nd</sup>, 2013, twenty-two participants have seen a combined 22.1-point HbA1c decrease. A subset of 11 participants was evaluated before and after interventions for biometric changes. Participant’s average weight dropped 3.6 pounds, the systolic BP remained stable but essentially unchanged (129 to 128) and the diastolic BP dropped 7 points (84 to 77). These trends suggest that the teaching/learning care delivery model delivered by the NP/student team increases patient awareness and promotes positive and consistent changes in self-care for a diverse and underserved population.

The Institute of Medicine (IOM) recommends that nursing education programs “prepare and enable nurses to lead change to advance health” (Institute of Medicine, 2011, p. S-12). As guided by the IOM, this study provides a model of care delivery that transforms practice and education by providing a planned educational experience for BSN students who intervene as team members to provide affordable, quality, patient-centered, evidence-based care to an underserved population. The NP faculty/student team’s systems approach to care delivery results in improved health outcomes for the diverse population. The model of care delivery provides the faculty NP an opportunity to practice as a NP with a chronic disease patient population while providing the setting for BSN students to integrate leadership theory with clinical practice, thereby contributing to improved patient outcomes. This care delivery team effort supports faculty and BSN students in leading change and advancing the health of a diverse population.

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#### Contact

[orrr@apsu.edu](mailto:orrr@apsu.edu)

## G 12 - Educational Strategies for Clinical Nursing Education

### It Takes a Village: Addressing Health Inequities Via Nurse Practitioner Education

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*Felesia Renee Bowen, PhD, RN, USA*

#### Purpose

This presentation will demonstrate how the principles of community based participatory research (CBPR) can be used by Nurse Practitioner (NP) programs with the local community to ameliorate the effects of health inequities while providing rich service learning experience for NP students.

#### Target Audience

Faculty who supervise and evaluate NP education and administrative staff who are responsible for obtaining clinical education sites. While the topic focuses on the NP student, faculty and administrators who work with RN students will also benefit from this information.

#### Abstract

**Introduction:** This presentation describes how nurse practitioner (NP) education can be used to ameliorate the effects of health inequities in an urban area. In the United States (U.S.) minorities who reside in urban areas experience noticeable health inequities when compared with their white counterparts. Primary care providers offer valuable preventive care and screening services that are needed to prevent and manage chronic conditions. Early screening, detection and access to primary care services can make a significant difference in the quality and longevity of an individual's life. Nurse practitioners can ease the burden of the primary care shortage however they must be provided with meaningful learning experiences that will encourage them to remain in primary care. Providers are often reluctant to precept NP students due to concerns of decreased productivity. In areas where there are several nurse practitioner programs, students often compete for limited clinical practicum sites and preceptors. All of these factors negatively affect the NP student's experience making it challenging for NP faculty to find appropriate clinical learning experiences for NP students.

Service learning (SL) in its traditional sense is a way of incorporating community service into an educational experience. SL as an educational technique is often used with children in primary and secondary schools. In nursing we typically see SL in the undergraduate curriculum. When combined with the principles of community based participatory research (CBPR) the technique becomes much more sophisticated and can be used to address areas of health inequities within a community. Using the combined approach of SL and CBPR has allowed faculty at Rutgers University College of Nursing to increase the number of high quality primary care agencies and practicum preceptors available to students, especially in pediatrics.

**Intervention:** In Newark NJ there are approximately 22,000 infants and preschoolers who reside in the community. Most of the children attend preschool however many do not receive preventive health screenings. Utilizing the principles of CBPR the program director met with service agencies and schools to identify needs for their preschool population. A memorandum of understanding was developed with specific outcome goals for the term of involvement. In the spring of 2013 we piloted a learning experience within an existing course for NP students to provide hands on primary care and screening for young children in a community setting.

Students were randomly assigned to the community group. For half of the semester, seven weeks, students worked in the community settings providing wellness care and for seven weeks they worked in traditional primary care offices providing preventive but mostly acute care. The program director met with the leadership of the various community agencies to coordinate logistics. Prior to visiting the sites students received training in the skills lab for vision, developmental and obesity screening and referral procedures for the preschool age child. Pre and post course assessments were done with the students to determine their level of skills knowledge and their comfort level working in urban areas with minority populations. Student provided care, collected data, made necessary referrals and prepared detailed reports for the service agencies.

**Results:** Prior to the learning experience 100% of the NP students stated they had only partial knowledge of child growth and development and health screening and only 83% had partial knowledge of nutrition. After the experience 100% of the students indicated that they had full knowledge and understanding of the subject matter. Prior to the experience 30% of the students indicated that they were uncomfortable caring for children and 85% indicated that they were uncomfortable working with minorities in urban settings. After the experience 85% of the students indicated that they were extremely comfortable caring for children and 15% indicated that they were comfortable. Post experience 50% of the students indicated that they were extremely comfortable working with minorities in urban settings and 50% indicated that they were comfortable. Student comments were overwhelming positive. Many commented that the experience helped them with the didactic course and all recommended that the experience be incorporated as a permanent part of the course.

NP students provided services for 368 children between the ages of 6 mo and ten years of age. 59 referrals were made for obesity, six referrals were made for failure to thrive/underweight, six referrals were made for vision deficits, twelve referrals were made for speech delays, three referrals were made for gross motor deficits and two referrals were made for detailed developmental/autism assessment. The community agencies were appreciative of the services provided. Parents of the children who received referrals for health or developmental services expressed appreciation. One preschool used the data that was presented to make changes to their preschool program.

**Next Steps:** Based on the findings and feedback the community primary care rotation is now a permanent part of the pediatric practicum course. After a successful implementation one year ago community health agencies, health care foundations and social service agencies are now reaching out to the College of Nursing to aid and partner in initiatives that benefit large segments of the urban population and help the agencies meet their charge to the community. As a result, training and screening will be expanded to include oral health assessment and fluoride varnish application and lead and hemoglobin testing and referral.

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#### Contact

[fbowen@rutgers.edu](mailto:fbowen@rutgers.edu)

## G 12 - Educational Strategies for Clinical Nursing Education

### A Substance Abuse Awareness Seminar for Nursing Students

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*Beverly J. Epeneter, EdD, MN, USA*  
*Sue Butell, MSN, USA*

#### Purpose

The purpose of the presentation is to inform educators about the effectiveness of a substance abuse seminar for nursing students. Adopting this evidence-based program addresses the existing gap in students' education about the risks of addiction within the profession and how to handle a colleague who may have an addiction.

#### Target Audience

The target audience for this presentation would be nurse educators; however, any nurse interested in the prevention of substance abuse in the profession, would be encouraged to attend.

#### Abstract

Substance abuse is a public health problem worldwide. In fact, it is estimated that 2 billion people are alcohol users, 1/3 billion are smokers, and 185 million are drug users (WHO, 2002). To respond to this significant health issue, the National Student Nurses Association (NSNA, 2002) and American Nurses Association (ANA, 2002) passed resolutions calling for nurse educators to address the risk of addiction. Prevention of this health problem should begin within our own nursing profession. Although the prevalence of substance abuse disorders among nurses is approximately the same rate as in the general population (Kenna & Lewis, 2008), there are certain risk factors, like access to drugs and job stress (Trinkoff, Storr, & Wall, 1999) that make nurses more susceptible to substance abuse. Unfortunately, nurses often lack the awareness and skill to recognize and even help a colleague who may have a substance abuse problem. This lack of preparedness can enable nurses to continue unsafe practices by making excuses or covering up their nurse colleague's mistakes (Quinlan, 2003). To respond to the gap in nursing students' education about the risks of addiction within the profession and how best to handle a colleague suspected of abusing a substance, we developed a two-hour evidence based prevention seminar for senior nursing students. The first hour addressed the ethical challenge of unsafe practice including the statistical picture of substance abuse in nurses, the duty to report as outlined by the ANA Code of Ethics for Nurses (ANA, 2001), and how substance abuse may impair a nurse's work performance and conduct. A communication model called NUDGE (**N**otice, **U**nderstand, **D**ecide, use **G**uidelines, and **E**ncourage (Bennett, 2010) was taught and demonstrated in a role-play scenario. In the second hour, students in triads practiced this skill by rotating the roles of nudger, resister, and observer with a case scenario provided. The results of an intervention follow-up study support the effectiveness of the prevention seminar in affecting knowledge about substance use disorders and the nurses' role in intervening when substance use behaviors are observed. The seminar also increased students' confidence in addressing future colleagues where substance abuse may jeopardize safe nursing practice.

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#### Contact

[bepenet@linfield.edu](mailto:bepenet@linfield.edu)

## G 13 - Nursing Educational Strategies

### Emergent Care Competence and Its Related Factors Among Junior High and Elementary School Nurses in Taiwan

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*Hsiao-Wei Tsai, MSN, Taiwan*

*Shu Yu, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentations is (1) understanding elementary and junior high school nurses' emergent care competence in Taiwan; (2) exploring the relationships between personal, school factors and emergent care competence in elementary and junior high school nurses; (3) identifying the predictors of emergent care competence in elementary and junior high school nurses.

#### Target Audience

The target audience of this presentation is school nurse, policy maker including school administrators and educator.

#### Abstract

**Purpose:** The main purposes of this study consisted of (1) understanding elementary and junior high school nurses' emergent care competence in Taiwan; (2) exploring the relationships between personal, school factors and emergent care competence in elementary and junior high school nurses; (3) identifying the predictors of emergent care competence in elementary and junior high school nurses.

**Methods:** This research was a nationwide study using a cross-sectional research design. A structured questionnaire was used to collect data from 308 school nurses selected randomly and was delivered by way of a mailing method.

**Results:** The main findings included: (1) A moderate to high level of emergent care competence was revealed by this study (the mean score was 4.24 out of a possible score of 5; SD = 0.48). (2) Bivariate analysis showed that age, years of employment, adequacy of emergent care training, knowledge of emergent care, attitude toward emergent care, the level of understanding emergent care from school administrators, the administrators' perception of importance of emergent care, the level of support from the administrators regarding emergent care, and the sufficiency of emergent care equipment and supplies were related to school nurses' emergent care competencies. (3) Multiple and stepwise regression analyses on emergent care competencies indicating four variables (emergent care attitude, the sufficiency of emergent care equipment and supplies, emergent care knowledge, and the level of understanding emergent care from school administrators) could be singled out as significant factors and accounted for 34.7% of the variance. Further examining the predictors of three stages of emergent care (i.e. pre-stage prevention, occurring stage, and post-stage management), we found attitude towards emergent care was the only factor of predicting three stages. Adequacy of emergent care training was the predictor of pre-stage and post-stage; knowledge of emergent care and the sufficiency of emergent care equipment and supplies were the occurring stage predictor factor; and the level of understanding emergent care from school administrators was the post-stage predictor factor.

**Conclusion:** Based on our findings, we recommend that the Ministry of Education should offer more and advanced emergent care in-service training to school nurses, especially in burn assessment, external genital trauma management, pneumothorax management, drug abuse assessment and management, and vomit disinfection management, and also provide better emergency equipment. At the same time, school administrators should take the initiative to understand relevant policies and practice regarding emergent care. School nurses should continuously increase knowledge of emergent care and develop a positive attitude towards emergent care. By doing so, we look forward to better enhancing school nurses' emergent care competencies to provide teachers and students the best care they can get.

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#### Contact

[sdnnc1224@gmail.com](mailto:sdnnc1224@gmail.com)

## G 14 - Nursing Student Centered Learning Strategies

### Evaluating Student Success after a Change in the Teaching/Learning Environment

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Laura Fillmore, DNP, MSN, RN, USA

#### Purpose

The purpose of this study is to evaluate the effectiveness of a student-centered learning environment in a prelicensure nursing course. The evaluation followed a structured program to lead faculty in new teaching strategies applied to an entry-level nursing course. The evaluation is in a subsequent nursing course.

#### Target Audience

The target audience of this presentation is for faculty and education administrators who are considering flipping a classroom or curriculum to a student-centered learning environment, which is designed to improve student engagement and student success.

#### Abstract

This study evaluates the effect of providing a structured development program for faculty to implement student-centered learning strategies in an entry-level nursing course. A call to change our teaching and learning practices in nursing comes from healthcare leaders who see the complicated healthcare environment (National Academies, 2010). Also, our expected result of teaching and learning in nursing has evolved to include clinical reasoning, situated learning, and civic professionalism (Benner, et al, 2010). Other academic leaders are referring to disruptive learning which questions how we know students are learning and not just being taught (Bass, 2012).

Our challenge to meet the demands of the stakeholders continues to be impacted by the number of faculty, the preparation of faculty, and institutions ability to drive and support change. Our other prevailing challenge is to have test-ready students who can successfully pass the national licensing exam. This study determined to prepare faculty with a course designed with alternative learning activities and a student-centered focus. The goal is to evaluate student success in a proceeding course after students become active participants in their own learning. The question is to determine if student-centered designed courses promote student success in future courses by impacting learning behaviors.

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#### Contact

[lfillmore@chamberlain.edu](mailto:lfillmore@chamberlain.edu)

## G 14 - Nursing Student Centered Learning Strategies

### Innovative Approaches to Clinical Teaching and Learning: Caring for Clients Undergoing Perioperative Surgical Experiences by Nursing Students

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*Dora Maria Carbonu, EdD, MN, RN, Canada*

#### Purpose

To inspire and motivate the audience about how nursing students could overcome their anxieties/apprehensions, embrace a new approach to teaching and learning while providing client care, and found the outcome very enriching and rewarding for themselves, clients, and the multidisciplinary healthcare and academic team.

#### Target Audience

A multidisciplinary team of nurse educators, students, care providers (NPs, RNs, LPNs), administrators, managers/leaders - from all sectors of health care organizations, Day Surgery and Operating Room Staff, including Perioperative Care Staff - Surgeons, Anesthesiologists, other health care providers and interest groups

#### Abstract

**Purpose:** Clinical Instructors are constantly challenged to optimize clinical teaching and learning opportunities for students, to master technical skills while providing patient care through critical thinking and reflecting on their performance. **Method:** Students in the Nursing Program at Nunavut Arctic College are oriented to client assignments a day before clinical placement, visit the Unit and, utilizing the nursing process, develop a client-specific care plan for implementation and ensure optimal outcomes during client care. In 2013 academic year, the third-year students' clinical placement included Day Surgery and Operating Room (OR) – to acquire skills in caring for clients undergoing peri-operative surgical experience. Using Kurt Lewin's force-field analysis model of change, a holistic approach to client care and, in collaboration with the Day Surgery/OR multidisciplinary team, students initiated a care plan based on their knowledge of the specialist surgery of the day only. They then met with clients on the morning of surgery, gathered data and developed a plan of care, detailing their understanding of client needs through pre-operative, intra-operative, and post-operative stages of care. They observed client responses on a continuum, the effect of surgery on client ability to meet self-care needs, and conducted discharge planning and teaching. **Results:** Students described this experiential learning as innovative, challenging, holistic, comprehensive, patient-centered, and team-oriented. They learned to unfreeze and move, overcoming their own individual anxieties and/or apprehensions about surgery and nursing care-plan development without prior access to clients or their charts. They felt enlightened to see the clients smile and in high spirits, as they recovered from anesthesia and actively participated in their discharge process. This change brought feelings of achievement and pride as was demonstrated in the students' critical thinking abilities, evaluation of care outcomes, reflections during clinical conferences, and in their written reflective journals. **Conclusion:** The outcome of students taking their own initiatives in client-care planning, and working closely with the multidisciplinary perioperative team, was evidently re-energizing and empowering, while client care encompassed all aspects of primary health care, continuity of care, cultural diversity, and preferences. The learning environment offered the students a medium for positive growth and development as they went through the refreezing phase of change. It further generated rewarding benefits to both academic and clinical sectors, promoted therapeutic communication among the team members, including clients and their families, and accorded opportunities for subsequent student placement in the Day Surgery and Operating Room settings.

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Contact

[afimawuko@hotmail.com](mailto:afimawuko@hotmail.com)

## G 14 - Nursing Student Centered Learning Strategies

### Student Remediation in Nursing Programs: The Evidence, the Gaps, and New Directions

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*Barb Schreiner, PhD, MN, RN, USA*

*Cheryl L. Mee, MSN, MBA, RN, CMSRN, USA*

#### Purpose

To review the existing evidence supporting effective remediation strategies for nursing students preparing for licensure examinations and to identify gaps in nursing knowledge amenable to further study

#### Target Audience

To (1) review the existing evidence supporting effective remediation strategies for nursing students preparing for licensure examinations and (2) identify gaps in nursing knowledge amenable to further study

#### Abstract

Nursing programs and faculty have increased pressure to produce safe nursing practitioners and have turned to a variety of tools to facilitate success in NCLEX licensure exams in the United States. End-of-course and end-of-program standardized testing are tools frequently used to prepare students. Nursing educators use the results of these tests to remediate student knowledge and critical thinking skills. Students also gain additional confidence by reviewing test results and planning further study and preparation. But which strategies are most effective in producing positive outcomes on licensure examinations? This session will explore evidence-based strategies most effective in preparing students for professional licensure exams. A comprehensive review of the literature on remediation and student self-confidence will be presented. The role of self-confidence will be highlighted with tactics educators might employ to build self-assurance in graduating nursing students. Finally, the session will review gaps in the literature and suggest future directions for nursing research. Participants in this session will leave with an understanding of what is known about remediation of nursing students in preparation for nursing licensure examinations and what is left to be addressed.

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#### Contact

[c.mee@elsevier.com](mailto:c.mee@elsevier.com)

## H 12 - Evidence-Based Practice Implications Within Emergency Care

### Ultrasound-Guided Peripheral Intravenous Insertion

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*Alfie Jay C. Ignacio, DNP, MSN, RN, USA*

#### Purpose

The purpose of this presentation is to incorporate the use of recommended best practice techniques involving ultrasound-guidance performed by emergency nurses to improve peripheral IV access success rates in patients with difficult sticks in the ED.

#### Target Audience

The target audiences of this presentation are nurses, technicians, and other healthcare practitioners who establish intravenous access for medications, blood withdrawal, fluid therapy.

#### Abstract

**Problem/Issue:** Patients presenting to the Emergency Department (ED) often require peripheral intravenous (IV) access to collect blood samples and administer IV medications and fluids. Inadequate IV access can lead to delays in treatment, possible increased length of stay, and patient dissatisfaction.

**Background:** Although ED nurses are generally accustomed in obtaining peripheral IV access, there are a number of patients who are difficult to cannulate. Difficult intravenous access may include patients with chronic illness such as sickle cell, renal failure, cancer, history of intravenous drug abuse, obesity, extremes of age, and hypovolemia. USGIV access may be an alternative to blind insertion to establish early IV access, start infusion therapy, perform blood withdrawal, and administer medications.

**Purpose:** The purpose of this project was to implement an evidence-based practice (EBP) guideline for difficult IV access (DIVA) through the use of ultrasound guided IV (USGIV) access techniques.

**Methods:** An evidence-based USGIV access policy/procedure was developed and approved by the Nursing Practice Council. Two unit champions and 6 ED staff nurses completed training which involved didactic educational session, pretest/posttests and return demonstrations. The practice change was implemented and monitored over a 6-month period. USGIV access procedures were documented on data collection forms identifying reason for the difficult stick, number of attempts, time to successful cannulation, site of insertion, and complications. Evaluation of the practice change was conducted during a 3-week period to assess impact on DIVA patient outcomes (number of IV attempts and time to successful cannulation).

**Results:** Findings showed significant differences in nurses' knowledge regarding DIVA and USGIV access techniques - pretest mean score of 9.6 vs. posttest mean score 16.2 (p value 0.0004). Significant reduction in the number of IV attempts and time to successful cannulation were also observed for USGIV access compared to traditional blind sticks. Average number of IV attempts using USGIV access was 1.11 compared to 4.75 for blind sticks (p value – 0.0001). Average time to successful cannulation for USGIV access was 9.53 min. compared to 46.8 min. for blind sticks (p value – 0.0001). ED nurse feedback was positive, average of 3.4 out of 5 on the level of cannulation difficulty.

**Discussion:** Implementation of an evidence-based policy and procedure for DIVA involving USGIV access techniques can facilitate successful cannulation and impact quality of care by decreasing number of attempts and time required. This can lead to greater patient and nurse satisfaction, reduced length of stay, and lower hospital costs.

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Contact

[zulu22373@aol.com](mailto:zulu22373@aol.com)

## H 12 - Evidence-Based Practice Implications Within Emergency Care

### An Evidence-Based Approach for Death Notification

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*Elizabeth Roe, RN, PhD, USA*

#### Purpose

The purpose of this presentation is to describe an evidence-based protocol for death notification. Emphasis will be placed on the role of the nurse as an advocate for survivors during and following the death notification.

#### Target Audience

The target audience of this presentation is nurses who work in the emergency department, critical care, or areas where death notifications are done.

#### Abstract

The very nature of sudden death is emotionally heavy and requires evidence-based caring and supportive interventions, involving an interprofessional team approach. This presentation will describe the development of an evidence-based protocol for care of survivors of individuals who have died suddenly. The responses of survivors are diverse, often unpredictable, and vary depending on how the care they receive after the death. Nurses are often the ones that care for family members following a sudden death. In this presentation, suggestions will be given regarding the care for the survivors and providers after a sudden death. The focus will be on the immediate care provided in the emergency department, but suggestions will be given for the provision of ongoing support. Research has found that how an individual reacts to a sudden death is influenced by a number of factors including the notification itself, circumstances of the death, the care they receive during and after the notification, and characteristics of the survivor and those caring for them. It is important that the care be provided in a way that is sensitive to the survivor's individual needs. This presentation will make recommendations for care of individuals after a death notification based on a review of the literature from nursing, medicine, law enforcement, social work, clergy, and psychology. In this presentation, an evidence-based protocol for care of the survivor after the notification of a death will be discussed with emphasis on the role of the nurse caring for the survivors with a particular emphasis on advocacy. A case scenario will be presented for the discussion of the protocol.

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#### Contact

[eroe@svsu.edu](mailto:eroe@svsu.edu)

## H 12 - Evidence-Based Practice Implications Within Emergency Care

### ED Community Placement Project (EDCPP): Right Service-Right Venue Approach in Managing ED Frequent Users

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*Karen Elizabeth Mitchell, RN, MSN, CMCN, USA*

#### Purpose

The purpose of this presentation is an innovative, evidenced based project, multidisciplinary approach in reducing ED recidivism by bridging homeless patients with co-occurring disorders and substance abuse into hospital leased beds in intensive community based homeless prevention intensive case management services.

#### Target Audience

Target audience, is hospital administrative leaders, multidiscipline teams in behavioral health and ED medicine, nurse leaders, ED staff nurses, social workers, case managers, evidence based project researchers, public health leaders, homeless prevention leaders, and community healthcare providers.

#### Abstract

**Background Statement:** San Diego has the 3rd largest homeless population in the United States, following New York and Los Angeles. Homeless patients without medical homes account for nearly 1/3 of the ED visits, resulting in longer ED wait times and avoidable inpatient admissions. Many of these patients are non-funded or under-insured contributing to rising unreimbursed healthcare costs. Emergency departments (ED) are ill equipped to meet the psychosocial, housing, substance abuse treatment and mental health needs of homeless community.

**Intervention Detail:** The “Emergency Department Community Placement Project” (EDCPP) is designed to bridge the highest ED users into community-based homeless prevention services, substance abuse treatment, and intensive case management. The goal for this project is to reduce recidivism amongst the neediest and costliest patients by 20% through provision of resources to address substance abuse, homelessness and mental health issues.

A cohort of 215 patients was electronically pre-identified in EPIC electronic medical records. Inclusion criteria included homeless with frequent ED visits (2 or more visits per month over the past 12 months) and associated complaints of co-occurring disorders, substance abuse and alcohol related illness. Upon patient presentation the Best Practice Advisory (BPA) flag is initiated and triggers targeted interventions. The ED physician / psychiatrist places “Community Placement Order”. Patient consenting, screening and placement (to community partners) are performed by ED Staff.

**Setting and methods:** Emergency Department is an urban, academic teaching healthcare facility. Annually treating 42,300 patients.

**Results:** Six month analysis: Cost savings of \$168,231. Based on program expenses, (contractual bed cost) of \$38,234 (6mos) = 4.4 (ROI). 78 % reduction in ED visits among EDCPP placed patient cohort. 3.8% increase in Press-Ganey patient satisfaction scores. Given results, program planned for expansion to other healthcare system EDs and extended pt populations.

#### Contact

[kemitchell@ucsd.edu](mailto:kemitchell@ucsd.edu)

## H 13 - Global Leadership

### Graduate Students Meet Cinematic Leaders: A Creative Final Project for Managerial/Leadership Course

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*Tova Hendel, PhD, RN, Israel*

#### Purpose

The purpose of this presentation is to enhance students' awareness and understanding of managerial leadership concepts and theories and assess their ability to integrate the learned body of knowledge when analyzing a leader's role in a cinematic film

#### Target Audience

The target audiences of this presentation are nursing educators and managers, graduate nursing students and clinical preceptors

#### Abstract

**Background** – Learning human behaviour and response in variety of situations is often difficult. Review of the literature reveal that nursing education is based strongly on traditional teaching methods and points to the need to incorporate new ways of teaching – learning and evaluation methods. The use of aesthetic experiences, in nursing education, movies being one of them, provide students with vivid portrayals of peoples' thoughts, emotions, feelings, human interactions, and everyday life situations and enable them to analyse their behaviours and responses.

**Purpose** – Enhancing students' awareness and understanding of managerial leadership concepts and theories by cinema viewing and reviewing, and assessing their ability to integrate body of knowledge learned through analysing a cinematic leader characteristics.

**Method** – A list of 40 movies was prepared focusing on popular historic/social leaders. Some examples are: Norma Rae (1979), Gandhi (1982), Truman (1995), Joan of Arc (1999), Erin Brocovich (2000), Devil wears Prada (2006), Elizabeth: The Golden Age (2007); Che (2008); . Students were required to watch, in pairs, a movie assigned to them and follow written guidelines for the final project for the course. The guidelines included a brief overview of the movie, description of the leader and his leadership characteristics and style, reference to selected aspects such as basic values reflected in the movie, the use of power resources, interpersonal communication methods, collaboration with others, analysis of the leader's characteristics in a relation to the literature and conclusions.

An evaluation tool was developed asking students' evaluation with regard to the process and the outcomes of the project, about previous experience with watching movies as a basis for writing assignments, their experience watching the film and the contribution to knowledge and understanding of the contents learned in the course.

**Result** - Seventy graduate students (average age 38) answered the questionnaire at the end of the 2012-2013 courses. Approximately 91% did not have previous experience with films as a tool for writing assignments for a course. About 93% of the students pointed out that the assignment was a helpful/very helpful learning experience for writing the final paper. About 80% of the students recommended/highly recommended the use of cinematic movies for future assignments. The participants were asked: "what do you consider to be the main benefits of the movie to your learning process?" and "What were the main disadvantages of using the movies for the end project?" Students' feedbacks included statements such as "enjoyable assignment", "different and interesting", "challenging" and "innovative".

**Conclusions** - Educators have to develop creative and innovative teaching strategies to meet students' learning needs. The use of popular movies was found as an effective, affective, and cognitive learning and evaluation tool. It helped to facilitate leadership theories through the analysis process and create tangible experiences for the graduate students. Using movies to teach and evaluate both undergraduate and graduate students is another way to engage students in the teaching-learning process.

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## Contact

[tdhendel@smile.net.il](mailto:tdhendel@smile.net.il)

## **H 13 - Global Leadership**

### **Global Nursing Leadership Collaboration: Chinese Evidence-Based Practice Immersion Program**

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*Linda Costa, PhD, RN, USA*

*Susan Kulik, RN, DNP, MBA, USA*

#### Purpose

to provide information on approaches to facilitate the spread of evidence-based practice in China using an immersion program for nurse leaders.

#### Target Audience

nurse leaders, educators, and clinical nurses.

#### Abstract

The mission of the Institute of Johns Hopkins Nursing is to share innovations in practice, education, and research. Through a partnership with the Chinese Nursing Committee and a Chinese educational consultant, two nurses from United States traveled to Beijing China to present a weeklong evidence-based practice (EBP) immersion program for Chinese nurse leaders. Twenty-six participants representing 18 Chinese hospitals completed the program. The EBP program was framed around the EBP question: Will the assessment of fall injury risk factors and the implementation of appropriate interventions decrease serious injury from falls in the adult acute care setting? Identifying a focused topic for the program enabled participants to understand how to develop a practice question; search and appraise the evidence; and translate findings. Knowledge translation, applying EBP knowledge within the complex of healthcare settings in China, lead Chinese nurse leaders to identify the need to develop a strategic plan to introduce EBP in their hospitals. The plan would include an assessment of organizational readiness, alignment with the hospital mission, and identification of necessary resources to support the infrastructure for EBP. Challenges identified by participants included staff educational levels, shortage of nurses, and patient-nurse ratios in China. Lessons learned in working with interpreters will be shared. The weeklong course was followed by monthly webinars for 6 months to provide further examples of EBP. The experience enabled the conceptualization of a global perspective of healthcare and professional nursing perspectives that facilitated the formation of partnerships to expand the offering of EBP training programs. Implications for future collaborations will be shared.

#### Contact

[costa@son.umaryland.edu](mailto:costa@son.umaryland.edu)

## H 13 - Global Leadership

### Leadership is Key to High-Performance Amidst Inevitable Trends of Diversity

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*Rita K. Adeniran, DrNP, RN, CMAC, NEA, BC, USA*

#### Purpose

The purpose of this presentation is to discuss how an academic medical center utilized the principles of gracious space, confident and cultural humility to improve performance and satisfaction amidst a diverse group of nurses.

#### Target Audience

The target audiences of this presentation are nurse leaders and any member of the healthcare interdisciplinary team. Healthcare leaders and staff are equally challenged to not only provide care that is evidence based and culturally relevant, but also to work effectively with an increasing culturally diverse workforce

#### Abstract

Technology, generational divides, and differing personal values are some of the factors that contribute to the inevitable diversity trends witnessed in today's evolving healthcare system. Regardless of these diversities, leaders have the responsibility of creating environments that optimize team performance while enhancing patient outcomes, safety and quality of care. Gracious space, cultural and confident humility are strategies that have been found to be effective for leaders to understand, support and manage diversity in ways that foster high-performance. These strategies help teams to span boundaries, mitigate tension, foster creativity, innovation, and high-performance by setting team's direction, gaining commitment from individual members and aligning team objectives and values to over-all organizational goals. These tools have been effective in promoting inclusiveness, allowing leaders and teams to leverage talents in ways that enable and sustain environments that respect and value diverse perspectives, generate multiple alternatives, develop new possibilities and deepen team's relationships for high-performance.

#### Contact

[rita.adeniran@uphs.upenn.edu](mailto:rita.adeniran@uphs.upenn.edu)

## H 14 - EBP Applied to Chronic Conditions

### The Effectiveness of Nurse-Led Pre-Operative Assessment Clinics for Patients Receiving Elective Orthopaedic Surgery: A Systematic Review

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*Sau Man Conny Chan, RN, BN, MN, Hong Kong*

*Wan Yim Ip, RN, RM, BN, MPhil, PhD, China*

*Janita Pak-Chun Chau, RN, BN, MPhil, PhD, Hong Kong*

#### Purpose

The purpose of this poster presentation is to inform clinical practice of a systematic review on the effectiveness of nurse-led POAC to elective orthopaedic patients. It identifies the best available research evidence to promote better care, guide health-care decision making, and to identify the practice gap in the existing practice.

#### Target Audience

The target audience of this poster presentation identified on all health care team members in particular to the peri-operative nursing and surgical health members.

#### Abstract

**Background:** Patients are usually admitted to hospital on the day before a scheduled surgery. However, patients are often found not fit for surgery due to changes in their medical or social conditions since the last medical consultation. This results in high cancellation rates on the day of surgery. Evidence suggesting that day of surgery cancellations waste hospital resources and cause anxiety in patients.

Nurse-led preoperative assessment clinic (POAC) has been introduced in many specialty areas to assess and prepare patients prior to surgery. As the population ages, there is an increase in the number of elective orthopedic surgeries. The POAC clinics can provide timely and effective care to older people requiring orthopaedic surgery and those patients who are at high risk of perioperative morbidity and mortality.

However, not all patients are referred to PAOC before surgery and the benefits of nurse-led POAC are not well documented. Thus, a systematic review has been carried out to affirm nurse-led POAC as a significant area of clinical practice.

**Aim:** The aim of this systematic review was drawn on the effectiveness of nurse-led POAC to summarize and identify the best available research evidence in order to better inform of the current practice, promote better care, guide health-care decision making, and to identify the practice gap in the existing evidence and clinical practice.

#### **Objectives:**

- To examine the effectiveness of nurse-led POAC on orthopaedic patient outcomes such as levels of satisfaction with the process of pre-operative assessment, incidence of post-operative complications, post-operative recovery, as well as levels of fear and anxiety before surgery.
- To synthesize the evidence on the impact of nurse-led POAC for elective orthopaedic patients on health service outcomes, including cancellation or delay of surgery, length of hospital stay and waiting time for pre-operative assessment and surgery.

**Method:** This systematic review included all studies of adult patients who were 18 years old or above required elective orthopaedic surgeries e.g. total knee replacement, total hip replacement, reduction of fracture or procedure of arthroscopy etc in hospitals or day surgery centers, and had attended a nurse-led POAC 2 to 4 weeks prior to the scheduled elective orthopaedic surgery. The nurse-led POAC could be solely run by nurses, or nurses worked collaboratively with physicians.

While, the adult elective orthopaedic surgical patients within the American Society of Anesthesiologist (ASA) Physical Status Classification of 1 or 2 are eligible for inclusion in the review. ASA classification 1 : patients are considered to be healthy and normal, and ASA classification 2 : patients are patients with mild systemic disease such as mild asthma, well-controlled hypertension, or well-controlled diabetes.

The review included randomized control trials, pseudo-randomized controlled trial, quasi-experimental studies, cohort studies, and case-control studies among adult elective orthopaedic patients who attended a nurse-led POAC. Electronic databases search encompassed all published and unpublished studies in English and Chinese from inception to 2012. Given that the clinical and methodological diversity among the studies, the review findings are presented in a narrative form.

**Results:** Systematic review of the pertinent literatures summarized and discussed the benefit of nurse-led POAC for elective orthopedic patient. The existing systematic review on this specific field of knowledge informed that nurse-led POAC can offer a very positive contribution to the optimization of care delivery for patient before surgery experience.

Eleven studies were critically appraised in terms of the benefits of attending a nurse-led POAC. The results showed nurse-led POAC could effectively reduce the rate of cancellations of impending surgery. These studies suggested a reduction in the rate of post-operative mortality, blood transfusion requirement after surgery, and length of hospital stay. In addition, the level of satisfaction towards services provided was significantly high which affirmed the effectiveness of establishing POAC in current practice.

**Implications and Conclusions:** While POAC is being increasingly implemented worldwide, the development of clinical guidelines, pathways and protocols was advocated. Adherence to these protocols promotes efficiency by streamlining in clinical decision making and minimizing unnecessary consults and costly diagnostic testing.

Moreover, this review suggests that collaborative multidisciplinary team approach in POAC can increase patients' understanding of the peri-operative processes and enhanced post-operative recovery. Likewise, POAC can inform service improvement and policy development in the scheduling of theatre list and thus enable better utilization of theatre and ward facilities.

In addition, the review further recognizes the educational role of nurses in POAC where they prepare patients psychologically for the forthcoming surgery through education and information giving, to allay fear and anxiety, as well as increase peri-operative knowledge for better compliance of post-operative outcomes.

In conclusion, the best available evidence asserted that nurses in the POAC could serve as effective coordinators, assessors and educators. The nurse-led practice optimized patients' condition before surgery and hence minimized elective surgery cancellations.

#### Contact

[connychan@cuhk.edu.hk](mailto:connychan@cuhk.edu.hk)

## H 14 - EBP Applied to Chronic Conditions

### Intervention Study on Program Development of the Exercise Adherence for the Elderly of Musculoskeletal Ambulation Disability Symptom Complex

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*Keiko Fukuroku, RN, PhD, Japan*

#### Purpose

The purpose of this presentation is evaluate the effectiveness of this intervention program that home exercise adherence for the fall prevention. The first is comparison of ADL, and physical measured value between pre and post intervention in both groups. The second is evaluate of feedback effect of gait analysis.

#### Target Audience

The target audience of this presentation is nurse and health-care provider that work in a community-based clinic and out-patient clinic.

#### Abstract

**OBJECTIVE:** This study evaluate the effectiveness of this intervention program that home exercise adherence for fall prevention. The first is comparison of activities of daily living (ADL) and physical measured value between pre and post intervention in both groups. The second evaluate of feedback effect of change in gait by motion analyzer.

**DESIGN:** 54 subjects recruited from female 65 years of age or older patients with Musculoskeletal Ambulation Disability Symptom Complex (MADS) under treatment at the orthopedic clinic. We provided the home exercise to improve the ability to trunk balance, range of motion in the ankle joint, toe grip force, back muscle strength for them, and instructed them specific guidance on exercise to continue every day for 6 months. We have analyzed 27 subjects who had continued exercise more than 5 days a week. The number of subjects of intervention group is 17, and the control group is 10. In both groups, we conducted the physical measured value and gait analysis between pre and post intervention. Only intervention group, the subjects have interviewed about implementation status once a month by nurse. The questionnaire response of 13 ADL item, 3 physical measured value (5m fast walking, Timed up and go (TUG), balance on one-leg standing with vision), 6 gait measurement item by motion analyzer were compared between pre and post intervention. The physical measurements was analyzed that within-group comparison with t-test, and comparison between group with paired t-test ( $p < 0.05$ ).

#### **RESULTS:**

##### 1. Comparison of physical measured value

It showed significant differences improvement of the measurement value in 5m fast-walking and TUG in the intervention group between pre and post intervention in the intervention group. The measured value of range of motion in the ankle joint in the intervention group was significant improvement compared to the control group. The high improvement rate of the measured value of each was gait cycle (65%), toe-up (53%), heel-up (41%) in the intervention group, although there were no significant differences in the measured value of gait analysis in both groups.

##### 2. Comparison of ADL

The high improvement rate of the measured value of each was up stairs (35%), down stairs (47%), uphill (41%) in the intervention group, and both were higher than the control group. In the intervention group, the account for 40% or more subjects who were aware of improvement in "down stairs" in the high improvement rate items (gait cycle, toe-up, heel-up).

**CONCLUSIONS:** There were no significant differences in amount of gait data change between pre and post intervention. However, in the intervention group, it was high improvement rate in self-awareness of ADL, and measured value of intervention group was high compared with control group. It suggests a possible beneficial effect of feedback of change in gait by motion analyzer. As a consequence, it showed

significant differences in 5m fast-walking and TUG in the intervention group between pre and post intervention. We will examine effective feedback by motion analyzer more closely in the future.

Contact

[fukuroku@nurse.medic.mie-u.ac.jp](mailto:fukuroku@nurse.medic.mie-u.ac.jp)

## H 14 - EBP Applied to Chronic Conditions

### Evidence-Based Outcomes to Detect Obstructive Sleep Apnea, Identify Co-Existing Factors, and Compare Characteristics of Patients Discharge Disposition

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*Joseph F. Burkard, DNSc, CRNA, USA*

#### Purpose

The purpose of this EBP project is to highlight three completed projects in a series of clinical outcome work to identify and treat OSA patients.

#### Target Audience

Advanced practice outcomes researchers

#### Abstract

**Introduction:** According to the American Heart Association, fifteen million adults are affected by obstructive sleep apnea (OSA). Obstructive Sleep Apnea (OSA) is the most common disturbance during sleep affecting 30% of the population. The occurrence of moderate/severe OSA is estimated at 11.4% in men and 4.7% in women. This outcomes project included three completed bodies of work designed to evaluate the effects of implementing the STOP BANG tool in preoperative clinics to identify undiagnosed OSA surgery patients, examine the duration of recovery and the impact of co-factors and evaluate patient characteristics of discharged patients to home versus admitted to a monitored bed.

**Design and Methods:** This outcomes project has three components which include the identification of OSA patients and was completed in the first phase with an experimental time design series with 1010 subjects. The second component was an observational correlation design to compare co-factors that impacted recovery stay times. The third component was a retrospective chart review of a total of 1300 patients to evaluate postoperative discharge characteristics. All three projects were IRB approved and included statistical data plans.

**Results:** There was no difference in demographic data. Use of the STOP-BANG tool increased OSA detection by 30.1%. Males and higher ASA classification were correlated with OSA.  $p < 0.001$ . The chance of identifying patients with OSA by using the STOP-BANG tool increased by 75% ( $p < 0.001$ ). The second project indicated significant correlation with higher number of cofactors amongst patients diagnosed with OSA ( $p < 0.012$ ). Increased incidence of higher ASA classification in OSA diagnosed patients; ( $p < .017$ ) extended PACU stay time in OSA diagnosed patients; ( $p = 0.05$ ) and unplanned admissions in OSA patients; ( $p = .007$ ). In the third project four factors were found to be statistically significant, namely, age, ASA classification, the anesthesia modality (monitored anesthesia care vs. general anesthesia) and narcotics use.

**Discussion:** Chung et al. clearly states that the incidence of sleep apnea is 25% for men and 10% for women. During this project, we were able to identify 37.6% of our surgical population who had sleep apnea. This was a 26.6% improvement over our prior clinical assessment. The use of the STOP-BANG tool is an easy addition to anesthesia pre-screening and increases patient safety. Complications associated with OSA can be severe and life threatening. These complications include: hypoventilation, hypoxia, airway obstruction, intubation difficulties, and a higher incidence of myocardial infarction. These complications can occur intra-operatively, post operatively and during the PACU stay period. There currently exists wide diversity in the postoperative management of the OSA patient. There is a consensus that the OSA population requires more stringent anesthesia management during induction but even more critical is the post operative period while the OSA patient is still under the effects of residual anesthesia agents and narcotics. This study goes further identifying the incidence and significance of co-existing factors (cofactors) that influence the PACU recovery time of OSA patients as compared with non-OSA patients. The current study examined certain characteristics of OSA patients correlated with their discharge disposition from the PACU and that certain patient risk factors contributed to adverse events during a patient's recovery period. The study evaluated the demographic characteristics, preoperative comorbidities, ASA class, diagnostic conditions, types of anaesthetic and surgical interventions, pain

management, and postoperative complications that might influence a patient's length of stay in the PACU and their discharge disposition. The statistically significant risk factors were age, anaesthetic modalities (general vs. MAC), ASA classification and narcotics used in the PACU. These results are consistent with findings by other researchers studying perioperative risks of OSA patients. Time discharge, episodes of desaturation and the lowest saturation were risk factors associated with postoperative adverse events.

**Conclusions and Implications:** Use of the STOP-BANG tool in anesthesia pre-screening will increase patient safety. Findings will lead to optimum monitoring, management; recovery measures and anesthesia techniques that will prevent extended postoperative periods and reduce or eliminate postoperative complications of OSA. This descriptive retrospective chart review of surgical patients with OSA in a defined six month period attempted to link an array of risk factors with a patient's discharged location and to learn about the characteristics of the patients at risk as measured by the lowest oxygenation, episodes of desaturation and length of stay.

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## Contact

[jburkard@sandiego.edu](mailto:jburkard@sandiego.edu)

## I 12 - Using EBP Within Maternal-Child Health

### The Effect of Breastfeeding Intervening Program in the Non-Authorized Baby-Friendly Hospital

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*Ya-Ling Yang, RN, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to develop an intervening program for improving nurses' breastfeeding care ability and evaluating its efficacy.

#### Target Audience

The target audiences can include nursing and inter-professional colleagues who are enthusiastic in learning about how to develop an effect intervention program in breastfeeding related care issues and to understand the difference in breastfeeding care between the non-authorized and authorized baby-friendly hospital.

#### Abstract

**Background:** The program of “baby-friendly hospital” gave fresh impetus to enhance the rate of effectively feeding of mother's milk in Taiwan area. Fifty-two percent babies were born in authorized “baby-friendly hospital”. According to the authorized “baby-friendly hospital” qualifications, there is an almost 100% attending rate in medical centers and regional hospitals, while community hospitals only account for 41.5%. Even though the breastfeeding rate in private obstetrics clinics is only 3.5%, the birth number rate is up to 32.5% of the yearly total birth. The breastfeeding rates at non-authorized “baby-friendly hospitals”, which are classified as community hospital or private obstetrics clinics, can still have a lot of room for improvements.

**Purpose:**The primary objective of this research is to find out the proper strategies for improving breastfeeding care quality and breastfeeding rate of the postpartum women who were delivered in “non-authorized baby-friendly hospital”, and evaluating its efficacy.

**Methods:**For reaching the goals, this research was split into 2 steps. In the first step, systematic data collection and focus group research were used to establish standard intervention strategies, cross-sectional study of nurses' attitudes toward breastfeeding, knowledge and behavioral factors, as well as the opinions and expectations of postpartum women and their family. Samples were divided into two groups, experimental (non-authorized baby-friendly hospital) and control (baby-friendly hospital). Developing the breastfeeding promoting and combined care program was evaluated by comparing the difference between these two study groups. The goal of this clinical breastfeeding promoting and combined care program is to provide a useful reference in increasing the breastfeeding rate for the women who were delivered in “non-authorized baby-friendly hospital”. The second step- the prospective longitudinal research design was adopted, and separated subjects by randomized control and treatment group design to assess the outcomes in four “non-authorized baby-friendly hospital”. The intervening strategies and combined care program is focus on the breastfeeding related job educational training for the nurse who worked in study groups. This effect was measured by the postpartum women's breastfeeding rate, the breastfeeding related knowledge, attitude, self-efficacy and experience.

**Results:**First step- The effective sample is 350 into analysis. Breastfeeding rate is 63.4% in hospitalization, 82.4% at first month after birth, 58.5% at fourth month after birth and 49.8% at sixth month after birth. This breastfeeding rate of the women who had delivered baby in “non-authorized baby-friendly hospital” is lower than the government announced rate. The nurses worked in non-authorized “baby-friendly hospital” had lower scores in breastfeeding knowledge and attitude scales. The nurses also had less breastfeeding education in “non-authorized baby-friendly hospital”. Based on this result, improving the nurses' breastfeeding knowledge and care ability related education program should be a key intervention and consequently increasing the postpartum women's breastfeeding rate and duration of persistent breastfeeding. Second step- The efficacy of the breastfeeding intervening strategies and combined care program was then evaluated. The results showed that the score of the breastfeeding

related knowledge, attitude, and self-efficacy of the study groups' nurses were higher than the control groups', and the postpartum women's problems in breastfeeding experience had lower of study group than the control group. But the duration of persistent breastfeeding had no difference between the study and control group.

**Conclusion:** The results of this study might helpful to establish the breastfeeding model in the "non-authorized baby-friendly hospital" (community hospital and private obstetrics clinics). Providing specified suggestions and standardizations, being the references of health policy in the future.

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## Contact

[ylyang@ntu.edu.tw](mailto:ylyang@ntu.edu.tw)

## I 12 - Using EBP Within Maternal-Child Health

### Reduction of Childhood Obesity via the Web-Based Programs in School-Aged Children

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*Natalya Fazylova, DNP, FNP-BC, USA*

#### Purpose

The purpose of this presentation is aimed to discuss the current available evidence on the effectiveness of web-based programs on the reduction of childhood obesity.

#### Target Audience

The target audience of this presentation are nurses, nurse practitioners, physicians and other health care providers involved in care of school aged children

#### Abstract

**Purpose:** This review aimed to identify the current evidence on the effectiveness of web-based programs on the reduction of childhood obesity.

**Methods:** A three-step search strategy and search terms were formulated based on the selection criteria. This review considered studies that included school age children regardless of gender, ethnicity, or national origin from 4-18 years of age. The outcomes measured in this review include overweight and obesity among school aged children as measured by valid and reliable measurements including but not limited to BMI, body weight, and/or waist circumference. Independent critical appraisals on selected studies were performed using JBI CReMS and MASTARI for data extraction.

**Results:** A total of 12 randomized controlled studies were included in the review. A reduction in BMI, BMI-z, and weight and/or waist circumference can occur when implementing web-based interventions in school aged children. However, studies reviewed point to other variables playing a role in these outcomes such as parental involvement, face-to-face interactions, culturally tailored programs, and reinforcement of information to improve adherence.

**Discussion:** This review supports the development of web-based technology for the implementation of weight reduction programs as a method to reach school-aged children. Evidence also suggests that these web-based programs would produce better results in school-aged obese children with parental involvement and when culturally sensitive. Furthermore, evidence suggests that these web-based programs would produce better results in school-aged childhood obesity if done for a longer period of time.

**Conclusion:** As identified by the reviewers, most of the RCT that included other variables such as dietary, physical exercise, parental involvement and culturally tailored program had significant changes in adherence to the program, decrease in BMI/waist circumferences/body fat, and increased in behavioral changes was statistically significant. Therefore, future studies which will incorporate parental involvement, cultural sensitive programs, larger sample size, and longer periods of studies beyond 16 weeks may be needed to establish the full effect of web-based childhood obesity reduction.

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#### Contact

[nycfazy@aol.com](mailto:nycfazy@aol.com)

## I 13 - Evidence-Based Practice Solutions

### Patient Outcomes from Care Provided by Advanced Practice Nurses in the U.S.

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*Julie A. Stanik-Hutt, PhD, CRNP, CNS, FAAN, USA*  
*Kathleen M. White, PhD, RN, NEA-BC, FAAN, USA*

#### Purpose

The purpose of this presentation is to disseminate the results of systematic review of research literature from 1990 - 2009 regarding the patient outcomes from care provided by advanced practice nurses in the United States.

#### Target Audience

The target audience of this presentation includes advanced practice nurses (APN), those who educate them, employ or work with them, investigators who examine practice models and outcomes and leaders who develop policy related to APN practice.

#### Abstract

**Background:** Advanced practice nurses (APNs) are registered nurses who have completed post-graduate education that prepares them for advanced and expanded practice as a nurse practitioner [NP], nurse midwife [CNMs], nurse anesthetist [CRNAs], or a clinical nurse specialist [CNS]. Issues related to access, cost and quality are at the core of ongoing discussions regarding health care. With the growing need for highly qualified health care providers, the best available evidence should be used to make decisions regarding how best to utilize the skills of APNs. Data is needed by educators, governmental officials and employers so they can create appropriate educational programs to prepare APNs, policies which authorize optimal APN practice and delivery models that utilize each health care professional's skills to the fullest. A systematic review of all available research which uses systematic and explicit methods to identify, select and critically appraise evidence and then aggregate that evidence, is needed to support these decisions.

**Purpose:** To synthesize and critically appraise the body of knowledge produced by randomized controlled trials (RCT) and observational comparative (OC) studies which examine patient outcomes derived from care provided by APNs.

**Data Sources:** An exhaustive search of the published and unpublished research literature from 1990 – 2008 was completed. A variety of databases including the Cumulative Index to Nursing and Allied Health Literature, Pub Med, Proquest, the Cochrane Database as well as others were searched. Governmental reports and grants, and dissertations were included. Manuscript references and footnotes were also hand searched.

**Study Selection:** A methodical process was used to select studies to include in this review. Two reviewers independently reviewed first the title, then the abstract, and finally the article to determine whether it met inclusion criteria. At the title level only one reviewer had to determine the article should be included, there after both reviewers had to determine that the article met inclusion criteria. The TrialStat System (SRS v4, Ottawa, ON) was used to store retrieved studies, conduct the title and abstract reviews, and document decisions. Articles which reported on patient outcomes related to quality, effectiveness or safety of care by an APN, whether from an RCT or OC study which compared patient outcomes from an APN provider group to those from a provider group without an APN were included. All studies had to be completed in the United States.

**Data Extraction, Appraisal and Synthesis:** 27,993 titles were reviewed and ultimately yielded 109 studies which met all criteria for inclusion (NP, 49; CNS, 24; CNM, 23; CRNA, 4; and CNS and NP combined, 9). Data on patient outcomes were extracted from each study and used to create detailed evidence tables stratified by APN type. Evidence tables also included information on study characteristics (provider types, setting of care, patient characteristics, sample size, etc.). Studies were critically appraised for quality using a modified Jadad Scale (> 5 = high quality, < 4 = low quality) and that score was added to the data table. Outcomes from individual studies were then aggregated. For an outcome to

be reported, at least three studies had to report data for the outcome. Because not all outcomes met this criteria, data from only 75 of the 109 studies could be aggregated (NP, 37; CNS, 13; CNM, 21; CRNA, 0; and CNS and NP combined, 4). Aggregated data on each outcome was appraised for quality a second time using the GRADE Working Group Criteria. The GRADE criteria assessed the quality, quantity and consistency of the data. It had been hoped that outcomes could also be pooled from across studies in order to complete a meta-analysis, however limitations in reporting the literature prevented same.

**Conclusions:** 30 abstracted outcomes from 75 of the 109 studies reviewed (22 randomized controlled trials and 53 observational) were aggregated and contributed to the conclusions. 70 % of the patient outcomes (21 of 30) were supported by a high level of overall evidence.

**Nurse Practitioners:** Patient outcomes from care by NPs or by physicians (MDs) supported 1) a high level of evidence of similar patient outcomes regardless of provider for: patient satisfaction with provider/care, self-report of perceived health status, functional status, blood glucose, blood pressure, emergency department visits, hospitalization, and mortality; 2) a high level of evidence that NP management of serum lipids produced better patient outcomes than those from management by a physician; and 3) a moderate level of evidence that LOS and a low level of evidence that patient duration of ventilation is similar among patients cared for by either provider type.

**Clinical Nurse Specialist:** Patient outcomes from care involving a CNS or without a CNS supported, 1) a high level of evidence that CNS involvement decreases hospital LOS and costs; 2) a high level of evidence that patient satisfaction is not affected by a CNS; 3) a moderate level of evidence that a CNS reduces complications; and 4) a low level of evidence that patient's perception of quality of life are affected by a CNS.

**Certified Nurse Midwives:** When patient outcomes from CNMs are compared to those from MDs, a high level of evidence shows that 1) numbers of low birth weight infants and Apgar scores are similar; and 2) CNM care reduces the rate of episiotomy and perineal laceration, use of labor analgesia or labor augmentation, vaginal operative delivery and Cesarean section. A moderate level of evidence indicates that 3) mothers managed by a CNMs are more likely to breastfeed their baby; 4) admission to neonatal intensive care unit after CNM delivery is no more likely than after MD delivery; and 5) lower use of epidural analgesia and labor induction, as well as vaginal birth after Cesarean. Differences between CNM and MD outcomes are particularly evident for so called 'overused' interventions (Cesarean section, labor induction/augmentation, epidural anesthesia, forceps and vacuum use, episiotomy, and labor analgesia).

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## Contact

[jstanik1@jhu.edu](mailto:jstanik1@jhu.edu)

## I 13 - Evidence-Based Practice Solutions

### Translating the DASH Diet into Practice

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*Jozelle Laforteza, RN, BSN, PHN, USA*

*Mary Jo Clark, PhD, RN, PHN, USA*

*Kathy James, DNSc, APRN, FAAN, USA*

*Iyabo Daramola, MD, USA*

#### Purpose

The purpose of this presentation is to describe the translation of evidence based high intensity diet counseling emphasizing the DASH diet into primary care practice to improve health outcomes of hypertensive adults.

#### Target Audience

The target audience of this presentation include nurse practitioners, advance practice registered nurses, doctor of nurses scholars, and other healthcare professionals.

#### Abstract

**Project Aim:** The purpose of the project was to apply high-intensity counseling to improve compliance with dietary and physical activity recommendations and decrease in blood pressure (BP) levels among hypertensive adults.

**Background:** Hypertension is a major risk factor for the two leading causes of death in the United States, heart attack and stroke. Although guidelines to prevent and treat hypertension recommend adoption of the Dietary Approaches to Stop Hypertension (DASH) diet, there is lack of compliance with these recommendations in practice. National Health and Nutrition Examination Survey (NHANES) data from 1999 to 2004 indicated only 19% of hypertensive adults were DASH accordant. Seven out of seven hypertensive patients seen in a local primary care setting were found to be non-compliant with the DASH diet. The medical director of the practice reported the majority of the hypertensive adults seen were non-DASH diet accordant. Poor compliance leads to progression of pre-hypertension to hypertension and poorly controlled blood pressure (BP) among hypertensive patients. Evidence consistently shows time-intensive counseling generally produces larger changes in dietary behavior than less time-intensive interventions. Despite the evidence in support of time-intensive counseling, current lifestyle modification counseling in the local primary care setting was only limited to office visits.

**Project Approach:** Hypertensive adults seen in a primary care setting participated in three 1-hour group classes and two 20-minute individual telephone follow-ups. Participants completed a 24-hour dietary intake recall pre- and post-intervention. Pre-intervention systolic BP (SBP) was obtained through chart review, and post-intervention SBP was obtained through BP measurements during the final class session. The percentages of participants engaged in DASH-related behavioral changes and who had decreased BP were used to evaluate data.

**Outcomes:** Data collection currently in progress, however it is expected there will be an increase in percentages of participants engaged in DASH-related behavioral changes and those with lower BP.

**Conclusions:** To be determined following review and analysis of results. It is expected high-intensity diet counseling in primary care will show early success in decreasing cardiovascular risk in hypertensive patients seen in primary care. If successful, investment in high-intensity diet and lifestyle counseling should be considered among high-risk patients in the primary care setting.

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Contact

[jozellelaforteza@sandiego.edu](mailto:jozellelaforteza@sandiego.edu)

## I 14 - Implementing EBP with Staff

### Staff Nurses' Use of Research to Facilitate Evidence-Based Practice

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Linda H. Yoder, PhD, MBA, RN, AOCN, FAAN, USA  
David Curk McFall, MSN, RN, USA

#### Purpose

to disseminate research about staff nurses use of research to implement evidence-based practice in an acute care setting.

#### Target Audience

any nurse or healthcare professional working in an acute care setting.

#### Abstract

**Purpose:** The literature indicates that bedside nurses in the United States continue to lack the desire and ability to integrate evidence into their practice for a variety of reasons. The purpose of this study was to: (1) determine registered nurses (RNs) use of research findings in their practice within an acute care hospital system, (2) determine what types of knowledge RNs used in their practice, and (3) determine what personal, professional, and organizational factors enhanced or hindered research utilization (RU) by RNs in the multi-hospital system.

**Methods:** A cross-sectional, descriptive, on-line survey design was used. Approval for the study was obtained from the health system's institutional review board. This study took place in a 10 hospital health system located in a metropolitan city. Of the 10 hospitals, eight are acute care facilities, one is a regional children's hospital, and one is an acute care psychiatric hospital. Four of the hospitals are Magnet hospitals and the others are Pathway to Excellence hospitals. All RNs across the hospital system received an email invitation to participate in the survey, which was available on the organizational intranet for eight weeks. The electronic survey was accessible to RNs at work and from home. The survey consisted of 54-items grouped into five sections. Section one consisted of 12 questions asking about the four types of RU: (1) overall, (2) direct, (3) indirect, and (4) persuasive. Section two of the survey consisted of 23 questions regarding demographic and professional characteristics of the participants. Section three consisted of six questions about nurses' use of knowledge in practice, including attitudes toward research and sources of knowledge about practice. Section four consisted of one question aimed at identifying factors that influenced nurses' decisions to apply research findings in practice. Section five contained nine questions about organizational resources available to support research. The survey also contained two open-ended questions asking the participants to list: (1) research findings they used in their practice in the last 12-months, and (2) professional and organizational factors that enhanced or hindered RU by registered nurses in the hospital system. 2900 registered nurses were invited to participate; 1112 nurses provided usable surveys, for a response rate of 38%. The focus of this presentation is the 794 staff nurses who responded to the survey and provide bedside patient care at least 50% of the time.

**Results:** Most of the nurses (88%; n = 695) were females whose highest level of education was a baccalaureate degree (49%; n = 380) or an associate degree (37%; n = 295). Most of the nurses had been RNs for at least 10 years (50%; n = 387). The knowledge the nurses reported they relied on the most for their practice came from their personal experience with patients, policies and procedures, physician colleagues, and nursing peers. Despite the fact that a variety of resources were available for nurses to locate research findings and conduct evidence-based practice (EBP), they reported the same problems that were reported in other studies over the last two decades. They cited barriers such as: lack of paid time to conduct reviews of the literature, an inability to understand the research literature because it seems too complex, and the inability to synthesize research findings to formulate a practice change. However, the nurses attitudes about RU/EBP were positive overall, but they expected unit based educators, clinical nurses specialists, and nurses in nonbedside care roles to collect and synthesize the research for them.

**Conclusion:** There continue to be many opportunities to inform, educate, and assist staff nurses with RU/EBP implementation. Despite nursing leaders' desire to have nurses at the bedside participate in

development of EBP practices, RNs continued to cite the same barriers that have repeatedly been reported in other studies: lack of time, lack of resources, and lack of knowledge. The bedside nurse is functioning in a complex healthcare environment with an ever increasing amount of research directed at improving quality and safety practices. However, due to unit or hospital-based cultures and barriers, they often continue to want others, such as masters prepared nurses, to read and synthesize the evidence and convince them of the benefit to patients before they will adopt new evidence-based practices.

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### Contact

[lyoder@mail.nur.utexas.edu](mailto:lyoder@mail.nur.utexas.edu)

## I 14 - Implementing EBP with Staff

### The Nethersole Nursing Practice Research Unit: Reflecting on its Successes and Challenges in Promoting Evidence-Based Practice in Nursing in Hong Kong

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*Helen Y. L. Chan, RN, PhD, Hong Kong*

*Diana T. F. Lee, PhD, MSc, PRD (HCE), RM, RN, RTN, Hong Kong*

#### Purpose

The purpose of this presentation is to stimulate discussion among local and international clinicians and researchers to share experiences of promoting evidence-based practice in clinical setting and discuss its impact on care outcomes and staff competence.

#### Target Audience

The target audience of this presentation includes local and international nurses and researchers.

#### Abstract

Evidence-based practice is a global development trend in the healthcare field with an ultimate goal to promote positive impacts on patient outcomes and care quality. Clinicians are empowered to make care decisions for individual patients on the basis of current best available research evidence together with their clinical expertise and patient preferences. This development trend calls for an urgent need to build capacity among nurses on the integration of research and clinical practice, and hence promote a culture of evidence-based care in nursing. In response to this, the Nethersole Nursing Practice Research Unit (NNPRU) was established at the Nethersole School of Nursing with the generous support of the Nethersole Endowment Fund of The Chinese University of Hong Kong (CUHK). The Unit is committed to fostering nursing excellence through research and education, and thus promote evidence-based practice to bridge the gap between knowledge and practice. Its specific objectives are: i) To develop, implement and evaluate evidence-based nursing care protocols for clients and their families; ii) To strengthen the interface between academic and clinical settings; and iii) To equip nursing colleagues and students with knowledge and skills of conducting rigorous and quality research in clinical contexts.

The primary focus of the Unit is on promoting evidence-based practice in basic care in gerontological nursing. This has been a neglected area in both research and clinical care, and so initially there was hesitation among clinicians working at frontline on putting efforts into this area. Over the past few years, the nurses of the Unit have teamed up with the ward colleagues to provide patient care and such opportunity of working as a team had facilitated mutual understanding. The Unit and the ward nurses then identified aspects of care that need improvement together. The frontline nurses appreciated that such collaboration helped to heighten their awareness of the current development of nursing practices and provided guidance to advance their practices. Thus far, the Unit has developed evidence-based care protocols on oral care, foot and toenail care, skin care and bowel care, with the support of nurse specialists of different specialties, and implemented and evaluated these protocols among older adults in the local care setting. Study findings showed that these protocols are effective in improving care outcomes and health-related quality of life of older adults.

Knowledge transfer is also another strategy used by the Unit for promoting evidence-based care in nursing. The Unit has introduced the care protocols to frontline staff in different hospitals and long-term care settings through in-service training, seminar and workshops. These knowledge transfer activities aimed to enhance the gerontological care competence of nurses and co-workers in the field. They were well received from clinical partners revealing that the importance of evidence-based care has been well recognized. The Unit has also disseminated the works through publication and conference presentations to facilitate sharing and exchange of opinions at both local and international levels. In addition, the Unit also prepared educational booklets and video clips related to the various aspects of care for clients and their families to enhance public awareness towards gerontological care and improve their knowledge and skills in this area.

Through its work and achievements, the Unit has successfully demonstrated itself as an exemplar in bridging up research and practice and in promoting evidence-based nursing practice.

Contact

[helencyl@cuhk.edu.hk](mailto:helencyl@cuhk.edu.hk)

## I 14 - Implementing EBP with Staff

### Identifying Entry-Level Nursing Practice Characteristics and Emerging Trends in the United States through Evidence-Based Research

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*Philip Dickison, PhD, RN, USA*

*Kathy Apple, MS, RN, FAAN, USA*

*Ada Woo, PhD, USA*

#### Purpose

The authors aim to identify entry-level nursing practice characteristics through a series of large-scale practice analysis studies. In addition to practice characteristics, emerging trends in nursing practice are also identified.

#### Target Audience

The target audience of this presentation are nursing educators, regulators and practitioners.

#### Abstract

**Background:** The National Council of State Boards of Nursing (NCSBN) is responsible to its membership for the preparation of psychometrically sound and legally defensible licensure examinations. The periodic performance of practice analysis studies assists NCSBN in understanding practice characteristics of entry-level nurses and evaluating the validity of its test blueprints. Due to the ever-changing nature of the U.S. healthcare industry, entry-level nursing practice analyses are conducted on a triennial basis. In 2006, NCSBN began development of a series of continuous practice analysis studies to be conducted in the three-year gaps among the regular practice analysis cycles. The purpose of conducting these continuous practice analyses was to discover emerging trends in entry-level nursing and to provide consistent validity evidence for the NCSBN test blueprints. In the present study, audience will learn the results of these continuous practice analyses and identify any emerging practice trends in the U.S.

A large number of entry-level nurses are randomly sampled every three months to receive an electronic survey on nursing practice. The sample is defined as candidates who successfully passed the NCLEX, a nursing licensure examination used in the U.S., within the previous six months. In essence, no individual sampled would have been working as a licensed nurse for more than six months. The electronic survey contains an extensive list of nursing activities as determined by a subject matter expert (SME) panel, questions about the respondent's nursing experience and work environment, and respondent's demographic information.

**Study Methodology:** To illustrate the continuous practice analysis process, the following sections provide a description of the methodology used to conduct the most recent Registered Nursing (RN) Continuous Practice Analysis study in 2012. Descriptions of subject matter expert panel processes, survey development, sample selection and data collection procedures are provided. The methodology with which continuous practice analyses have been conducted since 2006 mirrors the process described. Panel of Subject Matter Experts

Nursing activity statements from the 2011 RN Practice Analysis were used in the 2012 Continuous Practice Analysis study. A panel of RNs was assembled to assist with the 2011 RN Practice Analysis. Panel members worked with and/or supervised the practice of RNs within their first six months of practice or were themselves newly licensed RNs and represented all geographic areas of the U.S., all major nursing specialties and various practice settings.

The panel of experts performed several tasks crucial to the success of the practice analysis study. The SMEs asked three newly licensed RNs whom they supervised to submit detailed daily logs describing the activities they performed on the job. Additionally, SMEs were asked to submit job descriptions, orientation and professional evaluations from their work settings. Using activity logs, past activity statements, job descriptions, performance evaluation documents, as well as their own knowledge of newly licensed RN practices, the panel created a category structure describing the types of activities performed by newly licensed RNs. They were careful to create a structure that was clear, understandable and logical.

Once the list of categories was created, the panel members worked to create a list of activities performed within each category. Each activity was reviewed for applicability to newly licensed practice and the relationship to the delivery of safe nursing care to members of the public. Care was taken to create the activity statements at approximately the same level of specificity and to avoid redundancy.

**Survey Development:** A number of processes were used to create, evaluate and refine the survey instrument used for the 2012 RN Continuous Practice Analysis study. First, the activity statements created by the SMEs for the 2011 RN Practice Analysis were reviewed and edited by the NCLEX Examination Committee, and oversight group consists of U.S. nursing regulators. The resulting activity statements were incorporated into a survey format. The survey included questions about the RN's practice settings, past experiences and demographics. Two forms of the survey were created to decrease the number of activity statements contained on each.

The survey contained five sections. Section one focused on RN activity performance needed to safely practice newly licensed nursing. In the second section, questions related to the respondent's work experience, including months of experience as an RN and type and length of work orientation. Section three contained questions about the respondent's work environment including questions about work settings, client characteristics and work schedules. Section four requested information on the respondent's last day of work including numbers of hours worked, number of clients for whom care was provided, and the amount of time spent in various RN activities. Section five asked for basic demographic information. **Survey Mailing Procedure** A sample of newly licensed RNs was selected from the NCSBN database of successful NCLEX-RN candidates over a six-month period. During each quarterly survey administration period, a new group of candidates was selected. Invitations for each of the online surveys were sent via e-mail. One week later, a reminder e-mail was sent to all participants reiterating the importance of the study and urging participation. In the second week of the administration, a second reminder e-mail was sent. The final reminder was e-mailed in the fourth week of the administration.

**Confidentiality:** All potential participants were assured confidentiality with regard to their participation and their responses. Files containing mailing information were kept separate from the data files. The study protocol was reviewed and approved by NCSBN's chief executive officer for compliance with organizational guidelines for research studies involving human subjects. **Survey Rating Scales** The 2012 RN Continuous Practice Analysis survey asked responders to answer two questions about each nursing activity. The first question addressed the frequency of activity performance. The scale of frequency ranged from "Never performed in work setting" to "5 or more times." Responders were instructed to mark "Never performed in work setting" then move to the next activity if an activity did not apply to their work setting. If the activity did apply to their work setting, they were asked to mark a six-point scale (0 to 5 or more times) reflecting the frequency with which they had performed the activity on their last day of work. They were then asked to rate the overall importance of the activity considering client safety and/or threat of complications or distress on a five-point Likert scale with 1 being "Not Important" and 5 being "Critically Important." Additionally, applicability to practice setting was assessed by analyzing the number of responders not marking the "Never performed in work setting" response. Responders were asked to rate performance frequency of all activities that were applicable to their work settings. They reported how frequently they performed the activity on the last day they worked on a six-point scale: "0 times" to "5 times or more." The setting-specific frequency was calculated by averaging the frequency ratings of those responders providing ratings (i.e., responders indicating that the activity applied to their work setting). **Anticipated Results and Practical Implications** In the present research, the authors will compile results of all continuous practice analysis conducted since 2006 to provide a longitudinal picture of nursing practice characteristics in the U.S. Data depicting nursing demographics will be reported. Changes in categories of nursing activities performed at the entry-level will be noted, as will changes in time spent in or importance entry-level nursing assigned to these activity categories. To ensure that the results of this study is beneficial to a larger audience in the nursing community, additional background research will be conducted comparing nursing policies such as the Institute of Medicine Future of Nursing report to results of the current study.

#### Contact

[awoo@ncsbn.org](mailto:awoo@ncsbn.org)



## J 13 - Evidence-Based Practice Within the Pediatric Population

### Child Sex Trafficking in the Health Care Setting: Recommendations for Practice

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*Cathy Miller, MSN, USA*

#### Purpose

The purpose of this presentation is to educate nurses on the recognition, intervention, and referral of child sex trafficking survivors.

#### Target Audience

The target audience of this presentation is nurses and advance practice nurses.

#### Abstract

The child sex trafficking (CST) industry can be conceptualized as a broad phenomenon encompassing such human rights violations as survival sex, forced prostitution, debt bondage, child sex tourism and is incorporated under the umbrella of human trafficking. The estimates of CST vary greatly from 600,000 to 2.5 million. This variance can in part be attributed to health care provider lack of education and best practices on the recognition, intervention, and referral of CST survivors.

The purpose of this presentation is to provide a foundation for health care providers on the recognition, medical and nursing management, and referral of CST survivors. The goals are 1) to increase health care provider competency and confidence when caring for survivors of CST which will contribute to improve mental and physical health outcomes for survivors, 2) contribute to reliable data for research collection, law enforcement, and governmental agencies, and 3) increase prosecution of offenders.

#### **Covered topics include:**

- Recognition in the health care environment
- Appropriate interview techniques
- Nursing interview and management
- Safety-provider and survivor
- Documentation
- Importance of forensics
- Referral sources

#### Contact

[cathy\\_miller@baylor.edu](mailto:cathy_miller@baylor.edu)

## J 13 - Evidence-Based Practice Within the Pediatric Population

### Partnerships in Global Health: Nursing Assessments with School-Age Children in Belize to Promote Healthy Living

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Mary Lou De Natale, EdD, RN, CNL, USA

Enna E. Trevathan, DNP, MSN, MBA, RN, CNL, USA

#### Purpose

Provide information about a partnerships between nurses and nursing students who actively involved children and adolescents in their own health assessments which provides a way to address global health.

#### Target Audience

Nursing clinicians, community nurses, and educators who support the health and wellness of children.

#### Abstract

School age children across the world represent the future, thus their growth and development are a prime concern of all societies (*World Health Organization, 2013*). One way to address this need is to educate children regarding their own health and wellness, which proved to be beneficial for a community in Belize, Central America. This program provided a partnership for nurses and nursing students with children/ adolescents as they learned about how to perform their own health assessments.

Physical assessments and nutrition education for over 700 school-age children/ adolescents were provided. Children and adolescents, as active participants in their learning and health screenings, gained an understanding and skills for individualized health awareness. The participation of teachers/ class members during the health assessments promoted dialogue on culture, traditions, and everyday life. In addition, baseline measurements for each of the children/ adolescents on height, weight, blood pressure/ pulse, vision, and personal health concerns were learned by the children/ adolescents. Reflective nursing practice helped build on the learning through: (1) understanding the individual health needs; (2) developing an awareness of the resources available in the school, family, and community; and (3) supporting leadership amongst the nurses and other health providers.

The rewards for teaching about health care practices also included being present with each child/ adolescent and listening to their personal thoughts and ideas. Outreach opportunities for nurses to partner with a community to decrease potential health risks are a professional responsibility. Having a child listen to his/ her own heart and learn to take his/her pulse is forever a teachable moment giving support for learning, sharing, and practicing health promotion globally.

Based on the assessment results, some of the children were identified as undernourished with the potential of micronutrient deficiencies such as: iron, vitamin A, iodine, and zinc. The health data provided to the *Ministry of Health* supported the strengthening of a nutritional dietary program for seventy-five additional children in the school. Early identification of at-risk students can provide needed school feeding programs for this vulnerable population. In addition, educational awareness was provided for the school principal, teachers, and staff with the tools to promote and sustain the implementation of healthy lifestyle programs in primary schools.

#### References

<http://www.who.int/topic/child/health/en/>

#### Contact

[denatalem@usfca.edu](mailto:denatalem@usfca.edu)

## J 13 - Evidence-Based Practice Within the Pediatric Population

### Engaging At-Risk Youth Utilizing the Community Emergency Response Team (CERT) Training as a Harm Reduction Tool

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*Shamika Tishema Ossey, RN, BSN, PHN, USA*

*Sharon E. Sylvers-Sidney, RN, BSN, PHN, MPA, USA*

#### Purpose

The purpose of this presentation is to model how CERT training engaging youth, can increase preparedness and resilience in vulnerable communities in the County and nationally as well as highlight the importance of collaboration across governmental, community and private agencies in order to achieve successful community development.

#### Target Audience

The target audience of this presentation includes health care professionals, educators, community ambassadors, community organizers, public and private sector employees, governmental agencies, community based organizations, and faith based organizations.

#### Abstract

If a disaster were to strike right now in Los Angeles County, 27 teens in Watts would be among those prepared to respond. This project is part of Los Angeles County's preparedness and sustainability efforts focused on community engagement and getting to know one's neighbors in order to plan together and be ready for emergencies. Based on recent disasters, it has been shown that communities that know each other and prepare together are better able to survive the event and recover more quickly afterward.

The Community Emergency Response Team (CERT) concept was developed and implemented by the Los Angeles City Fire Department (LAFD) in 1985. The Whittier Narrows earthquake in 1987 underscored the area-wide threat of a major disaster in California and confirmed the need for training civilians to meet their immediate needs. As a result, the LAFD created the Disaster Preparedness Division with the purpose of training citizens and private and government employees. However, in its 25 years of existence, the program never got the opportunity to deliver its vital content with teens in one of the most incident-prone areas of the City.

South Los Angeles (Watts), a community known for its determination to bounce back from the onslaught of drugs, guns and civil unrest. A community with 67.8 violent crimes reported per 10,000 residents (278 violent crimes in a 6-month period). A community well-known for the number of young black men going to jail than going to Yale. A community where young people are cautious to walk two blocks in a direction that might land them in another "territory"--and into the line of unfriendly fire. A community where police chases through residential areas is experienced far too often. A community where in 2006, public housing residents had to wait over a week for help when local flash flooding occurred, bringing water 2-3 feet high into the homes of public housing residents.

Times are changing and a new breed of community activists and partners, The Watts Gang Task Force, has arisen to give young people hope and a vision of what can be --beyond their two blocks. This Task Force opened their eyes and ears to a National Preparedness Month presentation at their local city councilman's office in September 2012, which focused on preparing the next generation. Within 4 short months, members from the Task Force and other interested partners (representing community residents, fire, police, public health, nongovernmental, faith and business) came together to design, promote, launch and implement the first-ever Teen CERT program for youth in the "high-risk" area of Watts, South Los Angeles.

In February 2013, the West and South Area Health Office spearheaded and implemented the first Teen Community Emergency Response Team (CERT) Training Program in South Los Angeles. The objective of the Teen CERT Training Program is to build community resiliency in the Watts community of South Los Angeles targeting youth who are residents of four Los Angeles City Housing Authority Developments (Jordan Downs, Imperial Courts, Nickerson Gardens, and Gonzaque Village).

The Teen CERT program was envisioned, planned and implemented by Service Planning Area (SPA) 5 & 6 Area Health staff (Shamika Ossey, PHN and Sharon Sylvers, PHN) in collaboration with the US Department of Homeland Security Center for Faith-based & Neighborhood Partnerships, the Federal Emergency Management Agency (FEMA), City of Los Angeles Fire Department, City of Los Angeles Housing Authority, Women of Imperial Court, Watts Gang Task Force, Council of Pakistan American Affairs, 7-eleven Corporation, Los Angeles City Council District 15 (Office of Councilman Joe Buscaino) and the American Red Cross.

The CERT Program is a viable mechanism to ensure that communities are able to prepare for, respond to, recover from, and mitigate future impacts from natural and manmade hazards. Anecdotal information from both City and County CERT programs indicate that there are fewer CERT-trained individuals in South Los Angeles despite a significant community interest.

The South LA Teen CERT Program was an opportunity to model how CERT training can increase preparedness and resilience in vulnerable communities in the County and nationally. It also serves to highlight the importance of collaboration across governmental, community and private agencies in order to achieve successful community development. Training modules included Earthquake Awareness, Disaster Fire Suppression Techniques, Disaster Medical Operations, Multi-Casualty Incidents, Light Search and Rescue Operations, Team Organization & Disaster Psychology, and Terrorism & Homeland Defense. Additional skill building activities included an American Red Cross Community CPR & First Aid Certification Course facilitated on May 11, 2013.

Twenty seven students completed the training and received certificates and commendations at the Teen CERT graduation ceremony held on April 20, 2013. Over 100 people were in attendance. Dignitaries who spoke during the ceremony included Jackie Lacey (Los Angeles County District Attorney), Joe Buscaino (Los Angeles City Councilman, District), Ron Fisher (2nd Supervisorial District Field Office Staff), Dr. Jannah Scott (US Department of Homeland Security, A Center of the White House Office of Faith-based & Neighborhood Partnerships), Dr. Jan King (Area Health Officer for West and South Los Angeles) and Dr. Alonzo Plough (Director of the Los Angeles County Department of Public Health Emergency Preparedness and Response Program).

The teens now have the skills and ability to organize a CERT team, join an existing one in their community and increase the resilience of their community against the impacts of natural and manmade disasters. Area Health Office staff, Ms. Ossey and Ms. Sylvers, are now CERT trained and certified CERT Trainers. Next steps for the Area Health Office include continuing Teen CERT programming in South Los Angeles and creating a novel Mobile CERT program which will include bicycle and equestrian teams.

As a result of its successful program model, innovation, and comprehensive collaborative component our planning team was the Third Annual Recipient of the John D. Solomon Whole Community Preparedness Award (highest national preparedness award) on September 23, 2013 at the White House during its annual FEMA 2013 Individual and Community Preparedness Award Ceremony. In addition, our efforts have been recognized by President Obama and The White House Office of Faith-based and Neighborhood Partnerships, Federal Emergency Management Agency (FEMA), U.S. House of Representatives, Los Angeles County Board of Supervisors, Los Angeles City Council, and the Los Angeles County Department of Public Health.

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<http://www.ready.gov/citizen-corps-awards>

<http://www.fema.gov/news-release/2013/09/19/fema-honors-achievements-community-preparedness>

#### Contact

[sossey@ph.lacounty.gov](mailto:sossey@ph.lacounty.gov)

## J 14 - Clinical Changes Resulting from Evidence-Based Research

### Blood Aspiration during Intramuscular Injection

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*Megan A. Infanti Mraz, RN, PhD, USA*

*Christine Thomas, RN, DNSc, USA*

*Lois Rajcan, MSN, RN, USA*

#### Purpose

The purpose of this presentation is to explore the incidence and prevalence of blood aspiration that occurs during intramuscular injection.

#### Target Audience

The target audience of this presentation is practicing nurses who administer intramuscular injections to their patients.

#### Abstract

Intramuscular (IM) injection is a common practice in nursing. The technique whereby one learns how to administer an intramuscular injection is a practice that is taught very early in a student nurses career. For many years student nurses were taught to aspirate prior to the administration of a medication into the muscle. In recent years, this practice of aspiration had been called into question and subsequently been removed as a recommendation. This has left the academic and professional communities with questions such as: Why is aspiration no longer recommended and are there certain exceptions when aspiration would be necessary? The authors of this presentation share these questions. Therefore, a study was conducted to look into the expectations of a nurse in practice, a review of the events in history that may have impacted the practice of aspiration, a review of what is required of a nurse in order to be successful in IM injection, and the conflicts that the profession is faced with today in relation to applying practice that is safe, effective, and rooted in the evidence.

**Purpose:** The purpose of this presentation is to disseminate findings identified through data gathering and research analysis that occurred in the summer of 2012.

**Research questions:** Questions guiding the study included: What is the incidence of aspiration during IM injection? What is the prevalence of blood aspiration during the aspiration phase of IM injection? And, what techniques/ methodologies are practicing nurses using during IM injection?

**Subject and Sample:** 164 staff nurses participated from a community based hospital in Pennsylvania, United States. Majority of the sample consisted of bedside nurses. Specialties in practice, years in practice, and educational levels were varied.

**Design and Methods:** The research design for this study was a quantitative approach, in the form of a non-experimental one group survey design.

**Results:** This study has generated new information on the incidence and prevalence of blood aspiration during IM injection. The data identified that despite CDC recommendation (CDC, 2011), 82% of the subject sample maintains aspiration technique during IM injection. Furthermore, over 38% reported to have aspirated blood during their careers when administering an IM injection. Anecdotal data from this study also identified other patient injury such as: infiltration, nerve injury, tissue necrosis, and abscess during IM injection.

**Implications:** This study has identified that blood aspiration does occur during IM injection. Furthermore, anecdotal information in relation to other patient injury was identified through administration of injection. However, the data also identified concerns related to IM injection and when aspiration can be unsafe.

**Future Recommendations for Research and Practice:** Based on the prevalence of blood aspiration, and identified patient injury, it is clear that aspiration should be recommended in certain instances. It is possible that aspiration should not be recommended 100% of the time secondary to the concerns regarding aspiration during unsafe conditions.

The infusion nurses' society recommends that infusions intended to be infused through the vascular system be assessed for a pH of less than 5 or greater than 9 and osmolality of greater than 600mOsm/L. Medications that meet the above pH and osmolality parameters are known to be vesicants or irritants to the vascular system and should be infused through the central circulation (Infusion nurses society, Standard 32, 2011). Human blood has a pH of 7.35-7.45. Many varieties of medications are considered vesicants or irritants based on the definition of pH less than 5 or greater than 9.

Common Medications administered IM such as:

Penicillin G reconstituted has a pH of 6-8.5 (US National Library of Medicine, 2011)

Haldol has a pH of 3-3.6 (FDA, 2009)

Morphine has a pH of 2.5-6.5 (U.S. National Library of Medicine, February)

Accidental administration of these medications into the peripheral vascular system during an IM injection would cause significant discomfort related to phlebitis or thrombus formation in the vein or artery.

Historically, the aspiration technique was taught as a precaution against accidental intravenous or intra-arterial administration of medications that can potentially lead to systemic allergic reactions (Li, 2003), chemical phlebitis of the vascular system (Infusion nurses society, Standard 47, 2011) or arterial embolism (Gammel, 1927).

Reference to an irritation index of a medication being administered, whether alkaline or acidic, is not a routine consideration during an IM injection. Yet, the infusion nurses society recognizes a pH index for irritation of the vascular system for medications being administered. Recommendations from this study would include investigation to aspiration prior to IM injections to avoid accidental administration of a potential irritant medication into the vein/artery.

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### Contact

[mmraz@wcupa.edu](mailto:mmraz@wcupa.edu)

## J 14 - Clinical Changes Resulting from Evidence-Based Research

### Building an Integrated System of Care Across the Extended Care Continuum with the LINCT Program (Liaison In Nursing Care Transitions)

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*Dina Lipowich, RN, MSN, NEA-BC, USA*

#### Purpose

to demonstrate how a nurse-driven organizational partnership with local area skilled nursing facilities will ensure continuity of quality outcomes for older adult patients as they transition between the hospital and extended care continuum.

#### Target Audience

Hospital/Extended Care Facility Nursing Administration, Clinical Nurses, Directors of Nursing, Case Managers, Physicians with specialty in Palliative Care/Gerontology.

#### Abstract

**Problem:** Lack of adequate continuity of care at discharge has been identified as a factor for frequent readmissions from Extended Care Facilities (ECFs). Older adults with chronic conditions hospitalized and subsequently discharged to ECFs represent a particularly vulnerable population. (Jacobs 2011).

Review of hospital cases in 2011 revealed that over 20% of patient discharged to ECFs, were readmitted within 30 days. Readmissions from ECFs are a hardship for patients, are costly for institutions, and reflect fragmentation of care across the continuum.

**Approach:** The LINCT (Liaison In Nursing Care Transitions) Program Initiative is a nurse-driven organizational partnership with ECFs to ensure continuity of quality outcomes during transition between the hospital and extended care continuum.

#### **Objectives:**

- Reduce 30-day readmissions and hospital length of stay for patients discharged to partner LINCT facility.
- Increase satisfaction of patient/family with discharge process and transition of care across the continuum.
- Increase satisfaction of staff, physicians, and ECFs with discharge and transition process.

#### **Methods and Intervention:**

- Formal affiliation agreement established with high-volume ECFs to participate in the LINCT Program.
- Dedicated acute nurse to serve as liaison between hospital and LINCT facility.
- Pre-discharge hospital rounding, collaboration with inter-professional team, and readmission risk assessment on patients transitioning to LINCT facility.
- Education/support for patients/family members preparing for transition.
- Post-discharge rounding on high-risk patients admitted to LINCT facility within the first 24-72 hours.
- Education for ECF staff on topics relevant to care of patients with chronic conditions.
- Monthly inter-professional LINCT quality review meetings at ECF site.

#### **Outcomes and Implications:**

1. Data reflect dramatic reduction of readmissions from partnering facilities.
2. Satisfaction reported by partnering ECFs, patients, and physicians.
3. Program expanding to include additional ECF partners and rapidly evolving as an essential component in the organization's Integrated System of Care development plan.

#### Contact

[dlipowich@nch.org](mailto:dlipowich@nch.org)



## J 14 - Clinical Changes Resulting from Evidence-Based Research

### Improving Alarm Profile Notifications and Responses

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*Helen S. Kane, RN, MSN, MBA, CCRN, USA*

*Linda Wilson, RN, PhD, CPAN, CAPA, BC, CNE, CHSE, USA*

#### Purpose

The purpose of this project was to increase the adherence to the alarm profile notifications and responses as described in the standard operating procedures for the telemetry monitoring on a medical surgical telemetry floor.

#### Target Audience

The target audience of this presentation is all professional nurses, nurse managers, education specialists, and staff development specialists.

#### Abstract

**Background:** The Joint Commission published a sentinel event alert in April 2013 related to alarm safety in hospitals. The Joint Commission report included 98 reported events and 80 patient deaths. The majority of these events and deaths occurred in telemetry units, intensive care units and emergency departments. The American Association of Critical Care Nurses (AACN) published a practice alert related to nurse expected practices with cardiac monitored patients. The AACN expected practices for nurses working with cardiac monitored patients include the following: 1) provide proper skin preparation for ECG electrodes; 2) change ECG electrodes daily; 3) customize alarm parameters and levels on ECG monitors; and 4) establish interprofessional teams to address issues related to alarms.

**Problem statement:** There are multiple undesired effects for the nurses and technicians in the new process. There are many nuisance alarms (leads off; leads off & can see ECG complex; battery needs change). Alarm Profile Notifications and responses are not consistently followed.

**Project objective:** The project objective is to increase the adherence to the Alarm Profile Notifications and responses as described in the Standard Operating Procedures for telemetry monitoring.

**Countermeasures implemented:** The clinical nurse specialist coordinated a meeting with the nurses and technicians who work on the telemetry units. The telemetry monitor company representative also met with the nurses and technicians from the telemetry units. Focus groups were conducted to identify the perceived issues of the nurses and technicians. New practices were implemented on the telemetry units including the following: 1) all telemetry pack electrodes changed on the night shift every 24 hours; and 2) all telemetry pack batteries changed on the day shift. Education was provided to the nurses and technicians on the updated Alarm Profile Notifications in the Standard Operating Procedures. Data collection processes and content were revised to improve the ongoing data collection monitoring process.

**Results:** Improved processes and responses to the alarm profile notifications. Data collection is ongoing to ensure adherence to the Alarm Profile Notifications and responses as described in the Standard Operating Procedures for telemetry monitoring.

#### Contact

[lbw25@drexel.edu](mailto:lbw25@drexel.edu)

## K 13 - Using Technology to Educate Nurses

### Computer-Based Training at a Military Medical Center: Understanding Decreased Participation in Training among Staff and Ways to Improve Completion Rates

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Julie A. Lavender, EdD, MS, RNC-MNN, USA

#### Purpose

The purpose of this presentation is to describe a mixed method case study that examined factors that may influence healthcare staff participation in mandatory computer-based training. Study results may provide practical information for hospital educators to design training to improve participation rates.

#### Target Audience

The target audience of this presentation is clinical nurse educators who may struggle with staff participation in mandatory training. Hospital educators need to understand why employees may not complete required computer-based training and determine the best method to distribute training to improve completion rates.

#### Abstract

Military health care facilities make extensive use of computer-based training (CBT) for both clinical and non-clinical staff. Despite evidence identifying various factors that may impact CBT, the problem is unclear as to what factors specifically influence employee participation in computer-based training. The purpose of this mixed method case study was to examine factors that may influence healthcare staff participation in mandatory CBT to provide practical information for hospital educators to design training to improve participation rates. Participants were surveyed to collect quantitative data to measure the relationship of factors that influenced employees' participation in training, and interviews were conducted to further explore those factors. Participants were self-selected from the population of 434 clinical and non-clinical personnel at a large military healthcare facility. The actual sample size was 193 for a participation rate of less than half (44%). Based on interpretation of findings from the Mann-Whitney U test, there were no differences in participation in CBT between clinical or non-clinical staff,  $U = 626.5$ ,  $p = .11$ . Interpretation of findings using Kendall's Tau indicated there was no relationship between degree of comfort when using the Internet and computer technology and participation in computer-based training,  $\tau(141) = -.081$ ,  $p = .32$ . However, a significant association was found between having a history of some training with the Internet and technology and completion of computer-based training,  $\chi^2(df = 1) = 19.63$ ,  $p < .01$ . Pearson correlation analysis was performed between the number of hours spent weekly on e-learning courses and the completion rate for e-learning courses and no relationship was evident,  $r(df = 101) = -.11$ ,  $p = .34$ . However, five of the nine interviewees stated there is too much training and the amount does affect training participation. The study was confined to one military healthcare facility so results are not generalizable. To improve generalizability, larger studies with higher response rates are needed. Further refinement of instruments to more accurately address research questions, along with reliability and validity testing, is also recommended. Future studies with objective data, such as training records from all participants, may provide insight into discrepancies between actual and perceived participation in training.

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#### Contact

[julie.lavender@kirtland.edu](mailto:julie.lavender@kirtland.edu)

## K 13 - Using Technology to Educate Nurses

### Designing Service Learning Projects for an Online Course in Healthcare Delivery

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*Linda E. Jensen, PhD, RN, MN, USA*

#### Purpose

The purpose of this presentation will be to discuss evidence from an online course with a service learning assignment to: choose a volunteer organization in their community, complete a SWOT evaluation of a volunteer organization, participate in a volunteer activity, and evaluate the experience.

#### Target Audience

The target audience of this presentation is nursing educators and/or researchers

#### Abstract

Service learning has become an important part of many academic healthcare programs as it has been shown that service learning helps students become more aware of the needs of populations frequently involved in healthcare disparities. Volunteer organizations are an important part of healthcare delivery however, most students and many health care professional are unaware of many of the important resources for their patients which can be found in these community service organizations.

However, a service-learning strategy is more difficult to design for an online course, as the instructor cannot know the organizations involved in each of the student's communities. This strategy has been implemented for over 3 years in a health care delivery course in a master's in nursing program that is almost entirely online. This academic program has been recognized as one of the top five online MSN programs in US News and World Reports for the past two years. Service to the community is one of the Values of this healthcare professions college, and a Maltese Cross award is given yearly at graduation to a person who has given exemplary service to the community, the state, and/or the nation. The author received the Maltese Cross Award for Community Service in 2012.

The objectives for this service-learning experience included:

- Develop a firm foundation of the history and need for service in the community,
- Gain knowledge of agencies in the community and various ways in which an individual can become involved with an agency,
- Participate in various activities with a community agency to gain a better understanding of the work and services provided to the community,
- Analyze and evaluate the work and value of the service agency for healthcare clients.

The service-learning project included the following steps: choose a volunteer organization in their community, complete a SWOT (Strengths, Weaknesses, Opportunities, and Threats) evaluation of a volunteer organization, participate in a volunteer activity, and evaluate the experience. Students wrote reflection papers briefly describing their experiences, new learnings, and their feelings during each step. Students also shared these reflections in asynchronous discussions so that each student was able to learn about a wide variety of volunteer service organizations within their communities and others parts of the country.

Qualitative results of this service learning strategy will be compared and contrasted. Qualitative results of this strategy will be compared and contrasted. Categories of service organizations chosen included many national organizations including the National Alliance on Mental Illness, American Red Cross, American Cancer Society, Multiple Sclerosis Society, Alzheimer's Association, Cystic Fibrosis Society; local social services including homeless shelters, domestic abuse shelters, adoption services, child advocacy or mentoring services, food pantries; and free medical clinics and immunization services. Themes of service were extracted including distribution of food, clothing, bikes, household, and personal items; education of groups about health promotion and/or safety; assistance in free medical clinics; helping with fundraisers; and attending meetings of support groups or board of directors.

Several students involved their families in volunteering with them and saw the volunteer activity as an important value they wished to pass forward to their children. Many students remarked how their experiences gave them more awareness of the difficulties that some people who were homeless or disabled suffer, along with a sense of thankfulness for their own well being and advantages in life. Numerous students expressed their commitment to continue to volunteer with the organization after the class assignment was completed. Several students stated they had wanted to volunteer with the organization before the class, and were grateful that the course required this experience.

Barriers and facilitators of the methodologies used will be discussed. Recommendations for further development of service learning with volunteer organizations in online courses will be described.

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## Contact

[jensenlinda@clarksoncollege.edu](mailto:jensenlinda@clarksoncollege.edu)

## K 14 - Global Perspectives on EBP

### Translating Practice into Policy: Disaster Nursing and Research in the American Red Cross

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*Janice D. Springer, DNP, MAOL, BSN, RN, PHN, USA*

*Mary Casey-Lockyer, MHS, BSN, RN, CCRN, USA*

#### Purpose

To introduce the use of disaster nursing research conducted by the American Red Cross in the development of national policy, evidence-based process models, and training for disaster health care professional responders.

#### Target Audience

Public Health Nurses, advocates for vulnerable populations, members of the disability community, educators who teach disaster nursing, students interested in evidence-based practice methodology.

#### Abstract

**Background:** Multiple disaster events since 2005 have highlighted gaps and inconsistencies in collection and use of data on behalf of disaster shelter populations in the entire disaster cycle of prepare, respond and recover. There is a paucity of evidence-based research in publication that describe systems for identifying needs of those at-risk within the population-based, non-medical setting of a disaster shelter. Morbidity surveillance in congregate living shelters has not been well understood or incorporated into nursing policy and practice. There is a need for qualitative data surrounding disaster related fatalities to inform preparedness messaging. The multiple people, organizations, policies, and community expectations involved in planning for and responding to a disaster reflects the complexities described as a wicked problem. That is, it requires non-linear thinking and multiple stakeholders' contributions to solve for the best strategy. American Red Cross disaster health services leadership have engaged multiple partners to assist with design, collection and analysis of critical data available during the response to a disaster to inform training, response, and messaging to support prevention of morbidity and mortality in disaster impacted communities.

**Methodologies:** American Red Cross nursing disaster responders use quantitative and qualitative strategies to gather data. Data from the 2011 massive tornados in Alabama, a smaller tornado in North Carolina and Hurricanes Irene, Isaac and Sandy contributed to these studies. In each of these disaster operations' instruments and processes were trialed, interviews were conducted, and new ideas were tested.

Field-based pilot studies were done to identify needs of actual or potential at-risk clients in shelters through a mixed-method approach. Populations in four congregate care shelters from two different disasters of 2011 were included. Clients were interviewed using screening instruments in an attempt to determine the "best" questions; nurses were interviewed to determine gaps between intake questions/answers, and clients' support needs identified later; and themes between disasters were identified to inform design of the intake, health and mental health needs screening system.

Daily (24-hour) tally of shelter population health categories were instituted. Categories include Injury, Illness, Symptoms, Exacerbation of Chronic illness, Health care maintenance, Behavioral and Mental Health, and Functional needs support services. As health staff in the shelter identifies a client with a need, that contact is counted, and each contact is collected on a worksheet. At the end of the 24-hour period, this aggregate morbidity is then faxed, e-mailed, or sent by courier to nursing leadership at the local disaster operations headquarters. From there, acute illness concerns are reported to local public health, patterns of illness or injury are considered, and all reports are forwarded to leadership at National Headquarters of the American Red Cross and the epidemiology section of the Centers for Disease Control.

Nurses collect fatality data from medical examiners and coroners to verify number and identity of individuals suffering a disaster-related death. Once the identity of a victim of the disaster is verified, the

integrated care team, led by nursing, reaches out to the family of the victim to conduct an interview and to offer support. Once the interviews are completed, they are de-identified and sent to CDC for a comprehensive analysis of the deaths pertaining to that specific disaster.

**Results:** The intent of intake screening was to identify activity of daily living (ADL) support needs, health and mental health needs. The studies found that screening as people arrived at the shelter was insufficient to understand the scope of clients' needs. Shelter residents were newly displaced, unfamiliar with what sheltering might mean, preoccupied with concerns related to the disaster such as losing their home, family members, and their future. The setting of intake at the shelter registration desk provided little or no privacy. Registration workers were reluctant to ask questions that might either feel too intimate, or have an answer that the registration clerk could not address. Interviews of clients done on the 3<sup>rd</sup> shelter day showed that many needs were identified that had not been noticed prior to that day. Nurse interviews showed that by the 3<sup>rd</sup> day clients were more comfortable with the setting, less anxious about the evacuation, more familiar with and trusting of the shelter staff, and thus more able to share their health, mental health and ADL support needs. In three of four shelters, the population with functional, health and mental health support needs was double what predictions using county census data were.

Content and process training for daily surveillance improved nursing awareness of the value of this daily review. The system is designed to observe for acute illness and injury as well as create a platform for longer-term analysis of patterns for predictive illness and injury of populations in disaster. Development of a more robust and comprehensive process for morbidity surveillance demonstrated in 2013 that chronic disease management, minor acute illness and behavioral health issues were the most common concerns seen in disaster shelters.

Qualitative data, which surround the circumstances of fatalities, are not captured in coroner, medical examiner reports or electronic death records. In the massive tornados in Alabama in 2011, 21.9% of deaths were directly or indirectly related to head trauma. In Hurricane Sandy, 34.2% of the deaths were related to drowning. The 2013 study of mortality data from Hurricane Sandy showed significant improvements in accuracy of matching Red Cross identified families to local coroner/jurisdiction knowledge and demonstrated that the Red Cross data is comprehensive and includes details not typically available to a medical examiner. This information contributes to better knowledge of precipitating/contributing factors to disaster related deaths.

**Application:** The Red Cross shelter registration intake screening process has been altered to offer multiple opportunities for clients' needs to be identified and addressed. An initial intake at the registration desk makes two observations and asks two questions of new shelter residents to help them immediately if needed, and create an awareness that help is available. The intake is supplemented by a Cot-to-Cot methodology of disaster health services nurses making at least daily rounds of the shelter to interview individuals and families, and assess the community for ADL support, health and/or mental health needs. Daily aggregate morbidity surveillance was strengthened during Hurricane Sandy when the CDC Epi-Aid program was triggered to assist the Red Cross gather and analyze shelter morbidity data in New Jersey. Previous education for Red Cross health Services leadership on the process and importance of aggregate morbidity reporting increased the diligence of collection and transport of data to CDC and Red Cross headquarters. The American Red Cross Preparedness unit and federal response partners are utilizing data collected by family interview with Red Cross disaster nursing surrounding disaster deaths to develop future content of preparedness messaging. Due to the nature of voluntary deployment, Just-in-Time training modules for Registration and Cot-to-Cot, Managing Aggregate Morbidity and Mortality and the Integrated Care Team process have been created. One of these modules uses Voicethread technology for audio and visual training; two of the modules are PowerPoint presentations. Two of them use algorithms to help with decision-making, and all are 30 minutes or less and can be done as part of orientation at the Disaster Operations site. Intake screening, Cot-to-Cot, and Surveillance content have been added to a national program to train student nurses in sheltering.

CDC and Red Cross have produced and presented national trainings based on the data from these collaborations to educate others in disaster planning and response. The authors have done multiple trainings to the volunteer workforce, to disaster response partners, to the disability advocacy community and others.

**Limitations:** There are several chronic limitations to doing research in time of disaster. Disasters are quite fluid in the response phase with populations often moving from address to address. Disasters are capricious in their destruction, creating geographic barriers to recovery and demographic disparities in impact. Entire communities are often dependent on donations for response and recovery support, often limiting available resources. For the Red Cross the entire disaster-nursing workforce is voluntary. Maintaining a workforce that has training in the latest procedures, such as Cot-to-Cot, or surveillance tools is very difficult. There is a very tiny cadre of volunteers that come to “most” disasters, leaving a significant part of the workforce as essentially ‘new’ each time.

**Future:** Additional tools are being added to the Cot-to-Cot process model to better assure success in identifying ADL support, health and mental health needs. A new job aid called CMIST, was pilot-tested in Hurricane Sandy and has been added to the Cot-to-Cot assessment process. CMIST organizes assessment of client needs into functional categories of Communication, Maintaining Health, Independence, Services/Support/Self-determination, and Transportation. Recommendations from these research projects inform policy content for federal response partners in the United States. They have been shared with the Canadian Red Cross. The process model of Cot-to-Cot, the CMIST strategy for identifying at-risk individual and population needs and use of the surveillance instrument are being taught to local public health departments, student nurses, and new volunteers planning to deploy. The future promises strengthened messaging in preparedness, and improved support during response and recovery for at-risk populations and communities impacted by disaster.

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Sharon Stanley, PhD, RN Chief Nurse (ret) American Red Cross Linda Olson Keller, DNP, RN, Faculty, University of Minnesota Rebecca Noe MN, MPH, RN Division of Environmental Hazards and Health Effects Centers for Disease Control (CDC): rhn9@cdc.gov. Donna Jensen PhD, RN, American Red Cross, djensen11@frontier.com. Trevor Rigger, Vice-president Disaster Operations and Logistics, American Red Cross, Trevor.Rigger@recross.org.

#### Contact

[janice.springer@redcross.org](mailto:janice.springer@redcross.org)

## L 13 - Global Pain Management Strategies

### Will Introduction of a Pain Assessment Template in an Electronic Medical Record Result in Improvement of Pain Assessment Documentation in an Outpatient Setting

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Theresa Ann Pechaty, DNP, USA

#### Purpose

The purpose of this presentation is to discuss the results of a pilot project that evaluated whether the pain assessment instrument Brief Pain Inventory (BPI) embedded in the Electronic Medical Record (EMR) used by providers in a primary care setting would improve documentation of pain assessments.

#### Target Audience

The target audience of this presentation is primary care providers and nurses that care for chronic pain patients in an outpatient setting

#### Abstract

**Purpose:** This pilot project evaluated whether the pain assessment instrument Brief Pain Inventory (BPI) embedded in the Electronic Medical Record (EMR) used by providers in a primary care setting of Fort Belvoir Community Hospital would improve documentation of pain assessments.

**Background/significance:** The Office of the Surgeon General's Pain Management Task Force (PMTF) determined that pain management in the military treatment system should have a biopsychosocial focus and pain assessments reflect a multidisciplinary approach. Health-information technology, such as electronic health records, has the potential to facilitate the assessment of pain through the incorporation of valid pain assessment tools that would provide a comprehensive and timely assessment of pain patients.

**Methods:** This project used a quasi-experimental design using non equivalent groups to determine the difference, if any, in pain assessment documentation after the introduction of a pain assessment documentation tool, the Brief Pain Inventory (BPI), as a template embedded into the existing EMR.

**Results:** The data was aggregated and summarized and a paired t-test was used to compare results between patient encounters pre- and post-implementation of the BPI. Strong evidence demonstrated a high effectiveness of the BPI to improve pain assessment documentation, particularly in the area of patient functioning: general activity, walking, work, mood, enjoyment of life, relations with others, and sleep.

**Conclusion:** Embedding a validated tool for comprehensive pain assessment in an EMR enables providers to perform a comprehensive assessment of pain patients that reflects a multidisciplinary approach to pain management.

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#### Contact

[theresapechaty@hotmail.com](mailto:theresapechaty@hotmail.com)

## L 13 - Global Pain Management Strategies

### Comparative Differences in the Perception of Postoperative Pain in Patients and Nurses

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*Marija Kadoviaæ, MSN, Croatia*

#### Purpose

The purpose of this presentation is to find out if there is a difference in postoperative pain assessment perception between patients and medical professionals - nurses involved in the patient care.

#### Target Audience

The target audience of this presentation are Head nurses of surgical wards, Manager and quality nurses, assistants directors for quality and supervision, professors of nursing, representatives of Nursing council and associations.

#### Abstract

**Aim.** To find out if there is a difference in postoperative pain assessment perception between patients and medical professionals - nurses involved in the patient care.

**Patients and methods.** This study is conducted on surgical wards at “Sveti Duh” University hospital, Zagreb. Subjects included were patients on day one after the surgery. They reported their pain perception on numeric and verbal scale of assessment. Their perception was compared with assessment performed by nurses using the same method.

**Results.** Median pain perception measured on numeric scale was 4 if assessed by patients, while the same pain perception was assessed by nurses to be 3. Both, patients and nurses assessed the pain perception more objectively if the pain was assessed using numeric ( $p=0,083$ ), compared to verbal scale (0,677). Using verbal scale (range 1-5), 24,3% of nurses reported pain perception assessment to be 1 while at the same time such pain intensity was reported by 17,5% of patients. Similarly, pain intensity perception of 4 was reported by 10,7% nurses and 20,4% of patients if assessed at the same time. The difference was also found in pain assessment perception regarding the level to education of nurses, using both, numeric ( $p=0,067$ ) and verbal scale ( $p=0,286$ ). There was no difference in the pain assessment perception regarding the sex of the subjects included (median 4). However, there was a difference reported between expected pain prior to surgery and actual pain after the surgery if assessed by numeric scale ( $p=0,002$ ). On verbal scale, high pain intensity was reported by 47,6% patients expecting mid pain intensity and 28,6% of patients reporting the fear from the pain preoperatively.

**Conclusion.** There was no statistically significant difference found in the pain perception assessment comparing patients and medical professional – nurses.

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### Contact

[mkadovic@kbsd.hr](mailto:mkadovic@kbsd.hr)

## L 14 - Evidence-Based Practice in Nursing

### High Quality and Low Cost: Evidence-Based Nursing Workshops in a Large Health Care Organization

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*Rivka Hazoref, PhD, MA, BS, RN, Israel*

*Dorit Weiss, PhD, MA, BS, RN, Israel*

*Limor Yariv, PhD, MA, BS, RN, Israel*

*Anat Peles Bortz, PhD, MA, BS, RN, Israel*

#### Purpose

The purpose of this presentation is: Sharing with the Conference participants insights on innovative strategic process in a large health care organization , whose mission is to provide tools and skill to integrate recent evidence in nursing practice.

#### Target Audience

The target audience of this presentation is: Nursing managers, Nursing educator, Nursing researchers.

#### Abstract

Background: The trend for identify evidence of clinical nursing activity will lead to the most significant reform in the nursing profession in the years to come.

The traditional practices in nursing still based on experience and health organizations around the world are currently required to minimize the gap between tradition practice and current evidence.

The main process that can assimilate a new professional language in evidence based nursing as a well structured educational program.

Purpose: To implement an educational program of EBP in clinical fields based on self learning model .

Objectives of a workshop in evidence base nursing in a clinical field:

1. The nurse will obtain skills in identifying clinical question the clinical field by the EBP model.
2. The nurse will acquire skills in performing hierarchic search in evidence computing database according to the EBP model.
3. The nurse will acquire skills in integrative assessment of proficiency in the evidence and choosing an alternative according to the EBP model.

Methods: Wandering workshop in health services , including medical center and primary care. The workshop guided academic by nurses.

The scope of the workshop: 16 hours of theoretical instruction. 50 hours of practical experience. Subjects of theoretical meetings:

1. Introduction and asking the clinical question.
2. Practice clinical question and finding evidence in the literature.
3. Integrative evaluation of evidence in the literature and expert opinion.
4. Guidelines for the documentation and drafting recommendations.

Results: In 3 years, 80 clinical questions were raised by staff nurses and were examined by the evidence based steps. The model of the workshop is a low cost model but more important we succeed to assimilate the language of evidence based nursing in a large health medical organization.

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#### Contact

[rivkaha4@gmail.com](mailto:rivkaha4@gmail.com)

## L 14 - Evidence-Based Practice in Nursing

### An Evidence-Based Approach to Successful Practice Change, the Toolkit: Implementation of Best Practice Guidelines

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*Irmajean Bajnok, RN, MSN, PhD, Canada*  
*Doris Grinspun, RN, MSN, PhD, LLD (hon), OONT, Canada*  
*Heather McConnell, RN, BScN, MA (Ed), Canada*  
*Althea Stewart-Pyne, RN, BScN, MScN, Canada*

#### Purpose

This presentation will highlight an evidence-based implementation resource that has been used widely by health care organizations to guide the uptake of best practices, evaluate their impact, and support sustainable practice change.

#### Target Audience

This session will be of interest to nurses in all domains of practice who are leading the implementation of practice changes with the goal of enhancing client, nurse, organizational and system outcomes.

#### Abstract

An evidence-based practice program, funded by a provincial government and led by a professional nursing association in Canada, has a mandate to develop, disseminate, and support the uptake and evaluation of clinical and healthy work environment best practice guidelines. This program has achieved global reach, a success due to its rigorous guideline development process, and innovative multi-pronged implementation strategies. These strategies are focused at the individual, organizational and system level, and incorporate evidence-based approaches to support the implementation of best practices. A key resource that is utilized within this program to guide the systematic implementation process of best practices is the *Toolkit: Implementation of Best Practice Guidelines*. This framework, based on implementation science, presents a planned change approach designed to assist nurses and other health-care professionals support evidence-informed clinical decision-making.

This Toolkit is based on the Knowledge to Action Framework and emerging evidence that the likelihood of achieving successful uptake of best practice in health care increases when:

- Guidelines are selected for implementation through systematic, participatory processes including relevant stakeholder engagement and environmental readiness assessment
- Guidelines are tailored to the local context
- Barriers and facilitators to guideline use are assessed and addressed
- Guideline use is systematically monitored and sustained
- Evaluation of the impacts of guideline use is an integral part of the entire process
- There are adequate resources to support completion of all aspects of implementation

The *Toolkit: Implementation of Best Practice Guidelines* will help guideline users and implementers take best evidence and integrate it into practice, education and policy using a systematic approach consistent

with the local context of practice. This presentation will share the key phases of guideline implementation outlined in the Toolkit, and discuss how this resource is being utilized to successfully address the key challenges of developing evidence-based practice cultures through guideline implementation.

Contact

[ibajnok@mao.org](mailto:ibajnok@mao.org)

## L 14 - Evidence-Based Practice in Nursing

### Evidence-Based Practice and Ways of Knowing

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Sally A. Decker, PhD, RN, USA  
Elizabeth Roe, RN, PhD, USA

#### Purpose

Explore the relationship between the multiple forms of evidence referred to in Carper's Patterns of Knowing, and Evidence-Based Practice (EBP) through a paper assignment in an RN-BSN course.

#### Target Audience

educators and clinicians interested in bringing multiple forms of evidence to the practice of nursing.

#### Abstract

Carper's Ways of Knowing have been used to help nurses understand all of the ways they know and bring evidence to their nursing practice. Empirical knowing is easy to associate with Evidence-based Practice (EBP), but there is not as clear of a connection between others ways of knowing and EBP. For example, where do esthetic, personal, or ethical knowing belong when considering evidence in practice? Is there credible "evidence" that nurses use these types of knowing in their practice? Registered nurses with an Associate degree working on their Baccalaureate degree bring to the academic setting some level of personal experience and knowing about practice. Being able to help them use reflective practice to clarify their personal knowing and add it to what they are learning about empirical evidence helps them experience empowerment. Registered nurses also have experienced and observed "artful" practice and can often apply this form of evidence to their nursing interventions. Furthermore, ethical knowing in this group of nursing students means having seen the Codes of Conduct and Patient's Bill of Rights enacted in a clinical context. So, for this group of students, the evidence is in different forms with different criteria for credibility – but all potentially helpful in evidence-based practice.

In their first course in the RN-BSN program, these students are asked to identify a practice concept of concern to them. In the past they have selected practice focused topics such as PICC line infections, PTSD post ICU admission, and "Chemo Brain." After selecting a practice concept, over the weeks of the course students begin to identify sources of evidence, including the research literature, Codes of Ethics, reflections on their own clinical practice, and interviews with patients and other clinical experts. They rate the research literature using a traditional pyramid scale, but also critique the evidence from other sources including their own expertise, the insights from patients they have cared for, and other clinical experts. In doing this they use the appropriate credibility index such as congruity, justness, consensual judgment, and validity. The students also identify esthetic experiences that capture their concepts.

Feedback from the students indicates that doing the multiple separate sections of this assignment across the course, and then always relating them to their concept of interest, helps them to better understand all of the ways nurses bring evidence to their practice and the how the credibility of that evidence relates to the pattern of knowing.

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#### Contact

[decker@svsu.edu](mailto:decker@svsu.edu)

## M 13 - Best Practices in Long-Term Care Facilities

### Building a Bridge to Improve Self-Care Independence Among Long-Term Care Facilities Residents: From the Staff Caregiver Perspective

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*Su-Hsien Chang, PhD, RN, MSN, Taiwan*

*Ching-Len Yu, PhD, Taiwan*

#### Purpose

The purpose of this presentation is provide important information for academia, long-term care facility's administrators and caregivers on how staff and family caregivers should work together to reach a mutual goal, which is to improve residents' self-care ability.

#### Target Audience

The target audience of this presentation is nursing scholars, nursing students, administrators of long-term care facilities, staff and family caregivers of elders.

#### Abstract

**Background:** Staff caregivers in long-term care facilities constitute an important factor affecting residents' behavioral dependency in self-care performance. Few studies have focused on what staff caregivers should do or how they should go about improving the self-care independence among residents living in long-term care facilities.

**Purpose:** The purpose of this study was to understand the perspectives of staff caregivers on how to build a bridge aimed at improving self-care independence among residents living in long-term care facilities.

**Methods:** This study used a qualitative approach to gain a deeper understanding of how staff caregivers do to build a bridge aimed at improving self-care independence among residents living in long-term care facilities. This study used a purposive sampling method. Data was collected via face to face interviews with 31 staff caregivers who were working in long-term care facilities in Taiwan.

**Results:** Results showed that to build a bridge aimed at improving self-care independence among residents living in long-term care facilities, staff caregivers indicated three major elements: (1) setting goals with residents, families and staff caregivers, (2) building trust between families of residents and staff caregivers, and (3) staff caregivers should report residents' conditions to family members voluntarily. Results also showed that three major factors which are crucial to building a bridge between families of residents and staff caregivers: (1) prior discussion, (2) building trust, and (3) reporting conditions of residents voluntarily.

**Conclusion/Clinical Implication:** Results of this study provide important information for academia, long-term care facility's administrators and caregivers on how staff and family caregivers should work together to reach a mutual goal, which is to improve residents' self-care ability.

#### Contact

[suhsian@yahoo.com](mailto:suhsian@yahoo.com)

## M 13 - Best Practices in Long-Term Care Facilities

### Translating Evidence into Practice in the Residential Aged Care Setting: Long Term Sustainability of the Champions for Skin Integrity Model

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*Helen Ethel Edwards, OAM, PhD, BA (Hons), BA, DipApSc, RN, Australia*

*Kathleen Finlayson, PhD, MN, BN, Australia*

*Anne M. Chang, PhD, RN, Australia*

*Michelle Gibb, MNS (NP), BN, Australia*

#### Purpose

The purpose of this presentation is to disseminate results of an evaluation of long term sustainability and effectiveness of strategies to facilitate implementation of evidence based wound care.

#### Target Audience

The target audience is all health care professionals and carers involved in the provision of evidence based care and/or maintaining skin integrity in older adults

#### Abstract

**Background and Aim:** The incidence of both chronic and acute wounds increases with age and wound care is thus a significant issue for carers and consumers in aged care facilities. The aim of this study was to evaluate the long term sustainability of strategies introduced as part of the Champions for Skin Integrity (CSI) model of evidence based wound management, in order to guide development of strategies and resources for national dissemination of the project.

**Methods:** A telephone interview and postal survey was undertaken in late 2012 with 13 Champions for Skin Integrity from seven aged care facilities, who had participated in a project to introduce the CSI Model during 2008 – 2010. The Champions for Skin Integrity model was based on multi-faceted evidence based strategies to promote transfer of evidence into practice and was implemented over a six month period sequentially in each facility.

**Results:** In the initial implementation phase of the Champions for Skin Integrity model, significant changes were found in increased implementation of evidence based wound management and prevention, associated with significant decreases in the prevalence and severity of pressure injuries, leg ulcers and skin tears ( $p < 0.05$ ). Two years after completion of the initial phase, although some participants reported that factors such as logistical problems and costs hindered implementation of some evidence based recommendations; 92% of the CSIs stated they had been able to sustain changes to their wound care practice, had improved knowledge and confidence, improved resident outcomes had been maintained, and the project resources remained in use.

**Conclusion:** Findings from this study informed the development of a plan for national dissemination of the CSI Model, including refinement and updating of resources and a national series of 'train the trainer' workshops.

This Project was funded by the Australian Government Department of Social Services under the Encouraging Better Practice in Aged Care program.

#### Contact

[k.finlayson@qut.edu.au](mailto:k.finlayson@qut.edu.au)

## M 13 - Best Practices in Long-Term Care Facilities

### Promoting Resident-Centered Care through the Implementation of Best Practices: A System-Level Implementation Program

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*Doris Grinspun, RN, MSN, PhD, LLD (hon), OONT, Canada*

*Irmajean Bajnok, RN, MScN, PhD, Canada*

*Heather McConnell, RN, BScN, MA (Ed), Canada*

*Carol Holmes, RN, BScN, MN, GNC (C), Canada*

#### Purpose

The purpose of this presentation is to will highlight a successful evidence-based system-level implementation strategy that supports the long-term care sector to enhance quality resident care.

#### Target Audience

The target audience of this presentation is nurses in all domains of practice that have an interest in enhancing evidence-based practice cultures, and specifically those working with older adults in the long-term care sector.

#### Abstract

A system-level implementation strategy that supports the uptake, evaluation and sustainability of evidence-based practices within the long-term care sector is being led by a professional nursing association. This work has been made possible through government supported dedicated funding with the goal of supporting long-term care homes in implementing best practices and enhancing resident-centered, quality care. The strategies utilized by the program assist the long-term care homes to not only leverage their efforts to meet provincially mandated programs in key practice areas such as falls prevention, wound care, continence and pain, but to enhance resident and family-centered care within the context of an evidence-based practice culture. The benefits of this initiative include enhanced quality care for residents and families; capacity building for staff, both regulated and unregulated, working in long-term care homes; promotion of interdisciplinary knowledge transfer; utilization of evidence-based decision making in professional practice; and, improvement in work environments.

The framework that informs this unique program includes six distinct strategies directed towards: raising awareness; engagement; capacity development; guideline implementation; integration and evaluation. A team of registered nurses with expertise in long-term care and the care of older persons engage with long term care homes as Long-term Care Best Practice Coordinators. They support the uptake of best practices within the long-term care homes at the individual, organizational and system levels through various evidence-based implementation strategies. Capacity building strategies to support providers and organizations include site visits, practice consultation and facilitation, provision of educational programs to staff members and assistance with implementation of multiple best practice guidelines as part of a network of Spotlight Organizations. Regionally, the LTC Best Practice Coordinators facilitate networks of key stakeholders and leaders within long-term care homes to share their successes and learn from each other through knowledge exchange opportunities. Linkages to the program mandate and other quality improvement initiatives are coordinated to ensure consistent messaging to the long-term care sector. Numerous evidence-based implementation resources have been developed and are disseminated widely to support the integration of evidence-based practice in the care of residents, and these resources have been accessed provincially, nationally and internationally.

This presentation will share challenges, and key success stories of how the LTC Best Practices Program is impacting on the long-term care sector as it fosters the development of evidence informed practice and quality resident and family-centered care.

#### Contact

[dgrinspun@nao.org](mailto:dgrinspun@nao.org)

## M 14 - Evidence-Based Practices Changing Global Practice

### Changing the Face of Health Care in a Global Society, Sustaining EBP in Wound Care: An International Collaboration in the Philippines

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*Rebekah Grigsby, MSN, BSN, RN, USA*

#### Purpose

The purpose of this presentation is to describe strategies to overcome barriers to education on EBP in underserved areas.

#### Target Audience

The target audience of this presentation is any health care professional who is interested in furthering their own education on EBP in wound care or someone who is responsible for developing or implementing educational curriculum in an international setting.

#### Abstract

The prevalence and incidence of wounds has reached epidemic proportions and there is a global priority to provide wound care that is evidenced-based. However, areas around the world experience significant gaps in evidence-based practice (EBP), and populations experience disparity in wound care. Studies have identified specific barriers that impede knowledge acquisition and the translation of evidence into practice for health care professionals. This quality improvement study explored strategies to diminish barriers using Leffers and Mitchell's Conceptual Framework for Partnership and Sustainability in Global Health Nursing. The overarching purpose was to develop a sustainable program of wound care education therefore closing the gap in EBP. The research question for this study examined the effectiveness and sustainability of an online wound care course for a Filipino medical team working in rural and urban barangays (communities) in the Philippines. The Precede-Proceed model was utilized as a framework for planning and designing the quality improvement study. Following the path of this logic model, stakeholders were recognized and needs identified. This led to sequential steps in designing and implementing an online course. Additionally, this framework provided a structure for formative and summative evaluation throughout the study. The outcomes of this study indicated that development of an accessible program of education could contribute to translation of evidence in wound care practice and quality outcomes for the patient. The social impact was evident by a successful international partnership of nurses leading to a sustainable program of wound care education that will contribute to nursing knowledge and support nurse professionals in a challenging health care environment.

#### Contact

[rebekah.grigsby@gmail.com](mailto:rebekah.grigsby@gmail.com)

## M 14 - Evidence-Based Practices Changing Global Practice

### Triplet Partnering: A Novel Approach to Introducing Evidence-Based Nursing Practice in China

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Elizabeth R. Barker, APRN, BC, PhD, USA

#### Purpose

To disseminate a model for instituting Evidence Based Nursing Practice as an international concept

#### Target Audience

Administrators, nursing leader and nursing academic personnel who are interested in developing a successful implementation of a model for incorporating Evidence Based Practice into nursing protocols in international settings

#### Abstract

**Purpose:** To disseminate a model for instituting EBP as an international nursing concept

**Methods:** Needs identification using international consultation. Review of the literature to determine the most effective methodology for developing the innovation with special emphasis on cultural competence. Design of the strategies among academic and hospital based nursing service to model the development of EBP nursing protocols. Implementation of the plan with six month visiting scholar program for nursing leaders from China. Evaluation of the effectiveness of the changes by visiting the target hospital in China

**Results:** There are five units in a new hospital in Shanghai where the visiting scholars have instituted nursing councils that are reviewing and redesigning nursing protocols to reflect the use of EBP as a basis for the protocols

**Conclusion:** For nursing to actively and productively respond to the Millennium Development Goals and the Institute of Medicine's recommendations, the use of EBP for nursing protocols is an obviously choice. What works is a well planned collaborative effort among the nursing leaders at the target facility, a large academic center and a College of Nursing where EBP is well integrated into the curriculum

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Contact

[barker.203@osu.edu](mailto:barker.203@osu.edu)

## M 14 - Evidence-Based Practices Changing Global Practice

### Global Collaboration to Build Nursing Competence in EBP

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Chen Weiju, RN, BS, China

Marcia Rucker Shannon, MSN, RN, USA

Jinai He, RN, BS, MSN, China

Quinran Lin, RN, BS, China

#### Purpose

**Purpose:** Describe a 15 year collaboration between Jinan University, China and SVSU, USA. The purpose was to build nursing competence in EBP. The building process will be shared including the architectural, foundation, framing, and finishing work, and describing upkeep needed. This construction has resulted in achieving better patient outcomes.

#### Target Audience

The target audience of this presentation is nursing faculty and nursing administrators interested in a strategy to promote the translation of nursing evidence through an extended collaborative partnership.

#### Abstract

**Purpose:** This presentation will describe a 15 year collaboration between Jinan University, Guangzhou, China and Saginaw Valley State University, USA. The purpose of the collaboration is to “build” nursing competence in Evidence Based Practice. The building process will be shared including the architectural work, digging the foundation, framing the final product, doing finishing work, and describing upkeep needed. This has been a very successful construction project, with solid outcomes for nursing, in both countries.

**Methods and Results:** Actual interventions taken will be shared along with ideas for improving upon our experience. These are a few of the concrete examples of interventions that will be shared for each step of the building process:

*Consulting the Architect:* Critical communications will be discussed between the two countries, and the nursing personnel. Establishing links, personally and professionally, will be highlighted.

*Digging the Foundation:* Classes offered and workshops held will be outlined, over several years. Classes in China centered on EBP, while in the USA they centered on cultural competence.

*Framing:* Examples of Evidence Based Practice Projects requested by different hospital units will be shown. Implementation of EBP at the hospital /university will be outlined.

*Finishing work:* Having Chinese nursing scholars come to the USA to take EBP classes and study research methods and share their experiences will be discussed. The importance of recognizing cultural practices will be emphasized.

*Upkeep of the Structure:* Methods for continuing to engage nurses in translating nursing evidence to achieve better patient outcomes and keep the “building” solid will be shared. Outcomes for both organizations will be shared.

**Conclusions:** The many positive outcomes of this collaboration will be shared, both for SVSU students, Jinan students and faculty and hospital nurses in both countries. Future ideas/possibilities for collaboration will be shared. The audience will be involved in brainstorming other strategies that could be implemented to further improve global health outcomes.

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#### Contact

[chenweiju@126.com](mailto:chenweiju@126.com)

## N 13 - Ensuring Patient Engagement and Adherence Through Education

### Effectiveness of Patient Engagement through Population-Focused Health Education on Health Outcomes

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*Linda F. Samson, PhD, RN, BC, NEA, BC, USA*  
*Sylvia Aruffo, PhD, USA*

#### Purpose

Describe the use of ethnography to develop culturally and linguistically appropriate patient education materials in order to actively engage patients in their own health care.

#### Target Audience

Nurses and other clinicians who want to improve patient outcomes in chronic diseases by actively engaging previously difficult to reach patients in their own self care.

#### Abstract

The burden of chronic illness on patients and families continues to grow. This is particularly true for high-risk populations where the incidence of diabetes, hypertension, and the complications of these conditions disproportionately affects minority and underserved individuals. Despite the fact that the causes of these disparities vary, a number of management strategies appear to be effective in improving overall health status of individuals suffering from these diseases. This presentation reviews the development of an evidence-based model for community based participatory research that leads to patient engagement and improved health literacy.

Identifying obesity as one of the triggers for hypertension and diabetes in African American women, a group of community and faith leaders working with the research team developed a faith-based initiative called Women of Wonder. The intervention was conducted in a local church using the minister and other volunteers. The project provided women with health education, blood pressure testing, weight measurement, nutritional support, group support, and counseling. Over the 26 weeks of the project the participants were able to reduce blood pressure and weight and sustain the losses for an additional 52 weeks through long-term life style changes.

This success led to other projects that attempted to delineate factors for success. Several projects developed around chronic disease self- management used peer coaches to create patient engagement. In each of these peer coaches were trained using a classroom model. They were then sent into homes to assist others with the same health care issues to help them improve their health status. Although effective in reducing hospital and emergency room utilization the level of patient engagement was not present in the peer mentor models.

More recently the team and community has been addressing the issue of health literacy after recognizing that an ongoing barrier to health care remains the issue of understanding and participating in care decisions. Current interventions include use of materials that are developed after ethnographic research is conducted to understand patient meaning and issues. Then from this framework materials are developed to meet the needs of the patient and provide information that they find useful. Tools developed using this format have had widespread success in a number of settings in reducing costs of health care, readmission rates, emergency room utilization, and patient satisfaction. Recent literature suggests that engaging patients in the care delivery process through health literacy may reduce or eliminate some of the social barriers to health care.

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Contact

[lsamson@govst.edu](mailto:lsamson@govst.edu)

## N 13 - Ensuring Patient Engagement and Adherence Through Education

### Infused Telemental Health Home Monitoring: Right Care, Right Time, Right Place

*Deborah A. Harris-Cobbinah, RN, MSN, ANP, MHCNS, BC, USA*

#### Purpose

To provide current information to health clinicians regarding expanded provisions of patient care beyond mental health institutional settings at New York Veterans Affairs Hospital, using health informatics, infused (integrated mental health and medical disease management protocols and Telehealth technologies).

#### Target Audience

All health professionals: Registered nurses and Licensed Practical nurses Licensed Mental Health and Medical Primary Care Providers Psychologists Social Workers Case Managers Care Givers Interested in Integrated Mental Health and Medical Telehealth Home Monitoring.

#### Abstract

**Purpose:** To provide current information to health clinicians regarding expanded provisions of patient care beyond mental health institutional settings to Veterans with mental health and co-morbid medical diagnosis using of health informatics, integrated mental health and medical disease management protocols and Telehealth technologies. This presentation/ poster will also review New York Harbor's Veteran Affairs Infused (integrated) Telemental Health Home Monitoring Program.

**Significance:** In 2008 the Veterans Health Administration (VHA) added a subdivision, Telemental Health to their Care Coordination/ Home Telehealth (CCHT) department. This subdivision was created to ensure that eligible veterans with a mental health diagnosis have access to a comprehensive and integrated high quality healthcare continuum that addresses both medical and mental health needs of veterans in urban and rural communities utilizing home monitoring devices and case management. The Telemental staff utilizes FDA approved in-home messaging devices and telephone automated programs for disease management of mental health and co-morbid medical diagnosis. Registered nurses who specialize in Mental Health nursing and who have medical skills provide case management services to augment care provided by VHA and non-VHA medical and mental health providers.

**Design (Background/Rationale):** A chart review of patients enrolled in the program more than 12 months was conducted. The review consisted of the most used mental health diagnosis, the percentage of patients that have a medical diagnosis and mental health diagnosis, the percentage of psychiatric and medical in-patient admissions, and the type of Telehealth devices used.

**Description of Methods:** Veterans are referred to the program by self-referral or medical/mental health providers. Accepted veterans are expected to complete daily self-report protocols via telehealth monitors/ cell phone systems. If a high risk behavior or symptom is alerted, a Telemental health coordinator will contact the patient for further interventions. These interventions include: patient education, provider notification, crisis intervention, referrals to VHA/non-VHA community services.

#### **Findings/ Outcomes :**

1. The majority of patients in the telemental health CCHT program had at least one medical co-morbidity.
2. There was a significant decrease in hospital admissions and length of stay.
3. There has also been marked improvement in compliance with clinic appointments and medication regimes.

**Conclusions/Interpretations/Implications:** Infused Telemental health services facilitate access to care and improve the health of mental health patients with specific intent of providing the right care, in the right place, at the right time. This expanded care improves chronic disease management, patient satisfaction, increase access to services and reduce resource utilization, thus decreasing healthcare costs. VHA

health professionals emphasize that home telehealth does not replace traditional homecare but can help veterans understand and manage their medical and mental health conditions at home. Proper management of these chronic conditions can delay the need for institutional care and maintain independence for an extended time.

The VHA has proven that an enterprise wide Infused (integrated) Telemental Health program is an appropriate and cost effective way of managing mental health patients with co-morbid medical disorders in both urban and rural settings. Infused home monitoring provides veterans with the Right Care, In the Right Place, at the Right Time.

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### Contact

[Deborah.Harris-Cobbinah@va.gov](mailto:Deborah.Harris-Cobbinah@va.gov)

## N 13 - Ensuring Patient Engagement and Adherence Through Education

### Oral Chemotherapy Adherence

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*Judy Lynn Phillips, DNP, FNP-BC, AOCN, USA*

#### Purpose

The purpose of this presentation is to show other nurses how an evidenced based oral chemotherapy adherence project, at a large medical oncology practice, has led to improved patient outcomes.

#### Target Audience

The target audience of this presentation is clinical nurses dealing with oral medication adherence.

#### Abstract

In the past, chemotherapy has been given predominantly intravenously, which allowed for multiple nursing therapeutic interactions. Currently oral chemotherapy is increasing in use at a rate of 40%, with an escalating increase occurring rapidly. In order to ensure adherence to these oral medications, an in-depth synthesis of the literature was performed, with the gained knowledge being used for the development of a quality project. This evidenced based practice project has been implemented in a large oncology-hematology practice, which includes one central urban facility and five rural sites.

The following people are at a higher risk for decreased compliance: newly diagnosed/overwhelmed, older age, high co-morbidities, financial issues, decreased symptom management, poor education, and low understanding of why the medications are necessary; therefore our quality project has adequately covered these issues.

The following is a descriptions of this project. Each patient who is beginning oral chemotherapy is given an initial educational teaching session with a nurse practitioner. A clear understanding of the medications is taught with a review of the side effects, safety factors, medication interactions, dosage, cost, why the medication is necessary, and where/when the medication should arrive at their home. This session is taped verbally, with written instructions and appropriate educational booklets given, so the patients and their care givers can refer to this information as necessary. During this session, the patient and their care givers are given a spread sheet of the medications, explaining exactly when and how the medications are to be given. After this session, the nurses then schedule a telephone call to the patients two weeks after the start of these medications. During these telephone interviews, the patient's understanding of why they are taking their medications is assessed, along with a review of any problems, such as: side effects, costs, compliance, knowledge, and safety issues. When problems are found, a reminder is sent through our electronic medical records (EMR), to the providers. If there are issues, along with the reminder, the patients are also made appointments in our nurse-run clinic or with their providers. If there are no problems, they continue to receive calls every four weeks thereafter, with interventions as necessary.

An oral chemotherapy questionnaire is completed after these calls and recorded in our EMR. The overall information from these calls is tracked through the questionnaires in the EMR. The tracking is monitored in control charts; when issues are found, changes are made.

The project implementation process included multiple employee educational meetings. Due to the involvement of varying departments these classes included: physicians, administration, nursing, scheduling, financial, and information technology. The success was contingent upon the employees understanding of why this project was so important. Through the employees new understanding, they promptly agreed to participate in this endeavor.

We have found through careful use of the evidence, nurses are able to continue their therapeutic interactions with patients, even if this is through a different form of action than with the intravenous chemotherapy. The success of this project is being shared to help other practices have the opportunity to adopt a similar project.

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#### Contact

[jppdap@msn.com](mailto:jppdap@msn.com)

# Part IV: Research Oral Presentations

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## A 01 - Ethical Issues in Nursing Practice

### Expanding Our Understanding Complex Decision-Making in Emergent, Routine and Urgent Ethically Challenging Clinical Situations

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Monica McLemore, PhD, MPH, RN, USA

#### Purpose

The purpose of this presentation is to present a grounded theory of calculus formation which provides a deeper understanding of processes that nurses use when making clinical decisions in ethically challenging situations, particularly emergent, routine and urgent care provision using abortion as the clinical context.

#### Target Audience

The target audience of this presentation is staff nurses, nurse managers, nursing administrators and nurse researchers interested in clinical decision making, particularly in ethically challenging clinical situations.

#### Abstract

**Purpose:** Nurses routinely provide care to patients in ethically challenging situations. The purpose of this study was to discover and identify the continuum between conscientious objectors and designated staff in the provision of nursing care to women seeking abortions. More specifically, we sought to gain a deeper understanding of processes that nurses use when making clinical decisions in ethically challenging situations in both urgent and routine care provision using abortion as the clinical context.

**Methods:** Constructivist grounded theory method was used. A purposive sample of 24 nurses who currently or previously work in abortion clinics, emergency departments, labor and delivery, operating rooms and post anesthesia care units were interviewed between November, 2012 and August, 2013. Questions were designed to examine and explore the cognitive, emotional, and behavioral processes associated with how nurses make decisions to care for women needing and seeking abortions.

**Results:** Nurses develop and use multifaceted, real-time calculi in several dimensions when making decisions about their participation in emergent, routine, or urgent abortion care provision. Additionally, nurses make a clear distinction between knowing *how* versus know *that*, meaning knowing how to take care of women needing abortions doesn't always result in provision of care and knowing that (i.e., the circumstances and back story of why women need this care) is a better predictor of its provision. Parameters of the nurse-patient relationship are different than medicine in the abortion context as nurses make clear distinctions between women and patients and these distinctions impacts the taxing between the personal and professional factors that influence calculus formation. Finally, the role of *others*, broadly defined in the abortion context creates a complex yet integrated variable to be considered in the decisions impacting care provision.

**Conclusion:** This study provides a grounded theory of calculus formation that further develops the science of real-time ethical decision-making in ethically challenging situations. These data expand our understanding of the multitude of factors that impact and influence nurse decision-making. Effective strategies exist that facilitate tuning of individual nurses' calculus formation particularly infrastructural, institutional and other external factors that are essential components of the environment of care.

#### Contact

[monica.mclmore@ucsf.edu](mailto:monica.mclmore@ucsf.edu)

## A 01 - Ethical Issues in Nursing Practice

### Experience of Ethical Conflict in Advanced Practice Nurses and Nurse Managers

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Shiuyu Katie C. Lee, DNSc, Taiwan

#### Purpose

The purpose of this presentation is to share the experience of ethical conflicts and ethical dilemma in advanced practice nurses and nurses managers.

#### Target Audience

The target audience of this presentation may include nursing researchers, nursing educators, doctoral students, advanced practice nurses and nurse managers.

#### Abstract

**Purpose:** There is an increasing of new, advanced clinical or management nursing roles globally. The position in promoting ethical practice, such as preserving human rights and professional integrity may be challenged among these nursing professionals in advanced practice. Thus, this study aimed to describe the experience of ethical conflicts and distress in Advanced Practice Nurses (APN) and Nurse Managers (NM).

**Methods:** A qualitative inquiry with constant comparative method was used. A purposive sample of 10 post-graduate nurses in advanced practice, including nurse practitioners, case managers, nurse managers or clinical nurse educators, were recruited in Taipei, Taiwan. Voice-recorded interviews via open-ended questions were conducted and transcribed. Constant comparative method was used across interviews and subsequent data analysis.

**Results:** The post-graduate APNs or NMs had the age ranging from 32 to 45 and were trained in various specialties, such as ICU, oncology, mental health or management, and practiced in either acute care, community or nursing education setting for 5 to 7 years. The ethical conflict experience characterized as emotional difficulty, distressed or perception of "professional fatigue," which evoked by situational factors, institutional culture or policy, and role function in the era of advanced practice nursing within the traditional western medicine system. There were 26 ethical dilemma were identified, included care and nurse-patient relationship, collaboration with nurse and non-nurse colleagues, and conflict between profession and work. The experience challenged their professional accountability, professional value, and was a personal experience.

**Conclusion:** The APNs and NMs' ethical conflict were associated with the code of ethic in nursing and the advanced practice, managerial or education role function. The healthcare system and situation factors played an important role. Training in moral justice and resourcing with ethical support may need to support the APNs' ethical practice.

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#### Contact

[shiuyu@ntunhs.edu.tw](mailto:shiuyu@ntunhs.edu.tw)

## A 01 - Ethical Issues in Nursing Practice

### Ethical Issues in Community Health Nursing in Botswana

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*Sheila Shaibu, PhD, MNS, BEd, RN, Botswana*

#### Purpose

The purpose of this presentation is to share results of a study on ethical issues faced by Home based care nurses and community health nurses in Botswana who look after patients in primary health care settings.

#### Target Audience

The target audience of this presentation is nurses who work in primary health care settings as well as Home Based Care nurses, particularly those based in rural settings and low resourced countries. Nurse educators are also targeted as they have an input into nursing curricula.

#### Abstract

**Purpose:** The purpose of this study was to explore ethical issues that Community Health Nurses are faced with in clinics in primary health care settings and home based care settings.

**Methods:** An exploratory descriptive qualitative design was used to interview 12 Home Based Care Nurses in five urban and rural districts in Botswana. Content analysis was used to analyze the data.

**Results:** Registered Nurses employed as Community Home Based Care nurses were interviewed and their ages ranged from 23 to 56 years. The themes that emerged included: Respecting client's wishes (autonomy and confidentiality), Negotiating political interference in care (changing operational rules for patients' care and non-procedural conflict resolution for community members for political gain), Caring in the context of risk, and System issues. The findings indicate that the nurses' goal was to optimize good. However, there was evidence that there was tension regarding whose good should be upheld. The HIV and AIDS scenario created many ethical problems that require health promotion strategies. They expressed concern over shortage of staff and scope of practice issues.

**Conclusion:** There is need for support and continuing education in ethics for community based nurses in practice. Ethics committees should also be established in PHC settings. Health promotion on HIV and AIDS must be continued.

#### Contact

[shaibus@mopipi.ub.bw](mailto:shaibus@mopipi.ub.bw)

## A 03 - Promotion and Lived Experiences of Breastfeeding Mothers

### Promoting and Supporting Breastfeeding: A Local Support Group Perspective

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*Yu-Chen Huang, RN, MSN, Taiwan*

*Hsien-Hsien Chiang, MSN, RN, Taiwan*

#### Purpose

The purpose of this presentation is promoting and supporting breastfeeding.

#### Target Audience

The target audience of this presentation is health care nurses.

#### Abstract

**Purpose:** Encouraging breastfeeding is a primary health promotion strategy. Breast-feeding policy helps mothers to extend breastfeeding up to 6 months by local breastfeeding support groups. Through breastfeeding support groups, mothers can continue get information from other experienced mothers and professional health nurses after discharging. The purpose of this qualitative study was to explore mother experiences of breastfeeding from women who have breastfed a child in Taiwan's rural area.

**Methods:** Women were recruited during as peer-support volunteers in Minsyong Township Healthy station, Chiayi County, Taiwan between April 2012 and September 2012. A hermeneutic approach was used in this qualitative study. Sixteen women participated in the five sessions of support group for breastfeeding women. In the semi-structured interviews, participants discussed their experiences of breastfeeding. Data was gathered through group discussions with interviewees' permission. After verbatim transcription, field notes, and individual and discussion group interviews with health nurses. The text was analyzed to identify themes of meaning and interpretation of the explored phenomenon.

**Results:** A promising intervention is the complementation of professional services with peer support from a mother experienced in breastfeeding. In the support group, we find three themes were identified: (1) breastfeeding to promote infant health, (2) acceptance to endure suffer and fatigue, (3) producing energy: gaining strength through sharing, nursing professional teaching, comfort stage with her own body.

**Conclusion:** Health nursing professionals considered maternal experience of breastfeeding and how they face their roles, provided practical and emotional supports, avoided giving conflicting advice, and acknowledged the importance of the support group. In Local support group, health care nurses not only listened and cared, but also provided the relevant information to the mother, and considered how well it meets women's needs. Each mother enriched our discussion and understood by sharing her experience as well. Maternal wants to be listened to and encouraged without feeling pressurized. The findings showed that group participants could get the breastfeeding support not only from health professionals nurse, but also other mothers. They are becoming the mother support networks in the community.

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Contact

[angl2baby@gmail.com](mailto:angl2baby@gmail.com)

## A 03 - Promotion and Lived Experiences of Breastfeeding Mothers

### Impact of a Nurse-Driven Breastfeeding Educational Intervention on Maternal-Child Nurse Knowledge Gain and Patient Satisfaction in a Community Hospital

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Shakira Henderson, MS, MPH, RNC-NIC, IBCLC, USA

#### Purpose

The purpose of this project is to describe the implementation and evaluation of a maternal-child nurse breastfeeding educational training at South Miami Hospital.

#### Target Audience

nurses, lactation staff, IBCLCs, maternal-child nurse administrators, physicians, dieticians

#### Abstract

**Purpose:** The purpose of this project is to describe the implementation and evaluation of a maternal-child nurse breastfeeding educational training at South Miami Hospital.

**Methods:** A hospital-based inter-professional team was developed to conduct an educational needs assessment, identify a breastfeeding curriculum, execute the mandatory breastfeeding training, and track nurse and patient outcomes pre- and post- the educational intervention. From that team, 10 lactation specialists were trained to be breastfeeding instructors and taught twenty 4-hour sessions between January 2013 and August 2013.

Nurse Knowledge gain was evaluated by conducting a paired *t*-test of a random sample of pre- and post-test scores. Patient Satisfaction with nurse support of breastfeeding was tracked for the first quarter of the year in 2013 and compared to five years prior.

**Results:** Approximately 287 maternal-child nurses attended the training. There was a statistically significant increase in knowledge scores from pre to post testing ( $t(20) = 8.04, p < 0.0001$ ). Patient satisfaction for the first quarter of 2013 was the highest (92%) that it had been in the previous five years.

**Conclusion:** A nurse-driven breastfeeding educational intervention has the potential to impact nurse knowledge gain, patient satisfaction, and the overall reputation of a hospital.

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#### Contact

[ShakiraLH@baptisthealth.net](mailto:ShakiraLH@baptisthealth.net)

## A 04 - Cultural Differences in Reproductive Health

### Understanding Cultural Impacts and the Truth of Taiwanese Women's Request for Repeat Cesarean Delivery

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*Shu-Wen Chen, RN, MS, BS, Australia*

#### Purpose

The purpose of this presentation is to present understanding cultural impacts and the Truth of Taiwanese Women's request for repeat cesarean delivery.

#### Target Audience

The target audience of this presentation is midwives and obstetricians, or educators who are specialized in women health and maternal care

#### Abstract

**Purpose:** High cesarean birth rates continue to challenge maternal care in many countries. Literature indicates that women prefer auspicious times for giving birth, contributing to a high cesarean birth rate in Chinese society. The aim of this study was to explore cultural impacts on and reasoning behind Taiwanese women's request for repeat cesarean delivery (RCD).

**Methods:** A qualitative approach was applied to conduct this research. The research comprised three stages. Stage I consisted of non-participant naturalistic observation at 33-34 weeks gestation to understand the dynamic processes of decision-making about birth choice among obstetricians and pregnant women within the antenatal clinic setting. Stage II involved interviews with pregnant women at 35-37 weeks gestation to explore the influences on their birth choice, including information accessibility, their family and friends' attitudes, and cultural considerations. Stage III consisted of interviews with postnatal mothers, one month after birth, to reflect on their choices. Using a theoretical sampling approach, seventeen pregnant women were recruited from a private medical centre, in northern Taiwan. Data collection included in-depth interviews, observation and field notes in the Year of the Dragon, 2012. Constant comparative analytic technique and thematic analysis were employed for data analysis, and Software NVivo10 was used to organize the data.

**Results:** Findings indicate that the majority of women did not intend to give birth in the Year of the Dragon, with the exception of one woman. Reasons for not wanting to give birth in the auspicious year included increasing children's competitiveness in academic performance, running out of education resources, and encountering crowds of people (such as visiting obstetricians). Women were pregnant in the auspicious year because of an unplanned pregnancy, planned pregnancy with a 2-3 year interval, and wishing to have another baby as company for the first child.

Women's decisions for RCD were subject to internal and external factors. Internal factors included a previous cesarean (concern about wound healing or the scar), a negative experience of natural birth (failure of trial of labour, emergency cesarean), fear of pain, evaluation of modes of birth and current pregnancy. External factors included obstetricians' recommendations, the experience of significant others', information retrieved from the internet and National Health Insurance (NHI) benefits.

Decision-making processes involved simply complying with the obstetrician's recommendation or consultation. Before visiting the obstetrician, the majority of women wished for as natural a birth as possible. During the first trimester of pregnancy, some women accepted the obstetricians' recommendations for RCD without being informed of alternatives; others made the decision at the second or early third trimester of pregnancy. The consultation process included discussion with obstetricians, respecting professional judgment, considering the condition of mother and foetus, making a decision for RCD and then selecting auspicious time. Some women chose RCD after the risk of uterine rupture was explained by obstetricians. Postnatal mothers who evaluated their birth choices after birth had emotional reactions varying between satisfaction and acceptance.

**Conclusion:** The auspicious time/year to give birth did not impact on Taiwanese women's birth choice following a primary cesarean section. However, they selected an auspicious time/day to give birth after the decision for RCD was made. Their decisions were influenced by internal and external factors. Internal factors, in particular, education about empowerment associated with natural birth is helpful in facilitating women's confidence in natural birth. External factors such as the financial coverage for RCD from NHI, and the explanation of risk from obstetricians are also potentially modifiable. All women have the right to be informed of the alternative options for birth. Midwife-led models of care for information provision may hold promise for promoting high quality maternal care in Taiwan.

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#### Contact

[schw@deakin.edu.au](mailto:schw@deakin.edu.au)

## A 04 - Cultural Differences in Reproductive Health

### Contraceptive Use Among Low-Income and Ethnic Minority Women Living in Three Urban Underserved Neighborhoods

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Adejoke B. Ayoola, PhD, RN, USA

Gail Landheer Zandee, MSN, RN, USA

Emily Johnson, BSN, RN, USA

Kendra Pennings, USA

#### Purpose

to present an overview of contraceptive use and the effectiveness of the methods used by low-income women living in three urban medically underserved neighborhoods

#### Target Audience

Nurses and other health professionals who are interested in promoting women's reproductive health and better birth outcomes through understanding of current contraceptive use and the effectiveness of the methods used by low-income women living in medically underserved neighborhoods

#### Abstract

**Purpose:** Ineffective and non-use of contraceptives have been associated with increased risk of unplanned pregnancy in the United States. Unplanned pregnancy rates and their adverse outcomes such as low birth weight and preterm birth are higher among minority and low-income women. Healthy People 2020 established a family planning goal to "increase the proportion of females at risk of unplanned pregnancy or their partners who used contraception at most recent sexual intercourse" from the current baseline of 83.3% to 91.6%. This study examined the rate of contraceptive use and types of contraception used by low-income mostly minority women living in underserved neighborhoods.

**Methods:** One hundred and ten convenience sample of low-income women who called to be part of a larger study were included in this analysis. The women were asked in a pre-intervention screening survey about their contraceptive use and sexual behaviors 12 months prior to the time of interview. Simple descriptive analyses namely univariate and bivariate analyses were conducted using STATA 10.

**Results:** Forty-eight (43.6 %) of the women were African American, 39.1% were Hispanic, and 15.5% were White. The women were 18 to 55 years of age (mean =31 years). Forty percent of these women who were not pregnant or planning to get pregnant had sex without using any contraceptives in the past 12 months. The percentage of women who used a contraceptive decreased from 77.3% users in the last 12 months to 63.6 % current users. The most common methods used within the last 12 months were: condom use by male partner (28.2%), birth control pills (14.6%), depo provera (12.7%), intrauterine device (10.9%) and the patch (1.8%).

**Conclusion:** Many of the low-income women from medically underserved neighborhoods in this study did not use contraceptives and of those who used contraceptives, the majority used condoms, which is described as a least effective method. These women are at risk of unplanned pregnancy if they continue to use the least effective contraceptive methods. Contraceptive education and resources on effective contraception should be provided, if the U.S. is to meet the Healthy People 2020 contraceptive use goal.

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Contact

[aba3@calvin.edu](mailto:aba3@calvin.edu)

## A 05 - Nursing Burnout

### Trait Negative Affectivity: A Predictor of Burnout and Secondary Traumatic Stress in Nurses in WA

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*Desley G. Hegney, RN, BA (Hons), PhD, Australia*

*Mark Craigie, BSc (Psychology), PhD, Australia*

*David Hemsworth, PhD, MBA, BA, BAS, CET, Canada*

*Karen Francis, PhD, MEd, RN, Australia*

*Vicki Drury, RN, CertOphNsg, BHlthSc, CertMensHlth, GradCertPsychNsgPrac, MSN, PhD, Australia*

*Samar Aoun, BSc (Hons), MSc, PhD, Australia*

#### Purpose

describe the results of our work into compassion satisfaction and trait negative affectivity in nurses.

#### Target Audience

nurses, nurse researchers, policy makers and employers.

#### Abstract

**Purpose:** The aim was to ascertain the relationship between the constructs of trait negative affectivity (TNA), depression, state anxiety, stress, compassion fatigue and compassion satisfaction.

**Methods:** In 2013 an on-line self-report study was conducted. The survey contained demographic information and the Professional Quality of Life Scale (ProQOL), the DASS21 and the Spielberger Trait Anxiety Scale. The study included all nurses employed part or full time in an acute tertiary hospital in Perth.

**Results:** 299 of 1292 nurses provided useable data. Approximately 12% of nurses had stress levels in the moderate, severe to extreme range and 15% of nurses had anxiety and depression levels (measured by DASS 21) in the moderate, severe to extreme range. Approximately 11% of nurses had an 'at risk' profile and 8% had a 'very distressed profile' which indicated high secondary traumatic stress and/or burnout on the ProQOL tool. Forty nurses (14.65%) had a TNA score in the elevated range. Higher TNA was strongly associated with higher burnout and secondary traumatic stress and lower compassion satisfaction. The association observed between TNA, burnout and secondary traumatic stress was independent of current negative mood symptoms.

**Conclusion:** The personal variable of TNA is an important correlate of compassion fatigue in nurses, and therefore a worthy target for interventions wishing to build resilience in nurses. Compassion satisfaction is also a worthy of further investigation in alleviating burnout, but does not appear relevant to secondary traumatic stress.

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Contact

[desley.g.hegney@gmail.com](mailto:desley.g.hegney@gmail.com)

## A 05 - Nursing Burnout

### Nurse Burnout and Patient Outcomes

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*Apiradee Nantsupawat, PhD, RN, Thailand*

#### Purpose

The purpose of this presentation is to examine the effect of nurse burnout and patient outcomes.

#### Target Audience

The target audience of this presentation is health care providers.

#### Abstract

**Purpose:** This study examined the effect of nurse burnout and patient outcomes.

**Methods:** This study was cross-sectional study. The sample consisted of 2,083 nurses across 92 community hospitals in Thailand. Nurse burnout was measured by the Maslach Burnout Inventory-Human Service Scale. Patient outcomes were measured by five items assessing quality of care, medication errors, confidence that patients can manage their own care after hospital discharge, infection, and falling. Logistic regression was used for the analysis.

**Results:** The results of study showed that higher nurse burnout was associated with higher report of fair to poor care quality, not confident that patients can manage their own care after hospital discharge, medication errors, infection, and falling.

**Conclusion:** Results from this study provide confirmation for the association between burnout and patient outcomes. Reducing nurse burnout is a promising strategy to help improve patient outcomes.

#### Contact

[apiradee.n@cmu.ac.th](mailto:apiradee.n@cmu.ac.th)

## A 05 - Nursing Burnout

### Application of Revised Nursing Work Index and the Maslach Burnout Inventory for Registered Nurses from Public Health Institutions, Sao Paulo, Brazil

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*Lília de Souza Nogueira, PhD, RN, Brazil*

*Erika de Souza Guedes, MSc, RN, Brazil*

*Regina Márcia Cardoso de Sousa, PhD, RN, Brazil*

*Ruth Natalia Teresa Turrini, PhD, RN, Brazil*

*Mariana Alvina Santos, RN, MNSc, Brazil*

*Diná de Almeida Lopes Monteiro da Cruz, PhD, Brazil*

#### Purpose

to discuss about organizational characteristics of health institutions and association with burnout syndrome

#### Target Audience

Researchers and nursing staff

#### Abstract

**Purpose:** The aim of this research was to verify the relationship between the results of the Revised Nursing Work Index (NWI -R) and the Maslach Burnout Inventory (MBI).

**Methods:** The Revised Nursing Work Index (NWI-R) (1) is a tool that measures the practice environment. It consists of 57 items, in which 15 of the 57 items were divided in 4 subscales: autonomy, control over the practice setting, doctor nurse relationship and organizational support (1).

The autonomy subscale consists of five items and the control over the practice setting subscale comprises of seven items. The doctor nurse relationship subscale is formed by three items. The organizational support subscale consists of ten items derived from the subscales cited above (1).

The scale used in the NWI-R is the Likert and can vary from one to four. The lower the score, the greater the favorable attributes of the nursing practice. The scores for the subscales are obtained by averaging the scores of the subjects' responses. They can vary from one to four points (1).

The MBI aims to measure the physical and emotional exhaustion of workers by assessing their feelings towards work. It has 22 items divided into three domains: emotional exhaustion reduced personal accomplishment and depersonalization. The sum of the responses for each topic determines the variation of each domain: nine to forty-five points for emotional exhaustion, eight to forty points for personal fulfillment and five to twenty-five points for depersonalization and (5). The scores for the emotional exhaustion and depersonalization items are considered as follow: the higher the score, the greater the emotional exhaustion feeling and depersonalization perceived by nurses. Regarding the decrease in the personal fulfillment item, higher scores depict high personal achievement Professional (2.5).

In this study five categories of response (never, rarely, sometimes, often, always) were used. They differ slightly from the seven original categories. The choice of the five categories was due to the fact that Brazilian professionals had difficulties to discriminate between the seven original categories of response (8).

This study was conducted in hospitals and public clinics under direct supervision of the Coordinator of Health Services of the State Secretariat of São Paulo, Brazil Health, and it is part of a larger study whose objective was to know the nursing records and variables associated with them.

Among the 43 eligible health institutions invited, three institutions did not take part in the study. Thus, 40 health institutions, whose collection took place between January 2011 and January 2012, were included in the study.

The questionnaires were completed by nurses who worked or were responsible for sectors where there were patients. The project was submitted to the Ethics Committee of the School of Nursing for evaluation

of the ethical aspects. Participants who provided information by self-report were informed about the study and its procedures and, if agreed, signed the Informed Consent Form.

The Pearson correlation coefficient was used to verify the correlation between variables. The correlation strength used was that proposed by Levin, Fox (2004) in which perfect correlation was attributed for those that reached 1.0, strong correlation for those between 0.9 and 0.6, moderate correlation for those between 0.59 and 0.3, and weak correlation for those below 0.3.

Analysis of clusters was used to identify groups of similar institutions. The method of K-means was employed and it was based on the Euclidean distance (6-7). The results of the MBI and these groups of institutions were compared by Analysis of Variance (ANOVA). In the case of significant difference between groups, the identification of these groups was done by multiple comparisons using the Bonferroni test. In all analyzes, the significance level of 5% was established.

**Results:** The NWI profile represented 40 institutions. The MBI was completed by 745 nurses with an average age of 43 years (SD = 9.6), average training time of 14 years (SD = 8.5) and on average 9 years of working in the participating institution (SD = 9.4). The study was comprised of 23 general institutions, 11 institutions and 6 psychiatric outpatient services.

The NWI-R showed reliability of 0,962 for the total items, 0,695 for autonomy items, 0,794 for control over the practice setting, 0,773 for doctor nurse relationship and 0,815 for organizational support. Regarding the MBI, the reliability was 0.602 for the total items, 0,877 for emotional exhaustion, 0.549 for the depersonalization and 0.723 for personal fulfillment.

The mean NWI-R was 2.27 in the total sample, standard deviation (SD) 1.03, median two, minimum and maximum values of 1 and 4, respectively. As for the MBI, the mean and SD of domains found in this population were: emotional exhaustion 22.37 ( $\pm 6.47$ ), depersonalization 8.98 ( $\pm 3.04$ ) and decreased job satisfaction 31.74 ( $\pm 3.98$ ).

Table 1. NWI-R (total and subscales) and MBI (total and domains) correlation. São Paulo, Brazil - 2010-2011

MBI	NWI-R				
	Total Score	Autonomy	Control over the Practice Setting	Doctor Nurse Relationship	Organizational Support
Total Score	0,26	0,25	0,24	0,19	0,21
	p=0,107	p=0,123	p=0,140	p=0,250	p=0,202
Emotional Exhaustion	<b>0,46</b>	<b>0,46</b>	<b>0,39</b>	0,24	<b>0,40</b>
	<b>p=0,003</b>	<b>p=0,003</b>	<b>p=0,013</b>	p=0,134	<b>p=0,010</b>
Depersonalization	0,28	<b>0,33</b>	0,19	0,13	0,27
	p=0,081	<b>p=0,039</b>	p=0,229	p=0,439	p=0,087
Decreased Job Satisfaction	<b>-0,41</b>	<b>-0,44</b>	-0,26	-0,11	<b>-0,40</b>
	<b>p=0,008</b>	<b>p=0,004</b>	p=0,104	p=0,516	<b>p=0,011</b>

Pearson correlation coefficient

Table 1 shows that the correlation between emotional exhaustion and NWI-R total score, autonomy, control over the practice setting and organizational support were moderate and positive. The same results were found between the depersonalization and autonomy variables. Moderate negative correlation was present in the analysis between decreased job satisfaction and the total score of NWI-R, autonomy and

organizational support. The results of the analysis of the remaining correlations NWI-R and MBI were weak, both among total scores, and between the domains of MBI subscales and the NWI-R.

Table 2. Health institution distribution according to NWI-R homogeneous groups. São Paulo, Brazil - 2010-2011

Groups	N	%
1	13	32,5
2	16	40,0
3	3	7,5
4	8	20,0

In cluster analysis, four groups of hospitals with similar profile were identified from the four subscales of the NWI -R. In characterizing these groups, we found that group 4 had the lowest scores on all subscales of the NWI -R. Group 3 received the highest scores on three subscales of the instrument (autonomy, control over the practice setting and organizational support). The highest values of subscale doctor nurse relationship were identified in group 1 (Table 2).

There was no difference between groups in relation to the total MBI and decrease the area of personal fulfillment. Difference between groups was observed for emotional exhaustion and depersonalization ( $p < 0.05$ ) domains.

Considering multiple comparisons by the Bonferroni test, it was found that there were differences only between groups 3 and 4 in relation to emotional exhaustion, and groups two and three, on the depersonalization domain. Group 4, as the NWI -R, gathered the institutions with the most unfavorable for the nursing practice, which might have contributed to the physical and emotional exhaustion of nurses in these institutions.

**Conclusion:** The group of public hospitals in São Paulo, Brazil with the best nursing practice showed significant statistical difference for the emotional exhaustion and depersonalization domains compared to groups of hospitals with less favorable characteristics.

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#### Contact

[lilianogueira@usp.br](mailto:lilianogueira@usp.br)

## A 06 - Potential Development Within Nursing Programs

### A National Survey of Faculty Knowledge and Experience with Lesbian, Gay, Bisexual and Transgender (LGBT) Health and Readiness for Inclusion in Teaching: Curricular Implications for Baccalaureate Nursing Programs

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*Fidelindo Lim, DNP, CCRN, USA*

#### Purpose

The purpose of this presentation is to discuss findings of a U.S. national survey on faculty knowledge, experience and readiness to integrate LGBT health in baccalaureate nursing programs. Curricular implications and best practices in implementing LGBT health inclusion will be explored.

#### Target Audience

The target audience of this presentation include nursing faculty, researchers, nurse preceptors, nursing school administrators, LGBT policy advocates and nursing students,

#### Abstract

**Purpose:** The purpose of this faculty needs assessment survey is to appraise the LGBT health knowledge, experience and readiness teaching LGBT health topics among the nursing faculty in baccalaureate programs across the U.S.

**Methods:** An investigator-developed Likert-type survey questionnaire was used to collect data using Qualtrics. Direct online solicitation of all chief administrative leader whose names and e-mail addresses are publicly available on the website of the American Association of Colleges of Nursing (AACN) ( $N=739$ ) was conducted. The nursing school's chief administrative leaders were requested to forward the study link to all faculty teaching in the baccalaureate program.

**Results:** Of 1,119 participants, 43% reported limited or somewhat limited knowledge of LGBT health and 37% indicated limited awareness of LGBT health topics. Between 23 to 63% of respondents indicated either never or seldom teaching LGBT health and 52% reported being fully or adequately ready integrating LGBT health in their teaching. The median time devoted to teaching LGBT health is 2 hours.

**Conclusion:** Nursing faculty teaching in baccalaureate programs have limited knowledge of LGBT health and a majority feels ready to integrate LGBT health into the courses they teach. Reviewing the curriculum to identify gaps in LGBT health education is viewed by 75% of the respondents as the most essential strategy in aligning the curriculum and designing faculty development activities with national LGBT health priorities.

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#### Contact

[fl9@nyu.edu](mailto:fl9@nyu.edu)

## A 06 - Potential Development Within Nursing Programs

### How Politics Affect the Development and Evolvement of a Nursing Program: Engaging Colleagues in the Community to Improve Global Health Outcomes

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*Patricia R. Messmer, PhD, RN-BC, FAAN, USA*

*Annette Gibson, DNP, MEd, RN, CNE, USA*

*Amy C. Pettigrew, PhD, RN, CNE, ANEF, USA*

#### Purpose

To discuss how politics in US and Cuba affected the development and evolvement of a nursing program in South Florida. To relate how the nursing program has engaged nursing colleagues to improve global health outcomes.

#### Target Audience

All nurses who are interested in historical nursing research and motivated to understand the implications of politics upon the development and evolvement of a nursing program

#### Abstract

On December 10, 2013 Barack Obama shook hands with Raul Castro at Mandela's' memorial in South Africa. This gesture can be viewed as a move toward global cooperation and expanding Miami Dade College (MDC) community across 90 miles addressing community health nursing, service learning and medical missions for academics and global health outcomes.

**Purpose:** of this historical study was to shed light of the Cuban influence for the past 50+ years on the nursing program at Miami Dade College (MDC).

**Methods:** Interviews from primary and secondary sources were collected along with a collection of historical documents and newspaper articles. Validity of documents was established by external criticism; reliability by internal criticism.

**Results:** The opening of the nursing program at Dade County Junior College began a new era of nursing education for Miami's diverse community. The program began soon after the federal government deeded the old Marine airbase replete with buildings, barracks and an airfield on NW 27<sup>th</sup> Avenue to Miami-Dade for \$1.00. **Operation Pedro Pan** (1960-1962), a codename of the CIA project with 14,000+ Cuban children being sent by their parents to Miami, Florida after rumors spread that Fidel Castro would begin taking children against their parents' wishes to military schools and Soviet labour camps. **Pedro Pan** transported the children of parents who opposed the revolutionary government and placed them with friends, relatives and group homes in 35 states. Until the last "freedom flights" ended in April 1973 there was a constant stream of Cuban exiles filing through the *Freedom Tower* which is owned by the President of MDC since he and other administrators, faculty and students are Cuban exiles. Chloe Trammel, a former instructor at Jackson Memorial Hospital and on Florida League for Nursing Board was the first director with 10 faculty at Miami-Dade Junior College (North Campus) program in 1962. Under Trammel's leadership, 26 students enrolled in Dade County's first program to offer a two year associate degree in nursing (ASN). In 1969, Mike Kinkead was the only man on the South Campus with Director Cora Mazzagatti. Mike, married to Emilie of the US Air Force Medical Corps was inspired to pursue nursing at Miami Dade Community College (MDCC) after 4 years as an Air Force medical specialist; Mike was discriminated on gender bias while applying at different nursing schools. In 1969, Mike became President of the Florida Student Nurses Association while he and Emilie worked as CNAs at Baptist Hospital. In 1971, the LPN program transferred from Mount Sinai Hospital to MDCC. Under Dean Jeanne Stark (1978-1989), Chairperson of Florida Board of Nursing, the nursing programs included "Bridging Cuban Nurses in Exile", educating foreign educated physicians for nursing, providing programs for RNs returning to work. Sylvia Edge (1990-1995) instituted flexible schedules and offered classes at hospitals facilitating LPNs to ASN, based on King's Goal Attainment Theory. Director Fran Aronvitz (1966-2004) offered innovative programs with 100% scholarships; more than 50% of the graduates proceeded to 4 year colleges with Nurses Charitable Trust Scholarships. Lessie Pryor (2006-2009) developed computerized

testing when only 4% of the schools used it and launched the RN-BSN program. Dean Amy Pettigrew has integrated human patient simulation into the classroom, encouraged medical missions to Haiti and Dominican Republic for faculty and students and hosts nursing students from Haiti for immersion.

**Conclusion:** Many of the area clinical nurses and nursing faculty began their career at MDC. There are 75+ faculty, 100 adjuncts teaching 650 students in RN-BSN (with an Honor Society) and 1200 in ASN (N-OADN Honor Society) programs with 60% Hispanic, 30% Blacks and 10% White; 80% females 20% males. More than 19,000 nurses have earned their degrees from MDC, making it the largest area provider of nursing education especially for culturally diverse students. MDC nursing graduates, like their predecessors, serve Miami's ever-growing global community and perhaps Cuba in the future.

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### Contact

[messmerpatricia@yahoo.com](mailto:messmerpatricia@yahoo.com)

## A 06 - Potential Development Within Nursing Programs

### Development of Educational Program for Vietnamese Nurses Using ADDIE Model

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*Sunjoon Kang, PhD, South Korea*

*In-Sook Kim, PhD, South Korea*

#### Purpose

The purpose of this presentation is to share the educational program development process for nurses working at the hospitals in the central region of Vietnam

#### Target Audience

The target audience of this presentation is either academic researcher or professors who are interested in improving global nursing education especially least developed countries.

#### Abstract

**Purpose:** This study is to develop the educational program for nurses working at the hospitals in the central region of Vietnam. The central region is a well-known place for former Vietnam war battlefield and is the least developed area. There are many nurses who are in need of continuing education for their competency maintaining and improvement in central regional hospitals in Vietnam. In this research, 6 hospitals and 488 nurses were selected in a provincial hospital. Less than 10 percentage of total nurses has bachelor degree and remainders have associate bachelor degree. In addition, it shows a variety of nurses' educational gap between urban and rural hospitals.

**Methods:** To develop special educational program, ADDIE was applied. It is a widely used systematic instructional design model composed of five phases such as analysis, design, develop, implement, and evaluation. With the purpose for this study, we just focused on three phases of ADDIE from analysis to develop. In analysis phase, An expert panel meeting was implemented in Vietnam for two times. The result of analysis was reflected for designing of the program and finally it was converged to special educational program.

**Results:** The result of the analysis was very meaningful. We included experts from two Vietnam nursemanagers, two Vietnam doctors who has fellowship in Korea, and two professors from Korea. It took for 3 months from analysis to develop phases. At first, we figured out that two major needs such as trauma nursing and emergency maternal child nursing for learning after the expert meeting, making consideration them as main topics. After another expert meeting, a lots of worries were drawn about educational methods and materials because even though they wanted to learn main topics, their entry level of knowledge and clinical experiences were not appropriate for problem-based learning. Furthermore, it was so natural to be instructed by doctors in their culture. Second phase of design was excelled by the first analysis process. We had to make easy teaching and learning method for them, and we concluded that if we use audio-visual nursing skill video in learning session it would be a great help for them. We used a videos system for nursing students and assessed the usefulness of it. Two Vietnam doctors and professor working at Hue University responded that the suggested method is very good for rural hospital nurses' competency building. What we need is to translate Korean to Vietnamese without mistaking cultural difference. We were lucky to find a woman who became a naturalized Korean with majoring Korean language at the University in Korea. We planned translating work into two steps, a draft version and expert revision. Third phase was developing a special educational program composed of main topics so we could rearrange video lists having main topics and the level of skill. Average time of each video is five to ten minutes and total number of 40 lists. Some nursing skills are performed both doctors and nurses and we excluded doctors-owned skills even though they are allowed to nurses in Korea.

**Conclusion:** We researched on the improvement of nursing education and practice in Vietnam. However, we could not expect visible outcome so fast. For example, Vietnam does not have a license examination or qualification proving system so whoever graduates from nursing college or program they can practice at the hospital. In spite of these surrounding, we have a very optimistic view because Vietnam has changed into global economy after doi moi while maintaining socialist regime. In addition, the changes of

disease structure and the reasons of death compared to other underdeveloped countries are not similar to other underdeveloped countries, so we would take another step to look inside to draw out their needs and design for educational program for fulfill their requirements.

Since development of an educational program using ADDIE was very effective in systematically with analyzing and then connecting to other phase, an each step having some outcome could convert into next. Especially, there were some considerations to sort out the lists of subtopics because of difference in work environment, job description among healthcare providers, and organizational culture. For example, nasopharyngeal airway is only permitted to doctors. In needle decompression, doctors can do that emergency skill while in Korea paramedic can do for saving patients from life threatening condition. It means that we have very differentiated healthcare personnel according to their specialty area in Korea, but there are non-existence of paramedic in Vietnam.

Through sequential three phases, we made a special educational program for hospital nurses working at central region of Vietnam. We hope that this special program for improving hospital nurses competency contribute to the situation for transitional patterns of health and medical disease. In addition, they could have half-year in service education once or twice a week as scheduled with developed audio-visual teaching method.

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### Contact

[ksj5139@hanmail.net](mailto:ksj5139@hanmail.net)

## A 07 - Pediatric Health Promotion

### Validation and Sensitivity Pictorial Pediatric Symptom Checklist

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*Elif Ardic, MA, Turkey*

*Gul Unsal Barlas, PhD, Turkey*

*Serap Bulduk, PhD, Turkey*

#### Purpose

to share the results of PPSC's validity and reliability in Turkish society - to introduce the Turkish version of PPSC, which has translations only in English, Spanish and Filipino, to the field. - to highlight the importance of this study by adjoining one more new study to the epidemiological ones.

#### Target Audience

The target audience of this presentation includes: -psychiatrists, psychologists, pediatry nurses, and the other health staff, -academicians who take special interest in child-adolescence mental health, -nurses working in schools, -other staff, especially school counsellors, who take care of children's social problems in schools where there are no nurses available, -social workers.

#### Abstract

**Purpose:** The purposes of this study are to share the results of PPSC's validity and reliability in Turkish society, introduce the Turkish version of PPSC, which has translations in only 3 different languages (English, Spanish and Filipino) and contribute to other studies carried out in the future, and draw people's attention to the importance of this study by adjoining one more new study to the epidemiological ones which are insufficient about the psycho-social problems of childhood in the world.

**Methods:** This study was carried out methodologically in order to report translation and adaptation of the Pictorial Pediatric Symptom Checklist (PPSC) from English into Turkish and estimates of validity and reliability of the Turkish version.

**Results:** The Content Validity Index was found to be 92.2%. According to the split half analysis, the reliability levels were sufficient for one of the halves and for the whole scale ( $r=0.751$  and  $r=0.858$  respectively). Among the item-total correlations, the correlation of only one of the items (#20) was found to be below 0.30. The Cronbach's alpha internal consistency of the PPSC was found as 0.89. One of the items was excluded from the scale, so the factor analysis was conducted with a total of 34 items. As a result of the factor analysis, a four-factor construct was created. The factor load values of the items varied between 0.33 and 0.72. The variance that the four-factor construct accounted for was 37.63%. The results showed that the Turkish version of the PPSC was a valid and reliable screening instrument for examining psychosocial and behavioral disorders in children.

**Conclusion:** In this study Cronbach Alfa of the PPSC was found 0.89. Borowsky, Mozayany and Ireland (2003) found the total Cronbach Alfa of PSC 0.67. These results (Gardner et al 1999) are equal to the results of Dutch version of PSC (Reijeneveld, Volges, Hoekstra and Crone 2006) and Filipino version of PPSC (Canceko-Llego et al 2009). In addition, according to the split half analysis, it was found that the reliability levels were sufficient for one of the halves ( $r=0.751$ ) and for the whole scale ( $r=0.858$ ) in terms of suggested levels (Akdag 2011). In Erdogan and Ozturk(2011)'s study, retested test sensitivity of Turkish PSC was found 0.72. The results of this study showed that 11 of 100 children are at a critically psychosocial problem level (28 points and over 28). Canceko-Llego and et al (2009) found this rate in a higher level, which is %18.9, in Filipino society. It was found in Leiner and et al (2010)'s study, in which they used PPSC in Mexican society, at level %16. Jellinek and et al (1999) found it %12.5 in PSC study.

#### Contact

[elifardiccc@gmail.com](mailto:elifardiccc@gmail.com)

## A 07 - Pediatric Health Promotion

### Factors Predicting Resourcefulness in Taiwanese Preadolescents

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Ya-Fen Wang, PhD, MSN, RN, USA

Jaclene A. Zauszniewski, PhD, RN-BC, FAAN, USA

#### Purpose

The purpose of this presentation is to present study findings about the predictors of Taiwanese preadolescents' resourcefulness.

#### Target Audience

The target audience of this presentations is nursing researchers and healthcare providers.

#### Abstract

**Background/Significance:** Resourcefulness is a set of cognitive and behavioral skills for coping with stress in order to maintain quality of life. Resourcefulness begins to develop in early childhood and is reinforced by further learning throughout life. However, research examining intrinsic (individual) and extrinsic (family and caregiver) contextual factors in the development of resourcefulness in children is limited. **Purpose:** This study examined the effects of the intrinsic and extrinsic contextual factors on resourcefulness in Taiwanese preadolescents. **Theoretical framework:** Zauszniewski's middle-range theory of resourcefulness and quality of life provided the context for examining the relationships among theory-driven variables. **Subjects:** A convenience sample of caregiver-preadolescent dyads from 368 families were recruited within communities in Taiwan. **Methods:** A cross-sectional approach was used to examine hypothesized predictive effects of intrinsic contextual factors (children's age, gender, school performance, academic stress, and dispositional optimism/pessimism) and extrinsic contextual factors (family income, caregivers' age, gender, education, dispositional optimism/pessimism, and resourcefulness) on preadolescent's resourcefulness. **Results:** Academic stress and dispositional optimism were found to be significant predictors of preadolescents' resourcefulness (beta = -.22,  $p < .001$  and beta = .39,  $p < .001$ ). Preadolescents' age and gender did not have influence on their resourcefulness. Extrinsic contextual factors (family income, caregivers' gender, education, dispositional optimism, and resourcefulness) did not predict preadolescents' resourcefulness. **Conclusion:** The findings suggest that Taiwanese preadolescents' resourcefulness was greatly influenced by their academic stress and dispositional optimism. Further research may explore longitudinal effects of academic stress and dispositional optimism on preadolescents' resourcefulness in larger, more diverse samples.

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#### Contact

[ywang95@kent.edu](mailto:ywang95@kent.edu)

## A 07 - Pediatric Health Promotion

### Non-Urgent Emergency Department Use in an Urban Pediatric Primary Care Population

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*Mei Lin Chen-Lim, MSN, RN, USA*

#### Purpose

The purpose of this presentation is to describe the prevalence of non-urgent ED use in an urban pediatric population, compare the urgent and non-urgent use based on race and insurance status, and to describe the reasons why parents bring children to the ED when access to care are available.

#### Target Audience

The target audience of this presentation is nurses who have influence in urban low-income minority population from health administration to direct patient care.

#### Abstract

**Purpose:** The purpose of this study is to evaluate the reasons that families use the Emergency Department (ED) for their child's non-urgent care when primary or after hours care is available.

**Background and Significance:** Garcia et al (2010) reported approximately 20% of patients nationwide, with at least one Emergency Department (ED) visit, were children (ages 0-17 years). Past studies reported that approximately half or more of these visits were for non-urgent conditions (Zandieh, 2009). Ambulatory Care Nurses provide primary well child and illness care to assist patient and families to better manage health and illness in community settings through the use of a triage system and defined protocols for decision making. Despite our best efforts, patients often seek care in the ED when access to a primary care provider (PCP) or after hours program (AHP) is available. The increasing trend results in an interruption of continuity in care which ultimately affects the quality of patient care as while impacting negatively on health care costs.

**Setting:** The Children's Hospital of Philadelphia (CHOP) South Philadelphia Primary care site is a large urban pediatric primary care site serving low income minority families – primarily African American, Asian, or Hispanic. There are approximately over 10,300 patients with an estimate of over 30,800 visits per year. Languages spoken from this population include English, Spanish, Indonesian, Arabic, Cambodian, Vietnamese, French, Urdu, Chinese, etc. Health insurance status includes state Medicaid (73.5%), Private (25.7%), and Self Pay (0.85%). The CHOP level I trauma center ED serves approximately 85,700 visits per year. Each visit is triaged based on the Emergency Severity Index (ESI) which is a 5-Level Triage System where the non-acute is rated as Level 4 and Level 5 (Gilboy, 2005).

**Methods:** A primary care based nursing research study was developed to evaluate the reasons for the non-urgent ED use. IRB approval was obtained and study was completed early 2012. This descriptive study consists of a retrospective chart review to determine incidence of non-urgent ED use and a prospective parent telephone interview to identify factors that led to non-urgent ED use. The sample consists of patients less than 17 years of age from an urban Philadelphia primary care center that used the CHOP ED during 2011, and who were identified as non-acute based on a level system utilized by the ED. A subsample of non-urgent, non-referred, patients was eligible for scripted telephone interviews. Non-urgent was defined as care that can be administered by the primary care office (PCP) during office hours or by telephone support that can be provided by After Hours Program (AHP) Call Center during non-office hours.

**Results:** During 2011, the South Philadelphia primary care site had 4484 CHOP ED visits. An estimated 1450 visits (32%) were triaged as level 4 or 5 which represented non-acute visits. Medicaid was the primary insurance (76.5%). In regards to race, utilization of the ED from the Asians group were unchanged regardless of insurance status and were primarily triaged as level 5 (33% for Medicaid and 37% for private). Similarly, the White population ED utilization was also unchanged regardless of insurance status but was primarily triaged as level 3 (36% for Medicaid and 47% for Private). For the

Blacks population, the majority utilization did change with insurance status from level 5 (33% for Medicaid) to level 3 (41% for Private).

From the chart review data, a total of 869 non-acute ED visits were reviewed with 742 of those determined to be non-urgent. The mean age was 4.11 years and the gender was even with 371 females (50%). Blacks were the primary population (64%) followed by White (14%). Majority had insurance (96%) with coverage through state Medicaid (86%). Majority of the patients were not referred by primary care providers or after-hours program (89%). The duration of the ED visits last an average of 3.12 hours. The top 5 chief complaint were fever (247), vomiting (96), rash (78), cough (68), and ear pain (60). The top 5 discharged diagnoses were fever (239), acute upper respiratory tract infection (156), viral Syndrome, not otherwise specified (121), cough (89), and suppurative and unspecified otitis media, acute, without eardrum rupture (78). Other descriptive statistics include the day and time of the ED visit and frequency of non-urgent visits per patient. Reports from scripted interview include: treatments tried at home prior to visit, reason for going to ED versus using the AHP or PCP, knowledge of AHP and perception of waiting time and services provided from the ED vs. primary care. Frequently reported symptoms reflected viral illness; Fever was most commonly mentioned symptom to bring child to ED. Only 60% reported knowledge of AHP.

**Conclusion:** Majority of the patients are using the ED for non-urgent care especially during the times when appointments are available. Subjects were primarily less than 5 years of age from the minority population groups with state insurance. Majority have no prior contact with the PCP office or AHP Program prior to the ED visit. Frequently reported symptoms reflected viral illness; Fever was the most common mentioned symptom to bring child to ED. One-third reported coming to ED because of tests, equipment, or better confidence at the hospital. Only 60% reported knowledge of AHP; however, majority who used AHP reported as helpful.

**Clinical Implications:** Results of this study have led to practice care changes implemented in the primary care setting that improve the clinic workflow such as identifying and educating families who use the ED for non-urgent reasons. This has also strengthened the partnership with parents while empowering them to seek care through appropriate channels. Programs such as ED use Education, Access to Care Guide, Parent Education Toolkit on Fever, Office Video Education (English & Spanish) while waiting and Fever teaching at newborn, 5 week and two month visit have been implemented as a result of the study findings. Long term outcomes of study findings will be reduced use of the ED for non-urgent care and improved clinic systems to support ill child services.

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### Contact

[chenlim@email.chop.edu](mailto:chenlim@email.chop.edu)

## A 09 - Global Prevention and Management of Cardiovascular Related Disease

### Factors and Outcomes Associated with Hypertension Management: A Structural Model

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*Shiah-Lian Chen, PhD, RN, Taiwan*

*I-Chen Liao, MSN, RN, Taiwan*

*Wen-Lieng Lee, PhD, MD, Taiwan*

#### Purpose

The purpose of the presentation is to present a hypothesized model of hypertension management based on framework of the self regulation model using the technique of structural equation modeling approach.

#### Target Audience

The target audience of this presentation is those who are interested in management of chronic illness, and in researches related to theoretical framework testing.

#### Abstract

**Purpose:** The purpose of the study is to examine a hypothesized and comprehensive model of factors and outcomes associated with hypertension management based on the theoretical framework of the self-regulation model (SRM).

**Methods:** The study was correlational with a questionnaire survey design. A purposive sample with a total of 301 valid cases was drawn from 2 teaching hospitals in central Taiwan. Structured questionnaires used for data collection included the Chinese Illness Perception Questionnaire-Revised (including identity, cause and illness representations), the Medication Adherence Inventory (MAI), the Self-Management Adherence Inventory (SMAI), the Treatment Satisfaction Questionnaire for Medication (TSQM), the Hypertension Quality of Life Questionnaire (HQOLQ), and Profile of Mood States (POMS). The IBM SPSS statistics (version 19.0 for PC) were used to explore descriptive statistics. The software of LISREL version 8.54 was used to examine the hypothesized structure model.

**Results:** The results of structural equation models showed that the modified model was better fit to the data than the theoretical model proposed by the SRM, because after adding illness identity into the original self-regulation model as an antecedent, the model fit indices were improved significantly. Illness identity was significantly and directly associated with negative illness representations, control, cause, HQOLQ and POMS. Negative illness representations were negatively related to TSQM and positively associated with SMAI. Control was negatively associated with SMAI and positively associated with MAI. Cause was negatively associated with MAI. Both SMAI and MAI were negatively and significantly related to both HQOLQ and POMS.

**Conclusion:** The findings suggested that illness identity may affect patients' quality of life and mood states directly and indirectly through illness perceptions, adherence to prescribed medication and self-management. Yet, negative illness representations, control and cause may affect behavior outcomes indirectly through different pathways. In sum, the study findings provide evidence explaining possible mechanisms associated with adherence behaviors and behavior outcomes of patients with hypertension. Further study may validate the causal relationships using an experimental study design.

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#### Contact

[shiah90@nutc.edu.tw](mailto:shiah90@nutc.edu.tw)



## A 09 - Global Prevention and Management of Cardiovascular Related Disease

### Effects of Self-Management Education Programme in Improving Self-Efficacy of Patients with Chronic Obstructive Pulmonary Disease: An Exploratory Trial

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*Wai I Ng, PhD, RN, Macau*

#### Purpose

The purpose of this presentation is to share research findings derived from an exploratory RCT which adopted mixed methods in examining a complex intervention. It also aims to draw attention to enhancing the care delivery to Chinese COPD patients through research studies.

#### Target Audience

The target audience of this presentation is clinicians who work with chronically ill, researchers who are specialized or interested in conducting nursing clinical trial or mixed methods, and administrative personnels who are planning to initiate or evaluate chronic care delivery.

#### Abstract

**Purpose:** Chronic obstructive pulmonary disease (COPD) cannot be cured, but can be prevented and treated. Statistics show that it contributes more to the global burden of disease in terms of disability-adjusted life years (DALYs) than other respiratory diseases. In Macau, respiratory disease is the top three causes of all deaths in recent years (DSEC, 2008), however, the emphasis of healthcare service provision in relation to COPD patients is mainly focused on acute management. Therefore, the purpose of this study is to compare the self-efficacy of Macau COPD patients before and after implementation of self-management education programme (SMEP).

**Methods:** An exploratory randomized controlled trial (RCT) was adopted (MRC 2008), and a mixed methods approach was employed. 51 consented Macau COPD patients were randomly allocated to experimental and control group. Experimental group received SMEP while the control group received usual conventional care. All patients were assessed with COPD self-efficacy scale before and 6 months after completion of self-management education. Focus group interviews were implemented to explore the subjective view of patients towards their self-efficacy after the education.

**Results:** The patients demonstrated improvement in general self-efficacy and self-efficacy in intense emotional arousal, physical exertion and weather/environmental effects. The subjective perception of the patients towards the effects of SMEP in improving their self-efficacy was mostly consistent with the quantitative findings, except that the programme was not the main cause for improving their self-efficacy in negative emotional.

**Conclusion:** Macau COPD patients who are Chinese tend to tolerate intense emotional arousal and this is a significant characteristic in Chinese. Due to the long lacking of chronic patient support, the Macau COPD patients perceive self-management education programme as an essential element of self-efficacy empowerment. Therefore, SMEP is necessary for COPD patients, but most importantly, the design of the education should carefully put cultural factors into consideration.

#### Contact

[nwi@kwnc.edu.mo](mailto:nwi@kwnc.edu.mo)

## A 09 - Global Prevention and Management of Cardiovascular Related Disease

### How Risk Ideology Creates Patient Work in a Secondary Stroke Prevention Clinic: Findings from an Institutional Ethnography in Canada

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*Sarah Flogen, RN, BScN, MEd, Canada*

#### Purpose

share findings from an Institutional Ethnography that explored patient work in a secondary stroke prevention clinic. Substantial patient health work went into providing information for the medical team to discover a potential stroke, based on an ideology of risk. Patient experiential information was transformed into objective, privileged data.

#### Target Audience

those who seek to understand how health care decisions have been made in Canada, those who have an interest in a critical approach, those seeking to explore the workings of power and knowledge in health care, those from an interdisciplinary practice and nurses interested in prevention and health promotion.

#### Abstract

**Purpose:** Patients at risk for stroke seem to have certain features of clinical importance which have been associated with social determinants of health. Patients also seemed to be engaging with many activities and life changes in order to reduce their risk of stroke. This project had two aims: to understand the role of social determinates of health in health care, and to explore patient work in managing their stroke risk. The purpose of this paper is to describe findings from a nursing doctoral dissertation which explored the social organization of secondary stroke prevention from the standpoint of the patient.

**Methods:** The setting for this investigation was a Secondary Stroke Prevention Clinic (SSPC) which is situated within a large academic hospital in downtown Toronto. This particular site was selected because it is well known as a center of neuroscience expertise in Toronto, as well as a center known to serve a diverse population. The staff in the clinic included two attending neurologists, a Fellow in neurology, an Advance Practice Nurse (APN), a research nurse, and the on-call physiotherapist, an administrative receptionist.

Institutional ethnography (IE) was used as the method of inquiry. IE requires two levels of data. In this exploration, level one and level two data, as well as the connecting texts were collected. The first level of data is about the local setting, the individuals that interact there and the accounts of their experiences. These data were collected through observation, textual analysis, and interviews. In this exploration, this included making visible the work of patients, understanding the work of the health professionals in the clinic, attending to and capturing links to the extra-local and noticing and acquiring texts that enter or exit the local setting. This included actively listening for ways the local setting was organized externally by noting the texts, names of external clinics, companies or organizations. Activities of both the patient and the health professional and the non-verbal behaviors of all parties were attended to. Interviews were conducted with recruited people who came to see the neurologist and their family members, spouses, or significant others. The setting and timing of these interviews flexed with the rhythm of the clinic. These interviews were audiotaped with consent and transcribed. Interviews were also conducted with the nurse and the doctors involved directly in the clinic appointments. Sometimes these were formal interviews; sometimes these were quick clarifying questions between patients or after clinic hours. Formal interviews were audiotaped and transcribed. Texts that entered, were part of, or exited the clinic area were gathered for analysis. Research Ethics Board approval was received from the hospital site.

**Results:** Regarding the role of social determinants of health: findings were drawn from the social organization of knowledge that became apparent: the privileged knowledge is biomedical; social knowledge was not included in the clinic, or in the system. Specifics: Using imperial and colonial language embedded with risk, a speech delivered at an elite club pitched a new model of health care

called the Ontario Stroke Strategy. Formulated around the changing paradigm of stroke, an interventionist one: the use of a medication administered to patients during the acute event of stroke and stroke prevention mechanisms, the design of the model that was promoted, marketed and approved was a model that spanned the 'continuum of care'. One element of this continuum included Secondary Stroke Prevention clinics, the setting of this study. These clinics represented a new medical specialization. The definition of stroke prevention and the use of the modified Rankin Scale on the stroke data sheet highlight the purpose of the clinic – the prevention of disability, defined as an economic burden. The Empire Club speech argued that stroke is an expensive social burden and that reducing damage from stroke would result in economic savings. Biomedical knowledge was privileged and promoted by the Ontario Government, pharmaceutical companies and the Heart and Stroke Foundation as they linked arms and successfully gained Ontario Provincial funding investment in reorganizing stroke care around an interventionist, high risk pharmaceutical agent, continuing the investment in acute care and industry interests.

2) Regarding patient work: The concept of 'secondary' prevention became visible as different than primary prevention. The role of this secondary stroke prevention clinic is to provide precise targeted investigations and interventions to very high risk patients after they have presented to a health care referral source with symptoms of stroke or a completed prior stroke. All patients or their families in this study identified a symptom that brought them to a health care provider. Three of eight patients related their symptom to possible stroke, and specifically sought care for this. Their work of self-detection of symptoms was promoted through social marketing strategies including a Heart and Stroke refrigerator magnet and television commercials. Symptoms activated the medical team to search for disease, both as a source of stroke and for risk factors. This search was conducted using imaging of the brain and blood vessels, blood work, and heart rhythm tests. Pre-scripted assessments suppressed patient experience, transforming it into stroke risk relevance. Subjective data entered into the clinic, was gleaned as a vehicle to mining the patient for objective data. This objective data would then inform the possible treatments, based on the statistical formulas such as "number needed to treat." Patient work was substantial and included providing a narrative medical history, attempting to answer technical questions, attempting to have questions answered, listening to follow-up verbal instruction, attending to follow-up investigations, taking medications, processing brain images, comprehending the numbers of blood pressure and blood results, participating in assessments, examination and scales, going for blood work, and participating in challenging discussion about the greatest risk.

**Conclusion:** The tools of institutional ethnography were used to explicate the social organization of secondary stroke prevention. The standpoint used was that of the patient. Locally, patients work and experience are organized by the texts that enter and exit the clinic; the extra-local connections to these texts inform the work process and activities of connected sites. The referral form linked to referral sources such as the family physician, the involved doctors' act of information sharing and the clinic work of managing urgency and risk. The triage form revealed the urgency and risk imperative. The letter of appointment revealed the patients work of participating in the clinic appointment as personal knowledge broker in bringing medications and scans, and revealed these two components as valuable. The stroke data collection sheet linked to the Institute for Clinical and Evaluative Studies, a government evaluation arm, and the expected performance of the clinic. The symptom magnet linked to the Heart and Stroke Foundation, their work of social marketing, and patient work of symptom identification.

Textual analysis of these documents makes visible the biomedical ideology of risk that supported prevention as a biomedical specialty. The major techniques and patient work arising from the stroke prevention clinic involves the use of technology to determine disease and risk factors within the body, and subsequent attempts to modify those risk factors through primarily pharmaceutical means. Factors known as socially determined consequences of health sociologically are known only as biomedical risk factors in the clinic, by the patients and in the greater extra local community. The ideology of risk seems to hold the clinic hostage and in the drive to identify and document risk factors, the work of patients is not visible, not able to be raised by patients, and in fact taken for granted. As a society we have had our consciousness subjugated to the ideology of risk.

The ideology of risk which provides the machinations of health service delivery in the secondary stroke prevention clinic obscures the complexity of patients individually, biomedically, socially and morally. On an individual patient level, people came to the clinic with multiple coexistent conditions. The secondary

stroke prevention clinic provided a narrow slice of expertise into the vast personal complexity. Biomedical complexity was obscured by the singular focus of vascular disease on one organ of the body. Risk factors named as stroke risk factors – high blood pressure, diabetes, smoking, dyslipidemia - are also contributors to heart disease and vascular dementia. A clinic so micro-specialized that it focuses on one organ of the body that is impacted by vascular disease, without a larger picture of the impact of vascular disease on the body as a whole contributes to the creation of multiple appointments for patients . Social complexity brings into view the social determinants of health. The same risk factors in the field of stroke are the same factors considered consequences of poverty, low education, environment, social exclusion. These social risks were not considered. The schema of the Ontario Stroke System has been directed towards the individual body and that individual's behavior. Socioeconomic status is listed as a risk factor, but a non-modifiable one. Moral complexity is obscured when population statistical data is used to develop an individual treatment plan, especially when the rationale for the treatment plan is made apparent to the patient as was the case in this study.

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#### Contact

[sarah.flogen@uhn.ca](mailto:sarah.flogen@uhn.ca)

## A 10 - Transforming Nursing Through Education and Collaboration

### Transforming Healthcare through Educational Diversity: Academic Health Center Pipeline Project

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*Greer L. Glazer, RN, CNP, PhD, FAAN, USA*

#### Purpose

This presentation's purpose, targeted at educators, is to share interviews with best practice universities and 20 community town hall meetings with educational community groups (high schools), neighborhood community groups, professional community groups, and student groups with a high proportion of underrepresented including socioeconomically disadvantaged, students in U.S. Midwestern urban areas.

#### Target Audience

This presentation's purpose, targeted at educators, is to share interviews with best practice universities and 20 community town hall meetings with educational community groups (high schools), neighborhood community groups, professional community groups, and student groups with a high proportion of underrepresented including socioeconomically disadvantaged, students in U.S. Midwestern urban areas.

#### Abstract

**Purpose:** The purpose of this IRB approved research was to assess and develop a plan for an educational pipeline in which underrepresented (economically disadvantaged, ethnically and racially diverse, first generation college student) high school students will be recruited into a major urban, U.S. research University's Colleges of Allied Health Sciences, Medicine, Nursing, and Pharmacy. Minorities are grossly underrepresented in the U.S. healthcare workforce, accounting for only 16.8% of nursing's workforce (5.4% African American, 3.6% Hispanic, 5.8% Asian/Native American, 0.3% American Indian/Alaskan Native, 1.7% Multi-Racial) and empirical evidence supports a lack of diversity in the healthcare workforce negatively affects patient outcomes (AAMC 2006, AACN 2013, HRSA 2006). It is projected that minorities will account for over half the U.S. population by 2043. With an increase in minority patients, there is an escalation in the need for a culturally diverse workforce that has the propensity to provide high quality, culturally competent care (U.S. Census Bureau, n.d., AACN, 2013). Solutions to achieving workforce diversity are multifaceted and depend on fundamental reforms in precollege systems (Cohen, 2002). Hence, development of a databased pipeline program is critical to increasing the number of underrepresented students and subsequent healthcare providers.

Thirty-five articles published from 2000-2012 were found using the search terms "educational pipeline healthcare providers" and "evaluating educational pipelines". Although all described pipeline programming to increase diversity, there were few that evaluated their programs or had research based outcome measures.

**Methods:** We reached out to and interviewed personnel at four universities identified as having best-practice pipeline models by the Urban Serving Universities. Information was gathered about specific components of their educational pipeline, demographics and criteria for selecting participants, initial funding and sustainability, program objectives, strategies for implementation including barriers, evaluation and outcome measures, and their successes and failures.

The second step to develop the educational pipeline program was to reach out to connect and involve the local community to receive their input and feedback on developing the educational pipeline plan. Twenty community town hall meetings were held with educational community groups, neighborhood groups, professional community groups, and student community groups in our local urban area. Local high schools and neighborhoods were selected based on having a high proportion of underrepresented students. There were twenty-two participants in educational town hall meetings; forty-eight participants in neighborhood town hall meetings; fourteen participants in professional community town hall meetings, and thirty-three participants in student town hall meetings.

Audio recordings from all best practice interviews and town hall meetings were transcribed and verified to ensure the quality of the data. All researchers independently reviewed all transcripts and identified

themes and categories. The process of theme and category identification continued until there was 100% agreement.

**Results:** Three themes were identified that will unleash affinity for and achievement in healthcare professions: augmenting student capability, enhancing parental competence and enlisting potential collaborators. Within these themes are the following categories:

Augmenting Student Capability:

- Academic support (skill building, tutoring, and math and science enrichment and development)
- Building confidence (skill building, communicating academic expectations, helping support “can do this” attitude)
- Opening up the possibilities (early exposure, exposure over time, removing biases and stereotypes, exposure to various healthcare careers)
- Dealing with individuals (not blanketing issues, dealing with health issues, start with the basics)

Enhancing Parental Competence:

- Parental support (helping parents through the process, educating them about possibilities, making value of education understood, understanding college expectations)
- Process (communication, intentional about the outcomes, written information about career paths)
- Trust (addressing issues of health equity, lack of trust in healthcare providers, community perception, and awareness of options available)
- Finances (parents and students need to understand their financial situation, scholarship opportunities, how to apply for financial aid, how to apply for bridge programs)

Enlisting Potential Collaborators:

- Community enrichment (partnering with our community stakeholder groups to support success of the student)
- Mentoring (success by association, description of a concrete pathway to becoming a health provider)
- Opening up the possibilities (early exposure, exposure over time, removing biases and stereotypes, exposure to various healthcare careers)
- Systems of support (bridge between high school and colleges; clubs; mentoring; tutoring; providing school advisors, counselors, teachers and parents accurate information about career options; and college requirements/expectations)

**Conclusion:** Based on the findings, we recommended immediate implementation of pipeline components that do not require funding or require minimal funding, and to start small by partnering with one primary school and one high school. Future work will be needed to assess and develop a plan for a pipeline that focuses on retention and graduation.

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## Contact

[jennifer.ray@uc.edu](mailto:jennifer.ray@uc.edu)

## A 10 - Transforming Nursing Through Education and Collaboration

### A Systematic Review of the Effectiveness of Knowledge Translation Interventions to Promote Evidence-Informed Decision Making Among Nurses in Tertiary Care

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*Jennifer Yost, RN, PhD, Canada*  
*Rebecca Ganann, RN, MSc, Canada*  
*David Thompson, RN, MN, Canada*  
*Fazila Aloweni, RN, MSc, Singapore*  
*Kristine Newman, RN, CRN (C), PhD, Canada*  
*Afeez Hazzan, MS, Canada*  
*Ann McKibbin, MLS, PhD, FMLA, Canada*  
*Maureen Dobbins, RN, PhD, Canada*  
*Donna Ciliska, RN, PhD, Canada*

#### Purpose

disseminate the findings of a systematic review which considered whether knowledge translation interventions are effective improving the knowledge, skills, and behaviours needed research evidence use in decision making among nurses in tertiary care and patient outcomes as result of research use; and the contextual factors for why these interventions “work”.

#### Target Audience

researchers advancing the field of knowledge translation and nursing leaders who are charged with implementing research evidence in practice to promote positive client outcomes. These leaders include researchers, faculty, nurse executives, nurse managers, advanced practice nurses, and nurses providing direct client care.

#### Abstract

**Purpose:** To improve the quality of client care, nurses are increasingly expected to engage in evidence-informed decision making (EIDM); the use of research evidence along with information about patient preferences, clinical context and resources, and clinical expertise in decision making (American Nurses Association; Canadian Nurses Association, 2013; DiCenso, Ciliska, & Guyatt, 2005; Kitson, 2004; Nursing & Midwifery Council, 2008; Sigma Theta Tau International Honor Society of Nursing, 2005). It is believed, however, that the use of research evidence by nurses is not optimal (Squires et al., 2011). Knowledge translation (KT) interventions, such as education, reminders, and champions, have been identified as ways to increase EIDM among health care professionals, including nurses (Grimshaw, Eccles, Lavis, Hill, & Squires, 2012). Previous systematic reviews, however, have largely focused on the effectiveness of these interventions among physicians and allied health professionals. Only one systematic review (Thompson, Estabrooks, Scott-Findlay, Moore, & Wallin, 2007) has considered the effect of KT interventions upon nurses’ research use. As such, there is a lack of synthesized evidence in regards to the effectiveness of KT interventions among nurses, especially in regards to promoting EIDM knowledge and skills. To address this gap and inform the real-world questions of decision makers who are in a position within their organizations to influence the uptake of the findings to promote EIDM, the objectives of this project were to determine: 1) if KT interventions are effective for promoting EIDM knowledge, skills, and behaviours among nurses, 2) if KT interventions for promoting EIDM knowledge, skills, and behaviours among nurses effective for changing client outcomes; and 3) what contextual factors which shape the effectiveness of the interventions.

**Methods:** To address these objectives, a systematic review was conducted. Using an integrated KT approach, the research team engaged partners from two academic health centres in Ontario and an advisory committee which included frontline practitioners (nurses, advanced practice nurses) and nurse decision makers (nurse managers, nurse educators) from these health centres, as well as representatives from provincial and national organizations (Canadian Nurses Association and the Registered Nurses Association of Ontario) (Canadian Institutes of Health Research, 2013). The partners and advisory committee members provided input into the methodology of the systematic review. A search strategy for

published and unpublished literature identified relevant articles. This strategy included a search of electronic bibliographic databases, handsearching of the references lists of included studies and key journals, and searches of key sources of grey literature (i.e. Open Grey (<http://www.opengrey.eu/>); National Institutes of Health Science of Dissemination and Implementation conferences ([http://obssr.od.nih.gov/scientific\\_areas/translation/dissemination\\_and\\_implementation](http://obssr.od.nih.gov/scientific_areas/translation/dissemination_and_implementation)), and Joanna Briggs Institute (<http://joannabriggs.org/>). Articles retrieved from the search were screened independently by two reviewers. Articles were deemed relevant if they: 1) focused on nurses, defined as registered nurses and advanced practice nurses (including clinical nurse specialists, nurse practitioners), 2) were conducted in tertiary care, 3) implemented any KT intervention; a list of KT interventions was compiled from a review of previous systematic reviews in KT, 4) considered the outcomes of EIDM knowledge, skills, and behaviour, and patient outcomes as a result of EIDM behaviours, and 5) was a systematic review, randomized controlled trial (RCT), cluster RCT, non-randomized controlled trial, cluster controlled trial, interrupted time series design, or prospective cohort study, qualitative study (i.e. descriptive, phenomenology, grounded theory), or mixed methods study. A third reviewer was available to resolve discrepancies not achieved through consensus, as agreement was necessary for inclusion during full-text screening. Risk of bias assessments and data extraction were performed by two independent reviewers, with a third reviewer to resolve discrepancies. Cochrane Risk of Bias was used to assess quantitative studies (Higgins et al, 2011) and The Joanna Briggs Institute Qualitative Assessment and Review Instrument (QARI) was used to assess qualitative studies (The Joanna Briggs Institute, n.d.). For mixed methods studies, assessment of methodological quality was completed separately for quantitative methods and the qualitative methods using the aforementioned criteria. Included studies were synthesized using narrative and meta-analytic methods.

**Results:** Of the 44, 608 articles screened, 33 articles met the inclusion criteria (five RCTs, six cluster RCTs, five non-randomized controlled trials, five cluster controlled trials, eight qualitative descriptive studies, and two grounded theory studies, and two mixed methods studies. Although the original intent was to include systematic reviews and prospective cohort studies, the research team and partners determined that due to differences in the questions and objectives of the systematic reviews retrieved that they would only be included to inform the search and that given the relatively large number of high-level studies that met the inclusion criteria (i.e. RCTs, cluster RCTs, non-randomized controlled trials, and cluster controlled trials) that the prospective cohort designs representing low-level evidence would not be included in the synthesis. The included studies were conducted in various countries and within different clinical areas within tertiary care. The majority of KT interventions implemented were multifaceted and, with the exception of the two single component interventions that implemented either computerized decision support or access to a library system, the interventions included an educational aspect. Educational meetings were implemented most often, followed by educational materials, and educational outreach visits. A range of innovative KT interventions unique to nursing, not captured well within traditional categorizations of KT interventions, were also identified. While none of the included studies examined the effect of the KT interventions on EIDM knowledge and skills, they did evaluate the implementation of interventions to promote engaging in EIDM behaviours (i.e., searching for the best available evidence, critically appraising research evidence) or the use of research evidence (i.e., an evidence-informed guideline, protocol, pathway) for practice change, as well as patient outcomes as result of nurses use of research evidence. While the majority of the studies were synthesized narratively, a meta-analysis of two studies identified that EIDM behaviours did not significantly increase as a result of a multifaceted intervention which involved educational meetings and mentorship [mean difference 2.7, 95% CI (-1.7 to 7.1)]. Findings from qualitative and mixed methods studies identified barriers and facilitators to implementation consistent with the literature. Context and leadership were determined to be important factors influencing the implementation of KT interventions for supporting the use of research evidence in practice. Across all of the included studies there was variation in the clinical areas, interventions (i.e. components, intensity), and measurement of the outcomes which prevented conclusions about the relative effectiveness single or multifaceted KT interventions, as well as aspects of multifaceted KT interventions. While further work is needed to determine the most effective intervention to promote EIDM among nurses in tertiary care, some of the KT interventions identified in this systematic review do show promise.

**Conclusion:** This systematic review addressed a gap in the literature and was also relevant, timely, and useful for the partners involved. Interventions to enhance the EIDM behaviours and patient outcomes

among nurses in tertiary care are being implemented and evaluated. Although the recommendations for the implementation of specific KT interventions cannot be drawn, decision makers can refer to the synthesis of the included studies to assist in selecting KT interventions which may be able to be applied to their local context in order to promote evidence-informed nursing practice for the delivery of quality client care. Furthermore, recommendations for nursing research and nursing education became apparent during the synthesis of the included studies. Nurses engaging in formal research projects and quality improvement projects are encouraged to enhance the reporting the details of the KT intervention being implemented. In addition, methodologies such as interrupted time series studies and mixed methods designs would improve the rigour of the evaluations being undertaken and further an understanding of the context in which KT interventions “work”.

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## Contact

[dsthomp1@lakeheadu.ca](mailto:dsthomp1@lakeheadu.ca)

## A 10 - Transforming Nursing Through Education and Collaboration

### Student and Faculty Collaboration: Revising a Mentorship Model

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

#### Purpose

The purpose of this presentation is to describe the collaborative process used to revise a practicum mentoring model for online students and outcomes from use of this model.

#### Target Audience

The target audience of this presentation is nursing students, educators, researchers, and clinicians.

#### Abstract

**Purpose:** Students completing a master's in nursing degree in my online program are required to complete a practicum project working with a master's prepared mentor. During the practicum, students implement a scholarly project to meet an educational need or administrate a project in a facility, such as the workplace, or in the community. Given that students have no face-to-face contact with faculty who supervise the capstone practicum course, effective mentors are critical to student success. The purpose of this presentation is to describe the collaborative process used to revise a practicum mentoring model and outcomes from use of this model.

**Methods:** The practicum course is divided into two parts. During part A, students develop a self-directed learning agreement. In part B, students report on their projects and submit all evidence of fulfillment of their learning agreement. The model was initially developed through a qualitative study that included content analysis of student reports (n=263 representing 28 part A classes) of characteristics of effective mentors and then Part B student confirmation of the identified categories. The major categories of characteristics of effective mentors were organized into a pyramid-shaped mentorship model for online program practicum experiences. The base or foundation of the pyramid is comprised of mentor characteristics including background, experience, and education. The central core of the pyramid is formed by mentor qualities and ways the mentor interacts with the mentee (resourceful, inspires and challenges, caring relationship). I presented this model at an international conference and dialogue with the audience suggested the need to refine the model.

Consistent with the collaborative approach used for initial development, to allow for student collaboration in model refinement, I posted the model and supporting materials in 5 (n=65) practicum B classes for student input. Based on their recommendations, the mentor qualities and characteristics are reorganized within the pyramid. They believed that the bottom of the pyramid that includes the two cornerstones is the foundation of the model. Thus, the two cornerstones are now *nursing knowledge* and *nursing experience*, for without these two key elements, there is not a profession known as *nursing*. Interconnected between the two cornerstones, in the middle and a very important part of the foundation is *caring*. The core of the model is now *Resourceful* with the apex being *Inspire and challenge*. Professional ladder categories (*educator, clinician, researcher, manager*) support the base and the core of the model. Once these changes were made, I posted the model in 4 (n = 52) practicum B classes and students confirmed that this model represented their positive experience with their mentor.

**Results:** Students in part A of the practicum have been using the model to help them select an appropriate mentor for their project experience. Additionally, they have been sharing the model with their mentors and use it to establish a relationship and determine the best ways that they can work together throughout the project. Students and mentors report that this provides clarity on how to work together, and gives them additional ideas for creative approaches to use. Since using this model, I have had fewer students report negative mentoring experiences in part B.

**Conclusion:** Mentors play a critical role in guiding, supporting and challenging students to grow personally and professionally throughout the practicum experience, culminating in attainment of a master's degree in nursing. This refined mentorship model that is specific to a practicum conducted in the

context of an online program facilitates appropriate selection of mentors and suggests ways that mentors and mentees can work effectively together.

Contact

[mklakovich@apu.edu](mailto:mklakovich@apu.edu)

## B 03 - Health Promotion Strategies in the Older Population

### Robotic Pets as Companions for Socially Isolated Older Adults

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*Nancy E. Edwards, PhD, MS, ANP-BC, USA*

*Alan M. Beck, ScD, USA*

#### Purpose

To describe the influence of robotic dogs on depressive symptoms, morale, and life satisfaction in socially isolated older adults

#### Target Audience

Individuals who provide care to older adults and individuals who are interested in animal assisted therapy.

#### Abstract

**Purpose:** Robotic animals have been used in a variety of ways with older adults. Robotic animals have been used in a service function as assistive or physical aides and as an entertainment or companion role. Human interactive robots for entertainment and companionship are increasing in interest and research applications. This project examined the influence of a 6 week interaction with a robotic dog (AIBO) on depressive symptoms, morale and life satisfaction in socially isolated older adults.

**Methods:** Fifteen older adults interacted with AIBO in their room in an assisted living facility for 6 weeks. The individuals kept the dog in their home for the duration of the study. The individuals lived alone, were over 65 years, had a MMSE over 23 and did not have a pet. Baseline data on morale, depressive symptoms and life satisfaction was obtained. Two weeks later AIBO, a robotic dog, was introduced and allowed to stay with the individual for 6 weeks (Week 8). Participants were invited to interact with AIBO as often as they liked and could do whatever activities they chose. Data collection was completed at the completion of the study. Video recordings of the adult/AIBO interactions were obtained at week 2, week 5 and at week 8 when AIBO was removed.

**Results:** The sample included 13 female and 2 males with a mean age of 84. The majority were Caucasian. The participants reported increased physical activity and socialization while they had the dog as noted in their daily journal. Paired sample T tests were conducted and found a significant increase in life satisfaction ( $p < .05$ ) and morale ( $p < .01$ ) was noted while a significant decrease in depressive symptoms ( $p < .05$ ) was reported after a six week interaction with the robotic dog (AIBO). In addition, at the completion of the study the participants identified that AIBO could serve as a companion.

**Conclusion:** Although human to human interaction is best and human to animal is next, robotic animals can elicit some of the positive feelings that are commonly associated with live animals. Robotic dogs can act as companions and are associated with increased life satisfaction, morale and decreased depressive symptoms in socially isolated older adults. Individuals who live alone and cannot have pets may benefit from the companionship of robotic pets.

#### Contact

[edwardsn@purdue.edu](mailto:edwardsn@purdue.edu)

## B 03 - Health Promotion Strategies in the Older Population

### The Significance of Walking Speed in Physical Function Among a Group of Community Dwelling Older Adults

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*Jie Yu, PhD, RN, USA*

#### Purpose

The purpose of this presentation is to explain and demonstrate the significance of the single variable of walking speed in physical function among independent living older adults.

#### Target Audience

The target audience of this presentation is for any health care professionals who are interested in promoting physical function in the gerontology population.

#### Abstract

**Purpose:** The purpose of this study was to describe the extent to which the variable walking speed correlated with the modified physical function, which was measured by the combination of balance and sit-to-stand tests.

**Methods:** The study sample included 70 community living older adults. Subjects were screened for cognitive function with the Mini Mental State Exam (MMSE) and physical function data were collected using the Short Physical Performance Battery (SPPB).

**Results:** Results of this study showed that there was significant correlation between walking speed and physical function; therefore it was reliable to use walking speed as a sole surrogate of the assessment of physical function.

**Conclusion:** This study further supports the significance of walking speed in the assessments of physical function in the elderly. Findings from this study provide valuable information regarding the contributive value of walking speed in physical function and disability status, especially for frail elderly who have difficulties completing complex battery physical function tests. Researchers can be better prepared in determining the direction and developing specific interventions to maintain physical function among the elderly, such as implementing some smart home technologies to closely monitor the changes of functional status on a daily basis.

#### Contact

[jyu@apu.edu](mailto:jyu@apu.edu)

## B 04 - Psychiatric Education and the Nursing Student

### Motivating Nursing Students to Intervene with their Psychiatric Clients who Use Tobacco

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Rhonda Garrett Schwindt, DNP, RN, PMHCNS-BC, USA

#### Purpose

The purpose of this presentation is to discuss the integration of comprehensive tobacco education into undergraduate psychiatric/mental health nursing curricula and describe the effect of a theory-based, hybrid tobacco education program on the competence and motivation of baccalaureate nursing students to intervene with psychiatric clients who use tobacco.

#### Target Audience

The target audience for this presentation is nursing faculty who teach in undergraduate and graduate nursing courses. Findings also have implications for nurse educators working in practice settings to improve quality of care for psychiatric clients who use tobacco.

#### Abstract

**Purpose:** The purpose of this study was to assess the effect of a hybrid, online education program using Self-Determination Theory as a guiding framework, on the autonomous motivation and perceived competence of baccalaureate nursing students (BSN) to intervene with psychiatric clients who are tobacco dependent.

**Methods:** A one-group, pre-test/post-test study design was employed with a purposive sample of 120 junior BSN students enrolled in a three-credit hour psychiatric/mental health nursing course at a large university-affiliated school of nursing.

**Results:** The integration of the tobacco education program significantly improved the perceived competence and autonomous motivation of BSN students to deliver cessation interventions to their psychiatric clients who smoke.

**Conclusion:** Findings highlight the need for curricular change in undergraduate psychiatric/mental health nursing in order to increase the number of entry-level nurses proficient in tobacco cessation interventions.

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Contact

[rschwind@iupui.edu](mailto:rschwind@iupui.edu)

## B 04 - Psychiatric Education and the Nursing Student

### Factors Affecting Assessment of Student Nurses` Clinical Practice: A Phenomenographic Exploration of the Experiences and Understanding of Mentors of a Mental Health Service in England

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*Peter Thomas Sandy, RMN, BSc (Hons), PGCertED, PGDipED, MSc, PhD, South Africa*  
*Azwihangwisi Mavhandu-Mudzusi, PhD, RN, RM, South Africa*

#### Purpose

The purpose of this presentation is to share mentors experiences and understanding of factors that effect student nurses` clinical assessments in secure forensic mental health settings

#### Target Audience

The target audience of this presentation includes mental health nurses, nurse educators, mental health service users, nurse managers and other mental health practitioners.

#### Abstract

**Purpose:** The purpose of this study was to explore mentors` experiences and understanding of factors that may affect student nurses` clinical assessments.

**Methods:** This study utilised a phenomenographic methodology and was conducted in a mental health Trust in England. 30 mentors, all registered mental health nurses, participated in the study. Data were collected using five focus group interviews of six participants each. Data were analysed thematically using Sjöström and Dahlgren approach to analysis.

**Results:** There are multiple factors that may affect clinical assessment of student nurses. Examples of these include anxieties of assessment, student numbers, placement duration, transparency and the nature of learning outcomes. The presence of multiple influential factors makes it practically impossible for mentors to achieve absolute reliability of clinical assessments. Recommendations, such as partnership working with link lecturers and use of protected time were offered to improve the quality of assessments.

**Conclusion:** Assessment of students` clinical performance is a significant and rewarding responsibility, but challenging as well. Mentors need ongoing training and support to improve the quality of students` assessments.

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#### Contact

[sandypt@unisa.ac.za](mailto:sandypt@unisa.ac.za)

## B 04 - Psychiatric Education and the Nursing Student

### Comparison with the State Level As Well As the Relationship of Stress, Resilience and Psychological Health Between U.K. and China: A Newest Cross-Sectional Global Study in Undergraduate Nursing Students

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*Fang Yang, PhD, RN, China*

*Graeme D. Smith, RN, BA, FEANS, PhD, United Kingdom*

#### Purpose

The purpose of this presentation is to explore the state level and the relationship of stress, resilience, and psychological health in nursing students between UK and China, as well as searching effective way to ease stress and psychological distress in nursing education program and make more healthy for this participates.

#### Target Audience

The target audience of this presentation is for global nursing educator as well as the nursing staff in hospital and community.

#### Abstract

**Purpose:** To explore the state level as well as the relationship of stress, resilience, and psychological health in nursing students between UK and China, with the purpose of searching for a strategy to forming an effective way to ease stress and psychological distress in nursing education program and make more healthy for this participates.

**Background:** Stress and psychological distress in student nurses has been widely demonstrated and present globalization trend including UK and China. Resilience has been described as a personal resource that can influence an individual's ability to cope with the negative effects of stress for their better life adaptation and health. To date, little research has been done to examine the relationship of both stress and psychological health with resilience in these population, especially combined with UK and China.

**Design:** A descriptive cross-sectional study.

**Methods:** To collect the data, Resilience Scale, Stress in nursing students Scale and General Health Questionnaire-12 were used. 1538 Chinese nursing students were investigated for making assessment for multiple dimensions of Resilience, Stress and Psychological Health. Descriptive statistic analysis, correlation analysis as well as stepwise multiple regression analysis were examined on matching pairs of data. Convenient sampling method were used for this study. Then the result was been compared with the UK study for the state level of the same undergraduate nursing students measured by the same Stress in nursing students Scale and General Health Questionnaire-12. Data were analyzed by SPSS18.0.

**Results:** The mean score of resilience was 121.84 (SD=21.30). A comparison of the scores for the dimensions of the SINS showed a relative difference in terms of mean scores and in descending order. The sample ranked themselves as "clinical" (M=31.12, SD=8.18), "fininance" (M=17.35, SD=5.48), "confidence" (M=17.14, SD=5.15), "education" (M=14.43, SD=4.06). The mean score of psychological health was 6.20 (SD=1.83). Resilience was found to be related significantly with stress and psychological health with the correlation coefficient is -0.195 and 0.064 respectively. Besides, four sub-scale of resilience are also highly correlated to stress and psychological health except meaningfulness in these participants. Compared with UK, the state level of Stress and Psychological Health of Chinese nursing students was in the same high level.

**Conclusion:** This study illustrated that resilience was a stronger predictor of stress and psychological health including in China and UK. Future research will be carried out to implement the strategies or interventions including conducting nursing education programs and competencies in enhancing resilience in global nursing research.

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### Contact

[yangfanglwy98@163.com](mailto:yangfanglwy98@163.com)

## B 05 - Health Promotion and Disease Prevention in the Diabetic Patient

### Factors Associated with Metabolic Syndrome Among Thai Women

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*Sununta Youngwanichsetha, PhD, Thailand*

#### Purpose

The purpose of this presentation is to show factors associated with metabolic syndrome among Thai women in order to share with scholars and researchers working on metabolic syndrome.

#### Target Audience

The target audience of this presentation is scholars and researchers working on metabolic syndrome including medical, nursing and public healthcare providers, and graduated student.

#### Abstract

**Purpose:** This study aimed to describe factors associated with metabolic syndrome among Thai adult women.

**Methods:** A cross-sectional analytic research was designed and carried out in a tertiary hospital located in southern Thailand. Systematic random sampling was used to select the participants (n=120) from the potential clients with metabolic syndrome (n=360). Data were collected through the metabolic syndrome questionnaire on risk behavior concerning dietary intake, physical activity and exercise.

**Results:** Results showed that significant factors associated with the metabolic syndrome among Thai adult women were: 1) current body weight, 2) current body mass index, 3) presence of abdominal obesity, 4) a history of overweight or obesity, 5) a history of consuming sweetened drink or disserts, 6) a history of consuming processed food containing high fructose corn syrup, 7) a history of consuming animal fat, 8) a history of gestational diabetes mellitus, 9) a history of gestational hypertension or preeclampsia, 10) a history of postpartum impaired glucose tolerance, or impaired fasting glucose, 11) taking care of two children or more, and 12) lack of regular exercise.

**Conclusion:** In conclusion, a history of overweight or obesity and lack of exercise are two main leading causes of metabolic syndrome. These findings should be used to empower and promote self-management to restrict unhealthy eating and motivate regular exercise, in particular for adult women with a history of gestational diabetes, gestational hypertension or preeclampsia.

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Table 1. Characteristics of Thai women with the metabolic syndrome (n=245)

Characteristics	Min	Max	Mean	SD
Age (years)	20-29	30	12.25	30-39
Education level	150	61.22	40-45	65
Primary school	35	14.29	High school	48
Vocational school	99	40.41	Bachelor's degree	63
Current employment	Yes	135	55.10	No
Income (USD)	100-300	28	11.43	301-600
182	74.28	601-900	35	14.29
Number of pregnancies	1	58	23.67	2
122	49.80	3 or more	65	26.53

Table 2. Values of the characteristics and the metabolic risk profiles of the participants (n=245)

Demographics/Characteristics	Min	Max	Mean	SD
Age (years)	28-42	33.15	4.29	Current body weight (kg)
56-96	71.35	10.84	Highest previous body weight (kg)	
62-105	76.25	10.52	Current body mass index (kg/m <sup>2</sup> )	
26.50-37.0	29.68	3.33	Waist circumferences (cm)	
79.2-88.0	83.75	2.50	Triglycerides (mg/dL)	
120-345	197.57	60.22	HDL-cholesterol (mg/dL)	
37.80-86.60	60.02	14.78	Fasting plasma glucose (mg/dL)	
113-139	122.36	8.82	Systolic blood pressure (mm Hg)	
138-160	145.64	5.69	Diastolic blood pressure (mm Hg)	
85-106	89.71	5.22		

Table 3. Factors associated with the metabolic syndrome among Thai women

Associated factors	Correlations	p-values
Age	0.166	0.488
Current body weight	0.622**	0.003
Body mass index	0.746**	0.000
Body fat (skin fold > 2 cm)	0.454*	0.044
A history of consuming sweetened drink or desserts	0.454*	0.044
A history of consuming processed foods	0.787**	0.000
A history of consuming foods containing high fructose corn syrup	0.471*	0.036
A history of consuming animal fat	0.471*	0.036
A history of overweight or obesity	0.647**	0.002
A history of gestational diabetes mellitus	0.489*	0.032
A history of gestational hypertension or preeclampsia	0.612**	0.004
A history of postpartum impaired glucose tolerance	0.739**	0.000
A history of cardiovascular disease	0.651**	-0.583**
Regular exercise	0.003	0.007

\*. Correlation is significant at the 0.05 level (2-tailed) \*\*. Correlation is significant at the 0.01 level (2-tailed)

## Contact

[sununta.y@psu.ac.th](mailto:sununta.y@psu.ac.th)

## B 05 - Health Promotion and Disease Prevention in the Diabetic Patient

### Relationships Among Locus of Control, Psychology Status and Glycemic Control in Type 2 Diabetes

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Shu-Ming Chen, PhD, Taiwan

#### Purpose

The purpose of this presentation is to determine whether the factors of locus of control, self-efficacy, depression, and self-care behavior relate to glycemic control in type 2 diabetes.

#### Target Audience

The target audience of this presentation is clinical nurse

#### Abstract

**Purpose:** The purpose of this study was to determine whether the factors of locus of control, self-efficacy, depression, and self-care behavior relate to glycemic control in type 2 diabetes.

**Methods:** We used a descriptive correlational design. Convenience sampling was applied to enroll 285 subjects from diabetic outpatient clinics in Southern Taiwan. We applied the locus of control, self-efficacy, depression, and self-care behavior questionnaires. Glycemic control was assessed by HbA1c measures.

**Results:** The internal locus of control was significantly positively correlated with self-efficacy and self-care behavior, and significantly negatively correlated with depression. Combined depression and self-efficacy partly mediated the relationship between internal locus of control and self-care behavior ( $P < .01$ ), and completely mediated the relationship between external locus of control and self-care behavior ( $P < .01$ ). Depression and baseline HbA1c directly and significantly affected HbA1c post value. Higher depression had the worst HbA1c levels. We integrated optimal self-care behavior requiring a high internal locus of control, self-efficacy, and low depression to influence enhanced glycemic control.

**Conclusion:** This finding could form a basis for caring people with type 2 diabetes and provide a reference for further research.

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#### Contact

[marine.chen1@gmail.com](mailto:marine.chen1@gmail.com)

## B 05 - Health Promotion and Disease Prevention in the Diabetic Patient

### The Experiences of Siblings Living with a Child with Type 1 Diabetes

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*Donna Freeborn, PhD, FNP, CNM, USA*

*Tina Dyches, PhD, USA*

*Susanne Olsen Roper, PhD, USA*

*Barbara L. Mandleco, PhD, RN, USA*

#### Purpose

The purpose of this presentation is to explore the experiences of siblings living with children with type 1 diabetes.

#### Target Audience

Nurses and nurse practitioners who provide care to children and families with type 1 diabetes.

#### Abstract

**Purpose:** Diabetes is one of the most common chronic diseases in childhood and adolescence in the United States and currently affects roughly 215,000 people under the age of 20. Approximately one in every 400 children has been diagnosed with type 1 diabetes, and every year more than 13,000 young people are newly diagnosed with the disease.<sup>1</sup> Indeed, this chronic illness affects all family members, including mothers, fathers, siblings and the child, as it is a disease with physical and emotional ramifications<sup>6</sup> requiring lifestyle changes involving diet modification, blood glucose monitoring, and insulin administration. In fact, it is not uncommon for families raising children/adolescents with diabetes (CWD) to focus a fair amount of attention on making sure these children/adolescents do not experience major health complications. Researchers who study chronic illness in families have long acknowledged the importance of examining the entire family, instead of focusing only on the afflicted member. The importance of the siblings has also been underscored by research indicating sibling relationships are linked to many aspects of a child/adolescent with diabetes' adaptation. The purpose of this study was to explore the experiences of siblings living with a child with type 1 diabetes.

**Methods:** Fifteen families were recruited from Diabetes Management clinics and Diabetes camps. Most families (40%) earned between \$75,001-\$100,000/year and were Caucasian (86.6%). All fathers worked full-time with an average of 47 hours/week and about half of the mothers (46.6%) worked full or part-time with an average of 4.67 hours/week. Seven males and 6 females participated in the focus groups; the mean age of the siblings was 10.69 years.

Siblings were interviewed and asked 7 questions after receiving IRB approval and assent/consent. The primary investigator and three research assistants transcribed the audio-taped interviews verbatim, and then examined the transcripts for common patterns and themes. Direct quotes best illustrating the themes were chosen to represent these themes. To ensure confidentiality, all identifying data was removed at the time of transcription. To ensure accuracy, transcribed interviews were reviewed by an alternate research assistant.

**Results:** Participants all knew that their sibling had type 1 diabetes. Major themes included: minimal knowledge about diabetes; misunderstandings about the disease; not being personally affected; and, awareness of increased parental stress due to diabetes. Most siblings did not have a lot of knowledge about diabetes. Although many were familiar with diabetic terms such as 'glucose', 'highs/lows', 'pumps', etc.; they were generally not aware of what these terms meant. Many siblings also seemed to misunderstand diabetes management, illustrated by the following comment from (6 year old female) "...so like he eats something get he'll...he'll die. Well he won't die he'll just have to battle for it. And he won't have anything to help it. I know there's something to help it. And I know what it's called...I know what it's called but I forgot." Participants also did not feel affected by their sibling's diabetes as described by a 16 year old female: "... you just kind of get used to it after a while. You just hardly notice it. I don't even know that she has diabetes...promise you, you will not notice it." Although they did not feel that type 1 diabetes

affected them, participants were aware that their parents were very affected. They described financial worries, diabetes management difficulties, and parental stress in general. Most participants wanted to know more about diabetes and how they could help their sibling.

**Conclusion:** Previous research shows having a chronic illness like diabetes has a significant impact on the individual, but little research has been conducted to determine the effects on siblings. This study revealed some interesting information that may be beneficial to additional research and practice: most siblings seemed unaware and have a lot of misunderstanding about diabetes and how it is managed. However, these siblings would like to learn more and be able to help/support their brother/sister with diabetes. Families of children with diabetes could benefit by receiving additional information about how diabetes affects siblings of diagnosed individuals. Healthcare providers would also greatly benefit in knowing how to better offer support to these siblings and how to educate and involve them in caring for their brother or sister.

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### Contact

[donnafreeborn@byu.edu](mailto:donnafreeborn@byu.edu)

## B 09 - Global Research in the Acute Care Setting

### A Case-Control Study on Predictors and Outcomes of Unplanned Extubation in Mechanically Ventilated Critically Ill Patients

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*Eunok Kwon, PhD, RN, CCNS, South Korea*

*Kyung Sook Choi, PhD, RN, South Korea*

#### Purpose

The purpose of this presentation is to find out predictors & outcomes of unplanned extubation in mechanically ventilated critically ill patients. Delirium, agitation, ventilation mode and night shift are high predictive factors of unplanned extubation.

#### Target Audience

The target audience of this presentation is critical care nurses in hospital & professors who teaching critical care nursing in nursing school.

#### Abstract

**Purpose:** To find out predictors & outcomes of unplanned extubation in mechanically ventilated critically ill patients.

**Methods:** Research design is a case-control study over 3 years period from January 1,2010 through December 31,2012. Settings is A 62-beds medical & surgical intensive care unit of 1800 beds tertiary hospital. Data were retrospectively collected from electronic medical records. A total 230 episodes of deliberate unplanned extubation in 242 patients from 41,207 mechanically ventilated patients for 3 years(frequency 0.53%). 460 episodes in 460 patients with planned extubation age, gender & diagnosis-matched controls were analyzed in this case-control study.

**Results:** Predictors associated with unplanned extubation include better motor response (OR 1.3), admission route via ER(OR 1.8),higher APACHE II score(1.061), mode of mechanical ventilation (CPAP, PSV: OR4.1, SIMV:3.0), peripheral O<sub>2</sub> saturation(OR:0.9), heart rate(OR: 1.0), respiration rate(OR:1.0), pain (OR:0.3), agitation(OR:9.0), delirium(OR:11.6), night shift(OR:6.0)and morning care time(OR:0.5). The patients' & organizational outcomes of unplanned extubation were reintubation(OR;85.66), a poor discharge result(OR:0.2), a longer length of stay in the ICU (adj R-square:7%)and a longer length of stay in the hospital(adj R-square:4.3%).

**Conclusion:** Delirium, agitation, ventilation mode and night shift are high predictive factors of unplanned extubation. The outcomes of unplanned extubation were increasing reintubation, a poor patient outcome at the time of discharge and poor organizational outcome including longer length of stay in the ICU and hospital.

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#### Contact

[wan3535@snuh.org](mailto:wan3535@snuh.org)

## B 09 - Global Research in the Acute Care Setting

### Mixed Methods: Ideal for Research in the Emergency Department

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*Joanne Porter, PhD, MN, GradDipHSM, GradDipCC, GradCertHEd, BN, RN, Australia*

#### Purpose

The purpose of this presentation is to present the findings of a mixed methods research study on family presence during resuscitation in the emergency department explaining the importance of this approach.

#### Target Audience

The target audience of this presentation is clinicians and researchers alike. The presentation will outline the data collection tools and findings of this mixed methods study with an emphasis on the complexities of research in the emergency clinical setting.

#### Abstract

**Purpose:** The aim of this paper is to report the findings from a Mixed **Methods** PhD study which incorporated a two phase approach to investigating the implementation and practice of family presence during resuscitation (FPDR) in the emergency department. The practice of allowing family to be present during resuscitation has been debated among clinicians working in emergency departments since the early 1980's. There remains cause for further investigation with evidence that the practice and implementation of FPDR continues to remain inconsistent. FPDR in both adult and paediatric resuscitations was formally endorsed in the year 2000 by leading Emergency Associations and Resuscitation Councils<sup>1</sup> who were responsible for releasing practice guidelines. This study aimed to investigate the implementation and practice of FPDR with the objective of identifying the benefits, barriers and enablers<sup>2</sup>, evaluating the role of the family support person, and assessing the level of education and training in rural and metropolitan emergency departments, in Victoria, Australia.

**Methods:** A mixed methods sequential explanatory design was utilized to investigate the extent to which FPDR is implemented and practiced. Phase One disseminated a quantitative questionnaire to ascertain the extent to which emergency personnel endorsed and supported FPDR practice and to explore current training and education. The survey was divided into 5 key interest areas including: demographic data, qualifications, resuscitation team, family presence – personnel attitudes, and training and education. Phase Two incorporated a total of four weeks, in two Victorian, emergency departments, observing adult and paediatric resuscitations. Qualitative data collection tools included a combination of observation field notes, semi-structured audiotaped interviews and resuscitation template notes.

**Results:** A total of 347 questionnaires were included in the final data set with a 27% response rate representing emergency personnel from rural and metropolitan emergency departments in Victoria, Australia. Descriptive and inferential statistics were used to describe the population followed by a factor analysis of the 26 statements on FPDR. A total of 65 doctors and 282 nurses completed the questionnaire, with a mean age of 37.2 years and a mean of 7.8 years working emergency care. The doctors (77%, n=50) and nurses (79%, n=222) believed that family had a right to be present during resuscitation events and that it helped with the grieving process (54% of doctors and 62% of nurses). The staff greatly agreed that a designated support person was essential when allowing family to be present (89% of doctors and 92% of nurses)<sup>3</sup>. Following a content analysis of the open ended responses the acronym ER-DRIP was developed which helped to define the essential information that family required during a resuscitation event<sup>4</sup>. The acronym stands for E-emergency personnel, R-reassurance, D-diagnosis, R-regular updates, P-prognosis. During the observations in Phase Two of the study a total of 29 interviews were conducted together with observation of six rural and 18 metropolitan resuscitations. The interviews were audiotaped and later transcribed for analysis. A content analysis was conducted and six major themes emerged including; the importance of the care coordinator, balance of power, delivering bad news, life experience generates confidence, allocating roles and family centre care in action.

**Conclusion:** In order to investigate complex emergency issues such as FPDR a Mixed Methods approach was essential and yielded a rich data set that lead to the development of a number of future recommendations in training and education, practice and implementation of FPDR in both adult and paediatric resuscitations.

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## Contact

[joanne.porter@monash.edu](mailto:joanne.porter@monash.edu)

## **B 09 - Global Research in the Acute Care Setting**

### **Acute Confusion Among the Patients in Surgical Intensive Care Units**

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*Li Yu Hsiao, RN, Taiwan*

#### Purpose

This study incidence of acute confusion, the related factors and predictors of acute confusion.

#### Target Audience

ICU patients

#### Abstract

**Purpose:** An ICU patient's probability of occurrence of acute confusion is higher than that of a general inpatient. Acute confusion is likely to not only cause accidental injury and prolong ICU stay, but also increase the mortality. Accordingly, this triggers the motivation to explore it. This study incidence of acute confusion, the related factors and predictors of acute confusion.

**Methods:** A descriptive correlational design was adopted. This study recruited patients, transferred to ICU after the surgery and had been in ICU for more than 24 hours as subjects, totaling 263 people.

**Results:** The results showed acute confusion was 79.41% and the incidence was the highest after one day of ICU stay, accounting for up to 33.1% of the population. The predictor of acute confusion was catheterization p-value, which was 0.004 (OR, 13.465; 95% CI, 2.266 ~ 79.99). The age p-value was 0.002 (OR, 2.339; 95% CI, 1.356 ~ 4.033). The pain index p-value was 0.002 (OR, 2.339; 95% CI, 1.356 ~ 4.033). PSQI score p-value was smaller than <0.001 (OR, 1.823; 95% CI, 1.342 ~ 2.475). APACHE II and acute confusion there is a significant positive correlation ( $r = .389$ ,  $p < .000$ ). Linear regression analysis APACHE II ( $R^2 = .092\%$ ,  $P < .000$ ).

**Conclusion:** These four variables are statistically significant and therefore can be the predictor for SICU patients with acute confusion ( $R^2 = 0.538$ ). APACHE II and predictable 9.2% of the variance in acute confusion. It is hoped that this study can be used in clinical practice for early detection of high risk of acute confusion to prevent further damage so that ICU nurses can establish a care model that prevent risk factors of acute confusion and improve the quality of health care.

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## Contact

[vivian12162003@yahoo.com.tw](mailto:vivian12162003@yahoo.com.tw)

## B 10 - Leadership Within the Nursing Workforce

### Engaging Interprofessional Colleagues in a Collaborative Community of Faculty Scholars

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*Maria R. Shirey, PhD, MBA, MS, BSN, RN, USA*  
*C. Elizabeth Bonham, PhD, MSN, BSN, RN, USA*

#### Purpose

to discuss early findings of an interventional mixed methods study designed to test and evaluate the implementation of a formalized Community of Faculty Scholars (CFS) in an academic institution. Leadership strategies used to facilitate the CFS intervention and lessons learned from the experience will also be shared.

#### Target Audience

nurses at any level interested in building scholarly writing capacity.

#### Abstract

**Purpose:** This study evaluated outcomes associated with implementation of an academic Community of Faculty Scholars (CFS).

**Methods:** A correlational, repeated measures mixed methods design was used to answer the research question: What effect does a faculty writing mentoring program have in cultivating a culture of scholarly inquiry? The intervention consisted of three phases. Phase I, used a scholarly writing retreat to inaugurate a CFS. Faculty writing groups paired scholar mentors with scholar fellows for a one year partnership. Phase II, initiated customized strategies to support mentors and fellows. Phase III, entailed celebration and closure. Twenty interprofessional fellows collaborated with five mentors.

In Phases I and III, fellows completed pre/post scales: Inner Strength Scale, Resourcefulness Scale, Climate and Culture Assessment Survey. Program evaluations took place in Phases I, II, and III with number of publications assessed. Paired t-tests analyzed pre/post scale scores. Narrative analysis evaluated qualitative data across phases.

**Results:** Early findings from the one year CFS indicate five (25%) participants published manuscripts, six (30%) had manuscripts in process, and nine (45%) made no progress on manuscript preparation. All participants reported personal benefit from the CFS experience independent of whether or not they experienced publication success. All fellows successfully publishing, however, demonstrated five scholar readiness characteristics: early tenure track participation, individual follow through with commitments, short mentorship requirements, go-getter temperaments, and predisposition to action as compared to contemplation.

**Conclusion:** Although scholarly writing is a hallmark of academic life, faculty members do not report receiving consistent mentoring in this area. Participants in this study reported benefit from the CFS intervention. Faculty members also demonstrated having different scholarly needs at different times. For most benefit, investment in a resource intensive CFS intervention may need to be targeted to faculty members demonstrating scholarly readiness. Further study is needed to identify how best to support faculty members lacking scholarly readiness.

#### Contact

[mrshirey@uab.edu](mailto:mrshirey@uab.edu)

## B 10 - Leadership Within the Nursing Workforce

### Understanding Workplace Reciprocity of Emergency Nurses: A Qualitative Study

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*Christine Marie Corcoran, PhD, RN, FNP-BC, USA*

#### Purpose

The purpose of this presentation is to inform the research community of my dissertation research findings of workplace relationships and reciprocal behaviors of emergency nurses. The findings of this research offer insight into workplace relationships of emergency nurses as well as avenues for further study into workplace relationships of nurses.

#### Target Audience

The target audience for this presentation is the nursing community at large. Yet, more specifically, nursing leadership may be enlightened to the findings of the study to be able to incorporate a better understanding of staff nurses performing direct patient care.

#### Abstract

**Purpose:** Emergency Departments (ED) are unpredictable environments and are well-known for instantaneous change. At one moment, the ED may be relatively quiet and then suddenly ambulances and helicopters arrive with multiple patients from a serious car accident. Typically, nurses are the first healthcare provider encountered by the patient. Given the rapid changes, this is an environment with high levels of stress and more so for the ED nurse (Browning, Ryan, Thomas, Greenberg, & Rolniak, 2007; Spence, Laschinger, & Havens, 1997).

EDs are open for patient care all day, every day. The flow of patients and their reasons for presenting to the ED for care is not predictable. Multiple patients can present to an ED with a variety of healthcare problems and concerns. Prioritization of patient care in EDs is based on the patient's acuity level. Acuity levels are designated by the patient's presenting illness or injuries. This is termed triage. Triage sorts patients according to the severity of illness or injury and how rapidly they require treatment (Sheehy, 2003).

ED RNs care for a multitude of patients at any stage of care. The number of patients in an ED is a census. The census of an ED includes patients who are: awaiting triage, have been triaged and are awaiting care, have had encountered the healthcare provider and care is in progress or pending results of diagnostic tests, are admitted to the hospital and are awaiting bed assignments, and are pending discharge. The census can change at any time as can the acuity level.

Any ED can rapidly transition from low acuity and census levels into high acuity and high census levels at any point during a nurse's shift. The unpredictability of the environment can impact the relationships of the workplace. Unpredictable environments can create stressful situations within workplace relationships. Continued exposure to high levels of stress may have negative effects on organizations (Manzoni & Eisner, 2006; Piko, 1999). Reciprocity is a crucial component of relationships (Chow & Chan, 2008; Flap & Völker 2001). Reciprocity yields productivity. For emergency nurses to maintain effective workplace performance, reciprocity is present within workplace relationships (Bowey & Easton, 2007). Reciprocal workplace relationships facilitate productivity, efficiency, and improved consumer outcomes (Back & Flache, 2008; Carpenter, Bowles, Gintis, & Hwang, 2009; Meeker, 1983). One question propelled this study: What is the emergency nurse's experience of workplace reciprocity?

There is a paucity of research on nurses working in the ED. Most research is clinically based regarding competency and patient outcomes (Dent, 2010; Johnson & Bakas, 2010; Kratz & Mason, 2010; Pines, Shofer, Isserman, Abbuhl, & Mills, 2010). As patient care is the focus and there is a lack of research among healthcare providers, exploring the lived experience of reciprocity among emergency nurses contributed to the current literature on workplace reciprocity. Additionally, the study enhanced the literature on emergency nursing and provides more information regarding the healthcare work environment.

**Methods:** Nurses with three or more years of current emergency nursing experience were recruited using a purposive technique to obtain a convenient sample. Purposive sampling is essential to naturalistic inquiry. Random sampling is not appropriate for conducting a naturalistic inquiry (Erlandson, Harris, Skipper, & Allen, 1993). My focus was to discover the experience of workplace reciprocity among emergency nurses. Purposive sampling technique allowed me to deliberately search for participants because of certain qualities. For this study, currently practicing emergency nurses with three or more years of experience, who were willing to discuss their experiences of workplace reciprocity, were recruited. A sampling method specific to purposive sampling is snowball sampling. Snowball sampling, which is used when studying social groups, relies on referrals from initial participants to solicit another who has experienced similar attributes of the phenomena of interest; thus providing rich data from in-depth interviews (Babbie, 2001; Munhall, 2007; Streubert & Carpenter, 1995). Each participant was interviewed. The data was analyzed and interpreted using Giorgi's Phenomenological Methodology to gain an understanding of the lived experience of workplace reciprocity of emergency nurses. In order to psychologically understand an experience, the experience must be described (Giorgi & Giorgi, 2003). According to Giorgi, exploration of an individual's experience allows for subjective meanings to emerge (Giorgi, 1985). Giorgi's method assisted in clarifying experiences from a psychological perspective. The Giorgi method was not used to interpret or predict outcomes. This method was used to illuminate and understand the lived experience of those interviewed. Specifically, how the participant relived the experience through storytelling.

**Results:** The participants in this study shared their experiences of working with other emergency nurses to better understand workplace reciprocity. The final step in Giorgi's method is synthesis of the essences. Caring is essential to the profession of nursing. For any nurse, the focus is caring for patients. The ED RNs identified that although patient care is the focus, caring for the other ED RN is also important in their workplace relationships. Caring to perform as a reciprocal experience, bridging relationships to gain a sense of connection and to enhance the workplace relationship and how nurses work together (workplace reciprocity). Three aspects impact on caring and workplace reciprocity: technology, balancing, and the ED culture. The technology used in an ED setting affect feelings of caring among ED nurses; thus affecting workplace reciprocity. To have a good team takes a specific balance of nurses, who have personalities and experience that can enhance or hinder the ability to create connections and to allow for bridging of relationships of ED RNs' to foster workplace reciprocity. The culture of the ED, each work shift and the impact that the institution sets forth can affect workplace reciprocity.

The concept of study, workplace reciprocity, was woven throughout all of the essences and when synthesized it identified itself to be an integral part of workplace relationships of ED RNs. Workplace reciprocity between and among ED RNs is influenced by the ED environment, balancing, and technology on caring for patients and each other as seen in the bridging and connection for the purpose of creating and maintaining workplace relationships.

**Conclusion:** Understanding workplace relationships can provide insight into ED culture, balance, and technology impact on the essential essence of caring that nurses possess, which affect the bridging and connections that ED RNs require for workplace relationships. Allowing ED RNs to have control over their environment may yield better outcomes, which are always patient related. To provide balance, assessing ED RN personalities and performance at frequent intervals may aide in retention of staff and prevent burnout of ED RNs. Technology is in place to support nursing practice, not to impede on workplace relationships and care of patient. Recognizing and remembering that the patient, not the computer, is the priority is essential to nursing practice regardless of specialty. Although patient care is primary focus, the business of healthcare is employee focused as to improve consumer outcomes. Take care of the employees and they will take care of the consumer, the patient. Workplace relationships need to be established and nurtured for efficient, productive and effective outcomes. Those outcomes are always patient related for the ED RN.

Two further studies are recommended to examine workplace relationships of ED RNs. An ethnographic study to explore the culture of ED nursing could enlighten the essence of ED Culture identified in this current study. As previously discussed, ED culture affects the caring essence in which the ED RN workplace relationship exists. The second study recommended is a phenomenological study to gain insight into the experience of being an ED RN. Gaining insight into the perspective of being an ED RN

may enlighten the essence of balance identified in this study. Individually and jointly, these two proposed studies could not only add to the literature of nursing workplace relationships but also provide understanding of providing quality patient care in a rapidly changing environment.

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#### Contact

[ccorcoranrn@aol.com](mailto:ccorcoranrn@aol.com)

## C 03 - Health Promotion and Disease Prevention in the Patient with Cancer

### Predictors of Exercise Counseling Behaviors of Oncology Nurses to Women with Breast Cancer Experiencing Treatment-Induced Cancer-Related Fatigue

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*Donna Ho-Shing, PhD, RN, USA*

#### Purpose

To explore the predictors of the exercise counseling behaviors of nurses who care for women undergoing treatment for breast cancer who are experiencing fatigue.

#### Target Audience

registered nurses who care for women undergoing treatment for breast cancer

#### Abstract

**Purpose:** Fatigue is the most common long-term side effect of breast cancer treatment. Exercise is beneficial in managing the fatigue that women experience during and after treatment. Although exercise counseling is included in the National Comprehensive Cancer Network's (NCCN) guidelines for managing cancer related fatigue, many women undergoing treatment for breast cancer have never been counseled to exercise. This reveals inconsistencies between clinical care behaviors and the national treatment guidelines.

There has been limited empirical research of factors that influence the exercise counseling behaviors of nurses who care for women undergoing treatment for breast cancer who are experiencing fatigue. This study explores the predictors of the exercise counseling behaviors of nurses who care for these women.

**Methods:** This study uses a theoretical approach to address the factors that predict the improvement of patient outcomes. According to the Common Sense Model of Self-Regulation (1997) contextual factors (such as one's knowledge and experience) and treatment beliefs influence illness management behaviors.

A descriptive correlational design was used. The sample included 126 registered nurses who are members of the Oncology Nursing Society and working in oncology settings. Data were collected from responses on the Exercise Benefits Beliefs scale (2011), the Exercise Barriers Beliefs scale (2011), and the Exercise Counseling Behaviors scale (2011) developed for this study. The Godin Leisure Time Exercise Scale (1985) was used to assess nurses' personal exercise behaviors. Demographic information and knowledge level about the NCCN guidelines for cancer treatment related fatigue were also collected. The data analysis included descriptive statistics, correlations and regression analyses.

**Results:** The sample mean score for exercise counseling behaviors was 21.46 (SD = 4.71). Interestingly nurses' personal experience with exercise,  $r = .11$ ,  $p = .278$  and exercise benefits beliefs,  $r = .008$ ,  $p = .936$  did not predict their exercise counseling behaviors. A nurse's current position (role),  $r = -.23$ ,  $p < .05$ , and knowledge about NCCN guidelines for cancer treatment related fatigue,  $r = -.25$ ,  $p < 0.05$ , were significantly related to exercise barriers beliefs. A nurse's current position,  $\beta = .209$ ,  $p = .044$ , knowledge of the NCCN guidelines,  $\beta = .535$ ,  $p = .000$ , and Exercise barriers beliefs,  $\beta = -.311$ ,  $p = .000$ , predicted exercise counseling behavior.

**Conclusion:** Analyses supported the relationships among contextual factors, treatment beliefs, and HCP illness management behaviors of the CSM. Nurses' beliefs about exercise barriers of women with breast cancer and CRF are more important for the extent to which they counsel these women to exercise than their beliefs in the exercise benefits for these women. Future nursing research is needed to explore the influence of nurses' roles and to target negative exercise beliefs in interventions designed to improve nurses' exercise counseling behaviors for women with breast cancer and CRF, thus effecting positive outcomes for these women.

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Contact

[dhoshing@verizon.net](mailto:dhoshing@verizon.net)

## C 03 - Health Promotion and Disease Prevention in the Patient with Cancer

### Prevalence of Depression in Patients with Pituitary Tumors: Association of Depression with Perceived Social Capital

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Christine G. Yedinak, DNP, FNP, MN, BS, USA

#### Purpose

to demonstrate the clinical application of validated psychometric instruments in the evaluation of specific patient populations. Additionally to apply current knowledge and validated

#### Target Audience

Practitioners who evaluate and treat patients with neuroendocrine disorders and brain tumors in hospital or clinic settings. Practitioners in specialty settings interested in clinical and translational research. Academicians interested in DNP capstone projects and clinical research applications.

#### Abstract

**Purpose:** The relationship between the pituitary gland to the limbic system has been implicated in the development of psychological and psychiatric symptoms found in patients with pituitary tumors (PT) and disorders. Brain-Derived Neurotrophic Factor (BDNF) produced in response to neuroendocrine effectors has been linked to depression. In turn, a direct relationship has been demonstrated between psychological health and social capital in numerous chronic illnesses.

The purpose of this study was to investigate the prevalence of depression in patients who were newly diagnosed with pituitary adenomas and to evaluate the impact of perceived interpersonal and social support on depression severity. Secondary analysis was performed to evaluate the prevalence of depression by tumor hormonal expression, including non-functional adenomas (NF), prolactinomas (P), growth hormone (GH) secreting adenomas and adrenocorticotrophin (ACTH) secreting adenomas.

**Methods:** Prospective review was conducted of 104 patients (32 male/71 Female) with MRI confirmed pituitary tumors at one institution from 2011-2013 ( NF 44, P28, GH9, ACTH 6, other 17). All patients completed the 21 question Beck Depression Inventory II (BDI-II) and 6 questions designed to solicit the patient's perception of social support from family member, spouse/partner and friends (Cronbach's alpha .952). All patients were newly diagnosed and were asked to complete the questionnaire at initial presentation. Comparison of means was performed using Pearson's 2 tailed ANOVA and bivariate analysis and descriptive analysis was performed. All analysis was performed using PASW 18.

**Results:** Mood disturbance was reported by all patients. 27.8% of patients reported mild mood disturbance and 65.4% qualified as borderline to moderate clinical depression. Only 7 (6.7%) patients reported severe depressive symptoms and 5/7 of these patients reported high levels of social capital/support. However, overall there was no correlation between the severity of depression and social support ( $r=-.15$ ,  $p=0.13$ ). 76% of patients perceived moderate to high levels of support. There was no correlation between gender and depression or perceptions of social support. Perception of support was similar with respect to both family and friends. Tumors were classified by diagnosis, analyzed for the prevalence of depression for each diagnosis and correlated with social support. There was no significant difference in prevalence of depression ( $p=0.3$ ) or perception of social support ( $p=0.21$ ) based on diagnosis. Nor were higher levels of depression correlated with poor social capital/support. Depression and social support were positively correlated ( $r=.409$ ,  $p=0.000$ ).

**Conclusion:** Although depression is common to patients with pituitary tumors, most reported high levels of social support. While mild mood disturbance may be associated with a recent brain tumor diagnosis, more severe levels of clinical depression warrant further evaluation. The use of tools for early identification of at risk patients provides for timely intervention and improved outcomes. Treatment protocols differ according to pituitary hormonal activity and tumor size symptoms such as visual field disturbance. Further evaluation of the impact of specific interventions on both depression and any changes in social capital over time is required.

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## Contact

[vedinac@ohsu.edu](mailto:vedinac@ohsu.edu)

## C 04 - Impacting Student Behaviors Through Engagement

### Measuring Student Satisfaction and Loyalty: A Waste or a Goldmine?

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*Susan L. Groenwald, PhD, MSN, RN, USA*

#### Purpose

to present the results of research on the key drivers of nursing student satisfaction and loyalty, and discuss the efficacy and implications of satisfaction/loyalty measures for schools of nursing.

#### Target Audience

those interested in or working in nursing education.

#### Abstract

**Purpose:** This non-experimental quantitative research study was conducted to identify the key factors affecting a student's likelihood to recommend the college as measured by Net Promoter Score. The focus of the study was whether and to what extent student and institutional variables such as academic status, student satisfaction, and demographic factors predict students' loyalty behavior, and whether those factors differ among student groups.

**Methods:** Archival data were collected from 2,732 records of pre-licensure baccalaureate degree nursing students at a multi-campus, regionally-accredited nursing college. Data from Net Promoter Score surveys, annual student satisfaction surveys, end-of-course surveys, and student records were analyzed using correlation, cross tab, Pearson chi-square, and factor analysis to identify factors that had a significant relationship with the dependent variable Net Promoter rating. Once relationships were established, a hierarchical model was developed and multinomial logistics regression was employed to determine the most important contributors to Net Promoter rating.

**Results:** Results of the study indicated that the most important drivers of a pre-licensure BSN nursing student's satisfaction/loyalty rating were satisfaction with faculty, satisfaction with the curriculum, satisfaction with course quality, and satisfaction with college communication. Results of the study also demonstrated that students who responded that they were likely to refer the school to others actually exhibited referral behavior, suggesting that an increase in Net Promoter rating is likely to increase student referral behavior.

**Conclusion:** The study provides information with which college administrators can make decisions about allocation of resources to address issues that are most important to students. The results indicate that implementing initiatives that improve key drivers of satisfaction/loyalty likely will have a positive impact on ratings and actual referral behavior, and can have a positive impact on the institution's reputation, financial resources, and student engagement.

#### Contact

[sgroenwald@chamberlain.edu](mailto:sgroenwald@chamberlain.edu)

## C 04 - Impacting Student Behaviors Through Engagement

### Enhancing Leadership Characteristics in Baccalaureate Nursing Students

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*Nancy E. Edwards, PhD, MS, ANP-BC, USA*

*Karen S. Yehle, PhD, MS, RN, FAHA, USA*

*Enjung Lim, BS, MS, PhD, USA*

#### Purpose

To examine the role of senior clinical leader on the development of leadership qualities in students enrolled in an elective leadership development course

#### Target Audience

Individuals in academic or clinical settings who are responsible for leadership skill development

#### Abstract

**Purpose:** Recent baccalaureate graduates are expected to quickly assume clinical leadership roles. This project reports the results of an innovative elective leadership course utilizing senior nursing students known as a Senior Clinical Leader (SCL) to encourage the translation of leadership concepts into nursing practice and to allow students to experience the nurse educator role.

**Methods:** One hundred senior baccalaureate nursing students (4 male; 96 female) participated in a semester long elective course over a period of 5 years. The SCL completed ten self-directed leadership modules and implemented the leadership concepts through a sixteen week leadership practicum in a clinical setting. The practicum consisted of assisting a faculty member teaching a sophomore or junior level undergraduate clinical group. A pretest posttest design was utilized to evaluate the change in perceived leadership abilities. The SCL completed a leadership performance competence profile questionnaire and an inventory of leadership characteristics at the beginning and completion of the semester. In addition, the SCL's performance was evaluated by both the faculty member and the junior students at midterm and at the end of the semester.

**Results:** The leadership characteristics were categorized into 6 subscales: communication, association, sanction, delegation, initiation, and legitimacy. Both pretest and posttest measures showed good reliability (Cronbach's alpha = 0.78 for pretest and 0.84 for posttest). A repeated measures analysis of covariance controlling for gender and management experience revealed that the students' perception of their leadership skill significantly improved overall ( $F=27.71$ ;  $p<.0001$ ) and in all six subscales. A large majority (98%) of the SCLs received positive performance evaluations from both their faculty mentor and junior students. A significant number of SCLs expressed an interest in the faculty role ( $p<.05$ ) after the leadership practicum experience.

**Conclusion:** Perceived leadership skills improved after the completion of the senior clinical leader experience. Faculty members role modeled both the educator role and leadership skills. Clinical leaders reported increased self-confidence and served as role models for the junior students. With the senior clinical leaders, faculty were able to assign more complex patients and the SCL functioned as an additional set of "eyes" and "ears" for the faculty member. This educational program can be implemented in a variety of academic and clinical settings.

#### Contact

[kyehle@purdue.edu](mailto:kyehle@purdue.edu)

## C 04 - Impacting Student Behaviors Through Engagement

### Growing the Flowers: Preparing Undergraduate Nursing Students for a Community Healthcare Placement in a Neoliberal Economy

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*Eleanor S. Horton, RN, ADN, BHlthSc (Nsg), MHlthSc (Nsg)PhD, Australia*

#### Purpose

The purpose of this presentation is to share with our colleagues how we utilized government funding to engage our community partners and develop resources for them and also blended learning tools to enhance students learning opportunities to better prepare them for a community placement in a Primary healthcare facility.

#### Target Audience

The target audience for this presentation is those involved in Primary healthcare and Nursing education.

#### Abstract

**Purpose:** Our objective was to engage and develop initiatives with our community partners to better prepare our nursing students for a community clinical placement in their Undergraduate Nursing Degree program thus increasing our clinical placements and stimulating students to consider community nursing as a viable career option. Many nursing degree programs have made the decision that to maintain a Primary healthcare community focus within the curriculum that addressees not just the theoretical component but the practicalities of a community placement is a very expensive exercise and one that in the current neoliberal economic climate is difficult to justify. Our government has a commitment to Primary healthcare. In Australia at our regional university we have decided to work actively at maintaining and developing our community placements and we were successful in accessing funding from a government initiative aimed at increasing clinical placements. This project was also well aligned with our University graduate attributes.

**Methods:** We engaged our partners at a breakfast to canvas their ideas. This stimulating discussion resulted in a needs analysis of our clinical placement partners to find out if there was any support we could provide for them to encourage them in supporting students on placement and /or to increase their intake of student placements. From the analysis a Preceptorship workshop program was developed and offered to nurses in the community. The workshop was very engaging and feedback was positive. Then a multi media resource was developed that could be put on the electronic leaning management system for students to access before placement. This resource included interviews with a General Practitioner, a practice nurse, a community domiciliary nurse and previous students. All espousing the benefits of community nursing experience. After viewing the vodcasts the students complete a brief on line quiz and were issued with a certificate.

**Results:** Feedback from both the students and the nurses has been really positive and students have an increased appreciation of community nursing, and we have increased our community placements. Partnerships with our community placements have been strengthened and students have access to a multi media resource that they can access prior to their placements at a time and place convenient to them to enhance their learning.

**Conclusion:** This project model based on consultation, participation and partnership with the community has enhanced community relationships with our primary healthcare partners and increased and enhanced student learning opportunities during the undergraduate nursing degree program. It aligned with the University Graduate Attributes and a the commitment to Blended Learning. Long term it may have a positive impact on the Primary Healthcare workforce with more graduates considering Primary Healthcare providers as a career option.

#### Contact

[ehorton@usc.edu.au](mailto:ehorton@usc.edu.au)



## C 05 - Global Women's Health and Cancer

### Transition of Women's Perceptions of Health Status When Diagnosed with Breast Cancer

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*Maude Hebert, RN, BNSc, MSc, Canada*

#### Purpose

The purpose of this presentation is to explain the perception of health status transition process of women living with breast cancer. We schematized the process of becoming ill from a breast cancer starting at the diagnosis up to the recovery.

#### Target Audience

The target audience of this presentation is all health professionals in contact with women living with breast cancer.

#### Abstract

**Purpose:** To model the transition process of the perceptions of health and illness of women with breast cancer.

**Methods:** Grounded Theory as been selected as the research design to study the process of becoming ill from a breast cancer and to detail the phases that women pass through.

**Results:** The 32 semi-structured interviews conducted with women suffering from a breast cancer revealed that they don't feel sick from the breast cancer and that there is a drastic illness perceptions shit between before their diagnosis and after the treatments which is influenced by the transition process they experience.

**Conclusion:** This research permits a better comprehension of women's breast cancer perceptions, the different phases they pass through, the meaning they attribute to it, their help seeking behaviors and their health care system appreciation. These findings add to the knowledge on women's experience with breast cancer and offer guidelines to incorporate patient-centered care along the chronic illness trajectory.

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#### Contact

[maude.hebert@uqtr.ca](mailto:maude.hebert@uqtr.ca)

## C 05 - Global Women's Health and Cancer

### Insights into the Experiences of Women with Physical Disability in Accessing Cancer Screening

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*Kath Peters, RN, BN (Hons), PhD, Australia*  
*Antoinette Cotton, RN, PhD, Australia*

#### Purpose

The purpose of this presentation is to highlight facilitators and barriers to the uptake of cervical and breast cancer screening for women with physical disability.

#### Target Audience

The target audience of this presentation is providers of primary health care.

#### Abstract

**Purpose:** Previous studies have identified that internationally women with physical disabilities have lower uptake rates of cancer screening than women without disability (Ahmed, Smith, Haber & Belcon, 2009; Peters, 2012). Decreased rates of breast and cervical cancer screening limits opportunity for early detection and treatment of such cancers and potentially leads to greater morbidity and mortality (AIHW, 2011). This study aimed to explore the breast and cervical screening practices in a population of women in Australia with physical disabilities and the barriers and facilitators to these women accessing cancer screening.

**Methods:** A concurrent mixed-methods approach was used to collect both survey and interview data. Survey data was analysed using descriptive statistics and audio recorded interviews were transcribed verbatim and thematically analysed.

**Results:** Findings showed that issues related to cancer screening for women with disability are multifarious. Approximately 15% of participants had never had a Pap smear and almost 30% of participants had never had a mammogram. 35% of participants indicated that they had never received information about cancer screening, 60% revealed they had difficulties receiving health care or services from a health care professional. Among the most common reasons given for not having regular cancer screening were physical access issues, health professionals' knowledge deficit, discomfort, and staff not being trained or available to assist women with a disability.

**Conclusion:** These findings provide valuable insights into the barriers and facilitators of cervical and breast cancer screening in women with physical disability and highlight practice issues in need of change to ensure increased screening uptake rates in this group. These insights have the potential to inform interventions that can be implemented by primary health care providers to increase the uptake of cancer screening by women with physical disabilities, and therefore decrease rates of morbidity and mortality in this group from breast and cervical cancers.

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#### Contact

[k.peters@uws.edu.au](mailto:k.peters@uws.edu.au)

## C 09 - Healthcare Education for the Older Adult

### Cogito Ergo Sum: A Grounded Theory of the Filipino Elderly Transition Experiences in Third Age Education Program

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Rowena Escolar Chua, PhD, RN, Philippines

#### Purpose

This purpose of this presentation is to provide perspectives to the nursing community regarding third age learning in the Asia-Pacific region considering that the older adults need to take a proactive part in collaborating with program organizers about their preferences and concerns so that their programs can be structured properly.

#### Target Audience

Target audience will be those interested in gerontological education and the nursing community engaged in dealing with older adults

#### Abstract

**Purpose:** A considerable number of studies have been carried out to explore the experiences of the elderly engaging in third age education, but most of these investigations have focused on elderly motivation, the benefits accruing from their participation, and the barriers they have encountered during their lifelong learning experience. However, there has been little attempt to probe into the experiences of the elderly engaging in third age education and how they view themselves during that time. This grounded theory study purported to describe the processes through which a select group of Filipino elderly experienced community-based third age learning programs.

**Methods:** Cognizant of the purpose of this study, the grounded theory design was employed. A series of in-depth interviews were conducted on 24 Filipino elderly who participated in a four-month third age education program.

**Results:** This study revealed four distinct and yet inter-related stages of *Holding Back, Opening Up, Moving Forward* and *Empowering* which were embedded in the model *H.O.M.E: A Pulley Model of Elderly Participation in Third Age Education Program*. The emerged model is a valuable compass for gerontologists as they provide meaningful and geriatric-friendly programs, projects and activities that address the growing needs of the elderly but also facilitate their smooth entry to and completion of their third age learning participation.

**Conclusion:** This model provides a greater understanding of how these elderly go through their learning experience, from the time they hesitantly started the program until they were able to go beyond their expectations. The H.O.M.E Pulley Model has important implications to geriatric education as it provides educators a comprehensive model that they can use in understanding and facilitating the various facets of participation of the elderly in third age learning

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Contact

[wengchua72@gmail.com](mailto:wengchua72@gmail.com)

## C 09 - Healthcare Education for the Older Adult

### "Don't Leave Us Out" Civic Literacy: Older Mexican-American Women and Cervical Cancer Screening

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Bertha Eloisa Flores, MSN, RN, WHNP-BC, USA

Lyda Arevalo-Flechas, PhD, MSN, BSN, USA

Sara Gill, PhD, RN, USA

Sharon Brown, PhD, RN, FAAN, USA

Michael Mackert, PhD, RN, USA

#### Purpose

The purpose of this presentation is to describe and explain health literacy and civic literacy as it relates to cervical cancer screening among older Mexican American women living in the United States.

#### Target Audience

The target audience of this presentation is nurses in public health and prevention education.

#### Abstract

**Purpose:** Describe the health literacy knowledge and experiences of English and/or Spanish speaking older women of Mexican American ancestry as they relate to cervical cancer screening following Zarcadoolas et al. (2005) model of health literacy which describes four domains; fundamental literacy, science literacy, cultural literacy and civic literacy.

**Methods:** A qualitative study design was conducted using focus group and individual interviews in English and Spanish. A moderator guide was developed following Zarcadoolas et al. (2005) health literacy framework. Participants were presented with two brochures one from the Texas Department of State and Health Services and one from the Centers for Disease Control (CDC). A purposeful convenience and snowball sample of thirty women 50 and older were recruited to participate. Interviews were audio taped and transcribed in its original language. Content analysis was used to analyze data and matrices were developed. Codes and themes in Spanish were translated to the target language for meaning. Bilingual researchers concurred with translations from Spanish to English.

**Results:** Participants reported receiving health information from different sources including, doctor's offices, TV, women's magazines. Participants were not aware of government programs available such as the Breast and Cervical Cancer Services (BCCS) or educational government websites through the Centers for Disease Control (CDC) or the Texas Department of State Health Services. All participants preferred simple and easy to read text and graphics from the Texas Department of State Health Services. However participants did not like the brochure from the CDC, it was "too busy" and presented too much information.

Participants said that the brochures did not apply to women of their age and lacked of age representation. Participants recommended adding pictures of older women. The following statements best describe the overall sentiments "We need another *viejita*" [little old lady] and "*Don't leave us out*".

**Conclusion:** Further efforts are needed to develop national health policies and educational campaigns which are inclusive of all populations including older Mexican American women. Global communication efforts through different mediums aimed at improving health promotion practices which are cultural, linguistic and age appropriate will aid in decreasing this health disparity gap.

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Contact

[floresb2@uthscsa.edu](mailto:floresb2@uthscsa.edu)

## C 10 - At-Risk Behaviors in the Adolescent Population

### Effectiveness of Structured Teaching Programme on Addiction Among Adolescents

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Umapathi Mariappan, PhD, Malaysia

#### Purpose

The purpose of this presentation is to highlight the adolescents addiction problem and importance of school based health Education programmes” to enhance the adolescents’ knowledge on addiction and inturn reduces the incidence of addiction among adolescents.

#### Target Audience

The target audience of this presentation is nurse educator, community health nurses ,paediatrics or child health nurses,Nurse administrator, nurse researcher and school health nurse.

#### Abstract

**Purpose:** This study was aimed to assess the effectiveness of Structured Teaching Programme (STP) on Addiction {related to alcohol abuse} among adolescents in selected schools of Salem District, Tamil Nadu State

**Methods:** Quantitative approach with one group pre test, post test quasi experimental design was adopted for this study. Cluster random sampling technique was used to select the study area and purposive non - random sampling technique was used to select the sample (Rural n =200, Urban n=200). Adolescents between the age group of 15-17 years and who were studying 10<sup>th</sup>class in selected schools in rural and urban area of Salem district were selected. Self administered structured questionnaire was used as a tool. On the first day, pre test was administered and the second day STP was intervened to the selected sample. After 10 working days, post test was conducted by using the same structured questionnaire. A formal written permission was obtained from school authority and consent was obtained from the sample. The data obtained was analyzed by using Descriptive & Inferential Statistics.

**Results:** Overall post test knowledge score on alcohol abuse showed that, majority of the sample had good knowledge. The urban school adolescents gained more knowledge than rural school adolescents (Urban 93% and Rural 84.5%). The STP implementation was effective on alcohol abuse (Paired ‘t’ value = Rural 77.020 and Urban 92.328; P<0.000).

**Conclusion:** Significant differences were identified between adolescents of rural and urban school on their knowledge level on alcohol abuse.The results indicated the STP intervention was very effective in enhancing the knowledge of adolescents on alcohol abuse.

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Contact

[umapathi79@gmail.com](mailto:umapathi79@gmail.com)

## C 10 - At-Risk Behaviors in the Adolescent Population

### Teen Pregnancy: A Multi Method Community Evaluation

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*Ainat Koren, RN, PhD, USA*

*Jennifer Stanton, RN, BS, CCM, USA*

*Krissy Naughton, BSN, RNC, USA*

#### Purpose

The purpose of this presentation is to inform about multi method of community teen pregnancy evaluation

#### Target Audience

The target audience for this presentation are researchers and clinicians that are interested in reproductive health, teen pregnancy prevention and community assessment

#### Abstract

**Purpose:** Teen pregnancy is a complex issue, which attracted a great deal of attention from service providers, educators, and policy makers in recent years. Science-based teen pregnancy prevention programs are funded in select high-risk communities in Massachusetts to provide evidence-based teen pregnancy prevention services. This presentation will share one-community multi method assessment related to teen pregnancy and teen pregnancy prevention programs.

**Methods:** The process consisted of five components: a youth online survey; focus groups with parents; teen mom survey; stakeholder interviews; and Geographic Information System (GIS) mapping.

**Results:** Evaluation outcome show that teen birthrate in the community declined by 46.1% in the past ten years. The services in the city prioritize teen empowerment and prevention along with support for pregnant teens. GIS mapping provides a tool to not only to assist with visualizing the location of high-risk populations, but also for planning of location of services. Parents, teens and key informants all recognize the existing problem of teen pregnancies in the community. Teens expressed the need for improved communication with their parents along with sexual education from their schools. Parents admitted that the topic might be difficult and challenging to communicate with their teens. They too support the need for groups geared towards parents. The key stakeholders in the community were aware of the services offered in the city. They supported teen empowerment as a method to prevent teen pregnancy. Career planning and college preparation would focus teens on reaching positive goals. They too supported the development of groups to support parents.

**Conclusions:** A multi method diverse approach helps with leaning about the complexity of teen pregnancy and obtain more comprehensive information about the community.

Data from this assessment will assist the community and Massachusetts Department of Public Health (MDPH) with developing targeted and effective Teen Pregnancy Prevention Programs, strengthen existing efforts, or better coordinate activities and referral networks so that all teens and their parents have access to a wide array of prevention services.

#### Contact

[ainat\\_koren@uml.edu](mailto:ainat_koren@uml.edu)

## C 10 - At-Risk Behaviors in the Adolescent Population

### Improving Global Health Outcomes for Teenage Pregnancy Prevention: Intervention Programs in the United States, Canada, China and the Philippines

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*Kathleen A. Sternas, PhD, RN, USA*

*Mary Ann Scharf, EdD, USA*

*RoseMarie Peterkin, MAT, USA*

*Janet Summerly, BSN, MSN, RN, USA*

#### Purpose

To discuss intervention programs to prevent/reduce teenage pregnancy in the United States, Canada, China and Philippines; To describe an evidence-based intervention in the USA which promotes abstinence from premarital sex in teenagers and has demonstrated positive outcomes; To identify differences in outcomes between teenagers who received the intervention and comparison participants.

#### Target Audience

Nurses, nursing students, researchers, educators, clinicians, administrators, policy makers and other health care professionals caring for teenagers, who have an interest in global health promotion and disease prevention, teenage pregnancy prevention, and evidence-based interventions that promote teen health and prevent or reduce teenage pregnancy.

#### Abstract

**Purpose:** The number of teen births remains high. Teenage birth rates are higher in the United States than in Canada and China (Bielski, 2013; McKay, 2012). Teen pregnancy rates are increasing in China and the Philippines (InterAksyon, 2012; Santos, 2012; Wang et al., 2002; Zhang, 2002). Sexual activity in teenagers contributes to teenage pregnancy and health problems (Chen, et al., 2000; Li, et al., 2003; Ma et al., 2006; National Campaign to Prevent Teen and Unplanned Pregnancy, 2011; Parish et al., 2003; Zhang et al., 2002). Societal and economic changes, education, media, and teenagers' attitudes are related to teenage pregnancy (Chelala, 2008; National Summit on Teen Pregnancy, 2012; Santelli, Melnikas, 2010; Wang, et al, 2007). Teenage pregnancy is associated with dropping out of school, poverty, remaining unmarried, and children at risk for poverty and health problems. This presentation describes: global perspectives on teenage pregnancy and intervention programs to prevent or reduce teenage pregnancy in the United States, Canada, China and the Philippines; outcomes for an evidence-based intervention program in the United States which promotes sexual abstinence; and outcomes for intervention and comparison participants.

**Methods:** A pretest post-test design was used. Four intervention schools (n=230 girls; 221 boys) and five comparison schools (n=134 girls; n=110 boys) participated. The sample included 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> graders, primarily of African American ethnicity. Bandura's Social Learning theory guided the intervention program which focused on sexuality discussions, mentoring, health and fitness classes, cultural events, community service, and a recognition ceremony. Intervention participants were randomly selected. Comparison participants were a convenience sample. Comparison and intervention schools were matched on grade, ethnicity, and socioeconomic status. Instruments were the AFL Core Baseline/Follow-up and Demographic Questionnaires. Trained staff administered the questionnaires to the participants in a school setting. Pearson Chi Square and Mann Whitney U statistical tests and .05 level of significance were used.

**Results:** Abstinence education, comprehensive sex education, and health promotion education are used to prevent/reduce teen pregnancy in the United States, Canada, China and the Philippines (Bennett, Assefi, 2005; Chelala, 2008; Franklin et al., 1997; Kirby, 2002; Lou, et al. 2004; National Campaign to Prevent Teen and Unplanned Pregnancy, 2011; National Summit on Teen Pregnancy, 2012; Wang et al., 2005). Early prevention education on teenage pregnancy, sexual norms, and managing peer pressure are utilized to promote abstinence. **Post-Test III Results** for the evidenced-based intervention were: **Significantly more intervention than comparison participants:** talked to parents about no sex

( $p=.005$ ) and life ( $p=.023$ ); said no to wrong activities ( $p=.012$ ); had an adult who was available to talk about problems ( $p=.012$ ) and who provided encouragement ( $p=.020$ ); reported self-confidence ( $p=.001$ ). **Significantly more intervention than comparison participants reported:** it was important to get a good education ( $p=.003$ ), to have a good marriage/family life ( $p<.001$ ), to remain abstinent ( $p<.001$ ), and for future spouse to remain abstinent ( $p<.001$ ); abstinence prevents STDs/pregnancy/health problems ( $p<.001$ ). Significantly more intervention than comparison participants admire teens who are abstinent ( $p<.001$ ); had friends who admire teens who are abstinent ( $p<.001$ ). **Significantly more comparisons than intervention participants reported:** it was okay to date younger or older persons ( $p=.006$ ); sex is okay if dating a long time ( $p<.001$ ); more control over life ( $p=.001$ ). **More intervention than comparison girls reported:** remaining abstinent ( $p<.001$ ); abstinence prevents STDs/pregnancy/health problems ( $p<.001$ ); important for future spouse to remain abstinent ( $p<.001$ ); premarital sex makes it difficult for good marriage/family life ( $p=.004$ ); sex is for married people ( $p<.001$ ). More intervention than comparison girls reported: talking about puberty ( $p=.018$ ); saying no to wrong activities ( $p=.013$ ); staying away from trouble ( $p=.020$ ); importance of a good education ( $p=.028$ ) and marriage and family life ( $p=.002$ ); success at plans ( $p=.015$ ); and self-confidence ( $p=.014$ ). **Post-Test IV Results:** Significantly more intervention than comparison participants reported: bright future ( $p=.019$ ); important to remain abstinent until marriage ( $p=.001$ ), and future spouse should remain abstinent ( $p=.003$ ); only married people should have sex ( $p<.001$ ); abstinence is the way to avoid STD's, pregnancy and health problems ( $p=.002$ ). Significantly more intervention girls than comparison girls reported: feeling accepted/supported by peers ( $p=.005$ ); and reported a bright future ( $p=.010$ ). Significantly more intervention boys than comparison boys reported: having an adult who encourages them ( $p=.036$ ); important to remain abstinent until marriage ( $p=.031$ ); abstinence is a way to avoid STDs/pregnancy/health problems ( $p=.028$ ).

**Conclusion:** Abstinence education, comprehensive sex education, and health promotion education are used to prevent or reduce teen pregnancy in the United States, Canada, China and the Philippines. Results from the evidenced-based intervention indicated intervention participants have more significant outcomes related to abstinence behaviors/attitudes than comparison participants. Findings suggest the intervention promotes abstinence and prevents teenage pregnancy. Findings have implications for development of intervention programs which promote abstinence attitudes and behaviors in teenagers.

#### Contact

[sternaka@shu.edu](mailto:sternaka@shu.edu)

## D 03 - Workplace Behaviors Affecting Nursing Engagement

### Workplace Violence Towards Nurses at Private and Government Healthcare Settings of Karachi Pakistan

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Rozina Somani, BScN, MScN, Pakistan

#### Purpose

To disseminate the research findings of workplace violence towards nurses conducted at four major hospitals of Karachi, Pakistan. Attending and presenting in the conference will also provide an opportunity to discuss with other researchers who are working in the same area. It will guide the path for research work.

#### Target Audience

This research study will provide some evidence based strategies for nursing staff working at clinical setting. Moreover, nursing management staff can be the audience as they need to deal with violence scenarios at workplace setting. Lastly, policy makers and academician can be the target audience.

#### Abstract

**Purpose:** Workplace violence towards nurses is a worldwide problem. Among all healthcare workers, nurses are at a greater risk of being subjected to workplace violence. The present study identified the magnitude of the issue of violence towards nurses at the healthcare settings in Pakistan. This study aims to identify the prevalence and characteristics of physical and psychological violence which includes, verbal abuse, bullying/ mobbing behavior, and sexual violence experienced by nurses working in all the In-patient units and the Emergency Departments of two private and two government healthcare settings in Karachi, Pakistan. This abstract will focus on the sexual harassment among nurses.

**Methods:** This Cross-sectional study included 458 nurses from selected healthcare settings in Karachi, Pakistan. A simple random sampling method was used for the study. The instrument used for collecting the data was jointly developed by International Labour Office (ILO), International Council of Nurses (ICN), World Health Organization (WHO), and Public Services International (PSI). The primary investigator and the research assistant interviewed the participants to complete the study tool.

**Results:** The present study found that workplace violence was prevalent among 82% of the nurses. The reported prevalence of sexual violence was 10%. It is likely that the mentioned prevalence of sexual abuse found in this study could be because of the negative image nurses have in the Pakistani society, the lack of training facilities for them to deal with sexual harassment, the lack of security measures taken to prevent sexual violence prevention, and a feeling of guilt associated with experience of sexual harassment. Female Nurses who fell in age group ranging between 19 and 29 years were mostly the victims of sexual violence. These nurses specifically belonged to the Medical Surgical units, and Emergency departments. Most of them were working in the shift duties. The most common perpetrators of sexual violence were found to be Patient's relatives (47.8%), and the staff members (32.6%). With regard to sexual abuse (69.6% n= 32/46) nurses had not taken any action or had pretended that the incident had never taken place. 74% nurses experienced psychological symptoms at moderate to extreme levels after being victims of sexual harassment.

**Conclusion:** This pioneer study is an attempt towards the implementation of one of the World Health Organization's (WHO) goals, that is, a violence free healthcare environment. The study also put forward some evidence based recommendations; based on the findings, for the government, the nursing services, nursing educators, and for future research.

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Contact

[rozina.somani@aku.edu](mailto:rozina.somani@aku.edu)

## D 03 - Workplace Behaviors Affecting Nursing Engagement

### Work Stressors and Perceived Organizational Support on Front Line Nurse Manager Work Engagement

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Anne Marie Simmons, PhD, RN, USA

#### Purpose

The purpose of this presentation is describe the relationship of work stressors and perceived organizational support on the front line nurse manager work engagement.

#### Target Audience

The target audience of this presentation is graduate education in administration and front line and executive levels of nursing management.

#### Abstract

**Purpose:** The purpose of this study was to examine the relationship of work stressors and perceived organizational support on front line nurse manager work engagement. A non-experimental descriptive, cross sectional design examined the relationship in a convenience sample of 97 front line nurse managers from the New York tri-state area and members of the American Organization of Nurse Executives.

**Methods:** All participants were asked to complete a survey that included the following instruments to measure work engagement, work stressors and perceived organizational support. Instruments utilized were: (1) *the Utrecht Work Engagement Scale (UWES)*; (2) *Challenge-Hindrance Stressor Scale* and (3) *Survey of Perceived Organizational Support (SPOS)*. An electronic survey was used to gather the data from AONE members (nationally) and nurse managers within the tri-state region surrounding New York State. The researcher also explored the influence of perceived organization support on the relationship of the study variables. The conceptual framework of Kahn's work engagement and the Job Demands–Resources Model was utilized.

**Results:** There was a negative direct relationship between work engagement and work stressors ( $-.325, p < .001$ ) and a positive significant relationship between perceived organizational support and work engagement ( $.419, p < .001$ ). The conceptual framework of Kahn's work engagement and the Job Demands–Resources Model revealed that organizational support is needed to promote front line nurse manager work engagement. Pearson's correlation and linear regression analyses indicated support for the relationship between all variables.

**Conclusion:** Work engagement, perceived organizational support and work stressors are professional environmental factors that impact the leadership and well-being of FLNM. These factors, properly promoted and implemented, lead to FLNM's success, retention and job performance.

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### Contact

[asimmons@gc.cuny.edu](mailto:asimmons@gc.cuny.edu)

## D 03 - Workplace Behaviors Affecting Nursing Engagement

### When the Postive Attributes of Leadership Become Harmful: A Pre Post-Test Analysis

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*Joyce M. Hendricks, PhD, MNS, BA (AppSc, Nsg) GradDipEd, BA (SocSc) RN, RM, Australia*

*Vicki Cope, PhD, RN, RM, Australia*

*Gilly Smith, DBA, RN, JP, Australia*

#### Purpose

The purpose of this presentation is to develop a critical awareness of the concepts and examples of leadership within theoretical constructs to produce an image of how these attributes, creating purpose, building community, follower focus, motivation and respect of leadership may be used in a harmful way.

#### Target Audience

The target audience of this presentation is clinical, academic and managers who have or share leadership role or aspire to be leaders.

#### Abstract

**Purpose:** Nursing leadership in the academic setting and how leadership attributes may align with and differ from transformational, servant, and charismatic leadership theories are considered to form the basis of "good" leadership. The purpose of this presentation is to examine and raise awareness of how the concepts and examples of leadership within theoretical constructs have the potential to produce an image of how the positive attribute of leadership may be used in a harmful way.

**Methods:** Mixed methods was used to examine the role of leaders in the academic setting in creating a positive context and work experience for followers. Data was collected using pre post-test analysis; and, followers were asked to provide qualitative reasons for their answers and to give their solutions to problems. A focus group was convened to validate the finding at post-test.

**Results:** Data at post-test indicated a negative trend suggesting that the perceptions of follower of their leaders had not improved from time of pre-test. Qualitative analysis revealed the themes of nepotism, favouritism, information provision to favouritism and lack of consultation to be the main ways of leadership control and follower focus.

**Conclusion:** Harmful leadership results when positive leadership strategies are combined with the potential of leaders to pursue personal agendas, including pursuing and abusing power, developing a sense of self-importance, using fear, and creating a sense of isolation through alienation.

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#### Contact

[j.hendricks@ecu.edu.au](mailto:j.hendricks@ecu.edu.au)

## D 04 - Care Issues With the Cardiac and Diabetic Patient

### An International Comparison of Prevalence and Clinical Efficacy of Using Telehealth to Support Diabetic Self-Management by Patients with Both Cardiac Disease and Diabetes

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*Chiung-Jung (Jo) Wu, RN, BN, MN (Intensive Care), DrHlthSc, FACN, Australia*  
*Huei Chuan Sung, PhD, MSN, RN, Taiwan*  
*Anne M. Chang, PhD, RN, Australia*  
*Mary Courtney, PhD, MHP, BAdmin (Acc), RN, Australia*  
*John Atherton, PhD, MD, Australia*  
*Karam Kostner, PhD, MD, Australia*

#### Purpose

The purpose of this presentation is to highlight the importance and to share our experience for international collaboration and for improving quality of care by addressing different needs of patients in different cultural contexts.

#### Target Audience

The target audience of this presentation is to highlight the importance of collaboration team and to share our experience for improving quality of care by addressing different needs of patients in different cultural contexts.

#### Abstract

**Purpose:** To evaluate a cardiac-diabetes self-management program with telephone and text-message follow-up (T-CDSMP) in patients admitted with cardiac disease and comorbid diabetes across Australia and Taiwan.

**Background:** As cardiac disease and type 2 diabetes are global health problems of increasing incidence it is expected that management of patients with both of these chronic conditions will have a significant impact on global healthcare systems. There is evidence of comparable prevalence of cardiovascular disease combined with diabetes between Australia and Taiwan with these at-risk patients having higher readmission rates compared to those cardiac patients without diabetes. Many studies have aimed at improving patient self management of their conditions, but have not been tested across different cultural backgrounds. Our previous studies within one population have shown effectiveness in using telephone and text-messaging to assist patients with better self-management of their dual conditions to improve outcomes of self-management behaviour, self-efficacy, condition knowledge and health-related quality of life. However, this strategy has not been tested and compared across different cultures.

**Methods:** An international collaborative project using a randomised block design was used to address the heterogeneity of patients from two different cultural contexts. For 90% power to detect the main effects of intervention, and with location (country) being the block variable, 90 patients (a total sample of 180 patients) were required from each country.

**Results:** Preliminary results showed patients with dual diagnoses of cardiac disease and type 2 diabetes in Taiwan have approximately a 21% readmission rate, compared to 22.6% in Australia (within 28 days). Initial analysis also suggests patients in the intervention group have significantly improved self-efficacy level.

**Conclusion:** Whilst we demonstrated similar readmission rates in patients with dual diagnoses of cardiac disease and diabetes in two high-income countries, further studies will determine whether T-CDSMP can be culturally adapted to allow similar treatment effects.

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#### Contact

[chiungjowu@hotmail.com](mailto:chiungjowu@hotmail.com)

## D 04 - Care Issues With the Cardiac and Diabetic Patient

### Does Diabetes Mellitus Make a Difference in Symptom Presentation of Patients with Acute Myocardial Infarction?

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*Polly W. C. Li, MSc (Cardiology), BNurs, RN, Hong Kong*

*Diana T. F. Lee, PhD, MSc, PRD (HCE), RM, RN, RTN, Hong Kong*

*Doris S. F. Yu, PhD, BSc (Nursing Studies), RN, Hong Kong*

#### Purpose

The purpose of this presentation is to alert healthcare professionals to remain high clinical suspicion in recognizing atypical symptom presentation of acute myocardial infarction in diabetic patients.

#### Target Audience

The target audience of this presentation is the healthcare professionals working in clinical as well as community settings, and the researchers who are expertizing in cardiac and diabetic care.

#### Abstract

**Purpose:** The study aimed to compare the differences in symptom presentation between diabetic and non-diabetic patients with acute myocardial infarction (AMI), and to examine the impact of diabetes on symptom presentation in AMI patients.

**Methods:** A consecutive sample of patients with a confirmed diagnosis of AMI was recruited from the cardiac units of three regional hospitals in Hong Kong. Data collection was conducted through face-to-face interview. The validated Chinese version of the Symptoms of Acute Coronary Syndromes Inventory (SACSI-C) was used for symptom assessment.

**Results:** A total sample of 397 patients was recruited, with the mean age of  $63.3 \pm 12.7$  years. Diabetes (32%) was the second most prevalent comorbidity in the sample. Diabetic patients were less likely to present with chest pain ( $p < 0.0001$ ) and sweating ( $p = 0.001$ ). Conversely, they were more likely to present with shortness of breath ( $p = 0.001$ ) and difficulty in breathing ( $p = 0.003$ ) than the non-diabetic patients. Overall, the diabetic patients were more likely to present with atypical AMI symptoms ( $p < 0.0001$ ). The result of multivariable logistic regression analysis showed that diabetes was an independent predictor of atypical symptom presentation in AMI patients, with an odds ratio of 2.37 (95% confidence interval: 1.36–4.12;  $p = 0.002$ ).

**Conclusion:** In summary, diabetic patients have a 2.4-fold increased risk for atypical symptom presentation than that of non-diabetic patients. Health professionals should remain vigilant at recognizing atypical AMI presentation in diabetic patients. A tailor-made educative intervention should be directed to them.

#### Contact

[liwaichi@cuhk.edu.hk](mailto:liwaichi@cuhk.edu.hk)

## D 05 - Global Research of Tools to Effect Clinical Change

### A Model Testing on Health Literacy, Knowledge about Vitamin D, and Actual Behavior in Sunlight Exposure

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Angela Yee Man Leung, PhD, MHA, BN, RN, FHKAN (Gerontology), Hong Kong

#### Purpose

The purpose of this presentation is to discuss the relationship between health literacy and actual sunlight exposure behavior.

#### Target Audience

The target audience of this presentation is those who are interested in gerontological nursing care.

#### Abstract

**Purpose:** To test whether health literacy is associated with actual sunlight exposure behavior, we interviewed 648 Chinese adults aged 65 years or older.

**Methods:** Using the information–motivation–behavioral skills model and structural equation modeling, we tested how health literacy was associated with the complex relationship among knowledge about vitamin D, attitudes towards sunlight exposure, doctor recommendations regarding sunlight exposure, and actual sunlight exposure behavior. Health literacy was directly associated with sunlight exposure (beta = .20,  $p < .01$ ). Indirect relationships also existed between knowledge and sunlight exposure through health literacy (beta = .46,  $p < .001$ ) and between attitudes and sunlight exposure through health literacy (beta = -.12,  $p < .05$ ).

**Results:** The model had good fit (chi-square/df = 2.79; RMSEA = .053,  $p = .346$ ; CFI = .95; TLI = .92). Health literacy should be considered when educating older adults about vitamin D supplements and sunlight exposure. Providing relevant knowledge or making doctor recommendations might not be effective.

**Conclusion:** Training should be focused on individuals with low health literacy who would be less likely to receive sunlight exposure.

#### Contact

[angleung@hku.hk](mailto:angleung@hku.hk)

## D 05 - Global Research of Tools to Effect Clinical Change

### Is the Braden Mobility Subscale Alone as Predictive as the Braden Scale?

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*Siti Zubaidah Mordiffi, RN, BN, MHLthSc(Edun), Australia*

*Bridie Kent, RN, PhD, United Kingdom*

*Nicole M. Phillips, PhD, MNS, GDipAdvNur(Ed), DipAppSc(Nurs), BN, RN, Australia*

*Choon Huat Koh, MBBS, MMed, MGer, PhD, Singapore*

#### Purpose

The purpose of this presentation is to ascertain whether the Braden mobility subscale is comparable to the Braden scale in predicting the likelihood of pressure injury in an acute care setting.

#### Target Audience

The target audience of this presentation are general ward nurses involved in managing patients at risk of pressure injury or those who have interest in identifying patients at risk of developing pressure injury.

#### Abstract

**Purpose:** Pressure injury is known to cause not only debilitating physical effects, but also leads to substantial psychological and financial burdens. Given the importance of this issue, it remains imperative that nurses identify patients that are at risk of developing pressure injury, so that preventive interventions can be initiated early. Risk assessment tools are used to assist nurses in identifying such patients. However, research has suggested that using risk assessment tools may be no more effective in preventing actual pressure injury than clinical judgement. Research has also suggested impaired mobility is a significant risk factor for developing pressure injury, and that mobility assessment alone may be an adequate alternative for assessing pressure injury risk for the purpose of instituting preventive interventions. Thus, the purpose of the study is to ascertain whether the Braden mobility subscale is comparable to the Braden scale in predicting the development of pressure injury.

**Methods:** This is a retrospective case-control study on review of medical records of adult patients admitted to an acute care hospital. One hundred cases of patients with pressure injury were matched with controls of patients who had no pressure injury at a 1:1 ratio for age, gender, length of stay, having had surgery and have been admitted to the intensive care unit or high dependency unit. Bivariate analysis, logistic regression analysis and backward logistic regression were undertaken using SPSS version 19.0.

**Results:** We found that patients who were assessed using the Braden mobility subscale as having "very limited mobility" or worse (cut-off score  $\leq 2$ ) is 5.23 [95% confidence interval (95%CI): 2.66 – 10.20] times more likely to develop pressure injury compared to those with "slightly limited" or "no limitation" to mobility. In contrast those assessed using the Braden scale as having "low risk" or higher risks (cut-off score  $\leq 16$ ) is 3.35 [95%CI: 1.77 – 6.33] times more likely to develop pressure injury compared to those assessed as having "no risk". Using full model logistic regression analysis and including other Braden subscales, the mobility subscale was the only subscale that was a significant predictor of pressure injury. When using backward logistic regression to determine the most parsimonious model, the Braden mobility subscale remained a significant factor in predicting pressure injury.

**Conclusion:** The study found that the Braden mobility subscale alone was as good as the Braden scale as a tool for predicting pressure injury. In addition, other Braden subscales (i.e., moisture, activity, sensory, nutrition, and friction and shear) did not improve the prediction of pressure injury.

#### Contact

[smordiff@deakin.edu.au](mailto:smordiff@deakin.edu.au)

## D 05 - Global Research of Tools to Effect Clinical Change

### A Study on Reliability and Validity of a Tool for Measuring Foreign Patient Satisfaction

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*Keum Soon Kim, PhD, RN, South Korea*  
*Yun-Kyoung Choi, PhD, RN, APN, South Korea*  
*Myogyong Kim, RN, BS, BA, South Korea*  
*Jung Won Ahn, RN, BS, South Korea*

#### Purpose

The purpose of this presentation is to share for the results of the reliability and validity for the foreign patient satisfaction measurement tool.

#### Target Audience

The target audience of this presentation is researcher who is interested in measuring outcomes such as patient experiences (patient satisfaction) of the foreign patients.

#### Abstract

**Purpose:** This study sought to improve the already developed tool for measuring foreign patient satisfaction to develop a highly reliable and valid tool.

**Methods:** In the first stage, the said existing tool was improved to develop preliminary questions. In the second stage, the validity of preliminary items was examined targeting 15 working experts of international teams in 10 hospitals where the rate of foreign patients is relatively high. In the third stage, preliminary questions were translated into relevant foreign languages and back translated. In the fourth stage, by surveying foreign patients, the reliability and validity of the tool were verified. Specifically, from June 10 to July 7, 2013, 200 foreign patients (84 English copies, 70 Russian copies, and 46 Mongol copies) in 9 hospitals which operate an international team were surveyed.

**Results:** The tool for measuring foreign patient satisfaction, developed by Health Industry Development Institute, was improved to validate its reliability and validity. Thus, a tool for measuring foreign patient satisfaction, which is comprised of 7 items and 39 questions, was developed. The 7 items are doctor's care (5 questions), information and education (6 questions), hospital environment and financial aspect (8 questions), hospital convenience (5 questions), services of nurse, coordinator, reception and payment system, communication and respect for patients (4 questions), and accessibility (4 questions). The total number of questions was determined as 39 including overall satisfaction, intention to reuse, and intention to recommend. The Cronbach's alpha coefficient for this tool was found high at .95, and the Cronbach's alpha coefficient by item was .83 for doctor, .88 for information education, .89 for hospital environment and financial aspect, .85 for hospital convenience, .77 for services of employees, .86 for communication and respect for patients, and .65 for accessibility.

**Conclusion:** Putting together the above results, a highly reliable and valid tool for measuring foreign patients who visit medical institutions in South Korea was developed. The tool is considered useful to measure foreign patients' experience to eventually improve the medical service for foreign patients.

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#### Contact

[ykchoi2012@gmail.com](mailto:ykchoi2012@gmail.com)

## D 09 - Improving Nursing Student Behavior through Research

### Nursing is a Team Sport: Sideline Coaching to Achieve NCLEX-RN Success

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Tricia O'Hara, PhD, RN, USA

#### Purpose

to present findings from a descriptive comparative and correlational research study on Academic coaching and its effect on NCLEX-RN success

#### Target Audience

Nurse Educators who are involved in promoting nursing student academic success and preparing students to take the NCLEX-RN Exam

#### Abstract

**Purpose:** To measure the effect of Academic Coaching on Nursing students academic success, perceptions of the coaching relationship, perceived NCLEX-RN exam readiness and NCLEX-RN success

**Methods:** Descriptive, comparative correlational research study

Academic coaching is one educational intervention cited in the literature as a strategy to assist students to achieve academic success, additionally it helps to formulate strong faculty-student relationships that students perceive as paramount to facilitate their academic success. A descriptive comparative and correlational research study was conducted to explore the relationships among the students' academic success; perceptions of the academic coaching relationship; perceived NCLEX-RN exam readiness; and NCLEX-RN exam success. The O'Hara Model of Academic Coaching, based on Peplau's Theory of Interpersonal Relations in Nursing served as the theoretical basis for the study

The O'Hara Perception of the Coaching Relationship (PCR) was used in this study to measure students' perceptions. The PCR instrument was a newly developed valid and reliable tool. Data were collected from 51 senior baccalaureate nursing students at one university in southeast Pennsylvania, who participated in an 8-week academic coaching experience with their assigned faculty coach. There were four research questions generated for this study. Data were analyzed using Pearson correlations, *t*-tests, discriminate analysis, chi-square, and one-way analysis of variance. Two out of the four research questions did not achieve statistical power due to the low sample size. These same two research questions were not statistically significant. Students' total scores on their perceptions of the coaching relationship were high. There was a statistically significant difference between the pre and post coaching HESI exit exam scores. Major categories were identified on students' responses to three open-ended questions on coaching.

The discussion of the findings, implication for nursing, conclusions and recommendations for future research were presented. The findings of this study contributed to advancing nursing knowledge in the areas of nursing research, science and education. This study does support the newly developed O'Hara Model of Academic Coaching. The high NCLEX-RN exam first time pass rate in this study is also noteworthy. More research on the role of academic coaching is warranted.

**Results:** Statistical significance on Academic success, NCLEX-RN success; High positive perceptions of the Academic coaching relationship and NCLEX-RN readiness.

**Conclusion:** Many Implications for further research, nursing education.

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Contact

[brownohara.p@gmc.edu](mailto:brownohara.p@gmc.edu)

## D 09 - Improving Nursing Student Behavior through Research

### Improving the Skills of RN-BSN Students in Maximizing the Use of Data and Information for Evidence-Based Nursing: Nursing Information Behavior

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*Edmund J. Y. Pajarillo, PhD, RN-BC, CPHQ, NEA-BC, USA*  
*Alexei Oulanov, PhD, MBA, MLIS, USA*

#### Purpose

The purpose of the presentation is to describe the information behavior of RN-BSN students to help nursing educators and supervisors, information specialists, and application developers gain insights into the RN students' information, education, and technology needs to help enhance their professional functioning and maximize on their learning experiences.

#### Target Audience

The target audience of this presentation are nurse educators, supervisors, informaticists, and nursing professionals.

#### Abstract

**Purpose:** This present research explored the nursing information behavior (NIB) of RN-BSN students to understand how they access and use data and information, taking into consideration their status as nurses and students in pursuit of their baccalaureate education. The relevance of evidence-based nursing cannot be overemphasized with the heightened focus on healthcare quality and patient safety. This is evident in current reports and initiatives (IOM, 2010; AACN, 2008; IOM, 1999) articulating the basic and essential skills that nursing students and nurses must have to be able to perform nursing under the best circumstances. Nursing students and nurses should be able to integrate research and evidence-based practice, informatics concepts, and technology-mediated applications into nursing. A critical proficiency in achieving this expertise is for nurses and nursing students to have a strong and solid information behavior. Wilson (2010) defines information behavior as "distinct and broad ... a collective and encompassing concept covering information seeking, information searching and information use. It entails behavior associated with active and passive information, including its conceptualization, formulation, use and application." It is oftentimes associated with two relevant components, namely information needs and sources of information.

How nursing students and nurses identify, seek and use information is important to understand, more so if the students are registered nurses (RNs) pursuing their baccalaureate degrees in nursing. Components of the nursing information behavior (NIB) of RN students include their information needs, sources frequently accessed, barriers encountered, and the manner by which information is processed (Pajarillo, 2008). Understanding the NIB of RN students is a requisite step in evidence-based practice so that educators are more able to assist them on how to best access and use relevant information when faced with critical, patient-related information needs. Healthcare modalities and approaches related to nursing assessments and interventions have been significantly affected with advancements in medicine, health, nursing, and information technology. Nurses and nursing students need to be able to obtain and apply the most appropriate and current evidence and be able to integrate this into their professional practice. Knowing information sources that are reliable, as well as the appropriate steps and processes to obtain information will enhance nurses' patient care skills, critical thinking proficiency, and evidence-based patient care.

Information behavior is likewise contingent on the user's social structure and setting, so that motivations, processes, strategies and barriers consequently vary depending on the locale. A previous research was conducted to describe the nursing information behavior of home care nurses (Pajarillo, 2008), describing their information needs (drivers) and information leads and conduits (sources). This study described a framework of nursing information behavior that includes the information processes used by home care nurses in the contextual setting of their community work place. Findings of this research showed that the information behavior of home care nurses is attributed to the very nature of their job being set in the community. There was much reliance on the use of human sources of information, rather than the

traditional hard copy manuals and textbooks, or those obtained electronically through the Internet or electronic databases.

An appreciation of the NIB of RN students should be able to provide educators, information specialists, and application developers insights into their specific information, education, and computer program needs to help enhance their professional functioning as nurses and maximize on their learning experiences. In the long run, these RN students will gain better knowledge and skills in information identification, access, processing and use for integration and application in their nursing practice and care of patients.

**Methods:** A mixed-method approach was used in this research. RN students in two nursing programs, one in New York and another in New Jersey were requested to complete a survey of their frequently-identified information needs, sources used, and roadblocks experienced during the process. The framework devised by Pajarillo (2008) was used to describe their information behavior. Additionally, a small group of these RN students (4-5 in each nursing program) were recruited to participate in individual interviews and focus groups to describe their specific information needs identification, searching, processing, and use. The survey was conducted using Survey Monkey during the Fall 2013. Volunteers were recruited from the same cohort of survey respondents.

**Results:** Data triangulation that resulted from the survey, individual interviews, and focus groups revealed an interesting mix of information needs that were mostly patient care and nursing course-related. Information leads used by the RN students were of electronic and manual formats and from human sources. There were issues identified relating to difficulties accessing database sources, massive quantities of available information, and concerns relating to the authenticity of available information coming from web searches. Some themes identified from the individual interviews and focus groups include “the necessity to pursue the information search process is contingent on the scope and severity of the information need,” “need for information searching is a professional duty,” “human sources come handy when there is no time to waste,” and “the information search process is a complex but relevant task.”

**Conclusion:** A follow-up study will be conducted using the findings from this exploratory study with a larger number of RN student-respondents, with the goal of identifying factors and elements that will likely influence improved information behavior that will also be incorporated into nursing curriculum.

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## Contact

[edmund.pajarillo@rutgers.edu](mailto:edmund.pajarillo@rutgers.edu)

## D 10 - Patient Safety and Nursing Autonomy

### Registered Nurse Individual Innovative Behavior and Research Utilization

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Jose J. Dy Bunpin, RN, BSN, MBA, USA

#### Purpose

The purpose of this presentation is to provide the participant with information about individual innovative behavior among registered nurses who work in acute care hospitals.

#### Target Audience

The target audience for this presentation are registered nurses, administrators and researchers.

#### Abstract

**Purpose:** The purpose of this study was to describe individual innovative behavior among registered nurses who work in acute care hospitals and to understand the antecedents to individual innovative behavior as well as the relationship of individual innovative behavior and research utilization.

**Methods:** A descriptive, cross-sectional research design was used to answer the questions for this study. A questionnaire (paper and on-line) was administered to registered nurses who worked in acute care hospitals. Registered nurses were asked to identify the hospital they worked for in order to tie them to organizational characteristics.

**Results:** It was found that nurses had on average moderate individual innovative behavior as well as moderate commitment to research utilization. Individual innovative behavior was predicted by autonomy, specialty certification, and belief suspension. Research utilization was predicted by individual innovative behavior, attitude towards research, and in-services and continuing education.

**Conclusion:** Both individual innovative behavior and research utilization needs to be improved among registered nurses. Organizations need to provide the support and environment necessary to help cultivate both behaviors in order to help improve the quality and safety of patient care. Registered nurses should engage in identifying problems and accessing, assessing, applying, persuading, implementing, and integrating research findings into their nursing practice to help resolve quality and safety problems in healthcare.

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#### Contact

[joeydy@sbclglobal.net](mailto:joeydy@sbclglobal.net)

## D 10 - Patient Safety and Nursing Autonomy

### Underlying Factors of Medication Errors at a Tertiary Care Hospital, Pakistan

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Shirin Badruddin Verasia, MSN, BSN, Saudi Arabia

#### Purpose

To identify the underlying factors that contribute towards medication errors at tertiary care hospital in Karachi, Pakistan

#### Target Audience

nurses, clinicians, administration and policy makers.

#### Abstract

**Purpose:** Medication error is considered to be an important indicator of a patient's safety. Several error producing factors contribute to its occurrence and may result in patients' morbidity and mortality. Using a mixed method design, this study aimed to identify the underlying factors of medication errors. The study was conducted at a tertiary care hospital in Karachi, Pakistan.

**Methods:** Following the eligibility criteria, 64 medication errors, reported in this period from December 2011 to March, 2012 were included in this study. Data was collected by reviewing documents pertinent to the errors, a self-administered survey questionnaire, and face to face interviews with doctors, pharmacists, and nurses who had committed an error.

**Results:** Analysis of the quantitative data showed that of the 64 errors, 49 were actual errors, 15 were near misses and 2 were classified as sentinel events. The highest percentage of errors was committed in the administration phase, by nurses in the morning shift and they were working more than forty five (45) hours per week. The content analysis of the qualitative data led to two themes – stress and workload and the violation of policies.

**Conclusion:** These findings have implications for the hospital administration, and recommendations provided in this study will help them to bring an improvement in the system.

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## Contact

[f1502957@kfshrc.edu.sa](mailto:f1502957@kfshrc.edu.sa)

## D 10 - Patient Safety and Nursing Autonomy

### Measurement of Moral Courage

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Georgia A. Dinndorf-Hogenson, PhD, RN, CNOR, USA

#### Purpose

show the impact of moral courage in perioperative nurses on patient safety.

#### Target Audience

registered nurses in the clinical setting, leadership, and in academia.

#### Abstract

**Purpose:** Threats to patient safety exist. Nurse appraisals of these threats and the likelihood to act with moral courage have not been documented. This descriptive correlational study examined moral courage response to threats to patient safety. The moral courage model was based on Lazarus and Folkman's theory of stress and coping. The Dillman, Smythe, and Christenson (2009) tailored design method was used to construct the Moral Courage Questionnaire for Nurses (MCQN) instrument. Moral courage frequency and intensity were explored.

**Methods:** A randomized mail questionnaire distributed to Midwest perioperative registered nurses yielded 50% response rate (N = 154).

**Results:** Multiple regression analysis results indicate moral courage in perioperative nurses is significantly influenced by Magnet® status, certification, peer support, institutional culture, fear, and previous operating room experience. Perioperative nurses from Magnet® hospitals were significantly more likely than nurses from non-Magnet® hospitals to stop a surgical procedure performed by a physician with alcohol breath ( $F = 7.99, p = .005$ ). Urban perioperative nurses were significantly more likely to stop the procedure than nurses from smaller rural hospitals ( $F = 4.95, p = .028$ ). Significant positive correlations were shown between previous OR experience and the level of moral courage addressing physician substandard practice ( $p = .004$ ). Significant negative correlations occurred between fear of reprisal and retaliation and (a) reporting ethical issues to administration ( $p = .001$ ), (b) questioning provider when not in best interest of patient ( $p = .001$ ), (c) frequency of speaking up when risks to the patient are known ( $p = .006$ ), and (d) moral courage overcoming being silent about an ethical issue ( $p = .005$ ). Fear of reprisal and retaliation were positively correlated with moral distress ( $p = .000$ ). Sufficient performance of the MCQN Likert-type scale showed contrast of scale scores to reflect variance; Cronbach's alpha measured 0.81.

**Conclusion:** Findings indicate the moral courage model performance was robust with the exception of the motivational value systems variable. Perioperative nurses reported high moral courage in situational threats to patient safety. Significant findings clustered influencing factors of fear, previous experience, peer support, and institutional culture. Furthermore, Magnet® status, peer support, previous operating room experience, institution's urban location, supportive nursing management and administration promote perioperative nurses' exhibition of moral courage. Future research is indicated for supportive nursing management and policy creation promoting moral courage in situations that are threats to patient safety within the perioperative area.

#### Contact

[ghogenson@csbsju.edu](mailto:ghogenson@csbsju.edu)

## E 03 - Global Nursing Migration

### Managing Migration of Human Resources for Health: The Philippine Perspective

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*Erlinda Castro Palaganas, PhD, Philippines*

*Ruel Dupan Caricativo, BA, Philippines*

*Marian Caterial Sanchez, BA, Philippines*

#### Purpose

to present a critical social perspective on the ethics concerning migration of health professionals as they pursue opportunities with significant ramifications on both source and receiving countries. Migration is a global phenomenon, thus both the source and receiving countries need to establish equitable partnerships in the management of migration.

#### Target Audience

are representatives from organizations/agencies involved with recruitment and employment of nurses and other health professionals; professional associations and advocacy groups; private sector employees; public health facilities/employers; teaching institutions; recruitment agencies.

#### Abstract

**Purpose:** While there are varied perspectives on the ethics concerning migration, health professionals continue to pursue opportunities with significant ramifications on both source and receiving countries. As migration continues to be a global phenomenon, both the source and receiving countries need to establish equitable partnerships in the management of migration. This qualitative research aims to present a critical social perspective as a form of discourse in the management of migration.

**Methods:** Interviewed individuals knowledgeable of human resources for health. Purposively chosen key informants (KIs) included doctors, nurses, midwives, and physical/occupational therapists who formed participants of the 32 KIs; plus 3 Group Interviews; 2 FGDs. They represent a range of stakeholder interests from national government agency officials; health regulatory bodies; health professional associations and advocacy groups; private sector employees; public health facilities/employers; teaching institutions; recruitment agencies. Interviews were transcribed and translated following approved ethical procedures. The data collected was analyzed simultaneously via systematic, documented procedures of thematic and constant comparative analysis using Nvivo and manual procedures.

**Results:** Data revealed that the Philippines has made the following strides in addressing this necessary intervention: bilateral agreements, tracking of health professionals, and improving the educational system.

*Bilateral Agreements:* The Philippines continues to produce world class doctors, nurses, midwives, and other health professionals who are highly specialized and sought after in countries across the globe. However, migration has not come without cost for both the country and the migrant workforce. On the local front, despite the need for specialized health professionals in many of the poorest parts of the country, the Philippines continues to lose health professionals to better opportunities abroad. At the same time, while the host countries benefit from the excellent care provided by the migrating health professionals, our health professionals are also subjected to discrimination and exploitation, either undervalued and not receiving the same wages as the locals or either under-skilled and forced to work in positions not commensurate to their skill level. The Philippines is now in official negotiations with several receiving countries to establish mutual recognition agreements to protect both country and migrant workforce. In addition to measures on ethical recruitment guidelines, it is being proposed that receiving countries should also take strides to help the source countries. For a certain number of doctors or nurses that a country will hire, the receiving country should also pay for the training of a proportionate number of health professionals in the Philippines, or provide support through upgrading of a health facility in the poorest regions. Receiving countries should also be willing to allow migrant health professionals to return to the Philippines every so often at cost to the host country to share training and skills they have learned while abroad as a means of transfer of technology, so that instead of a “brain drain” there will be “brain circulation” instead.

*Tracking of Health Professionals:* Data and statistics on Filipino health professionals in the Philippines and abroad are often only estimates and the exact number and location of Filipino health professionals are still unclear. Different agencies have their own data and figures but there is still no centralized database. Government agencies are proposing collaborations in order to establish a more efficient tracking system. This tracking system will help not only for collection of data, but will also enable better protection of rights of health professionals and also for better allocation and mobilization of resources.

*Improving the Educational System:* The demand for migrant health professionals saw a sudden increase in the number of medical and nursing schools hoping to capitalize on the trends. However, a significant number of these schools have not been at par with technical standards, resulting in an increased number of doctors and nurses with inadequate skills and competencies who have thus been unable to find job opportunities. In addition, receiving countries have assessed the local training system for some health professionals as inadequate, such that health professionals who want to work abroad have to pursue additional training to fulfill these requirements. As a response, educational institutions have reassessed and revised their curriculum to reach set standards. Regulatory boards have cracked down on substandard medical and nursing schools to improve or close down. By improving the local curriculum to be at par with international standards, the Philippines will be in a better position to negotiate for equitable partnerships with receiving countries. There is also a call for “transformative education” with focus on the health needs for the country and sense of service, such that students will not enter into courses with the intention to migrate but rather to stay and serve.

The study has revealed other key issues that may not be apparent but will have significant implication in the future. While migrant health workers provide health care for others abroad, there have been reports that their own personal health has been neglected. Migrant workers may return home with illnesses of their own, and in some instances have died because of illness abroad. The illnesses they face and the conditions behind this may be interest for further study.

**Conclusion:** Health professionals will continue to choose to migrate abroad if the conditions which force them to seek opportunities elsewhere are not addressed. The glaring reality that the local socio-political-economic atmosphere is rife with problems of unjust wages and inadequate career opportunities among other issues must be given priority. Unless health professionals will have better opportunities for economic and personal advancement, staying in the Philippines will not be considered a viable option and migration will continue. Thus, the study brought forward key messages: migration as a human right, international human rights instruments, migration and development, social determinants of migration, rights-based approach to migration, and the “ethical” in ethical recruitment. It is necessary to recognize migration as a human right. But what underlies this argument is the inherent human right to freedom of movement. One of the basic principles of human rights is that all rights are interrelated. The recognition of migration as a basic human right entails the recognition of other rights an individual is entitled to. International human rights instruments have already been established to secure the respect and recognition of migrant workers’ rights. These instruments recognize the significant contributions of migrant workers in development, both for the source and destination countries. Moreover, these instruments provide us a viable approach – the rights-based approach – that could mitigate the negative impacts of economic development to migrant workers. All these human rights instruments recognize that migrant workers are significant contributors to development. They contribute to the development of their countries of origin through remittances and increase in domestic consumption as well as the transfer of skills. They contribute to the development of their destination countries through their skills and by augmenting its existing labor force. But an approach to international migration that only focuses on their contributions on development would inevitably dehumanize migrant workers. Migration should not be looked at from an economic perspective but instead, a rights-based approach is necessary. In addition, this approach can be used to analyze the policy of ethical recruitment. Again, this approach is based on the freedom of movement, labor rights, and the right to health of source country, in case of HHR migration. Hence, ethical recruitment is that which recognizes these three foundations.

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Contact

[ecpalaganas@yahoo.com](mailto:ecpalaganas@yahoo.com)

## E 03 - Global Nursing Migration

### Examining Filipinos as Foreign-Educated Nurses in the United States from the Perspectives of Post-Colonialism

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*Leo-Felix M. Jurado, PhD, RN, NE-BC, APN, CNE, USA*

#### Purpose

The purpose of this presentation is to have a better understanding on the long standing mass migration of Filipino Foreign-educated nurses (FEN) to the United States.

#### Target Audience

The target audience are nurse administrators, nurse educators, nurse researchers, nurse regulators and nurse clinicians who have worked or currently working with foreign-educated nurses particularly Filipino nurses.

#### Abstract

**Purpose:** The study objectives were: (a) describe the historical events contributing to mass recruitment of nursing graduates from the Philippines to the US, ( b) analyze the political and economic factors underlying the unidirectional flow of foreign-educated nurses from the Philippines to the US, (c) examine the impact of large scale nursing recruitment from the Philippines to the US, and (d) analyze the influence of post-colonial forces on conditions of employment and perceived value of FENs in the US.

**Methods:** The qualitative study design used historical research and focus groups. The data sources included primary and secondary sources, collected between 1900 to 2013 in the US and the Philippines. Four separate focus groups were conducted with 21 FENs who entered the US under different visas for training or employment between 1962- 2006. Findings from historical data and focus groups were triangulated in analyzing linkages and significance of events in the phenomenon of interest.

**Results:** The findings revealed that mass emigration of nurses from the Philippines to the US is facilitated by nursing shortages that brought changes in immigration laws easing entry of nurses to the US.

**Conclusion:** The fusion between the subjective and objective reality constructed nursing and migration to the US as key to improving the economic well-being and social status of FENs and their families. Filipino families, schools, and government take an active role in promoting this social reality. The American benevolent assimilation agenda, US-based public education, and nursing education and practice have perpetuated American superiority and dependence of Filipinos on Americans. Findings provide an understanding of institutionalized structures perpetuating global inequalities in nurse migration and distribution that impact differentially among sending and receiving countries. The study has implications in policy development to promote retention of nurses in their home countries and foreign countries where they immigrate.

#### Contact

[juradol@wpunj.edu](mailto:juradol@wpunj.edu)

## E 04 - Nursing Research in Critical Care

### A Qualitative Study of Family Members of ICU Patients Who Require Extensive Monitoring

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*Claudia DiSabatino Smith, PhD, RN, NE-BC, USA*

*Kristi M. Custard, BSN, BS, RN, USA*

#### Purpose

The purpose of this presentation is to report findings of a qualitative study that explored family members' perceptions about the extensive monitoring technology used with their critically ill family member following cardiac surgery, and the education provided to them.

#### Target Audience

The target audience of this presentation is researchers, educators, ICU leaders.

#### Abstract

**Purpose:** Monitoring technology has become more high tech and complex in healthcare over the last ten to fifteen years. The computer age has facilitated the development of a host of more sensitive invasive and non-invasive monitors with which healthcare professionals both monitor and deliver therapy to critically ill patients. Accompanied by the emergence of this extensive monitoring technology is a growing gap between the healthcare providers who use the technology when caring for critically ill patients and the patients' family members who strain to understand and cope with its use.

In order to provide education materials that address family concerns related to high tech monitoring equipment, we need a better understanding of the family's perception of the equipment. We need to understand their perception as seen through the eyes of family members. Little is written about the family members' experience related to monitoring equipment. The greatest need of ICU family members is information about the patient's status and about the equipment in use. Therefore, it is important to explore the experience of family members who observe their critically ill loved one receiving high tech monitoring and therapy. The study utilized both survey data and a qualitative hermeneutic interpretive phenomenological approach to explore family members' perceptions about the extensive monitoring technology used with their critically ill family member following cardiac surgery and the education provided to them.

**Methods:** Following approval by the hospital institutional review board, investigators used purposive sampling to select study participants during patient visitation in the Cardiovascular Surgery ICU for this mixed methods study. Inclusion criteria consisted of English-speaking family members of patients who had cardiac surgery and with whom extensive monitoring technology was utilized. Additionally, family members must have visited the patient in the ICU during the time that the patient had extensive monitoring in place. Digital recordings were transcribed and verified by the study team.

The data collection methodology consisted of a researcher-generated demographic data sheet and the use of a semi-structured interview guide with which to conduct family research in a group interview setting. Participants completed Spielberger's State Trait Anxiety Inventory (STAI) at the outset of the interview session. Each member of the family (maximum of four family members) was consented and interviewed as a family. Diekelmann's descriptive phenomenological method was used to analyze interview data. To ensure trustworthiness of the data, the PI secured the services of a professional colleague, familiar with qualitative research, to review the interview transcripts and interpretive findings for accuracy and consistency.

**Results:** Despite efforts to recruit a representative sample, the study sample consisted of four Caucasian families and one Hispanic family. Five general themes emerged from the analysis of five family interviews. They were: 1. Overwhelmed by all of the equipment; 2. Feelings of uncertainty; 3. Methods of coping with uncertainty; 4. Meaning of the numbers on the monitors; 5. Need for education.

**Conclusion:** Younger family members and those with information technology-associated jobs were more likely to educate themselves using online resources. Older family members preferred to ask nurses questions as a means of educating themselves. Early in each of the interviews families praised nurses for providing “all the necessary education”, while later in the interviews all family members identified educational needs and missed opportunities for education.

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### Contact

[csmith1@stlukeshhealth.com](mailto:csmith1@stlukeshhealth.com)

## **E 04 - Nursing Research in Critical Care**

### **Impact of a Smart Phone Application on ICU Family and Provider Satisfaction**

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*Florence Schaefer, MS, RN, ACNS-BC, USA*

#### Purpose

to disseminate the findings of the impact that smart phone technology, specifically an application developed entitled “The ICU Survival Guide”, had on improving ICU patient (and family as surrogate) satisfaction by providing support in three domains: information, emotional and logistical and hence reportable satisfaction with the hospital as an institution.

#### Target Audience

all nursing staff, managers, administrators and informatics nurses. This topic would also be of interest to nursing educators.

#### Abstract

**Purpose:** The most important factor affecting the overall satisfaction of the family with the ICU is the thoroughness of the information that they receive. Family members and their significant others are frequently called upon to share information and to make decisions pertaining to care, particularly when the loved one is a patient in an Intensive Care Unit (ICU) and are unable to make decisions for themselves. An increase in anxiety and distress experienced by families has particularly been noted when they receive poor communication. Communication barriers, fear, and uncertainty all add to the distress levels of family members.

Literature supports the need to increase and improve communication between healthcare professionals and the patients' families. There is a need for the family of the critically ill patient to receive updated information more than once to decrease anxiety. It is imperative that these surrogate decision makers are provided with early and effective communication. The use of print material, as well as computer kiosks as vehicles for better communication are documented in the literature; however there is a paucity of research in which a smart phone application is used to improve and reinforce knowledge and communication with patients' family members as well as influence family members' level of satisfaction with information.

The central hypothesis of the proposed study is that the smart phone technology, specifically an application entitled “The ICU Survival Guide”, will improve family satisfaction of ICU patients as measured by the ICU FS-24. For the study, the application was placed on iPads which were given to the family member for a period of 72 hours or until patient discharge from the ICU.

**Methods:** A randomized control intervention study was conducted to test an application for a smart phone or I Pad as an effective strategy for providing thorough, accurate information to family members of critically ill ICU patients. Three data collection tools were used to evaluate family satisfaction with the care in the Intensive Care Unit, family satisfaction with the application, and staff nurse perception of their interactions with family members of ICU patients who used/ didn't use the application.

Conducted in three medical-surgical ICUs in a large tertiary hospital in the Texas Medical Center, a sample of 250 study participants was limited to one family member per critically ill patient who was admitted to one of the study units. Participants were randomly assigned to either the intervention or control group.

Study results were analyzed using descriptive and inferential statistics at a level of significance of  $p = 0.05$ . The sample size was calculated to reflect a power of 0.80 and a moderate effect.

**Results:** Data collection is complete and analysis is underway. Results will be reported at the time of the conference.

**Conclusions:** Family members generally found the "ICU Survival Guide" very informative. Utilizing an iPad, however, was a barrier to many participants. Participants who were randomly assigned to the intervention group, who either owned iPads or were in the 20-30 age range, were likely to consent participate. Older adults who were assigned to the intervention group, voiced concern and did not want to be responsible for the iPad. They did not want the added stress of learning how to work the iPad and the ICU Survival Guide application.

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#### Contact

[fschaefer@StLukesHealth.Org](mailto:fschaefer@StLukesHealth.Org)

## E 04 - Nursing Research in Critical Care

### Involving Relatives in ICU Patient Care: The Barriers and Enablers

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*Bridget Anne McConnell, RN, BN (Hons), Australia*

#### Purpose

The purpose of this presentation is to educate registered nurses as to the findings of a current research study which investigated relative involvement in ICU patient care. The author will discuss methodologies utilised to discover barriers and enablers to relative inclusion.

#### Target Audience

The target audience of this presentation is critical care nurses. However, the information discussed in the presentation may be applicable to many nursing specialities and so, all registered nurses would benefit from this research.

#### Abstract

**Purpose:** Relative involvement in ICU patient care has received growing recognition in recent times. However, relative involvement in the care of a critically ill patient remains a controversial issue. Past research has investigated the relatives experience within the intensive care environment, highlighting the benefits of their inclusion in care activities. However, whilst past research has identified the benefits of relative involvement in ICU patient care for the relative, patient and critical care nurse, there has been no investigation as to whether this practice is occurring within Intensive Care Units or if there are any barriers and enablers to this practice. This research study aimed to investigate barriers and enablers that impact on a critical care nurse's ability to involve relatives in ICU patient care activities and identify possible reasons for their existence. It is of great significance to recognise barriers and enablers to improve the relative's experience within the intensive care environment and gain the benefits of this practice as outlined in nursing literature.

**Methods:** A mixed methods methodology consisting of two phases was utilised for this study. To address the diversity of this nursing issue and provide comprehensive answers to the research questions, a mix of both quantitative (Phase 1) and qualitative (Phase 2) data was needed to create a more complete picture of the research problem. An explanatory mixed method design was utilised. An online questionnaire was conducted in Phase 1, in which 70 participants responded to a series of questions related to relative involvement in ICU patient care. The intensive care network was used for questionnaire participant recruitment. As a subset of purposive sampling, a snowball sample approach was used, with third parties emailing the questionnaire link and information sheet to potential participants within the intensive care network. Thirteen interview questions were developed following Phase 1 data analysis and 6 participants were interviewed in Phase 2. Participants were critical care nurses, employed in an Intensive Care Unit at the time of data collection. Although small, the study sample reflected a range of ages and intensive care experience.

**Results:** Descriptive statistics and thematic analysis was used to produce the study's results. The results of the study demonstrated a range of perspectives demonstrating that relative involvement in patient care is ultimately the personal decision of the gatekeeper critical care nurse. This led to the identification of two distinctive critical care nurses: 'The Gatekeeper' and 'The Facilitator'. The characteristics of these two types of critical care nurses assisted in the identification of barriers and enablers to this practice. This study fulfilled its aim in determining specific barriers, such as the role of the critical care nurse, critical care nurses expertise, knowing what is best for the patient, time constraints, short term ICU stay, the 'right' relative, insecurity, hospital policies and the fear of adverse events. Enablers identified included the relative-patient relationship, the relative as a resource, veracity, care competency, experience, the individual relative, knowledge of benefits and an extended stay in ICU. The researcher also suggests possible reasons for the existence of barriers and enablers.

**Conclusion:** This study has concluded that policies and guidelines to relative involvement in ICU patient care should be produced to assist critical care nurses in their decision making. This practice requires discussion and promotion within the intensive care setting to limit barriers and uphold enablers.

Knowledge of barriers and enablers to relative involvement in patient care has the potential to improve the relatives ICU experience. This research has contributed unique findings to the body of knowledge on the topic of relative involvement in ICU patient care, however further investigation is required to identify the ways in which barriers can be reduced and enablers enhanced.

Contact

[bridget.mcconnell@nd.edu.au](mailto:bridget.mcconnell@nd.edu.au)

## E 05 - Utilizing Multiple Technologies to Influence Nursing

### Radio Frequency Identification Device (RFID) and Real Time Location Systems (RTLS) Enhance Nursing Care Delivery

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*Sandra Reeder, MSN, USA Patricia Toor, MSN, USA*

#### Purpose

The purpose of the presentation is to use RTLS & RFID technology to measure the direct patient care work by shift and patient type in order to develop process improvements for safe, effective and efficient care.

#### Target Audience

The target audience of this presentation is front line nurses, nursing educators, process improvement, safety officers and administration.

#### Abstract

**Purpose:** The purpose of the project was to use the technology to measure the direct patient care work by shift and patient type in order to develop process improvements for safe, effective and efficient care. Technology has the potential to create a better work environment for inpatient nurses by improving efficiency, safety, and quality of care. Technology solutions such as RFID and RTLS can have a dramatic impact on patient safety, quality of care, patient and nurse satisfaction contributing to overall enhanced hospital operations. (California HealthCare Foundation, 2008). RFID and RTLS have mainly been used to help track equipment. A study conducted by Indiana University-Purdue University Indianapolis documented nursing time spent locating equipment was 60 minutes per shift. Implementing the technology resulted in process improvements to save \$750,000 in-direct costs and give the nurses back the hour to spend with their patients (Wicklund, 2009). Nurses are the hub in a complex web of care delivery as well as an expensive resource in the acute care setting. Validating the work of nurses can identify opportunities for improvement.

**Methods:** Staff members were assigned RFID tags to allow tracking of movement and time on the Innovation Unit. Data was collected for three months and converted into spaghetti maps and graphs to demonstrate traffic flow and time spent in patient care by shift, day of the week, and month. The data was analyzed and validated by leaders and members of the team to identify opportunities for process improvement in the specific areas of staffing by shift, by patient type, and time of day that impacts care delivery and expense for the unit.

**Results:** RFID and RTLS technology data identified minutes by shift workload (direct care) day shift and night shift as similar, supporting that the nurse to patient ratio for both shifts should be the same. Day shift spent 129,452 minutes versus 90,207 minutes during night shift. The differences between the shifts were 39,245 minutes which converted to .5 FTE annually. The technology validated care delivery patterns by total minutes spent per hour in patient's room specifically related to hand off communication and assessments. Data, sorted by patient type, documented the time spent by specialty service patient type. This information supported adjusting assignments to allow for patients with complex care needs to be balanced with those requiring less time. Individual nurse data was used to improve individual efficiencies. Data was also used to support redesign of work spaces based on actual flow of nursing staff to minimize steps and inefficiencies.

**Conclusion:** RFID and RTLS on the Innovation unit have validated process improvements related to nursing ratios, patterns of care delivery, nursing assignments, and work flow efficiencies. These changes created a better work environment for nurses through improved efficiency, safety and quality of care delivered. Celebration Health embraces, supports, and experiments with technology to understand the work of nursing and to fulfill one of our core purposes to be a living laboratory. Technology is rapidly growing in healthcare but for it to be successful it is extremely important to understand the current workflow and explain the "why" behind the implementation. Michael Fraai director of biomedical engineering at Brigham and Women's hospital quoted "There is a huge cultural component to the implementation of technology. You can install a lot of technologies, but if a technology doesn't fit into the existing workflow, it won't be adopted".

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## Contact

[sareeder10@gmail.com](mailto:sareeder10@gmail.com)

## E 05 - Utilizing Multiple Technologies to Influence Nursing

### Comparison of Telemedicine to Traditional Face-to-Face Care for Children with Special Healthcare Needs: Analysis of Cost, Caring, and Family-Centered Care

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Mary A. Hooshmand, PhD, MS, BS, RN, USA

#### Purpose

The purpose of this presentation is to examine issues of cost, caring and family-centered care specific to telemedicine services. To promote acceptance by health care providers and recipients of health care, it is critical to provide research-based evidence that health services provided via telemedicine are cost effective, caring, and family-centered.

#### Target Audience

The target audience of this presentation includes nurses in research, practice, and academia particularly those working with vulnerable and hard to reach populations facing challenges in access to health care services. Specific interest groups may include those in maternal child health, community health and informatics.

#### Abstract

**Purpose:** The purpose of this research project was to examine cost, caring and family-centered care in relation to pediatric specialty services utilizing telemedicine technology compared to traditional face-to-face visits for CSHCN in rural, remote and medically underserved areas of Southeast Florida. Family costs, caring, and family-centered care were examined from the perspectives of the parents/ guardians of CSHCN.

**Methods:** A quasi-experimental research design was used with a convenience sample of 222 parents/ guardians of CSHCN residing in rural, remote and medically underserved areas of Southeast Florida enrolled in the Children's Medical Services (CMS) program. The sample was comprised of two study groups: traditional ( $n = 110$ ) which included families receiving traditional face-to-face pediatric specialty care; and the telemedicine group ( $n = 112$ ) which included families who have received telemedicine visits along with traditional face-to-face pediatric specialty care. Measures of cost, caring, and family-centered care were obtained using three instruments including a Family Cost Survey, Caring Professional Scale (CPS), and Measure of Processes of Care- 20 Item Scale (MPOC-20).

**Results:** Results indicated that there were no significant differences in family costs when telemedicine was available locally compared to traditional face-to-face care in the local community. Family costs were reported to be significantly higher if telemedicine was not available in their communities. Families within the telemedicine group reported significantly greater anticipated costs for pediatric specialty care visits if telemedicine had not been available locally. If telemedicine had not been available, parents anticipated significant increases in both costs and burdens to the family including increased mileage/ travel, number

of family members missing work, loss of wages impacting family weekly incomes, child care needs, lodging, and additional other costs associated with the specialty visit.

While there were no differences in the families' perceptions of care as caring, parents in the telemedicine group reported more positive perceptions of the system of care as being family-centered compared to families receiving traditional face-to-face pediatric specialty care. The study results are significant because they indicate that families do perceive systems of care inclusive of telemedicine as family-centered. In fact, while parent/ guardians in both groups reported that they perceived the system of care as family-centered, the scores were significantly higher among the parent/ guardians in the telemedicine group compared to traditional face-to-face care across all domains of family-centered care.

These results with significantly higher scores for family-centered care under the telemedicine condition render further investigation. The provider groups were consistent across traditional and telemedicine clinics within the same overall system of care for CSHCN in the Southeast region of Florida. One primary difference observed is that, within the telemedicine clinics, there is consistently a Registered Nurse (or Advanced Registered Nurse Practitioner) with the family during the telemedicine sessions. While traditional clinics may have a Registered Nurse present, they are not consistently with the family throughout the clinical sessions. In contrast, there may be a Licensed Practical Nurse or Medical Assistant with the family and pediatric specialty provider in traditional face-to-face clinics. This warrants further study not only in respect to telemedicine but the possible impact of the Registered Nurse role in terms of effect on family-centered care across the system of care including the pediatric specialty clinics for CSHCN.

**Conclusion:** This study demonstrates the acceptance of telemedicine by parents of CSHCN. The use of innovative systems of care such as telemedicine has promise to promote caring, family-centered systems of care in communities. These results together underscore the importance of assuring and facilitating access to pediatric specialty care for CSHCN and their families by further reducing their burdens and costs. Systems of care for CSHCN should be accessible, reduce financial burden, and construed by the recipients of care as caring and family-centered in order to build family- provider partnerships, and optimize health outcomes for CSHCN and their families.

The findings of this study indicate that the use of technology, specifically telemedicine, did not diminish the human connection, caring, and this has implications for all kinds of health care technologies. For example, potential technologies could range from video teleconferencing 'home visits' through computer technology connecting families to a community health nurse, medical home, pediatric specialist, or even back to the Neonatal or Pediatric Intensive Care Unit for a follow-up; telemedicine based in pediatrician offices connecting to schools and day cares perhaps conducting 'sick' visits; to the use of twitter or other social networking tools to provide health information or health reminders to a child with Juvenile Diabetes. The possibilities for the use of technology in health care are vast and have not been tapped to their full potential.

The results suggest that telemedicine can reduce family cost burden, maintain caring behaviors on the part of health care professionals, and promote caring, family-centered systems of care in local communities. We make the assumption that technology lessens the interpersonal relationship in the health care setting. This study debunks that mindset and provides evidence that the human connection is not lost through the use of technology. In this era of health care reform, this study provides powerful evidence to support expansion of technology in the health care arena.

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## Contact

[Mhooshmand@miami.edu](mailto:Mhooshmand@miami.edu)

## E 09 - Using Simulation Through the Lifespan

### The Use of a Death Notification Simulation and Readiness for Interprofessional Learning in Nursing and Social Work Students

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*Elizabeth Roe, RN, PhD, USA*

*Adrienne A. Galbraith, RN, MSN, USA*

*Catherine Macomber, MSW, USA*

#### Purpose

describe the results of a research study to explore readiness for interprofessional learning in Nursing and Social Work students before and after an interprofessional death notification simulation

#### Target Audience

nurse educators

#### Abstract

**Purpose:** Traditionally the emphasis on interprofessional collaboration has been in the practice setting and not during the education of health care professionals. In order for healthcare disciplines to effectively collaborate at the patient's bedside, it is important for healthcare education to allow students to participate in interprofessional learning as part of their educational process. The purpose of this study was to determine whether participation in an interprofessional simulation on death notification influences undergraduate nursing and social work students' perception of readiness for interprofessional learning.

For the past two years, senior Nursing and Social Work students have participated in a death notification simulation. Through this interactive simulation, the students are able to enact and discuss their professional roles and differentiate how they may overlap or vary, thereby potentially increasing understanding, mutual trust, and respect for other professions. The students participated in the simulation either in the role of the Nurse, Social Worker, or observer. All the students participated in the simulation debriefing together.

**Methods:** In this research study, The Readiness for Interprofessional Learning Scale, a 19 item Likert type scale, was used to assess readiness for interprofessional learning in Nursing and Social Work students before and after a pre-established death notification simulation. A descriptive-comparative design was used with senior Nursing and Social Work students to collect data over a one year period. All students that participated in the simulation each semester (Approximately 100) were asked to participate in this study. Data was collected using The Readiness for Interprofessional Learning Scale one week before and immediately following the death notification simulation.

**Results:** A total of 232 students completed the surveys (110 before the simulation and 122 after). T-tests showed a significance difference in scores on the total RIPLS ( $t = -3.32, p = .001$ ), the teamwork and collaboration subscale ( $t = -2.88, p = .004$ ), and the professional identity subscale ( $t = -3.20, p = .002$ ) indicating an increase in the readiness for interprofessional learning after the simulation.

**Conclusion:** The participation of Nursing and Social Work students in an interprofessional simulation resulted in an increased readiness for interprofessional learning. The use of interprofessional simulations may be a strategy that can be used in a variety of settings to increase interprofessional teamwork and collaboration.

#### References

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#### Contact

[eroe@svsu.edu](mailto:eroe@svsu.edu)

## E 09 - Using Simulation Through the Lifespan

### Baby Boy Jones: Using Technology to Engage Undergraduate Nursing Students in a Case-Based Learning Activity

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Lisa M. Cleveland, PhD, RN, PNP-BC, IBCLC, USA

Bonnie Taylor, MA, CAPM, USA

Linda Grace Solis, PhD, USA

Bruce Paper, BA, USA

#### Purpose

The purpose of this presentation is to describe the use of an innovative and effective learning strategy that can assist educators in maximizing limited resources and enhance the achievement of learning outcomes to meet the future demands for qualified nurses.

#### Target Audience

The target audience for this presentation is nurse educators at both the undergraduate and graduate levels.

#### Abstract

**Purpose:** Case-based learning activities (CBLA's) are an effective strategy for teaching clinical reasoning and decision-making skills in the health sciences. *Baby Boy Jones*, our prototype CBLA focused on newborn infection, is an interactive, unfolding case scenario within the context of interprofessional care, deployed as a web-based independent learning activity. The purpose of this presentation is to describe the development of this CBLA, discuss learning outcomes and student attitudes as well as our plans for continued development of this project.

**Methods:** The CBLA, situated in the undergraduate maternal-newborn nursing course, was designed using SoftChalk® e-learning, authoring software and delivered using the Blackboard learning management system. Content addressing learning objectives was presented using branching decision points, immediate feedback, opportunities for reflection, and formative assessment. Identical pre/post-activity assessments were used to measure learning outcomes and a survey was used to measure attitudes.

**Results:** Students (N=342) participated in the *Baby Boy Jones CBLA*; 315 completed all 10 items of the pre and post-activity assessments. Findings revealed a statistically significant difference in their scores ( $z=-11.03$ ,  $p<.001$ ) indicating that students performed better on the post assessment. In addition, 195 students responded to the attitude survey. Results showed that students agreed the CBLA was relevant to their learning needs for the course (94%) and focused on the learning objectives (95%). They also felt the activity incorporated decision-making and feedback (92%) and was visually compelling and thought provoking (85%). Students agreed the activity reflected current theory and evidence-based practice (96%) and they learned content more effectively for transfer to the clinical setting using this method of instruction (82%). Lastly, following the activity, students felt more capable of identifying an infant at risk for developing infection and more capable of providing nursing care for that infant (86%).

**Conclusion:** The *Baby Boy Jones CBLA* is an example of innovation in nursing education demonstrating student achievement of learning objectives and a high degree of student satisfaction. Continued exploration of this method of instruction in nursing and other health professions education is strongly encouraged.

#### Contact

[clevelandl@uthscsa.edu](mailto:clevelandl@uthscsa.edu)

## E 09 - Using Simulation Through the Lifespan

### Aging Simulation Program: Improving Nursing Students' Attitudes Toward Caring for Older People

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*Min-Feng Huang, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to explore the effects of an aging simulation program on improving nursing students' attitudes toward caring for older people.

#### Target Audience

The target audience of this presentation is nursing educators and health professionals.

#### Abstract

**Purpose:** This study aimed to explore the effects of an aging simulation program on improving nursing students' attitudes toward caring for older people.

**Methods:** The aging simulation program includes 3 stages: Stage 1 was an introduction section; Stage 2 was the aging simulation; and Stage 3 was a post-simulation discussion. All participants completed a post-simulation report after the aging simulation program. The content analysis was conducted to analyze the post-simulation report.

**Results:** A total of 67 undergraduate students studying in a gerontological nursing curriculum joined the aging simulation program. The majority of participants was females (92.3%; n=62). Four categories emerged from the data, including: requiring patience and empathy not sympathy, understanding the limitation of aging, creating a friendly and supportive environment, and preparing to face aging of parents and grandparents.

**Conclusion:** Results of this study show that nursing students have positive attitudes toward aging. The findings suggest that the use of the aging simulation program in nursing education may prove helpful in enhancing undergraduate nursing students' attitudes toward caring for the elderly.

#### Contact

[minfeng@mail.ypu.edu.tw](mailto:minfeng@mail.ypu.edu.tw)

## E 10 - Medication Related Research in the Clinical Setting

### Medication Communication during Handovers Involving Nurses in Speciality Hospital Settings

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*Elizabeth Manias, RN, MPharm, PhD, Australia*

*Sandy C. Braaf, RN BN PhD, Australia*

*Sascha P. Rixon, BSc/BA (Hons) PhD, Australia*

*Allison Williams, BNurs, PhD, Australia*

*Danny Liew, MBBS PhD, Australia*

#### Purpose

The purpose of this presentation is to inform the audience about how medication communication occurs during handovers involving nurses.

#### Target Audience

The target audience of the presentation is clinical health practitioners and others involved in performing, teaching, researching, managing or writing policy for handover processes.

#### Abstract

**Purpose:** Handover may be defined as “the exchange between health professionals of information about a patient accompanying either a transfer of control over, or of responsibility for, the patient” (Cohen & Hilligoss, 2010, p. 494). It is an important forum for communicating patient information. Communication breakdowns during handover may have adverse effects on patient safety and quality of healthcare (Department of Health, 2012). Existing research on handovers involving nurses has largely focussed on information provision during shift-to-shift nursing handovers in specific hospital settings (e.g., medical wards). Research to date does not adequately convey the detail and complexity of handover communication. Handovers take place multiple times during a nurse's working shift, and is an important communication forum for conveying information pertaining to a patient's medications (e.g., at-home medications, medication treatment, goals and outcomes of medication treatment, and discharge medications). Liu, Manias, and Gerdtz (2012) and Manias, Aitken, and Dunning (2005) have explored medication communication during nurse-to-nurse handovers in individual settings. However, there is a lack of research on communication about medications during handovers involving nurses (in which health professionals other than nurses may give or receive handover) in a variety of specialty hospital settings. We seek to address this gap in research by examining how medications information is communicated during handovers involving nurses in a variety of speciality hospital settings.

**Methods:** This exploratory qualitative study draws on over 200 hours of audio-recorded participant observation of health care professionals in hospital specialty settings. The study was conducted at a metropolitan Australian public hospital in cardiothoracic care, intensive care, emergency care, and oncology care settings. Communication interactions involving nurses performing handovers to, or receiving handovers from, ambulance officers, doctors or other nurses, were observed. Handover types included health care professionals' communication for the purposes of shift changeover, moving patients between or within a ward, receiving or sending patients via ambulance services, and leaving or returning to the patient area for tea breaks or other purposes. All audio recorded handovers were de-identified and transcribed verbatim. A comprehensive thematic analysis was performed by three researchers.

**Results:** Factors shaping medication communication during all types of handover included: whether an intravenous infusion was being administered and the type of infusion, medication tasks to be attended to, anticipated time away from the bedside, a receiving nurse's knowledge of the patient, and potential risk to the patient. Outgoing nurses who left the bedside temporarily, such as for a tea break, infrequently received a handover of information upon return to the patient area. There was a lack of medication communication involving patients and any present family members during handovers, despite these handover interactions often taking place at the bedside. Little time was devoted to conveying medication information. Information conveyed focused on medications prescribed during a patient's hospital stay. Patient medications taken prior to hospitalisation were seldom mentioned, except in ambulance officer-

nurse interactions. Medication names were not always mentioned during handover, with generic medication referents used instead (e.g. antibiotics). Often the names of medications were abbreviated and units of medication doses omitted. In regard to shift-to-shift handovers, the structure of communication varied according to the setting in which it was conducted. In cardiothoracic care and intensive care nurses were observed to use a body systems approach to order their communication, which facilitated the sharing of medication information. In emergency care and oncology care, patient documentation was used to structure communication. Medication communication did not arise consistently with this approach. In all settings, medication administration records were often reviewed at the end of handover interactions.

**Conclusion:** Effective communication between health care professionals during handover enhances patient safety and quality of care. Currently little time is allocated to the communication and discussion of medication information. Greater emphasis on medications during handover, and the involvement of patients and family members, could improve the content, accuracy, timeliness and completeness of medication communication. This may reduce the risk of medication incidents.

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### Contact

[emancias@unimelb.edu.au](mailto:emancias@unimelb.edu.au)

## E 10 - Medication Related Research in the Clinical Setting

### A Systematic Review of Non-Pharmacological Management of Heel-Stick Pain in the Pre-Term Neonates

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Ming-Huei Lu, MS, RN, Taiwan

I-chuan Li, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is to help pediatric clinical staff and administrators appraise, select and synthesize all high quality research evidence about the efficacy of non-pharmacological interventions in the management of Heel Stick Pain in preterm neonates.

#### Target Audience

The target audience of this presentation is Pediatric clinical nursing staff, Nursing administrators, Nursing educators, and Nursing researchers.

#### Abstract

**Purpose:** To identify effective non-pharmacological interventions in the literature regarding Heel Stick Pain prevention and treatment in preterm neonates.

**Methods:** A literature search from 2007 to 2012 was conducted using MedLine, CINAHL, and the Cochrane Library databases, and was complemented by a search of known articles. Two independent reviewers extracted data and assessed methodological quality according to pre-defined criteria.

**Results:** We identified 14 randomized controlled studies that pertained to non-pharmacological pain management methods. The selected interventions were "non-nutritive sucking", "sucrose", "glucose", "sensorial saturation", "facilitated tucking", "kangaroo care", "sensorial saturation", "breast milk" and "incubator care (inclined, nested, and prone)". Some of the non-pharmacological interventions reduced changes in pulse rate, respiration and oxygen saturation, motor activity, and clinical excitation states during painful intervention.

**Conclusion:** Evidence supported "non-nutritive sucking", "sucrose", "glucose", "sensorial saturation", "facilitated tucking" and "kangaroo care" for their pain-alleviating effects on neonates. However, unambiguous evidence of their effects remains to be presented. Further research must use validated pain assessment instruments for the evaluation of the pain-alleviating effect of non-pharmacological interventions.

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#### Contact

[bettylu@ms1.mmh.org.tw](mailto:bettylu@ms1.mmh.org.tw)

## E 10 - Medication Related Research in the Clinical Setting

### Exploration of the Medication Disturbance, Quality of Life and Effectiveness of an Educational Program on the up to Six Months Follow-Up in Atrial Fibrillation Patients Under Warfarin Treatment

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*Yu-Hsia Tsai, RN, MS, Taiwan*

*Hsueh-Erh Liu, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to share our research results about: 1.the medication disturbances and quality of life among atrial fibrillation patients under Warfarin treatment. 2.the most important educational issues for AF patients under Warfarin treatment.

#### Target Audience

The target audiences of this presentation are clinicians, researchers, educators, and administrators in medical associative disciplines.

#### Abstract

**Purpose:** Purposes of this study were to (A) assess the medication disturbance and QoL of AF patients taking Warfarin, and to (B) evaluate patients' cognition of medication, compliance to medical treatment, INR (international normalized ratio) values , bleeding side effect, thrombosis or stroke after individual education on Warfarin implemented by nurses.

**Methods:** A total of 122 AF patients with Warfarin treatment were recruited from the outpatients in a medical center, Taiwan. They received the baseline assessment of INR, medication knowledge and disturbance, medicine compliance and QoL by laboratory data and questionnaire when they signed up the informed consent. Based on these results, they were divided into 3 groups. Group 1 (standard group, n=15) was patients showed an understanding of how to take Warfarin safely and had good compliance of the medicine. For them, no intervention was implemented. The other participants with limited understanding and poor compliance were divided into group 2 (control group, n=48) and 3 (experimental group, n=59) randomly. The control group received routine care whereas the experimental group received the personal education program. All these 3 groups received 6 months' follow-up assessments in order to identify the effectiveness of the educational program. Finally, only 113 participants completed the 6 months' follow up (group 1=15; group 2=45; group 3=53). Outcome indicators included: medication knowledge, compliance to medical treatment, INR values, leading side effect, thrombosis or stroke was carried out at the third and sixth month. The post-test at the sixth month were accomplished for medication disturbances and SF-36-QoL among these 3 groups.

SPSSPC-Win18.0 was used for statistics analysis. Descriptive statistics included mean, standard deviation, frequency and percentage. Inferential statistics including unpaired t test, two-way analysis of variance (ANOVA), Chi-Square test, and Fisher's exact test were used to compare the differences between groups; paired t test and McNemar's test were used to compare pre-test and post-test within 3 groups. Multiple regression was used for predicting the significant factors of participants' QoL. The significant level of this study was 0.05.

**Results:** The mean age of whole participants was 69.7 years old (SD=12, range: 38-95). Most of the participants were male (51.6%), married (68%), diagnosed as AF more than one year (89.3%) and take Warfarin more than 1 years (74%). In addition, no significant differences of demographic data and medical conditions existed between experimental and control groups. In regard to the INR value, there is no significant difference between the first assessment and the 6 month's follow for both the experimental and control groups. However, 2 participants experienced stroke and 4 cases experienced bleeding side effects during study period.

For the experimental group, the levels of anticoagulant knowledge and medication compliance were increased from  $5.7 \pm 1.2$  (first assessment) to  $6.8 \pm 1.4$  (3- month,  $t=-6.1$ ;  $p=0.000$ ) and  $6.6 \pm 1.6$  (6-month,  $t=-3.9$ ;  $p<.001$ ). Significant improvements were found in the single items as "observing the symptoms or

signs of abnormal bleeding”, “purpose of taking anticoagulant” and “medication precautions”. When comparing 3 groups, we found that the highest knowledge score of anticoagulant was the standard group, but there was no significant difference between experimental and control group both in the first assessment and post-test. Overall, the lowest score items of anticoagulant knowledge were “diet adjustment “and “medication precautions” both in pre-test and post-test.

When “disturbances of anticoagulant” as an issue in the experimental group, the levels significantly increased from  $0.9\pm 1.1$  (first assessment) to  $1.7\pm 1.9$  (6-month,  $t=-1.74$ ;  $p=0.01$ ) in experimental group. In addition, most patients worry about “incidence of stroke or thrombus” and “frequent blood test” in first assessment. However, more participants worried about “medication side effects” in 6-month follow-up. As for QoL, in first assessment, participants in experimental group reported their ranges of QoL were 58 to 83, where “role restriction due to physical problems”, “general health” and “vitality “ were the worst ones reported. When compared with the first assessment, participants reported significantly decreased “social function” ( $t=2.0$ ,  $p=0.046$ ) and “mental health” ( $t=3.9$ ,  $p=0.00$ ). Additionally, age, gender, married status, education level, stroke, congestive heart failure, past surgery, comorbidity, bleeding experience and medication disturbances affected participants’ subgroup QoL in the first assessment among 122 AF patients who were taking Warfarin.

**Conclusion:** The personalized education program could improve the levels of anticoagulant knowledge and medication compliance. However, we still recommend enhancing the subjects of health education over “diet adjustment” and “avoiding medication interaction “among AF patients who are taking Warfarin. We require balancing the effectiveness of health education without causing patients to excessively worry about medication. Otherwise, patients’ QoL is a complicated and important issue. The effectiveness of educational intervention in patients’ QoL is a subjective outcome indicator. The relationships between education intervention, medication disturbances, or other factors and patients’ QoL could be explored in advance. Thus, finding out how to improve real QoL of AF patients’ under Warfarin treatment by increasing their medication knowledge and decreasing medication disturbances are our ultimate goals.

#### Contact

[yhtsai@mail.cgu.edu.tw](mailto:yhtsai@mail.cgu.edu.tw)

## F 03 - Geriatric Nursing Research

### Determinants of Physical Function Recovery in Elderly during Three Months Post-Hospitalization

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ChiaoWen Chang, BS, Taiwan  
Ching-Huey Chen, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is share the specific finding of Geriatric nursing.

#### Target Audience

The target audience of this presentation is who interested in Geriatric nursing.

#### Abstract

**Purpose:** For many older adults, hospitalization can lead to functional decline because of diseases or activity restriction. Previous researches found that at least 30% hospitalized older adults experienced functional decline and this even influenced about 70% elders in Taiwan. Three months post-hospitalization elders, less than 75% of them could regain their previous physical function. Experience functional decline may not only affect the quality of life but else increase the mortality rate of elders. The aim of this study was to describe functional recovery and its determinants among elderly patient three months post-hospitalization.

**Methods:** This was a cross-sectional and correlational study, used secondary data analysis. The data originated from the research entitled "Risk Factors of Functional Decline in Hospitalized Elderly Patients" which supported by The National Science Council. Subjects recruited through convenience sampling from eight medical units at a university hospital in southern Taiwan. Subjects were patients aged  $\geq 65$  years without conscious disturbance and being able to communicate in Mandarin or Taiwanese. A structured questionnaire was used to collect data. Data of the subjects' demographic information, diagnosis, Charlson comorbidity index, Mini-mental state examination, Katz ADL, exercise habits and associated information were retrieved. The *Statistical Package for the Social Sciences (SPSS)* version 17.0 software was used to perform statistical analyses.

**Results:** More than half (54.22%) elderly persistent functional impairment at 3 months post-hospitalization. Regular exercise habits (OR = 3.789, 95% confidence interval = 1.430-10.039,  $p = 0.007$ ) the only independent factor associated with functional recovery.

**Conclusion:** Regular exercise habits can be used as reference indicators predict functional recovery of the elderly after discharge. For those hospitalized elderly patient who has occurred or is prone to experience functional decline, interventions early are needed to enhanced their participation in regular exercise after discharge from hospital.

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Contact

[ppi0503@gmail.com](mailto:ppi0503@gmail.com)

## F 03 - Geriatric Nursing Research

### The Experience of Giving Informed Consent in a Mexican-American Older Adult

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*Herlinda Zamora, MSN, RN, USA*

#### Purpose

To explore and describe the experience of giving informed consent in a Mexican American older adult who had undergone outpatient cataract surgery to reveal and understand the meaning of informed consent from the first person perspective.

#### Target Audience

Interprofessional clinicians, educators, researchers, and policy-makers with the specific aim to aid these professionals in the development of age-specific interventions to ultimately improve the informed consent process among the older adult population.

#### Abstract

**Purpose:** World population estimates for 2030 show that there will likely be 1 billion older adults, which will account for 13 percent of the entire population. As people live longer, they may be confronted with the need for surgical procedures that require giving informed consent. Informed consent is a complex process that has ethical and legal implications for the health care professionals who are tasked with obtaining it. Therefore, the purpose of this qualitative study was to explore and describe the experience of giving informed consent in a Mexican American older adult who had undergone outpatient surgery. This research study was conducted to understand the experience of giving informed consent from the first person perspective, which is important to inform and guide clinical practice and research.

**Methods:** A hermeneutic phenomenological methodology was utilized to answer the following research question: What is the experience of giving informed consent in Mexican American older adults who have undergone outpatient surgery? An in-depth, one-on-one interview and field notes were used to explore and describe the experience of giving informed in one Mexican American older adult, aged 74 years. Thematic analysis was utilized to identify meaningful themes that were characterized through the data.

**Results:** Based on interpretation of this older adult's narrative, multiple themes became apparent in the experience of giving informed consent. The older adult's informed consent historical and educational experiences merged to influence his perceptions of how the experience of giving informed consent changed with age and education. In a historical context, this older adult described how he experienced informed consent in early adolescence and later in life. In an educational context, this older adult described how his educational level helped him to understand the health-related information about outpatient cataract surgery. For this older adult, the essence and meaning of informed consent included being prepared by receiving health-related information from the interprofessional health care team, being aware of what the proposed surgery entailed, and being given the freedom to make an autonomous, informed choice.

**Conclusion:** In this qualitative study, this researcher provides foundational evidence that the experience of giving informed consent can potentially change with age and education. This older adult's 'being in the world' was a personified experience in which he described how the historical and educational contexts of the experience influenced his choice of giving informed consent. These findings about the informed consent experience from the first person perspective can be used to aid interprofessional clinicians, educators, researchers, and policy-makers to develop age-appropriate interventions in informed consent, and, ultimately, to improve the surgical informed consent process for the vulnerable older adult population. Future research with a larger sample of participants is needed to further understand the meaning of giving informed consent in Mexican American older adults.

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Contact

[herlindazamora@sbcglobal.net](mailto:herlindazamora@sbcglobal.net)

## F 03 - Geriatric Nursing Research

### A Mixed-Methods Study for Evaluating the Effect of a Cultural and Contextual-Specific Exercise Program on Therapeutic Exercise Adherence of Older People with Knee Osteoarthritis

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*Fung-kam Iris Lee, PhD, RN, Hong Kong*

*Diana T. F. Lee, PhD, MSc, PRD (HCE), RM, RN, RTN, Hong Kong*

*Winnie Kwok Wai So, PhD, RN, Hong Kong*

#### Purpose

The purpose of this presentation is to share the research findings of a mixed-methods study which evaluated the effect of a cultural and contextual-specific exercise program on prompting therapeutic exercise adherence among older Chinese people with knee osteoarthritis.

#### Target Audience

The target audience of this presentation is researchers, nurses and other healthcare professionals.

#### Abstract

**Purpose:** Knee osteoarthritis (KOA) is a common health problem in the older population (Gabriel & Michaud, 2009). Exercise has been recommended as the first-line clinical management strategy (Zhang et al., 2008) and its effectiveness has been well documented (Bosomworth, 2009; Scott & Kowalczyk, 2007; Zhang et al., 2008). However, exercise adherence is questionable and thus affecting the effectiveness of the recommended therapeutic exercise (Ettinger et al., 1997; Pisters et al., 2007). Previous literature indicates that a client-centered exercise intervention may improve exercise adherence of older people with KOA (Campbell et al., 2001). To promote therapeutic exercise adherence, a cultural and contextual-specific exercise program was developed for older people with KOA in Hong Kong (Lee, 2011). This exercise program was developed with reference to the findings of a qualitative study which explored the experience and perceptions of exercise in a group of older people with knee osteoarthritis (KOA), a comprehensive review of previous scientific evidence on exercise intervention in older people with KOA, and in consultation with a group of multidisciplinary healthcare experts (i.e. medical officer, traditional Chinese practitioner, sports scientist, physiotherapists, geriatric nurse, and social worker). The purposes of this study were to evaluate the effectiveness of a cultural and contextual-specific exercise program in promoting therapeutic exercise adherence among older people with KOA and to explore the participants' perceptions and experiences of participating in the exercise program.

**Methods:** The objectives of the study were:

1. To evaluate the participants' exercise adherence.
2. To evaluate the participants' level of mastering of the recommended exercise movements.
3. To assess the participants' satisfaction with the exercise program.
4. To explore the participants' perceptions towards the design and content of the exercise program.
5. To explore the participants' experiences of practicing and integrating the exercise in daily living.

**Design and subjects:** This study used a mixed-methods design which was a single group quantitative study followed by an exploratory qualitative study. The subjects of this study were recruited from a community center for older people and the final sample consisted of 33 older Chinese people with KOA dwelling in the community. Among the 33 older people who had completed the quantitative study, 6 of them with different levels of satisfaction and exercise adherence were selected for individual face-to-face semi-structured interviews.

**Study instruments:** An exercise diary was used to evaluate the participants' exercise adherence. A skill assessment checklist was used to evaluate the participants' level of mastering of the recommended exercise movements. In addition, participants' satisfaction with the exercise program was also assessed by a self-developed questionnaire. A semi-structured interview guide was employed in the qualitative

phase of the study. Example of questions asked are: “What is your view about the exercise program?” and “What is your experience of integrating the recommended exercise into daily living?”.

**Data collection procedures:** The participants were asked to give individual written consent. The exercise program provided to the participants consisted of four one-hour weekly sessions. It was delivered by using a small group (N = 8-10) approach. On completion of the exercise program, the participants were individually interviewed for filling out the satisfaction questionnaire. They were also given a diary and a chop to mark down their practice of the recommended exercise movements for a period of 12 weeks. At 12 weeks after the exercise program, the participants were invited to an individual return-demonstration session to demonstrate their level of skills in mastering the recommended exercise movements.

Six participants, who gave their written consent for an individual face-to-face semi-structured interview, were interviewed after the return-demonstration session.

**Results:** The quantitative results showed that the participants were highly adhered to the recommended exercise regimen (mean percentage = 91.04%; SD = 14.54) in a 12 weeks period. Their overall performance in mastering of the exercise movements was good (mean score = 76.71/100; SD = 21.75). The participants also demonstrated a high satisfaction level with the exercise program (mean score = 90.15/100; SD = 8.05). The qualitative findings revealed four major categories: satisfaction with the exercise program, mastering of the exercise movements, experience of the exercise’s effects, and integration of the exercises into the daily routine. These findings were consistent with the quantitative results of the study.

**Conclusion:** The quantitative and qualitative findings of this study were consistent and complementary, showing that the exercise program was well accepted by the older Chinese people with KOA in terms of satisfaction with the exercise program, adherence to the exercise regimen, and mastering of the exercise movements. The findings of this study provide evidence to support the need to take into consideration of clients’ cultural and contextual environment in the development of exercise program in order to promote clients’ adherence to the therapeutic exercise regimen. However, the 12 weeks follow up period in this study has limitations to the understanding of the long-term effect of the exercise program. Future studies should consider a longer follow up period such as 5 years (Pisters et al., 2010). Exercise adherence is fundamental for effective exercise intervention, client-centered approach in development of exercise intervention should be considered a way forward in order to promote exercise adherence among clients with chronic diseases.

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## Contact

[fk95lee@cuhk.edu.hk](mailto:fk95lee@cuhk.edu.hk)

## F 04 - Affairs Surrounding End-of-Life

### Spirituality as a Predictive Factor for Signing an Organ Donor Card

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*Semyon Melnikov, RN, PhD, Israel*

*Tamar Ashkenazi, RN, PhD, Israel*

*Anat Peles Bortz, RN, PhD, Israel*

#### Purpose

To report survey results regarding the association between spirituality, attitudes toward organ donation and signing an organ donor card.

#### Target Audience

Nurses in clinical, academic and managerial positions

#### Abstract

**Purpose:** Organ donation in the Western world is entirely dependent on the willingness of people to donate organs after their death. In Israel, the wish to donate organs posthumously is expressed by signing an organ donor card. Spirituality as the fundamental dimension of people's overall well-being might affect the willingness to sign an organ donor card. The purpose of the current study was to examine the differences in spirituality and attitudes toward organ donation between people who signed and those who did not sign an organ donor card.

**Methods:** A descriptive cross-sectional survey. The sample included 312 respondents from the general population. Respondents completed a web-based questionnaire consisting of three sections: spirituality, attitudes towards organ donation, and social-demographic questions.

**Results:** The differences in mean scores between respondents who signed an organ donor card and those who didn't were indicated in transcendental spirituality ( $p < .01$ ) and attitudes toward organ donation ( $p < .01$ ). No statistically significant difference was found between the groups in the overall spirituality mean score. The spiritual transcendental dimension and attitudes toward organ donation explained 24.9% of the variance of signing an organ donor card.

**Conclusion:** Signing an organ donor card can be explained by low levels of transcendental spirituality and positive attitudes toward organ donation. Nurses should assess the patient's spiritual needs in order to construct appropriate programs for promoting signing an organ donor card.

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#### Contact

[melniko@post.tau.ac.il](mailto:melniko@post.tau.ac.il)

## F 04 - Affairs Surrounding End-of-Life

### Post Mortem Nursing Care Effectiveness as Perceived by U.S. Hospital Staff Nurses

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*Mikel W. Hand, EdD, MSN, RN, OCN, NE-BC, USA*

#### Purpose

The purpose of this presentation is to disseminate completed research examining how hospital staff nurses perceive the effectiveness of the post mortem nursing care that they provide to deceased patients. Within this study, effectiveness refers to how the care contributes to a desired cosmetic appearance with further body preparation.

#### Target Audience

The target audience of this presentation is any nurse interested in end of life and death care from a research, clinical practice, nursing education, or administrative policy perspective.

#### Abstract

**Purpose:** The purpose of this study was to explore postmortem nursing care from the perspective of the hospital staff nurse. The objectives were to describe phenomenon of postmortem nursing care from the perspective of the hospital staff nurse, explore perceptions concerning how the care provided either helps or hinders the achievement of a desired cosmetic result of the deceased with further body preparation, and to gain insight into common nursing care practices and recommendations concerning the improvement of care.

**Methods:** Approval to conduct the study was obtained from the Institutional Review Board of the University of Southern Indiana. A qualitative survey method using open ended questions was used for the study. A convenience sample of 34 members of a state nursing association in the USA who self-identified as hospital staff nurses participated in the study. Each participant completed an anonymous web based questionnaire that included four demographic questions and twenty five open ended items concerning post mortem care practices used by nurses, perceptions of whether that care practice aids or hinders a desired cosmetic result with further body preparation, and alternative care recommendations to aid in the preparation process. Questions were focused to address practices concerning body positioning, use of ligatures to secure extremities, intravenous catheters and lines, surgical tubes and drains, dentures and partial plates, cleansing of the body, identification, shrouding and exposure prevention. In order to analyze the data, the researcher reviewed each questionnaire several times. The responses were then initially coded to identify broad themes. The broad themes were then reviewed for similarity of meaning and categorically clustered. The clusters were then reviewed again twice by the researcher in order to determine final theme labeling. Questions were accepted and reviewed until there were significant repetitions in responses and no new revelations of information.

**Results:** The results are reported based on the focus of the questions and the accompanying exemplars. The majority of participants reported a flat position as the most frequent body placement used for postmortem care and that this position aids in producing a desired cosmetic result. However the exemplars concerning alternative recommendations for body placement contain substantial insights including elevation of the head to prevent swelling drainage, and the presentation of a natural appearance. Questions concerning the use of ligatures and ties to secure extremities produce a very limited response inadequate to determine a perception for or against use. A single exemplar indicated rare use of these in current practice. The majority of participants reported that they typically remove intravenous catheters and lines and that doing so aids in producing a desired cosmetic result. Exemplars support this perception addressing concerns such as normal appearance, creating a less disturbing environment, and comfort for family. Recommendations from exemplars include consideration of the setting and legal requirements that may require retention. Responses concerning tubes and surgical drains mirror those regarding intravenous catheters and lines. Exemplars supporting removal include family consolation by removal, and ease in viewing. A majority of participants reported leaving dentures and partial plates in the mouth of the decedent. Rationale in the exemplars included leaving in place for

mouth positioning, loss prevention, and leaving in place for hospital viewing. Typical body cleansing practices reported by participants varied greatly and included cleaning head to toe, use of warm water and soap, inclusion of oil or perfume, and basic removal of soiling. Participants identified the toe and wrist band as the most frequent locations to place identification tags and that these provide safe and adequate identification of the deceased. Exemplars did not include alternative locations for placement, but rather emphasis on confirmation of identification, verification that identification tags in all locations match, and to never assume that one tag is correct. Typical wrapping and shrouding procedures reported by participants varied and included use of a plastic shroud, wrapping in bed sheets, body bags with a zipper, blankets for infants, and no longer wrapping bodies as a practice. Exemplars did not include alternative recommendations for shrouding, but rather additional suggestions such as the use of a covered gurney, closing the curtain and the door, and providing privacy for removal. This study had limitations included limited geography, convenience sampling, lack of maximum variation in participants, and focused nature of the questions. Data were collected in a single mid-western state with limited variation in population demographics and burial practices. A convenience sample was used and no method to incorporate diversity among participants was incorporated. It is unknown if this may have contributed to minimal diversity in responses. The web based questionnaire allowed for anonymity of participants, but it also prevented any follow up inquiry. The focused nature of the questions directed the responses in a relevant manner. However, this may have hindered the participant from sharing additional sights pertaining to postmortem nursing care that were not included in the preset questions.

**Conclusion:** The practices, observations, and recommendations reported by participants are based on their nursing practice, observations, and experience with the provision of postmortem nursing care. The perceptions and recommendations shared by participants demonstrate a commitment to comforting the surviving family by attempting to make the appearance of the deceased as normal as possible. However, it is important to note that the perceptions and alternative recommendations identified here are not consistent with those reported by Licensed Funeral Directors in a study published in 2013 addressing the same areas of inquiry. There are notable differences in perceptions between nurses and Funeral Directors pertaining to commonly observed postmortem nursing care practices and their effectiveness. These include body positioning, use of ligatures and ties, removal of IV catheters and lines, surgical drains and tubes, and placement of dentures and partials. These are worthy of consideration because Funeral Directors are the next care provider for the decedent and are the professionals who complete the additional body preparation following post mortem nursing care. As a result, they are in an ideal position to provide valuable insight into the effectiveness of these nursing care practices. Additional research is needed to expand on the body of knowledge concerning postmortem nursing care. Future research efforts should include secondary analysis of data from this study and the prior involving Funeral Directors in an effort to develop a more in depth and coherent understanding of the perceived effectiveness of these practices, examine and scrutinize alternative recommendations, and to potentially generate further research questions.

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### Contact

[mwhand@usi.edu](mailto:mwhand@usi.edu)

## F 05 - Global Issues Within the Nursing Workforce

### Gender Differences in the Interrelationships Among Job Stress, Job Satisfaction, and Intention to Leave Among Hospital Nurses in Taiwan

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Wen-Yen Lo, MS, Taiwan

Li-Yin Chien, ScD, Taiwan

Fang-Ming Hwang, PhD, Taiwan

Shu-Ti Chiou, PhD, Taiwan

Nicole Huang, PhD, Taiwan

#### Purpose

The purpose of this presentation is to inform gender differences in interrelationships of job stress, job satisfaction, and intention to leave among hospital nurses in Taiwan.

#### Target Audience

The target audience of this presentation are Staff Nurses and Nurse Managers.

#### Abstract

**Purpose:** Few studies have compared gender differences in job stress, job satisfaction, and intention to leave among nurses. There is little understanding about the interrelationships among job stress, job satisfaction, and intention to leave among nurses. The objective of this study was to examine gender differences in interrelationships of job stress, job satisfaction, and intention to leave among hospital nurses in Taiwan.

**Methods:** This cross-sectional survey included 33475 full-time nurses (584 males and 32891 females) working in 100 hospitals across Taiwan. The participants filled up a self-administered structured questionnaire during the period of May to July, 2011. Intention to leave and job satisfaction was each measured by one item with a 5-point Likert scale. Job stress was measured by a 19-item scale, with higher scores indicating more job stress.

**Results:** Female nurses had significantly higher mean job stress than male nurses (33.61 vs 28.09,  $p \leq 0.01$ ). There were no significant differences in mean level of job satisfaction (2.51 vs 2.50,  $p > 0.05$ ) and intention to leave (2.91 vs 2.91,  $p > 0.05$ ) between males and females. The structural equation modeling results suggested that job stress had a direct and negative effect on job satisfaction (standardized factor loading = -0.41,  $t = -68.26$ ,  $p \leq 0.01$ ,  $r^2 = 0.18$ ). Job satisfaction had a direct and negative effect on intention to leave (standardized factor loading = -0.42,  $t = -84.19$ ,  $p \leq 0.01$ ,  $r^2 = 0.14$ ). Job stress had a direct and positive effect on intention to leave (standardized factor loading = 0.25,  $t = 45.43$ ,  $p \leq 0.01$ ,  $r^2 = 0.22$ ). The negative effect of job satisfaction on intention to leave appeared to be stronger among females (standardized factor loading = -0.42) than males (standardized factor loading = -0.33;  $p \leq 0.05$ ). The model had good fit to the data (RMSEA = 0.046, CFI = 0.99, NFI = 0.99, SRMR = 0.019).

**Conclusion:** Job satisfaction is a mediator between job stress and intention to leave among nurses. Strategies should be developed to decrease job stress and increase job satisfaction in order to decrease nurse turnover. Special emphasis could be placed on job satisfaction among female nurses.

#### Contact

[B4139@tpech.gov.tw](mailto:B4139@tpech.gov.tw)

## F 05 - Global Issues Within the Nursing Workforce

### Registered Nurses Extended Work Shifts and the Association with Quality of Nursing Care and Patient Safety: A Cross Sectional Survey in Twelve European Countries

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Peter Griffiths, PhD, United Kingdom

#### Purpose

to present the findings of a major international collaborative research study exploring associations between nursing work and care quality. This paper specifically focusses on the association between shift length, overtime work and nurse reported quality and safety of care.

#### Target Audience

those researching and planning the organisation and deployment of nursing work and the nursing workforce and those making workforce policy and setting guidelines.

#### Abstract

**Purpose:** In some countries, there is a move toward nurses working shifts of longer duration to reduce time and cost of shift handovers and staff overlap, and to potentially improve work life balance; '12 hour' shifts have become the norm in some countries and hospitals. However, concerns have been raised as to whether nurses can perform reliably and effectively when working longer shifts. This presentation gives the results of a study that aims to describe shift patterns of European nurses and to investigate whether shift length is associated with nurse-reported quality and safety of care and with aspects of needed nursing care left undone.

**Methods:** Cross-sectional survey of 31,627 registered nurses (RN) in 2170 general medical/surgical units within 487 acute general hospitals across 12 European countries. Multi-level regression modelling to explore associations between shift work and nurse reported measures of quality and safety of care.

**Results:** Most nurses (50.5%) reported working shifts <8 hours, whilst 15% of nurses worked shifts >12. There was considerable variation in typical shift length between countries and within some countries. For example in Spain 90% of day shifts were ≤8 hours compared to 45% in England and 9% in Ireland with 73% of nurses working 12 hour day shifts. Working a shift of >12 hours was associated with nurses being more likely to report poor or failing patient safety (OR 1.46 95% CI 1.16 - 1.83), and poor or fair quality of care (OR 1.39, 95% CI 1.00-1.85). Nurses reported a significantly increased number of care activities needed, but left undone on their last shift when working any shift >8 hours (OR 1.04 to 1.13). Working beyond contracted hours was also associated with reports of poor or fair quality of care (OR = 1.35), poor or failing patient safety (OR = 1.67) and missed care (OR = 1.29).

**Conclusion:** European nurses working 12 hours or longer and those working overtime were more likely to report low quality and safety ratings. Policies to adopt a 12 hour nursing shift length should proceed with caution. Use of overtime (i.e. working a longer shift than contracted) to mitigate staffing shortages or increase flexibility may also incur additional risk to quality. Further research is required using objective measures of quality and safety and patient experience.

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## Contact

[Peter.Griffiths@soton.ac.uk](mailto:Peter.Griffiths@soton.ac.uk)

## F 05 - Global Issues Within the Nursing Workforce

### Does Moonlighting Influence South African Nurses' Intention to Leave Their Primary Jobs?

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*Laetitia C. Rispel, PhD, RN, RM, South Africa*

#### Purpose

examine whether moonlighting influences South African nurses intention to leave their primary jobs.

#### Target Audience

nurse researchers, practitioners and managers

#### Abstract

**Purpose:** Moonlighting is commonly understood as having a second job, usually part-time, in addition to a primary full-time job. This paper examines whether moonlighting influences South African nurses intention to leave their primary jobs.

**Methods:** During 2010, a stratified random sample of 80 hospitals was selected from the public and private health sectors in four South African provinces. All nurses working in intensive care, theatre, casualty, maternity and general medical and surgical wards on the survey day completed a self-administered questionnaire after obtaining informed consent. In addition to demographic information, the questionnaire focused on the prevalence of moonlighting and participants' intention to leave their primary jobs in the 12 months following the survey. Survey data were analysed using STATA version 10.

**Results:** Survey participants (n=3 784) were predominantly middle-aged (median 42 years). The prevalence of moonlighting in the previous year was 34.1% [95%CI: 32.6–35.6]. Overall, 1 133 participants (31.5%) indicated that they planned to leave their primary jobs, ranging from a low of 23.4% among nursing auxiliaries to 39% of all nurses working in Gauteng, the wealthiest and most urbanised province in South Africa. 15.5 % of all survey participants indicated that they planned to go overseas in the 12 months following the survey. Among this group, 18.1 % of moonlighters, compared to 14.3% of non-moonlighters planned to go overseas, but this difference was not statistically significant. The odds ratio of moonlighters planning to go overseas compared to non-moonlighters was 1.32 [95% CI: 0.81-2.16], but this was not statistically significant (p=0.266).

**Conclusion:** This study provides empirical information on whether moonlighting influences nurses' decisions to leave their primary jobs. There is the need for strategies to reduce turnover among South African nurses.

#### Contact

[laetitia.rispel@wits.ac.za](mailto:laetitia.rispel@wits.ac.za)

## F 07 - Psychological Care of the Patient with Cancer

### The Journey of Fighting Cancer: Chinese Canadians' Experiences

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*Tsornng-Yeh Lee, PhD, Canada*  
*F. Beryl Pilkington, PhD, Canada*

#### Purpose

The purpose of this presentation is to understand the experience of Chinese immigrants in Canada who are survivors of cancer through focus groups and individual interviews.

#### Target Audience

The target audience of this presentation is healthcare providers who work in oncology.

#### Abstract

**Purpose:** To understand the experience, informational and psychosocial needs of Chinese immigrants in Canada who are survivors of cancer through focus groups and individual interviews.

**Background:** Cancer is the leading cause of death for both men and women in Canada. Most Chinese Canadians are foreign-born, with limited social networks. The language obstacle, cultural adaptations and the Eastern view of health beliefs and practices may act as barriers to both access to and utilization of, services. Although the number of Chinese Canadians is growing in Canada, there are very few appropriate culture-sensitive resources available for them to obtain in-depth information after being diagnosed with cancer. This lack of information may jeopardize their adjustment by increasing their cancer-related anxiety and degrading their quality of life.

**Design:** A qualitative approach and in-depth interviews were used.

**Methods:** Ten Mandarin-speaking Chinese women and men who had a diagnosis of cancer were recruited from the Chinese community in Toronto, Canada. Two focus group interviews and 10 individual interviews were conducted. The interviews were tape-recorded and transcribed verbatim. Data were analysed using content analysis.

**Results :** Six themes were emerged from the interview data: a) the emotional upside down in receiving the diagnosis of cancer, b) the relatively short waiting time in getting treatment, c) the non-empathetic attitude of healthcare providers, d) the language barrier in searching for cancer information, e) the dramatic change in lifestyle, and f) the tremendous support from spouse, family and friends.

**Conclusion:** The result of the study can facilitate the healthcare providers' understanding of the experience, informational and psychosocial needs of Chinese Canadian cancer survivors. Appropriate interventions and strategies in caring for cancer patients should be developed in hospitals and communities to help them to face physical and psychosocial challenges in the journey of fighting cancer.

#### Contact

[tsylee@yorku.ca](mailto:tsylee@yorku.ca)

## F 07 - Psychological Care of the Patient with Cancer

### CAM Use: Change across Cancer Treatment and Impact on Stress, Mood, and Quality of Life

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*Duck-Hee Kang, PhD, RN, FAAN, USA*

*Traci McArdle, RN, BSN, USA*

#### Purpose

To report the findings on complementary and alternative medicine (CAM) use change over cancer treatment, specific reasons for and satisfaction with CAM use, and impact of CAM use on stress, mood, and QOL in women newly diagnosed with breast cancer.

#### Target Audience

healthcare providers and the public who are interested in current status of CAM use in women with cancer and potential influence of CAM on other health issues.

#### Abstract

**Purpose:** Complementary and alternative medicine (CAM) use has been substantial in healthy and sick populations, but changes in CAM use, reasons for and impact of CAM use need further investigation. The purposes of this study were to determine if CAM use changes over cancer treatment period, why a certain type of CAM was selected, how satisfied users were, and if CAM use influenced the perception of stress, mood, and quality of life (QOL) in women with breast cancer.

**Methods:** Seventy seven women newly diagnosed with breast cancer were recruited from a comprehensive cancer center. Data were collected three times across cancer treatment: shortly after diagnosis before adjuvant therapy (baseline), 2 months after, and 6 months after the start of adjuvant therapy. The reliable and valid instruments were used: Impact of Event Scale (stress), Profile of Mood State (mood), Functional Assessment of Cancer Therapy-Breast Cancer (QOL), and CAM Questionnaire (frequency, duration, satisfaction, and reason for using CAM).

**Results:** Participants were relatively well-educated Caucasian women with the mean age of 52.4 receiving various types of cancer treatment. Seventy five out of 77 participants used some type of CAM at baseline. The average number of CAM use was 6.0 with the range of 0-23 per person. Typically CAM use started before cancer diagnosis and continued across cancer treatment in a stable manner. Types of CAM used remained quite stable: Top 5 common CAMs remained same over time: prayer (88.3%), multivitamin use (58.4%), massage (42.9%), vitamin E (41.6%), and vitamin C (40.3%). Next level common CAMs included music, meditation, green tea, chiropractic care, and vitamin A at baseline with slight changes across cancer treatment period. Prayer induced the highest level of satisfaction, followed by meditation, music, and vitamin uses. Prayer, meditation, music, and massage were used mostly to have a feeling of control over life, whereas vitamins were used to improve the immune system. Stress, mood disturbance, and QOL all declined significantly over time,  $p < .001-.04$ , but the number of CAM use was unrelated to these variables or to the type of cancer adjuvant therapy.

**Conclusion:** Nearly all women diagnosed with breast cancer used some type of CAM, although the number of CAM use differed among participants. Prayer was most commonly used and seemed to provide a high level of satisfaction. Although CAM use did not differ across cancer treatment and did not impact perceived stress, mood, or QOL, long-term CAM use and potential benefits of CAM use on other health outcomes need to be investigated using biobehavioral approaches.

#### Contact

[duck-hee.kang@uth.tmc.edu](mailto:duck-hee.kang@uth.tmc.edu)

## F 10 - Learning Environments and Outcomes

### Negative Depictions of Nursing and the Clinical Learning Environment in South African Newspapers: Optimizing the Hidden Curriculum to Teach Values to Student Nurses

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*Martha Oosthuizen, DLittetPhil, MA (Nsg), BA (Nsg) (Hons), BCur, South Africa*

#### Purpose

The purpose of this presentation is to present findings on the negative depiction of nursing in South African newspapers and to propose innovative strategies to teach values to students utilising the hidden curriculum.

#### Target Audience

The target audience of this presentation is professional nurses and nurse educators

#### Abstract

**Purpose:** A qualitative content analysis of newspaper reports about nursing in South Africa paints a dismal picture of the clinical learning environment for nursing students. This paper briefly presents the findings and then propose strategies to teach students values, utilising the hidden curriculum, preceptors and other teaching strategies.

**Methods:** A qualitative content analysis was done to determine how South African newspapers reported issues related to nurses and nursing. A search of the database SA Media of Sabinet was performed for the period 1 January 2005 to 31 December 2009, using the keywords, "nurse and nursing". A purposive sample of 161 newspaper articles from national and regional newspapers was analysed using a qualitative, inductive approach. Four themes emerged from the data. Three of the themes painted a negative picture of the profession and the professional values of its practitioners. Only one theme reflected positively on the nursing profession in South Africa. Content analysis has been described as suitable for qualitative studies and enabled the researcher to sift through large volumes of data, contained in 161 newspaper articles.

**Results:** The analysis yielded four themes. This paper reflects on two of the themes namely "poor working environments" and "death, suffering, humiliation, misconduct and incompetence" that suggest an erosion of nursing values. It paints a dismal picture of the clinical learning environment where students are socialised into the professional role in addition to what is taught in the formal curriculum. Negative learning experiences in the clinical area often relate to attitudes and conduct which contradict moral and ethical values taught in the classroom. Students will internalise poor practice if it is the norm. Positive role models, mentors and preceptors are however able to counteract the effects of negative role models and shape the attitudes and behaviour of students and newly qualified nurses.

**Conclusion:** This paper investigates the role of the hidden curriculum in cultivating values in nurses and proposes teaching strategies to enhance socialisation of student nurses to become competent, caring and moral practitioners.

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#### Contact

[oosthmj@unisa.ac.za](mailto:oosthmj@unisa.ac.za)

## F 10 - Learning Environments and Outcomes

### Consensus on Outcomes for a Standardized Preceptor Training Programme in South Africa

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Yvonne Botma, PhD, South Africa

#### Purpose

The purpose of this presentation is to describe the outcomes on which nurse educators in South Africa reached consensus. The presentation will include a brief discussion on the Nominal Group Technique that was used to reach consensus among the spectrum of nurse educators.

#### Target Audience

The target audience of this presentation is everybody that is involved in facilitating learning in clinical practice with the aim to support nursing students in becoming competent in making sound clinical judgment.

#### Abstract

**Purpose:** The purpose of the study was to determine what the learning outcomes of a preceptor training programme should be to enable them to support students in various clinical settings.

**Methods:** The Nominal Group Technique was used to reach consensus among nurse educators. Multiple groups were used to gather data from. One group consisted of nursing deans of schools at universities and the other group consisted of nurse educators from public and private nursing colleges. A brief overview of the need for a standardized training programme was given to both groups by the facilitator. Both groups agreed that public and private health service institutions expect nurses entering the profession to be competent. The facilitator explained the components of competence. Thereafter the participants were asked to silently write down their ideas on what a preceptor should be able to do to enable students to make sound clinical judgment. All ideas were listed on a flip chart, clarified and clustered by the participants. Through an anonymous voting process the most important outcomes were identified. Data from both groups were combined to determine the final high ranking outcomes.

**Results:** Preceptors should be experts in making sound clinical judgment but need training in various techniques that will stimulate critical thinking and clinical reasoning in students. Strategies that promote valid and reliable assessment, as well as techniques to provide constructive feedback to students should be part of the training programme. Furthermore, preceptors should be trained in the process of evidence based practice and be able to assist students in finding the best evidence for a specific question

**Conclusion:** Many training programmes include sessions on adult learning theories, learning styles, personality differences, clinical topics, transition to professional behavior, creating positive learning environments etc. Apparently these topics are insufficient to enable preceptors to support students in becoming competent professionals. Udulis, (2008) concluded in an integrative review that preceptors do not promote the development of clinical reasoning or clinical judgment. Clearly the traditional training of preceptors is not aligned with what is expected of them. Hopefully, the outcomes as determined by this research are more aligned with what is expected of preceptors and will enable preceptors to assist students in becoming competent professionals.

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### Contact

[botmay@ufs.ac.za](mailto:botmay@ufs.ac.za)

## F 10 - Learning Environments and Outcomes

### Assessment of Related Learning Experience: Basis for a Proposed Dedicated Education Unit Model (DEU)

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Vina Grace Belaya, MSN, MAN, BSN, USA

Joyce Chow, MAN, DMD, RN, Philippines

#### Purpose

The purpose of this presentation is to illustrate that DEU model can solve the theory-practice gap problems among student nurses in the clinical setting. That combination of DEU and Moose Learning Environment theory can be adapted and applicable to Philippine clinical setting.

#### Target Audience

The target audience of this presentation are student nurses, people from the academe (nursing instructors and professors), and people from the hospital (both staff nurses and administration).

#### Abstract

**Purpose:** The purpose of the study is to determine the assessment rating of nursing students (NSs), clinical instructors (CIs) and staff nurses (SNs) on the current status of their RLE program . Also, it attempted to identify the problems encountered in their RLE program. The main intention of the study is to develop a Dedicated Education Unit (DEU) model through convergence of quantitative and qualitative data. **Methods:** Triangulation mixed method design was used in the study. A total of 105 Level IV NS were recruited as respondents through stratified random sampling, while purposive sampling technique was used for 21 CI's and 54 SN's of Ospital ng Sampalok (OSAM) as respondents. RLE Status Questionnaire was employed to gather quantitative data. To find significant differences among the assessment of three groups of respondents, ANOVA was used and Tukey Kramer post hoc analysis was utilized to further explore the differences. Simultaneous gathering of qualitative data was done through the used of Focus Group Discussion (FGD). A Modified Rabiee's Framework was utilized to analyze the qualitative data. **Results:** Among the significant findings were the following: The overall status of RLE is Achieved with a weighted mean of 3.49. However, the utilization of appropriate feedback mechanism and ratio of student to clientele based on the objectives and the capacity of the student, obtained an Almost Achieved status , with weighted mean of 3.23 and 3.39 respectively. Except for the utilization of appropriate feedback mechanism, the result of ANOVA test shows that there are significant differences on the assessment of RLE status among the three groups of respondent. Tukey Kramer 's post hoc analysis revealed that SNs assessment is significantly different compared to the other two respondents (NS's and CI's). Through data analysis of the results of FGD, three main themes were formulated: Institutional deficiencies, hospital deficiencies and how students are being treated. Under the institutional deficiencies, problems emerged were the following: Inconsistent RLE schedule, young and inexperienced CIs, theorypractice gap, inadequate RLE hours. While the problems emerged under hospital deficiencies were the following: Inadequate and outdated equipment, simultaneous duty hours, inadequate space, absence of practice guidelines on duties and responsibilities of SN and CI, healthcare team not following the ideal set-up. On how students are being treated, the problems that surfaced were the following: humiliated, intimidated and need for collaboration. After quantitative and qualitative data were analyzed, results were converged and grouped into: Relationship dimension, personal dimension, system maintenance and change dimension. DEU model was created through adaptation of Moos "Learning Environment theory". **Conclusion:** The study was able to provide empirical evidences on the shortcomings of the current RLE program, hopefully the recommended DEU Model (which emphasizes a strong collaboration between the Learning Institution and Hospital, to deliver the curriculum, and one of its innovation is a dedicated practice area for student nurses in hospital setting) can be an answer to the identified RLE problems.

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Contact

[vinagracc@yahoo.com](mailto:vinagracc@yahoo.com)

## G 03 - Education Based Simulation

### Outcomes of an Evidence-Based Research (EBR) Tool to Teach Online Research and Critical Thinking Skills

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*JoAnn D. Long, RN, PhD, NEA-BC, USA*

*Paula Gannaway, BA, MLS, USA*

*Rita Doumit, PhD, MPH, RN, Lebanon*

*Cindy Ford, PhD, RN, CNE, USA*

#### Purpose

The purpose of this presentation is for nursing educators and researchers to evaluate the outcomes of an evidence-based research tool designed to teach research skills and critical thinking using a web-based and smart phone application

#### Target Audience

The target audience of this presentation is for nursing educators and researchers interested in the outcomes of an evidence-based research tool designed to teach research skills and critical thinking using a web-based and smart phone application

#### Abstract

**Purpose:** Advances in global technologies have changed how students access evidence-based information. Research suggests nursing students overestimate their ability to accurately acquire online research and lack the critical thinking skills to evaluate the trustworthiness of the scientific literature. In response to this need a research team created an online Evidence-based Research (EBR) tool to enhance student research skills. The EBR tool is located on a secured university website and is accessible online or by smart phone. The purpose of this project is to report the outcomes of the EBR tool on student research skills and to discuss the use of the data for program and institutional effectiveness metrics.

**Methods:** We used a quasi-experimental, pre-test post-test mix-method design. The research questions are 1) Does the use of the online EBR tool increase student self-report of research skills? 2) Does self-reported data triangulate with embedded questions assessing student acquisition of evidence-based research skills? Data was collected from six cohorts over an 18 month period from 2012-2013 using first semester RN/BSN (n=85) and MSN (n=70) students in a southwestern university. Pre/post-test data was analyzed by t-test. Narrative data was analyzed by word count and clustering into recurring themes.

**Results:** A statistically significant difference between mean pre and post-test research skills was found in both RN/BSN and MSN students ( $t = 6.10, p < 0.001$ ;  $t = 8.23, p < 0.001$ ) moving students from perceived "good" research skills to "very good" after use of the EBR tool. Descriptive data from two case-based questions embedded within the EBR tool supports 84% of students can correctly apply PICO search terms to online search skills and 76% are able to differentiate the steps needed for critical appraisal of the research literature.

**Conclusion:** It is imperative that nursing educators find effective ways to teach evidence-based research skills to students using methods relevant to today's learner. The data from this study suggests the technology-based EBR tool effectively enhanced student online evidence-based research skills and producing objective data suitable for programmatic evaluation of student research skills usable for programmatic evaluation and institutional assessment. International testing of the tool is underway.

#### Contact

[joann.long@lcu.edu](mailto:joann.long@lcu.edu)

## G 03 - Education Based Simulation

### The Effectiveness of Simulation Using in Nursing Education

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*Rei-Mei Hong, RN, PhD, Taiwan*

*Jun-Yu Fan, RN, PhD, Taiwan*

#### Purpose

The purpose of this study was to explore the experiences of simulation class in nursing education. Also, we would like to find out the factors of causing performance differences in two campuses.

#### Target Audience

The target audience of this presentation is nursing teachers, nursing students and managers.

#### Abstract

**Purpose:** Nursing education systems and training courses vary in different countries. However, the caring and training skills are similar. In Taiwan, the criteria of entering to one big university in two campuses are similar. However, we find that nursing students in two different campuses (north and south of Taiwan) have different academic performance after three years nursing education training program. The students in north of Taiwan have better academic performance than the students in south of Taiwan at the same university. Both the students in two campuses had simulation class. The purpose of this study was to explore the experiences of simulation class in nursing education. Also, we would like to find out the factors of causing performance differences in two campuses.

**Methods:** In-depth interviews with audio-recorded were collected by the researcher. During the face-to-face interviews, the researcher asked the students in two campuses about their clinical practice experiences. A descriptive qualitative was used. 30 students were participated.

**Results:** Four categories emerged from the analysis were found. Participants revealed thoughts of “the essence of confidence”, “ the essence of nursing practice”, “feeling stressful”, and “feeling anxious.”

**Conclusion:** The findings provide potential insight into the nursing students. Nurse educators can consider the perspectives into the school program in the future.

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#### Contact

[rmhong@mail.cgust.edu.tw](mailto:rmhong@mail.cgust.edu.tw)

## G 03 - Education Based Simulation

### Examining the Effects of a Standardized Patient Simulation Experience on Decision Making, Self Efficacy and Critical Thinking

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Linda Wilson, RN, PhD, CPAN, CAPA, BC, CNE, CHSE, USA

#### Purpose

The purpose of this presentation is to present the results of a study examining the effect of a standardized patient simulation experience on decision making, self efficacy and critical thinking in nursing students from a variety of types of programs.

#### Target Audience

The target audience of this presentation is academic nurse educators, clinical nurse educators, education specialists, and staff development specialists.

#### Abstract

**Purpose:** The purpose of this study was to examine the effects of a standardized patient simulation experience on decision making, self efficacy and critical thinking. Standardized patient simulation is a simulation technique used in the curriculum of nursing and many healthcare professions (Wilson & Rockstraw, 2012).

**Methods:** This was a quasi-experimental pre-test post-test design study. The sample included medical assistant students, practical nurse students and undergraduate nursing students who were participating in a standardized patient simulation experience. Prior to the simulation experience each participant completed the following: 1) a demographic sheet; 2) the Decision Making Quality Scale (DMQS) with 7 questions; 3) the General Self-Efficacy Scale (GSE) with 10 questions; and 4) the Critical Thinking Disposition Scale (CTDS) with 75 questions. Immediately after completing the standardized patient simulation experience each participant completed the following: 1) the Decision Making Quality Scale (DMQS) with 7 questions; 2) the General Self-Efficacy Scale (GSE) with 10 questions; and 3) the Critical Thinking Disposition Scale (CTDS) with 75 questions. All data collected were anonymous but coded to match the pre-test with the post-test. All data were entered into SPSS version 20 and analyzed.

**Results:** A total of 388 students participated in the study. Participants included 6 medical assistant students (1.5%), 44 practical nurse students (11.3%) and 338 undergraduate nursing students (87%). The undergraduate nursing students were from a variety of programs including an associate degree nursing program (2 year program) 18%, a baccalaureate nursing traditional program (4 to 5 year program) 11.1% and a baccalaureate nursing accelerated program (11 month program) 58%. Participants were aged 19 to 62 years with the majority between the ages of 20 to 33. As for marital status of the participants, 75.5% were single, 20.9% were married, .3% were widowed, and 1.8% were divorced. For gender there were 16.7% were male and 83.3% were female. As for race 66.5% were White, .3% American Indian or Alaskan native, 7.7% were Asian, 21.1% were Black or African American, and 4.4% identified as more than one race. Due to the small number of medical assistant student participants they were excluded from the pre-test post-test analysis which left a total of 382 participants. The analysis will identify the main effect (F-test) of the independent variable (the four groups [practical nurse students, associate degree nursing students, baccalaureate traditional program nursing students and baccalaureate accelerated program nursing students]) on the post-test scores of each of the dependent variables (decision making, self efficacy, and critical thinking). The pre-test post-test comparisons were analyzed using an analysis of covariance (ANCOVA). A separate ANCOVA was used for each of the dependent variables of decision making, self efficacy and critical thinking. Covariates were pre-test scores from the dependent variable under consideration. Post-test scores served as the dependent variable. The results for Decision Making were  $F(2, 305) = 1.475, p = .230$  showing no statistically significant difference in post-test scores after initial differences were controlled through covariation. The results for Self Efficacy were  $F(2, 304) = 1.021, p = .362$  showing no statistically significant difference in post-test scores after initial differences were controlled through covariation. The results for Critical Thinking were  $F(2,308) = .933, p = .395$  showing no statistically significant difference in

post-test scores after initial differences were controlled through covariation. In summary there were no statistically-significant differences in post-test scores between the groups on any of the three dependent variables.

**Conclusion:** The analysis showed that there was no significant difference in any of the 4 groups (practical nurse students, associate degree nursing students, baccalaureate traditional program nursing students and baccalaureate accelerated program nursing students) when examining the dependent variables of decision making, self efficacy and critical thinking following a standardized patient simulation experience. Possible reasons for these results include 1) variation in the types of students; 2) variation in the simulation cases; 3) participant exhaustion due to the length of the pre-test and post-test and 4) other factors not yet identified. Future research plans include the following: 1) continued examination of the dependent variables of decision making, self efficacy and critical thinking along with other concepts important to healthcare education and patient safety; 2) Further examination of the subscales of decision making and critical thinking following a standardized patient simulation experience; and 3) examination of decision making, self efficacy and critical thinking following a human patient simulator simulation experience. Continued research is needed to find the simulation technique or technology that will have the biggest impact on nursing student education to foster student knowledge, student success and patient safety.

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### Contact

[lbw25@drexel.edu](mailto:lbw25@drexel.edu)

## G 04 - Dealing with HIV and Vulnerable Populations

### Motivational Factors and Preferences Regarding Research Participation Among HIV+ Adults in an Urban Setting

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*Victoria B. Mitrani, PhD, USA*

*Brian E. McCabe, PhD, USA*

*Lisa R. Metsch, PhD, USA*

#### Purpose

The purpose of this presentation is to describe a study that explored factors (cost/benefits, social/community endorsement) that influence research participation, and comfort with different data collection formats (face-to-face, paper and pencil, computer assisted) of African Americans and Hispanics with HIV/AIDS.

#### Target Audience

The target audience of this presentation is persons who do, or plan to do, research with vulnerable populations, including minorities with HIV/AIDS.

#### Abstract

**Purpose:** The purpose of this study was to explore factors (cost/benefits, social/community endorsement) that influence research participation and comfort with the format for data collection (face-to-face interview, paper questionnaire and computer assessment) of potentially sensitive information of African Americans and Hispanics with HIV/AIDS. We examined whether the importance of cost/benefits, the importance of social/community endorsement, and comfort with three data collection formats were related to ethnicity, age, education, or first-time study participation. This was an exploratory study aimed at building hypotheses for future research and to inform researchers wishing to enroll people from ethnic minority backgrounds with HIV into research studies. The study aims to add to the knowledge base on research participation factors of members of minority groups with HIV.

**Methods:** This was an exploratory cross-sectional study. Participants were 453 English-speaking adults attending two HIV primary care clinics in South Florida. All participants gave informed consent before completing the survey. The University of Miami institutional review board approved the study prior to recruitment. Participants received \$10 for completing the survey.

Of the 453 participants, 30% were taking part in their first study. A small majority (57%) were male with 42% female, and 1% intersex. Almost two-thirds (61%) were African American, 35% were Hispanic, and 5% were white or of other ethnicity. The average age of participants was 45.97 years ( $SD = 9.17$ ), 64% had a high school education (or equivalent), and 75% were unemployed at the time of the interview. Most (57%) participants had been diagnosed with HIV more than 10 years before the interview, with 21% 5-10 years before, 17% 1-5 years before, and 5% less than a year before. Nearly all (90%) participants were taking HIV medications.

Participants completed a survey developed for the study. Ten items asked about the importance of research participation cost/benefits and social/community endorsement of the research in the participant's decision regarding research participation. Cronbach's alpha for these scales was high: Cost/Benefits  $\alpha = .88$ , Community/Social Endorsement  $\alpha = .93$ . Three items asked about the participant's level of comfort with faces to face interview, paper questionnaire, and private computer screen when being asked personal questions in a research study.

**Results:** All of the Cost/Benefits and Community/Social Endorsement items were rated as either "important" or "absolutely important" by the majority of participants. However, the majority of participants reported that confidentiality of information (66%), respect (63%), understanding the study (57%), and benefit to society (53%) "were absolutely important" for their decision to participate in a research study. Other items related to the cost/benefits of research participation, receiving a benefit (49%) and the study not being a hassle (45%) were also deemed "absolutely important" by nearly half of the participants. Items related to community/social endorsement were rated as "absolutely important" by about a third of

participants. . Most participants reported comfort with all of the data gathering techniques (face-to-face interview, paper questionnaire and computer assessment), with face to face as the most popular (93%), followed paper questionnaire (80%) and private computer assessment (70%).

Individuals with no past experience as research participants were less likely to report that cost/benefits,  $B = -0.47$ ,  $SE = 0.21$ ,  $p = .025$ ,  $OR = 0.63$ , or community/social endorsement,  $B = -0.60$ ,  $SE = 0.23$ ,  $p = .008$ ,  $OR = 0.5$  were important, and less likely to endorse comfort with face to face interviews,  $B = -0.82$ ,  $SE = 0.40$ ,  $p = .041$ ,  $OR = 0.44$ . Advance age was associated with a preference for face to face interviews,  $B = 0.78$ ,  $SE = 0.21$ ,  $p < .001$ ,  $OR = 2.18$ . Educated individuals preferred paper and pencil survey,  $B = 0.65$ ,  $SE = 0.25$ ,  $p = .008$ ,  $OR = 9.91$ , and computer data collection,  $B = 0.44$ ,  $SE = 0.22$ ,  $p = .044$ ,  $OR = 1.55$ , to face to face interviews.

**Conclusion:** This study explored factors related to research participation among persons with HIV. We learned that age, education and research experience differentiated the importance or preference for specific study characteristics. The study suggests that more experienced research participants were more likely to discriminate and carefully evaluate the costs/benefits and community endorsement aspects of a study before agreeing to participate. It may be that participants with experience in previous studies were more informed “consumers” of research participation, and thus had more well-developed opinions about what was important to them.

A large majority of participants were comfortable with any of the three possible data collection formats, but face to face interviews was the most preferred format. These findings are consistent with literature that shows that many individuals with HIV prefer more personal methods of data collection. In particular, findings suggest that researchers should carefully consider face-to-face interviews with study samples that are likely to include a substantial number of elders or people without a high school education.

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#### Contact

[vmitrani@miami.edu](mailto:vmitrani@miami.edu)

## G 04 - Dealing with HIV and Vulnerable Populations

### Zero New HIV and TB Infection: Vision Impossible with the Current Management of LGBTI Students in a Rural-Based University

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*Azwihangwisi Mavhandu-Mudzusi, PhD, RN, RM, South Africa*

*Peter Thomas Sandy, RMN, BSc (Hons), PGCertED, PGDipED, MSc, PhD, South Africa*

#### Purpose

The purpose of this presentation is to highlight the impact of Homophobia towards LGBTI on HIV prevention in a South African rural based university and to introduce the strategy for implementing LGBTI friendly HIV and AIDS programme on campus. and

#### Target Audience

The target audience of this presentation is health care practitioners working in the institutions of higher education, nurse educators, policy makers, nurse administrators, students and the entire university community.

#### Abstract

**Purpose:** The purpose of this study was to investigate the impact Homophobia has on HIV/AIDS management for LGBTI students in a South African Rural-Based University with the view of developing a LGBTI-friendly HIV/AIDS management model.

**Methods:** Interpretative Phenomenological Analysis (IPA) methodology was used to conduct this study. Individual interviews (n=12) and focus group interviews, (n=2 X 8) were used as data collection methods. An open interview format was adopted with the use of two open-ended questions focusing on the experience of stigma, discrimination and utilisation of the available HIV programmes on campus.

**Results:** Data were analysed using Interpretative Phenomenological Analysis framework as outlined by Smith (2005). The results indicate that:

- Homophobia could increase the risk of HIV infection amongst LGBTI students.
- University HIV/AIDS programmes do not embrace the LGBTI community.

**Conclusion:** For the country to reach the 'Zero new HIV and TB infection, a level of Zero stigma and discrimination' towards LGBTI students should be reached. Higher Education HIV/AIDS programmes (HEAIDS) should ensure that the institutions of higher education address homophobia toward LGBTIs and ensure that HIV/AIDS programmes on campus also cater for LGBTI students.

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#### Contact

[mmudza@unisa.ac.za](mailto:mmudza@unisa.ac.za)

## G 04 - Dealing with HIV and Vulnerable Populations

### SEPA II: Links from Childhood Abuse to Adult Intimate Partner Violence, Depression, and Drinking in Hispanic Women

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*Nilda (Nena) Peragallo, DrPH, RN, FAAN, USA*

*Brian E. McCabe, PhD, USA*

*Rosa Maria Gonzalez-Guarda, PhD, MPH, RN, CPH, USA*

*Natalia Villegas, PhD, MSN, RN, USA*

*Rosina Cianelli, PhD, MPH, RN, FAAN, USA*

#### Purpose

The purpose of this study was to examine relationships between childhood abuse (physical, sexual, and emotional) and adult intimate partner violence, depression, and high-risk drinking in a sample of Hispanic women in South Florida.

#### Target Audience

This presentation is aimed at nurses and other professionals working in Intimate Partner Violence (IPV), depression, substance abuse and HIV prevention at different settings and/or interested in the development of culturally-specific interventions. The importance of including IPV in HIV risk reduction interventions is discussed.

#### Abstract

**Purpose:** There is evidence that experiencing abuse during childhood increases the risk of a number of physical and mental health problems during adulthood. Women or girls experience childhood abuse at higher rates than men. Research that has examined these topics have sampled Hispanic women less than non-Hispanic Whites. The purpose of this study was to examine relationships between childhood abuse (physical, sexual, and emotional) and adult intimate partner violence, depression, and high-risk drinking in a sample of Hispanic women in South Florida. The study aims to add to the knowledge base on relationships between childhood experiences and adulthood health problems.

**Methods:** Data were from the baseline assessment of a randomized clinical trial of SEPA (*Salud/Health, Educacion/Education, Promocion/Promotion, y/and Autocuidado/Self-care*; Peragallo et al., 2012), a HIV/STI risk-reduction intervention compared to a wait-list control. Participants were 548 adult Hispanic women from South Florida. Participants were assessed by female bilingual interviewers using a structured questionnaire. All participants gave informed consent before completing the interview. The interviews were conducted in offices at or near a community service agency. Assessments were collected with the assistance of a web-based research management software system (e-Velos). Most women (n=504, 92%) chose to complete the interview in Spanish. The average age of participants was 38.48 years ( $SD = 8.53$ ), 74% had a high school education (or equivalent), and 67% were unemployed at the time of the interview. Women completed an interview in English or Spanish with bilingual research assistants. Childhood abuse was assessed using a Violence Assessment developed for a previous randomized trial with Hispanic women (Peragallo et al., 2005); child abuse was divided into three categories: physical abuse, sexual abuse, and emotional abuse. Three adulthood health problems were examined as outcomes. Intimate partner violence was measured with the Revised Conflict Tactics Scale (2004), and coded as 1 (any reported violence) and 0 (no reported violence). Depression was measured with the CES-D (Radloff, 1977), and coded as 1 (depression) and 0 (no depression) using 16 as the cut-off score for depression. High-risk drinking was assessed using the CAGE (Ewing, 1984), and coded as 1 (high-risk) and 0 (low-risk) using a cut-off score of 1. Mplus 7.11 (Muthen & Muthen, 2013) was used for analyses.

**Results:** Most women scored over the clinical cutoff point for depressive symptoms ( $M = 16.41$ ,  $SD = 12.91$ ) and reported at least one incident of physical, sexual, or psychological abuse in their lifetime ( $M = 1.07$ ,  $SD = 1.49$ ). Over a quarter of women reported experiencing intimate partner violence (64%) and 13% reported being high or drunk in the past 3 months. Childhood physical abuse was significantly related to high-risk drinking in adulthood,  $B = 0.78$ ,  $SE = 0.35$ ,  $p = .026$ ,  $OR = 2.19$ . Childhood sexual

abuse was significantly related to adulthood depression,  $B = 0.99$ ,  $SE = 0.32$ ,  $p = .002$ ,  $OR = 2.69$ ; and high-risk drinking,  $B = 0.77$ ,  $SE = 0.32$ ,  $p = .016$ ,  $OR = 2.17$ . Childhood emotional abuse was significantly related to adulthood depression,  $B = 0.82$ ,  $SE = 0.32$ ,  $p = .012$ ,  $OR = 2.26$ .

**Conclusion:** This study identified four significant relationships between childhood abuse and adulthood health problems. Adulthood depression was related to childhood sexual and emotional abuse. Adulthood high-risk drinking was related to childhood physical sexual abuse. Adulthood intimate partner violence was not significantly related to childhood abuse in this sample. These results are largely consistent with previous research with non-Hispanic samples that links childhood traumatic experience with adulthood problems. Intervention programs that reduce childhood abuse, and improve protective factors that can buffer against childhood abuse, are likely to help women well into adulthood.

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### Contact

[nperagallo@miami.edu](mailto:nperagallo@miami.edu)

## G 05 - Health Promotion in the Postpartum Arena

### The Early Postpartum Experience of Previously Infertile Mothers

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*Sigrid Lynn Ladores, PhD, ARNP, MSN, USA*  
*Karen Aroian, RN, PhD, USA*

#### Purpose

The purpose of this presentation is to describe the early postpartum experience of previously infertile mothers in order to sensitize healthcare providers to the difficulties faced by these women during their transition to new motherhood.

#### Target Audience

The target audience of this presentation is any healthcare practitioner who provides care to women, infants, and families.

#### Abstract

**Purpose:** The clinical literature suggests that the physical, emotional, and financial investment associated with fertility treatment makes it difficult for previously infertile women to transition into new motherhood. Yet no studies have been conducted that explore the lived experience of becoming a new mother from the unique perspectives of previously infertile women. This descriptive phenomenological study fills this gap.

**Methods:** Twelve first-time, previously infertile mothers aged 27 to 43 years, were interviewed twice. The first interview focused on eliciting descriptions of motherhood in the early postpartum period after overcoming infertility. The second interview validated the interpretations from the first interview and provided additional information and reflection. The data were analyzed using Colaizzi's approach.

**Results:** Two main themes emerged that described the early postpartum experience of first-time, previously infertile mothers: 1) Lingering Identity as Infertile; and 2) Gratitude for the Gift of Motherhood. Participants reported that their lingering identity as infertile and immense gratitude for the gift of motherhood propelled them to establish unrealistic expectations to be the perfect mother. When they were unable to live up to being the perfect mother, they censored their feelings of inadequacy, guilt and shame.

**Conclusion:** Findings from this study sensitize healthcare providers to the difficulties faced by previously infertile women during their transition to motherhood.

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#### Contact

[Sigrid.Ladores@ucf.edu](mailto:Sigrid.Ladores@ucf.edu)

## G 05 - Health Promotion in the Postpartum Arena

### Effect of Self-Efficacy Regarding a Smooth Labor on Cesarean Deliveries Among Primiparas in Taiwan

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*Kuei-Hui Chu, RN, MS, Taiwan*

*Li-Yin Chien, ScD, Taiwan*

*Ai-Chieh Chen, RN, MS, Taiwan*

*Mei-Hwa Hsu, RN, MS, Taiwan*

#### Purpose

The objective of this study was to examine the association between self-efficacy regarding a smooth labor during pregnancy and cesarean deliveries among primiparas in Taiwan.

#### Target Audience

The learner will be able to understand the reasons why women want to adopt cesarean deliveries. The learner will be able to understand the effect of self-efficacy during pregnancy on cesarean section.

#### Abstract

**Purpose:** The objective of this study was to examine the association between self-efficacy regarding a smooth labor during pregnancy and cesarean deliveries among primiparas in Taiwan.

**Methods:** This prospective study included 770 women, who were interviewed during the second and third trimester of pregnancy for their self-efficacy regarding a smooth labor, and at one month postpartum for their actual mode of delivery. Self-efficacy regarding a smooth labor was defined as the level of confidence in going through a smooth normal spontaneous labor process and successfully giving birth to a baby. The scale included 20 items, with a higher score indicating a higher level of self efficacy.

**Results:** The rate of cesarean section was 36.5%. Women undergoing cesarean deliveries have lower mean self-efficacy regarding a smooth labor during second and third trimesters of pregnancy. The logistic regression results showed that spousal age >40 years, being unmarried, and had received assisted reproductive technology were associated with an increased risk for cesarean delivery. After adjusting for those variables, self-efficacy during second trimester (OR = 0.99, 95% CI: 0.98-0.99) and increases in self-efficacy from the second to third trimesters (OR=0.98, 95% CI: 0.97-0.99) were associated with lower risks for cesarean delivery.

**Conclusion:** Health professionals could screen pregnant women with low self-efficacy about labor, identify their concerns and obstacles about normal spontaneous delivery, and intervene to increase their self-efficacy, which could help decrease rate of cesarean section.

#### Contact

[kueihuichu@gmail.com](mailto:kueihuichu@gmail.com)

## G 05 - Health Promotion in the Postpartum Arena

### Depression and Social Support Trajectories during One Year Postpartum Among Marriage-Based Immigrant Mothers in Taiwan

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*Hung-Hui Chen, RN, MS, Taiwan*

*Li-Yin Chien, ScD, Taiwan*

*Fang-Ming Hwang, PhD, Taiwan*

#### Purpose

The purpose of this presentation is that the audience will be able to realize postpartum mental health among marriage-based immigrant women in Taiwan, Asia, including trajectories of depression and social support during the first year postpartum, and predictors for depression.

#### Target Audience

The target audience of this presentation is the person who is interested in women health and immigrant issue.

#### Abstract

**Purpose:** Increasing number of women from south-east Asian countries married to Taiwanese men. Immigrant mothers in Taiwan often face birth soon after moving to Taiwan. More studies have identified social support as a crucial protective factor for postpartum depression. However, little is known about the relationships between different domains of social support and postpartum depression trajectory among marriage-based immigrant women in Asia. The aim of this study was to examine the trajectories of depression and social support during the first year postpartum, and predictors for depression, among marriage-based immigrant mothers in Taiwan.

**Methods:** This panel study recruited immigrant mothers to complete structured questionnaire at 1 month, 6 month, and 1 year postpartum during the period from September 2008 to June 2010. There were 203 and 163 immigrant mothers who completed the questionnaire at 1 and 6 month, and 1 year postpartum, respectively. Postpartum depression was measured using the Edinburgh Postpartum Depression Scale. Social support was composed of 3 subscales, emotional, instrumental, and informational support. Hierarchical linear modeling (HLM) was used to examine the relationships between trajectories and factors associated with depression.

**Results:** Depression and instrumental support followed downward curvilinear trajectory during the first year postpartum; while emotional and informational support followed upward curvilinear trajectory. Emotional and instrumental support negatively covaried with postpartum depression over time. When 3-dimensional support was considered together, only emotional support retained its significance when background variables were adjusted in the model.

**Conclusion:** Our results demonstrated that depression was highest at 1 month and lowest at 10 month postpartum, though further study may be needed to confirm the trajectory. To decrease postpartum depression among immigrant mothers, strategies should be developed to increase emotional and instrumental support during postpartum period.

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## Contact

[loski0917@hotmail.com](mailto:loski0917@hotmail.com)

## G 09 - Healthcare Delivery Among Vulnerable Populations

### Nursing Health Promotion Interventions Needed to Reduce Oral Health Disparities: The Situation in Israel

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*Cheryl Zlotnick, RN, MS, MPH, DrPH, Israel*

*Orna Baron Epel, PhD, Israel*

*Shlomo Zusman, DDS, Israel*

*Lital Keinan-Boker, MD PHD, Israel*

#### Purpose

To identify health disparities and subgroups at risk for oral health problems so nurses can appropriately target oral health education in their health promotion interventions.

#### Target Audience

researchers in health disparities, and community and public health nurses.

#### Abstract

**Purpose:** The World Health Organization (WHO) reminds us that Nursing is a holistic discipline that "encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes the **promotion of health, the prevention of illness**, and the care of ill, disabled and dying people." Yet, despite the well-established link between oral health and cardiovascular disease, nurses rarely consider this important aspect of health care in their disease prevention and health promotion activities. This omission needs to be corrected. In the quest to reduce health disparities among different subgroups, public and community health nurses will want to identify subgroups who are at risk for oral health disparities and include oral health education in their health promotion interventions.

The Andersen and Aday's Behavioral Model of Health Care Utilization, a commonly used model for identifying characteristics and attributes of adults who use (or do not use) services, has been employed to examine oral health services in the UK, Sweden and Canada. The Model proposes that three major components promote or block service use: predisposing factors (e.g., demographic characteristics and attitudes), enabling factors (e.g., internal resources comprised of personal habits/behaviors and external resources such as socioeconomic status that facilitate service use), and reinforcing/need factors (e.g., reasons to use services such as increased risk of oral health disease).

Accordingly, this study uses the Andersen and Aday Behavioral Model of Health Care Utilization in a nationwide sample of Israeli adults to: (1) compare the use of primary dental care services between the years 2000 and 2010, (2) examine the factors associated with using primary dental care services for Israel's two largest ethnic groups, Jews and Arabs, (3) consider approaches for nursing health promotion interventions to reduce oral health disparities.

**Methods:** This study used two national, cross-sectional, datasets (years 2000 and 2010) of surveys administered by the Israel Center for Disease control that explored **knowledge** of eating, smoking and other habits or behaviors; **attitudes** towards health behaviors; and activities indicating use and **practice** of health behaviors (KAP). Institutional Ethics Committee approval was obtained for this secondary data analysis (#13/056). In 2000, the sample consisted mostly of Israeli-Jews (n=2920); and in 2010, targeted sampling resulted in a nationally representative sample of Israeli-Jews (n=2739) and Israeli-Arabs (n=2,196).

**Results:** Primary dental care use increased between 2000 and 2010 in Israel, but many differences were found by ethnic minority status, education, income, immigration and other factors. Results indicated that primary dental care was sought by Israeli-Jews who: were born in Israel (OR-1.43, CI-1.17, 1.75); had at least a high school diploma (OR-1.62, CI-1.23-2.13); were employed (OR-1.36, CI-1.09,1.70); reported at least average income (OR-1.78, CI-1.45,2.19); flossed their teeth (OR-1.84, 1.49-2.28); had a normal BMI (OR-1.23, CI-1.02-1.48); and were not smokers (OR-0.78, CI-0.65-0.94). Primary dental care was sought by Israeli-Arabs who: were less likely to be age 45-54 (OR-0.62, CI-0.39-0.99) or 65+ (OR-0.46,

CI-0.22-0.99), compared to age <24 years; had at least high school education (OR-1.62, CI-1.20-2.20); reported at least average income (OR-1.67, CI-1.29, 2.16); and flossed their teeth (OR-2.22, 1.57-3.15).

**Conclusions:** Like many western countries, increasing numbers of Israelis used primary dental services between 2000 and 2010; and the proportion of Israeli adults using primary dental care use was similar to other western countries with 67.7% of adults in the United Kingdom and 70% in Canada. However, there were clear ethnic disparities between the Israeli-Jewish majority (72.0%) and the Israeli-Arabs minority (61.7%). Among Israeli-Jews, being an immigrant versus native-born was significantly associated with lower use of primary dental care in 2000 and 2010. This same relationship was found in non-native born immigrant citizens of Canada. Both studies found that being native-born had independent effects from other socioeconomic variables; thus, rather than service cost, potential explanations for lower use of primary dental care could be knowledge or language barriers. Attitudes towards preventive care also may be a possible explanation. Almost 20% of Israeli citizens are non-native born and more than 15,000 new immigrants arrive each year.

Disparities in health habits by income level were found worldwide. Higher income level may increase exposure to education on preventive oral health habits such as brushing teeth and flossing. Consistent with our findings, other studies have noted that when dental care services are not a regularly covered service, lower service use results. Moreover, while possession of health insurance is not always correlated to engaging in better health habits, possession of health insurance is almost always related to use of primary dental care. Still, cost of services is not the only barrier to primary dental care. Attitudes also pose barriers to use of services and good health habits. Current evidence suggests that Israeli adults do not rank dental

All three factors of the Andersen and Aday's Behavioral Model (i.e., predisposing, enabling and reinforcing/need factors) demonstrated a relationship with the use of primary dental services in 2010; however, only enabling factors such as higher level socio-economic status, high school education factors, and positive dental health behaviors factors were associated with use of primary dental care services for both Israeli-Arabs and Israeli-Jews.

This study's findings show that in Israel, a country with a mixed western and middle-eastern culture, the use of primary dental care is an indicator of health care inequity for vulnerable population subgroups including minorities, immigrants, and those of lower socioeconomic status. Therefore, the onus is on policymakers, researchers and health professionals to identify methods of raising public awareness in minority and disadvantaged communities, using culturally-appropriate strategies, to reduce the existing disparities in primary dental care services. Nurses can make a difference to reducing ethnic and socioeconomic disparities by adding oral health education to their health promotion activities, particularly when their interventions target at-risk populations.

It is important to acknowledge this study's limitations including self-reported responses on cross-sectional surveys, where verification of responses was not possible. Moreover, due to the uniqueness of the State of Israel, generalizability of these national results may be limited. Additionally, response bias has been found in reporting personal habits – in particular reports of flossing were found to be biased in Israeli-Arabs. Still, the samples used by this study are drawn from two nationwide surveys on a topic not commonly studied in the peer-reviewed literature. In conclusion, although Israelis overall have demonstrated continued improvement in dental outcomes and use of primary dental care services; disparities in use of preventive services that could promote better dental outcomes are apparent in vulnerable subgroups such as ethnic minorities and those with less education and low income.

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#### Contact

[czlotnick@univ.haifa.ac.il](mailto:czlotnick@univ.haifa.ac.il)

## G 09 - Healthcare Delivery Among Vulnerable Populations

### Health Services or Debt Servicing?: SAPs in the Philippines and the Healthcare Delivery System

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*Erlinda Castro Palaganas, PhD, Philippines*

*Ruel Dupan Caricativo, BA, Philippines*

#### Purpose

to present a discourse on a social determinant of health as it affects the promotion of health. This social determinant focuses on the imposition of Structural Adjustment Programs (SAPs) in the Philippines through the International Monetary Fund and World Bank had severe consequences on the country's health care delivery system.

#### Target Audience

Any/every nurse or development workers at any level and field of practice.

#### Abstract

**Purpose:** To discuss using a critical social perspective severe consequences on the country's health care delivery system of the imposition of Structural Adjustment Programs (SAPs) in the Philippines through the International Monetary Fund and World Bank (IMF-WB). This will present SAPs as a socio-cultural determinant of health in the efforts of a comprehensive health promotion framework.

**Methods:** This qualitative study is a review of existing evidences on the impacts of SAPs in the Philippine social sector during the 1980s to early 2000s.

**Results:** There are several channels through which the negative impacts of SAPs in the social sector are manifested. These channels include poverty; human resource development; population dislocation, migration, and brain drain; disproportional effects on women; and, civil unrest and conflict. The purpose of this article is to establish a relationship between SAPs and its conditionalities and government policies which had gross negative impacts to health care services and health human resource development.

The establishment of IMF and WB in 1944 during the Bretton Woods Conference rests on the belief that an unregulated market would result to depression, poverty and another major war. However, what was decisive in the said conference was the "reality of American power" in the face of European destruction after World War II. The IMF and WB, driven by the neoliberal ideology, have been forcing developing countries with debt-related conditionalities embodied in the Washington consensus under the guise of promoting the values of democracy and free trade.

During the 1980s, developing countries were unable to pay their loans from Western commercial banks which went on a lending spree during the mid to late 1970s after rising oil prices filled their coffers with petro-dollars. This debt crisis gave Washington the opportunity to "blast open" the developing countries. The SAPs and its conditionalities served as a disciplining mechanism used by developed countries to exercise indirect control over developing countries. These conditionalities include enforced privatization of industries (including necessities such as health care), cuts in government spending, liberalizing of capital markets, market-based pricing (which tends to raise the cost of basic goods), higher interest rates (which reduces access to credit), and trade liberalization (which reduces barriers to trade and foreign investment such as tariffs and import duties). But the SAPs evolved to cover more areas of domestic policy including labor laws, health care, and environmental regulations, among others.

The Philippines suffered significant macroeconomic setbacks in the 1980s. The crisis from oil price hikes in 1973-1974 and 1980-1981 overlapped with a major political crisis triggered by the assassination of Senator Benigno Aquino Jr. in 1983 producing the worst post-war economic crisis in the country. This was the backdrop of the imposition of SAPs in the Philippines. However, the intervention of the IMF-WB's SAPs and its conditionalities like trade liberalization, privatization, and cuts in government spending resulted to the decline of the country's GNP levels. The lowest annual average in GDP growth also took place during the period of 1980 to 1989. The effect of this stunted economic growth was severely felt by

poor Filipinos. Since the 1980s, chronic poverty, especially in the rural areas, has plagued the Philippines. From 1985 to 2003, the share in the national income of the poorest 60% of the population has decreased by 1.8% (25.8% of the total income) while the share of the richest 20% increased by 1.2% (53.3% of the total income).

The review of existing evidences showed that the budget for social services like health care has struggled due to continued debt payments. From 1986-2007, the government's interest payments on public foreign and domestic debt averaged roughly three times the spending on health care services. The problem associated with foreign debt has historical antecedents. During the administration of the former President Ferdinand Marcos, he issued Presidential Decree 1177 (Budget Reform Decree of 1977) which stipulated automatic appropriations for debt servicing from the national budget. His successor, the former President Corazon Aquino continued this policy through Executive order 2092 (Administrative Code of 1987).

In addition, the dismal budget for health care services became a crucial factor for Filipino health workers to look for better opportunities overseas. It was in 1974 under the Marcos administration that export of labor was encouraged through the Labor Export Policy supposedly as one of the drivers for economic growth. But the literature revealed that the primary objectives of the LEP were: (1) to address the increasing surplus of reserved labor force both in the urban centers and in the countryside which was being slowly transformed as the social base of the rising discontent against the Marcos administration; and, (2) to generate resources in the form of dollar remittances for the country's ballooning foreign debt. Labor export remains to be the major dollar earner for the Philippine economy. According to the International Labor Organization (ILO), the Philippines is the primary source of migrant workers worldwide bringing in almost US\$ 21 billion in annual remittances.

The migration of Filipino health professionals reveals the gross negative impact of SAPs and its conditionalities on human resource development. External migration is a manifestation of the Philippines' backward, export-oriented and import-dependent economy lacking in capacity to build industries and create adequate jobs for its citizens. The country is losing human resources vital to domestic production, especially with the exodus of highly skilled workers and professionals. From 1972 to 1987, the Bureau of Labor and Employment Statistics showed an increasing outflow of unskilled production workers. However, during the period of 1992-2004, there was a continued rise in deployment of highly skilled professional and service sector workers. Still, the government encourages labor export as a means of finding a solution to the rising unemployment problem, to reduce social tensions, and to earn dollars that would finance imports and debt servicing.

Labor export has also led to the following patterns: (1) commodification of Filipino migrant labor since the "overseas Filipino worker (OFW) phenomenon" has become an industry linking source to receiving countries; (2) trafficking of women in domestic service and in entertainment and sex industries in the receiving countries; (3) creation of an exploitable and expendable labor force in the receiving countries; and, (4) feminization of migrant labor since Filipino women comprises majority of labor export.

**Conclusion:** In conclusion, this review showed that SAPs-related conditionalities imposed by the IMF and WB had severe consequences for the Philippines. These "adjustment programs" resulted to gross negative impacts in the country's social sector manifested in the declining quality of health care services and the dismal health human resource development. In addition, these programs play a determinant role in the persistent overseas migration of Filipino human resources, especially its health personnel. And this has work, most of the time, at the expense of themselves, their family, and their fellow Filipinos.

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## Contact

[ruelcaricativo@gmail.com](mailto:ruelcaricativo@gmail.com)

## G 10 - Global Nursing Research: Medication Related Randomized Controlled Trials

### Randomized Controlled Trial of Motivational Interviewing to Improve Medication Adherence of Heart Failure Patients in Mainland China: A Pilot Study

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Jing Meng, China

#### Purpose

The purpose of this presentation is to introduce my research project of a randomized control study to evaluate the efficacy of motivational interviewing to improve medication adherence of heart failure patients in mainland China.

#### Target Audience

The target audience of this presentation is all the clinical nurses and nursing researchers.

#### Abstract

**Purpose:** To evaluate the effects of motivational interview for improving heart failure patients' (1) beliefs about medication, (2) adherence confidence and motivation, (3) medication adherence.

**Methods:** Purposive sampling was used to recruit 120 inpatients who were in Fuwai cardiovascular diseases hospital in Beijing and randomly assigned to an intervention group (IG) or control group (CG). Patients from the IG received 60~80min one to one motivational interview on the basis of routine care and a handbook of heart failure and medication usage. Data on beliefs about medication, adherence confidence and motivation, and medication adherence behavior were collected at baseline, before discharge by interview, one and three months after discharge by phone. The effects of motivational interview were assessed by testing changes in the medication adherence beliefs about medication, adherence confidence and motivation ratings over time using repeated measures ANOVAs and by comparing the ratings of IG to that of CG using t test or X<sup>2</sup> test.

**Results:** 97 patients (49 from IG, 48 from CG) completed data collection three months after discharge. The results were (1) Compared to baseline, medication adherence of IG had significant improvement one and three months after discharge ( $P<0.017$ ); Compared to that of control group, the medication adherence of IG had significantly higher score at discharge, one and three months after discharge ( $P<0.05$ ). (2) Compared to baseline, beliefs about medication of IG had significant improvement one and three months after discharge ( $P<0.008$ ); Compared to that of control group, the beliefs about medication of IG had significantly higher score at discharge, one and three months after discharge ( $P<0.05$ ). (3) Compared to baseline, motivation and confidence of adherence of IG had significant improvement one and three months after discharge ( $P<0.008$ ); Compared to that of control group, motivation and confidence of medication adherence of IG had significantly higher score at discharge, one and three months after discharge ( $P<0.05$ ).

**Conclusion:** It is necessary to have one to one motivational interview among heart failure patients, which can improve beliefs about medication, adherence confidence and motivation, and medication adherence three month after discharge.

Conclusion: Motivational interview is useful to improve patients' medication adherence and could be used in clinical practice.

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#### Contact

[mengjingw@hotmail.com](mailto:mengjingw@hotmail.com)

## G 10 - Global Nursing Research: Medication Related Randomized Controlled Trials

### A RCT of the Effects of Medication Adherence Therapy for People with Schizophrenia Spectrum Disorders

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Wai Tong Chien, PhD, MPhil, BN, RMN, Hong Kong

Jolene Mui, MSc, BSc, RMN (UK, HK), CPN (HK), Hong Kong

Eric Cheung, MB, BS (HK), FRCPsych (UK), FHKCPsych, FHKAM (Psychiatry), Hong Kong

#### Purpose

The purpose of this presentation is to describe and discuss a randomized controlled trial, using a repeated measures control group design, tested the effectiveness of a 6-session medication adherence program for Chinese outpatients with schizophrenia spectrum disorders over a 12-month follow-up.

#### Target Audience

The target audience of this presentation is all nurses and health professionals who are working in psychiatric and mental healthcare settings, as well as those researchers in mental healthcare.

#### Abstract

**Purpose:** This randomized controlled trial, using a repeated measures control group design, tested the effectiveness of a 6-session medication adherence program for Chinese outpatients with schizophrenia and its subtypes over a 12-month follow-up.

**Methods:** A two-site controlled trial was conducted with 134 Chinese patients with psychotic disorders in Hong Kong. The program is a motivational and insight-inducing educational program that addresses patients' awareness and knowledge of schizophrenia and skills of medication management (Gray et al., 2006). They were randomly assigned to either the medication adherence program or usual psychiatric outpatient care. The patients' levels of medication adherence (using Drug Attitude Inventory, DAI), mental (Positive and Negative Syndrome Scale, PANSS) and psychosocial (Specific Level of Functioning scale, SLOF) functioning, insights into illness (Insight and Treatment Attitude Questionnaire, ITAQ), and re-hospitalization rates (number and length in six months) were measured at recruitment and at one week (*Post-test 1*) and 12 months (*Post-test 2*) after the intervention.

**Results:** Preliminary results of MANOVA test indicated that the participants in the NPP reported significantly overall improvements on the patient outcomes [ $F(1, 132) = 6.12, p = 0.005$ ; Wilks' Lambda = 0.95; a large effect with partial  $(\eta)^2 = 0.39$ ]. Post hoc Tukey's HSD test indicated that their mental state (PANSS score), attitude towards medication use (DAI score), and insight into the illness (ITAQ scores) were significantly improved and hospitalization rates (both number and length of re-admissions) were significantly reduced at both one week and 12 months after the intervention, compared with standard care.

**Conclusion:** The results of this controlled trial can provide evidence of the effectiveness of a community-based adherence therapy for schizophrenia in improving medication adherence, mental condition and insight into the illness and its treatment. This can then result in reducing the risk of relapse and re-admission over 12 months, and hence minimize those tragic events in relation to relapse such as violence and self-harm, as well as the medical and social costs.

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#### Contact

[wai.tong.chien@polyu.edu.hk](mailto:wai.tong.chien@polyu.edu.hk)

## G 10 - Global Nursing Research: Medication Related Randomized Controlled Trials

### Examining Usual Care Relating to Medicine Adherence Across Kidney Transplantation Sites: Implications and Managing Differences in Preparation for a RCT

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Allison Fiona Williams, PhD, RN, Australia  
Elizabeth Manias, RN, MPharm, PhD, Australia  
Jac Kee Low, BSc (Hons), Australia  
Kimberley Crawford, PhD, BSc (Hons), Australia

#### Purpose

to describe what usual care entails for patients who received a kidney transplant at all five tertiary hospitals offering adult transplantation in Victoria, Australia and how the differences in usual care will have implications for the testing of an intervention designed to improve medicine adherence in a randomised controlled trial

#### Target Audience

any health professional who is involved in the care of kidney transplant patients or other solid organ transplants and other health professionals that have an interest in medicine adherence

#### Abstract

**Purpose:** The increasing prevalence of end-stage kidney disease, the shortage of kidney donors, and the economic and health-related benefits of kidney transplantation make the prevention of adverse outcomes following transplantation a healthcare imperative (Khan & Amedia 2008). Medicine adherence in kidney transplantation is critical to the success of the graft (Pinsky *et al.* 2009). Interventions are needed to help kidney transplant patients take all their medications as prescribed. The purpose of this study was to establish what usual care entails for adult patients who received either a live or deceased kidney transplant at all five tertiary hospitals offering adult kidney transplantation in Victoria, Australia in preparation for testing an intervention designed to improve medicine adherence in this cohort. Approximately 230 kidney transplants are performed in Victoria annually.

**Methods:** Renal nurse transplant coordinators were interviewed face-to-face by two investigators who took hand written notes. The structured interview schedule consisted of 12 questions, such as, 'If a patient is receiving a kidney transplant from a live donor, what occurs prior to the operation?', 'How does this differ from a deceased donor?' and 'If a patient was found to be non-adherent to their medications, what actions would you take?'. Renal pharmacists were interviewed by telephone regarding their role in preparing patients to take their medications as prescribed. The structured interview schedule consisted of 12 questions focussing on patient education and methods to enhance medicine adherence. Examples of questions included, 'Are you aware of patients using a Dosette box? If so, when is the Dosette box introduced post-transplantation?', and 'How do you ensure that the patient has adequate prescriptions for their medications?'. Notes were sent back to each renal transplant coordinator and pharmacist as a method of verification. All data underwent Sandelowski's (2000) method of descriptive analysis.

**Results:** Nine renal nurse coordinators participated in face-to-face interviews lasting approximately one hour and five renal pharmacists were interviewed for approximately 15 minutes by telephone. Although usual care differed between sites, there were similarities in approaches to facilitate medicine adherence. These included pre-transplant education sessions which included medications used to treat rejection, the use of medication aids such as Dosette boxes and Webster packs, and ensuring adequate medication supplies. It was more difficult to ensure recipients of deceased kidney transplants had received adequate preparation for their kidney transplant due to the urgency of the surgery. However, each site had developed their own way of educating the patient about their medications delivered by certain health professionals. Generally, pharmacists took the main responsibility for educating patients about their medications post-transplantation prior to discharge and registered nurses reiterated this information every

time the patient took their medications in hospital. Post-discharge, renal nurse transplant coordinators followed up long term medicine adherence that was monitored by medical staff through laboratory investigations. Overall, there was no standard approach to education regarding medications or the printed material given to the patient or the use of dose medication aids to facilitate medicine adherence.

**Conclusion:** Differences in usual care at the sites and a lack of standardised approaches to promoting medicine adherence have implications for evidence-based health care that maximises kidney transplant outcomes. Differences in usual care also have implications for the testing of an intervention designed to improve medicine adherence in a randomised controlled trial. Details of usual care is necessary with regard to minimise the risk of study-induced behavioural change (Smelt *et al.* 2010), and to ensure quality reporting of randomised controlled trials, the gold standard for evaluating interventions because of their ability to reduce bias (Moher *et al.* 2010).

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## Contact

[allison.williams@monash.edu](mailto:allison.williams@monash.edu)

## H 03 - Clinical Based Simulations

### The National Simulation Study: A Longitudinal, Multi-Site, Randomized, Controlled Study Examining the Use of Simulation as a Substitute for Clinical Hours

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*Jennifer K. Hayden, MSN, RN, USA*  
*Maryann Alexander, PhD, RN, FAAN, USA*

#### Purpose

The purpose of this presentation is to present the educational outcomes from a multi-site, randomized, controlled study when simulation is used to replace traditional clinical hours throughout the undergraduate nursing curriculum.

#### Target Audience

Nurse educators, regulators and policy-makers will benefit from this presentation of a large-scale, national study of simulation use as a clinical replacement throughout the prelicensure curriculum.

#### Abstract

**Purpose:** The purpose of this presentation is to discuss the findings from a multi-year, multi-site, randomized, controlled study of the educational outcomes when simulation is used to replace traditional clinical hours throughout the undergraduate nursing curriculum. Providing high quality clinical education experiences for nursing students is a challenge for nurse educators worldwide. An international nurse faculty shortage, along with competition for clinical sites, high patient acuity, and short hospital stays make it difficult for students to obtain consistently good educational experiences. Educators have turned to high fidelity patient simulation as one solution to the perennial challenges of traditional clinical education. Program administrators and faculty have witnessed the benefits of this teaching pedagogy and are interested in using simulation to replace a portion of their clinical hours with simulation, but the research literature has not addressed the end of program outcomes achieved when simulation is used as a clinical replacement throughout the curriculum. This was the largest, most comprehensive study to date examining the use of high fidelity simulation in the undergraduate nursing curriculum. Educational outcomes of clinical competency, nursing knowledge and new graduate nurse readiness for practice will be discussed.

**Methods:** The Fall 2011 student cohort from 10 nursing programs across the US were randomized to one of three study groups: traditional clinical (control group), 25% simulation in place of traditional clinical hours, or 50% simulation in place of traditional clinical hours. This randomization was maintained throughout the two years of clinical courses. In each clinical course, and at the end of the nursing program, students were assessed on clinical competency and tested on their nursing knowledge. The ATI Comprehensive Assessment Review Program was used to assess nursing knowledge throughout the study. The Creighton Competency Evaluation Instrument (CCEI) was used by clinical instructors to assess competency throughout each clinical course. End of Program determinations of clinical competency were made by the final clinical preceptor/instructor using the Critical Thinking Diagnostic and New Graduate Nurse Performance Survey.

The study cohort graduated in May 2013. A follow-up study of these new graduate nurses was conducted to evaluate their clinical abilities in the workplace. Nurse Managers completed surveys of the new graduates' critical thinking, clinical competence and readiness for practice at 6 weeks, 3 months and 6 months after being hired for a clinical position.

**Results:** A total of 667 nursing students completed the study requirements at graduation. There were no differences between the study groups in nursing knowledge assessed by the ATI Comprehensive Predictor ( $p=0.48$ ), New Graduate Nurse Performance Survey scales ( $p$ -values ranged from 0.43 to 0.85), the Critical Thinking Diagnostic scales ( $p$ -values ranged from 0.32 to 0.49), or the overall rating for clinical competence and readiness for practice ( $p=0.69$ ). Course specific data showed some variability in the

competency assessments, while the standardized nursing knowledge assessments revealed a trend of higher scores in the 50% group. National licensure examination results will also be presented.

At graduation, 587 new graduates consented to participate in the follow-up study. Once these new graduate nurses starting working in clinical positions, their managers provided ratings of clinical competency, critical thinking and readiness for practice using the New Graduate Nurse Performance Survey and Critical Thinking Diagnostic. These results will be reported for the 6 week, 3 month and 6 month follow-up periods.

**Conclusion:** We found no differences in end of program nursing knowledge, clinical competency or readiness for practice between the three study groups when up to half of the required clinical hours were replaced with simulated clinical experiences. These results indicate that using well trained simulation faculty to provide nursing students with simulated clinical experiences produce educational outcomes equivalent to traditional clinical education at the end of the nursing program. These results have significant policy implications for regulation and education in the US and other countries.

Leading nurse educators have been calling for a transformation to clinical education. Human patient simulation provides students the opportunity to learn while in the role of the nurse, rather than the nursing student. Educational opportunities can be standardized for all students; high morbidity and low frequency patient conditions can be practiced in a safe learning environment; interprofessional communication and safety standards can be incorporated in scenarios, and all students can debrief and reflect on the experience afterwards as a group. When best practices are utilized, nursing students can be exposed to many patient conditions, practice critical behaviors and synthesize key concepts in the simulated environment, then work to solidify those concepts and behaviors in the traditional clinical environment.

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#### Contact

[jhayden@ncsbn.org](mailto:jhayden@ncsbn.org)

## H 03 - Clinical Based Simulations

### Training Nurses for Charge Nurse Duties through Simulation

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Igal Zlatkin, RN, MA, Israel  
Haia Peker, RN, MA, Israel

#### Purpose

The purpose of this presentation is a discussion about novice nurses' preparation for the charge nurse duties through simulation.

#### Target Audience

The target audience of this presentation is nursing managers, nursing educators, clinical preceptors and hospital nurses.

#### Abstract

**Purpose:** A charge nurse is responsible for patient safety, quality of care and team functioning during the shift. Also, the charge nurse must care for some patients in addition to performing management duties. Every Israeli registered nurse is expected to function as a charge nurse after about two years of nursing experience. Commencing performing charge nurse duties is a stressful situation for a novice nurse. The anxiety and uncertainty that novice charge nurses feel stem from lack of experience in managing other staff members, the multitask nature of the job and the required on-going, sometimes critical, decision making. This stress is aggravated by more complex in-patients and shortage in manpower which may avert rapid yet quality response to emerging needs. Traditionally, novice nurses learned to perform effective shift management through trial and error. In order to diminish this stress and increase effectiveness, the novice nurse should be specifically prepared for charge nurse duties.

It is suggested that a specific workshop, based on simulations that portrayed real world situations in a controllable format, may provide an effective nurse's preparation for successful performance of the charge nurse duties.

**Methods:** The present study is a prospective and comparative with a convenience sample of 40 registered nurses during their first year of charge nurse duties' performance. 24 of them were trained for the charge nurse position by simulation-based workshop, while the others were prepared by lectures only. Both the groups were comparable in regard to age, gender and ethnicity. The study was based upon observations by the shift supervisors on the novice charge nurse's accomplishment of shift management's tasks. Each observation was scored by checklists that were developed and validated by the researchers. In addition, the Script Concordance Test, evaluating decision-making and self-confidence was performed by the novice charge nurses 6 month after commencing shift management. The questions were developed by researcher and validated by the expert judgment.

**Results:** The results indicate significantly higher performance levels of simulation group. Levels of decision-making and self-confidence are significantly higher amongst simulation group.

**Conclusion:** Simulation techniques provide a realistic yet safe learning environment that more closely represents clinical care, efficiently prepare novice nurses for shift management tasks and improve their self-confidence.

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### Contact

[igalz@gmail.com](mailto:igalz@gmail.com)

## H 04 - Health Promotion and Prevention of HIV/AIDS

### SEPA II: Predictors of Self-Efficacy for HIV Prevention Among Hispanic Women

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*Natalia Villegas, PhD, MSN, RN, USA*

*Rosina Cianelli, PhD, MPH, RN, FAAN, USA*

*Nilda (Nena) Peragallo, DrPH, RN, FAAN, USA*

*Rosa Maria Gonzalez-Guarda, PhD, MPH, RN, CPH, USA*

*Lilian Ferrer, PhD, MSN, RN, Chile*

*Lorena Kaelber, PhD, CNM, RN, USA*

### Purpose

Self-efficacy is a critical element for HIV prevention, however little is known about the predictors of self-efficacy for HIV prevention among Hispanic women. The purpose of this presentation is to identify predictors of self efficacy for HIV prevention among Hispanic women in South Florida.

### Target Audience

This presentation is aimed at nurses and other professionals working in HIV prevention at different settings.

### Abstract

**Purpose:** One of the strongest predictors for HIV prevention that has emerged is self-efficacy. Strong levels of self-efficacy for HIV prevention influence personal change toward HIV prevention behaviors. Self-efficacy is a critical element for HIV prevention, however little is known about the predictors of self-efficacy for HIV prevention among Hispanic women. Few studies have identified predictors of self-efficacy for HIV prevention among Hispanic women. Exploring predictors of self-efficacy for HIV prevention can contribute to Hispanic women's abilities to develop and carry out HIV prevention behaviors. The purpose of this presentation is to identify predictors of self efficacy for HIV prevention among Hispanic women in South Florida. We assessed if the following predictors: age, living with a partner, employment status, HIV knowledge, self-esteem, and intimate partner violence (IPV) predicted self-efficacy for HIV prevention in Hispanic women in South Florida who participated in a randomized controlled trial (SEPA).

**Methods:** This is a cross-sectional study that used baseline data from a randomized controlled trial of Salud, Educacion, Prevencion y Autocuidado (SEPA; translated as Health, Education, Prevention, and Self-Care). A sample of 548 Hispanic women from South Florida was selected. Bilingual female interviewers administered standardized health and behavior measures through face-to-face interviews. For these measures, participants selected their language of preference, English or Spanish. Prior to beginning recruitment, the University of Miami and the Miami-Dade County Health Department's institutional review boards approved the study. PASW version 18.0 was used to analyze the data and

simultaneous multiple regression. The simultaneous multiple regression analysis described the relationship between self-efficacy for HIV prevention and a set of independent variables or predictors. The independent continuous variables were age, HIV-related knowledge, and self-esteem. The independent dichotomous variables were living with a partner, employment status, and IPV.

**Results:** Most of the women were between ages 32 and 45 (mean = 38.5685; range = 18–49). Most (68%) had a moderately low family income of less than \$2,000 a month. One third of the women reported being employed. Almost half indicated that they were married. More than two thirds of the participants lived with a spouse or partner. More than half of the women identified their religion as Catholic. The mean score for self-efficacy for HIV prevention was 22.6641 points (range = 7–28). More than half of the participants scored 23 points or higher on this scale; the majority of the women reported high levels of self-efficacy for HIV prevention. The multiple regression analysis revealed that the omnibus test was statistically significant,  $F(6, 514) = 12.41, p = .001$ . The six explanatory variables together accounted for 12.7% of the variance in self-efficacy for HIV prevention. Women who were older, living with a partner, had less HIV knowledge, and had a history of IPV reported significantly lower levels of self-efficacy for HIV prevention. HIV knowledge was the most important predictor of self-efficacy for HIV prevention. Employment was not a significant predictor of self-efficacy for HIV prevention.

**Conclusion:** The predictor variables proposed by our study (age, living with a partner, HIV-related knowledge, IPV, and self-esteem), were significant predictors of self-efficacy for HIV prevention. The model successfully identified predictor variables. These variables have the potential to inform interventions aimed at increasing self-efficacy for HIV prevention. The predictors identified in the study can be used to identify high-risk Hispanic women who are in need of HIV prevention interventions.

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## Contact

[nvillegasr@miami.edu](mailto:nvillegasr@miami.edu)

## H 04 - Health Promotion and Prevention of HIV/AIDS

### A Comparative Study of HIV Positive African Migrants' Efforts to Gain Health Services in the U.K. and U.S

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*James Whyte, ND, PhD, USA*

#### Purpose

The purpose of this presentation is to detail the social processes and associated barriers to gaining HIV specific care in the case of African migrants living with HIV disease in the UK and the US.

#### Target Audience

The target audience for this presentation is nurses, other healthcare professionals and students in nursing and the health related disciplines. The presentation, in particular, is targeted at nurses working with vulnerable populations, including persons from Africa who are living with HIV/AIDS.

#### Abstract

**Purpose:** There is a dearth of studies that detail the processes underlying African migrants' efforts to gain health services in the UK and US. The purpose of the presentation is to present the results of parallel studies designed to detail the efforts of HIV positive African migrants' in the UK and US to gain access to vitally needed health services.

**Methods:** The Grounded Theory Method was used throughout the conduct of this study, due to the method's ability to integrate data and offer a structured method through which data may be analyzed and interpreted. Since this study involved contact with individuals vested in the issue at hand, in their naturalistic environment, this was an ideal method through which to conduct a study of this nature. One of the primary challenges of the study was to gain adequate data that reflected the broad range of experiences within the HIV positive African community. Due to their experience with multiple cases involving HIV positive migrants, social care workers at agencies that provide services to undocumented African migrants were selected. Data was collected from workers at 16 Non-Governmental Organizations (NGOs) that offer assistance to undocumented migrants in the UK and US. Each of these agencies was visited in person by study personnel.

**Results:** The pattern of access to care within general practice clinics was highly inconsistent when considering African migrant's ability to reliably access services. The data revealed the existence of several vitally important processes: 1) All African migrants to the UK are granted access to care at the GM clinics upon arrival to the UK. Conversely, African migrants' to the US face significant challenges in gaining access to care in general practice settings. 2) There is wide agreement on the part of participants that their clients are losing eligibility to receive care at the GM clinics once they have failed on appeal of negative asylum decisions. Under the US system, migrants', due to current regulations, face significant challenges in gaining government supported access to health services 3) Publicly supported HIV care clinics in the UK and US, regardless of size, have been seen to inconsistently enforce the prohibition on providing care to the undocumented. Factors such as healthcare worker unwillingness to deny care to their previously legal clients were cited repeatedly. 4) There are cases wherein African migrants who previously had access to publicly funded clinics in the UK and US, have lost their access due to losing their asylum claims on appeal. A prime factor in such cases tended to be associated with hospitalization during acute illness, which resulted in administrators performing eligibility checks. 5) Undocumented migrants were able to maintain access to health services through their GP, however, GPs are not able to provide HIV specific therapy. Thus, undocumented African migrants maintain limited access to healthcare via the GP, and at times when they experience life-threatening illness. Otherwise, they eventually lose the ability to gain treatment with common anti-retroviral therapies. A comparative analysis of the data yields a highly complex interaction between individual migrants efforts to survive in the countries that they have immigrated to superimposed over their efforts to gain care for their HIV disease. The result is a pattern wherein migrants frequently prioritize daily subsistence and housing needs above their health related needs. This results in progressive health related challenges.

**Conclusion:** The findings obtained in this study reflect upon a complex representation of the interaction between the basic social processes underlying African migrants' efforts to gain healthcare services and their efforts to maintain their lives in their new countries. The findings identified a pattern wherein migrants are often forced to prioritize daily life needs above their medical needs. This results, eventually in degradation of their health and their need to seek healthcare in an acute care setting. Thus, limits to health access result in significant health related expenditures and concurrent human suffering and loss of productivity. The presentation, in concluding, calls for reforms that will address the needs of this highly vulnerable population in a humane manner.

Contact

[jwhyte@fsu.edu](mailto:jwhyte@fsu.edu)

## H 04 - Health Promotion and Prevention of HIV/AIDS

### HIV Pilot Program for Chinese College Students: Differences by Gender

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Teresa D. Serratt, PhD, USA

#### Purpose

The purpose of this presentation is to present results of a pilot study exploring gender differences in the effectiveness of the translated VOICES intervention on condom use intention, perceived benefits and barriers to condom use, condom use self-efficacy, and HIV/AIDS knowledge among Chinese college students in a U.S. university.

#### Target Audience

The target audience of this presentation is nurses who provide sexual education to college age students and those involved in public health interventions related to health promotion and disease prevention.

#### Abstract

**Purpose:** Nearly 10 million young people between the ages of 15 and 24 are diagnosed with a sexually transmitted disease annually. [1]. Young people are disproportionately affected by HIV/AIDS and account for 40% of all new adult HIV infections in the world (UNAIDS, 2012b). Condom use has been identified as an effective means of preventing sexually transmitted diseases, however male and female Chinese college students may respond differently to educational interventions aimed at increasing condom use. [2] Chinese students account for 30% of all international students attending U.S. colleges and universities, but there are a lack of linguistically- and culturally-appropriate programs for this student population. [3] The study intervention was based on the VOICES (Video Opportunities for Innovative Condom Education and Safer Sex). The purpose of this study was to explore gender differences in the effectiveness of the translated VOICES intervention on the condom use intention, perceived benefits and barriers to condom use, condom use self-efficacy, and HIV/AIDS knowledge among Chinese college students in a U.S. university.

**Methods:** A one group pre-test/post-test quasi-experimental design was used. Sixty-Seven Chinese students at the local university were recruited to view a 20-minute video with Chinese subtitles followed by one 25-minute small group discussion and condom feature education. Questionnaires collected data on demographic information, condom use intention, perceived benefits and barriers to using condoms, confidence in using condoms in different situations, and HIV/AIDS knowledge.

**Results:** Multiple linear regression analysis showed that female participants showed significantly greater mean scores of perceived benefits ( $M = 4.653$ ,  $SD = 0.472$  vs.  $M = 4.405$ ,  $SD = 0.761$ ,  $p = 0.027$ ) and condom use self-efficacy ( $M = 4.506$ ,  $SD = 0.583$  vs.  $M = 4.121$ ,  $SD = 0.881$ ,  $p = 0.031$ ), in comparison with male participants. Additionally, the multiple linear regression analysis showed that female participants reported significantly higher scores than male participants in five perceived benefits items and one self-efficacy item.

**Conclusion:** The findings from this study provides important information for developing more differentiated intervention strategies specific to gender, particularly in the Chinese international student population.

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#### Contact

[tserratt@unr.edu](mailto:tserratt@unr.edu)



## H 05 - Complementary Global Initiatives for Patient Health

### The Effect of Warm-Water Footbath on Fatigue, Sleep and Quality of Life of Stroke Patients

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Wan-Jing Li, RN, BS, MSN, Taiwan

#### Purpose

The purpose of this presentation is to validate and demonstrate the effectiveness and safety using warm-water footbath to improve stroke patients' fatigue, sleep and quality of life, in a prospective case-control study.

#### Target Audience

The target audience of this presentation is healthcare professional who is taking care of stroke patients and especially interested in how to enhance the quality of care and the easiness of self-care.

#### Abstract

**Purpose:** Fatigue and sleep disturbance are two common problems in stroke patient. They are multifactorial, and can develop in different phase of stroke. Stroke itself and its treatment often stress the patients significantly; fatigue and sleep disturbance may further impair patients' quality of life. Since increased distal (foot)-proximal (abdominal) skin temperature gradient (DPG) is a known predictor for one's "readiness" for sleep, and it is also associated with shorter sleep latency and better sleep quality, we aimed to validate the safety of and explore the effect of warm-water footbath on fatigue, sleep and quality of life in hospitalized post-stroke patients.

**Methods:** In our study, a quasi- experimental design was applied. The stroke subjects were recruited from two rehabilitation wards in a regional hospital in northern Taiwan. A total of fifty-one subjects were in the control group (under routine care) whereas forty- one subjects were in the experimental group (added warm water footbath). The warm water footbath with 41°C was lasted 15 minutes before bedtime for 7 nights. The feet and legs of samples were immersed in a standardized footbath tank, with a depth of 10 cm above ankles. All subjects received structured questionnaires, such as: demographic data, Fatigue Severity Scale, Verran and Snyder-Halpern Sleep Scale, and Stroke Impact Scale. Data were processed by SPSS 18.0 for Windows. The major statistical procedures applied were frequencies and percentages, independent t test, *paired t-test*, chi-square test, and repeated-measures ANOVA. A value of  $P < 0.05$  was considered statistically significant.

**Results:** In total, 92 subjects (experiment group=41, control group=51) were included in the study, all of them completed the study. There was no adverse effect noted during the study period, and no significant demographic differences noted between the experiment group and control group.

The results showed that:

- 1). Fatigue was common in both the experimental and control groups. However, the severity of fatigue increased significantly in the control group whereas the severity of fatigue was decreased in the experimental group.
- 2). Similar quality of sleep was found between control and experimental groups in the pretest. After the implementation of footbath, samples in the experimental group reported better daily quality of sleep than samples in the control group.
- 3). During research period, no significant changes in quality of life was reported by the control group. But the experimental group showed a significant improvement in the "emotion" ( $p < .05$ ), "ADL" ( $p < .05$ ), and "mobility" ( $p < .05$ ) domains of quality of life.

**Conclusion:** In post-stroke patients receiving hospitalized rehabilitation, fatigue is not only common, but could significantly worsen during the hospital stay. Significant improvement over fatigue, sleep and quality of life were noted in the patients. Moreover, none of the subjects experienced burn injury, erythematous change of the skin, pain or other adverse effect, either before, during or after the footbath treatment.

Warm water footbath is a relatively safe and effective modality for post-stroke hospitalized patients receiving rehabilitation program, especially in improving the patient's fatigue, sleep and certain domains in quality of life; and its easiness to be applied by non-professional care giver and even the patients themselves may further enhance the accessibility of post-stroke rehabilitation. Further study in a larger cohort with longer study period is needed.

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### Contact

[vava419@gmail.com](mailto:vava419@gmail.com)

## H 05 - Complementary Global Initiatives for Patient Health

### Effects of Aromatherapy on Sleep Quality and Emotional Status of Hong Kong Nursing Students Facing Final Examination: A Randomized Controlled Trail

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*Ricky W. K. Yuen, EdD, MN, MSocSc, BN, RN, Hong Kong*

*Margaret Mei Lin Pau, DN, MSc, MN, BN, RN, Hong Kong*

*Wing Yan Yeung, MPH, BNur, RN, Hong Kong*

#### Purpose

The purpose of this presentation is to examine the effects of aromatherapy on the emotional status and sleep quality of the nursing students in Hong Kong.

#### Target Audience

The target audience of this presentation is nurse educators, researchers and nursing students.

#### Abstract

**Purpose:** The purpose of the study is to examine the effects of aromatherapy on the emotional status and sleep quality of the nursing students in Hong Kong facing final examination.

**Methods:** It was a single blind; two groups pretest-post-test randomized controlled trial study. Fifty five students were being blinded and randomly allocated into 2 groups, the intervention group (Group A) and the control group (Group B). All participants in Group A were given 42 drops of pure lavender *augustifolia* essential oil inside a 5 ml glass bottle with dropper. Group B would be filled up with 42 drops of pure almond carrier oil in the same type of glass bottle.

Three weeks before the final examination, they were instructed to prepare two gauzes, in which one drop of the oil added to each gauze, and one of them was placed on right side of the pillow and the other on the left side before sleep. The gauze should be placed in a position that they could inhale the aroma. A new piece of gauze with the given oil must be used every night.

Two instruments, Pittsburgh Sleep Quality Index (PSQI) and Depression, Anxiety, Stress Scale (DASS), were adopted in this study to examine the emotional status and sleep quality of nursing students. PSQI is used to examine the sleep quality and it is a 24-item questionnaire assessing the sleep quality and disturbances over a one month time period. The psychometric property of PSQI was examined in other studies and favorable results were documented with reliability coefficient (Cronbach's alpha) 0.83; sensitivity 89.6% and specificity of 86.5% in distinguishing good and poor sleepers (Buysee et al, 1988). DASS is a 42-item self-report questionnaire grouped into three scales with four-point Likert scale. Scores are calculated by summing up the scores for the relevant items. It yields acceptable reliability with alpha values for the 14-item scales of depression is 0.91; anxiety 0.84 and stress 0.90 (Lovibond & Lovibond, 2004).

Participants were asked to complete two sets of questionnaires, PSQI and DASS, before the commencement of the study as baseline and on the 21<sup>st</sup> day, ie. the day of final examination. The collected data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 22. Descriptive statistics were used for mean and standard deviation., between baseline and the completion of the programme; repeated measures ANCOVA were used to compare differences between two groups.

**Results:** Paired-t test was used to compare within outcome of groups and significant improvement in the reduction of stress level ( $p=.001$ ) and the reduction of anxiety level ( $p=.044$ ) was found when compared within the intervention group before and after aromatherapy. Apart from paired t-test, ANCOVA was also used to compare the scores and similar results were obtained. Age and gender were identified as covariates and there is a significant difference between the stress ( $F=(1,56)=12.167$ ,  $p=.001$ ) and anxiety ( $F=(1,56)=4.326$ ,  $p=.042$ ) when compared within the intervention group before and after aromatherapy.

For the between group comparison, the subjective sleep quality, sleep disturbance and overall PSQI total score were found significant improvement ( $p= <.001$ ,  $.025$  and  $.001$  respectively). The anxiety and stress level of intervention group were also improved significantly ( $p=<.001$  and  $.001$  respectively) when

compared with the control group. By using ANCOVA, gender and age as covariates, the significant difference of the subjective sleep quality ( $F=(1,56)=7.652, p=.001$ ), sleep disturbance ( $F=(1,56)=3.791, p=.031$ ), overall PSQI total score ( $F=(1,56)=5.283, p=.001$ ), anxiety ( $F=(1,56)=9.718, p=.001$ ) and stress level ( $F=(1,56)=8.645, p=.001$ ) between the intervention and control group still exists.

**Conclusion:** In conclusion, the findings of the current study suggested that lavender when exposed at night for 21 nights before final examination was beneficial to nursing students and were able to lessen their anxiety level, stress level and overall sleep quality.

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## Contact

[yuenwk@sth.org.hk](mailto:yuenwk@sth.org.hk)

## H 05 - Complementary Global Initiatives for Patient Health

### Using Healing Touch to Help Junior Nursing Students with Their Anxiety

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*G. Jean Klein, PhD, PMHCNS, BC, USA*

*Melissa Krouse, USA*

*Katharine Lowe, BSN, RN, HTP, USA*

#### Purpose

The purpose of this presentation to present the findings of a quasi-experimental investigation using Healing Touch to lower junior nursing students anxiety.

#### Target Audience

The targets audience of this presentation are nurse educators and Healing Touch Practitioners.

#### Abstract

**Purpose:** The purpose of this study was to investigate if a Healing Touch session could lower junior nursing students anxiety.

Students frequently discuss their anxieties with their professors. They worry about being successful in the academic environment. Test anxiety is a major concern for many students, and more so for students who are continually evaluated for progression in a program, such as nursing. Students are aware of their anxiety, and the consequences of that anxiety. They look for strategies to help them deal with their anxiety so that they may gain control over situations.

Additionally, junior nursing students often have difficulty making the transition from theory laden courses to courses where they are required to apply previously learned information, such as the clinical nursing courses. They report feeling anxious applying this information when they are tested and/or are when they are in the clinical experience. The anxiety experienced by the junior nursing students may be preventing them from being successful in objective testing, which may prevent them from progressing in the nursing program.

Healing Touch is a non-invasive bio-field relaxation therapy that is an energy based approach to healing and health. It uses touch to influence the human energy system, specifically the energy that surrounds the body, and the energy flow from the fields to the physical body. Healing Touch is a biofield (magnetic field around the body) therapy that is an energy-based approach to health and healing. The goal of Healing Touch (HT) is to restore balance in clients' energy field, therefore allowing them to self-heal. HT uses noninvasive techniques using the hand and gentle touch to clear, energize, and balance the human and environmental energy fields affecting physical, emotional, mental and spiritual health to facilitate healing. Several studies have been done to identify if HT helps facilitate healing and decrease anxiety in various illnesses. Although there is research on HT, there is no research on the effects of HT on anxiety levels in nursing students. The purpose of this study is to determine if a Healing Touch session will lower junior nursing students' anxiety.

**Methods:** A convenient sample of 88 junior nursing students consented to participate in this quasi-experimental research study. Because of student & Healing touch practitioner availability, 37 junior nursing students received the Healing Touch session. Prior to the session, the students responded to Spielberger's State Trait Anxiety Inventory (STAI). The State Trait Anxiety Inventory (STAI) is a valid and reliable measurement of anxiety used in numerous research studies. The Healing Touch session was performed by a certified Healing Touch practitioner, who happened to be a registered nurse. The Healing Touch session lasted approximately 50 minutes. After the session, the students were given a second copy of the STAI. They were asked to fill it out between 3 and 7 days after the Healing Touch session, and to return it to the primary investigator. Thirty three of 37 students returned the second STAI to the primary investigator.

**Results:** Descriptive statistics on the total scores reviewed the students' pre state anxiety scores ranged from 33-57 and their post state anxiety scores ranged from 36-79. When a paired t-test was computed on the state anxiety scores, a statistically significant increase (mean = 2.79,  $p = .001$ ) was found between the

pre & posttest scores. The students' pre trait anxiety scores ranged from 26-63 and their post trait anxiety scores ranged from 26-55. When a paired t-test was computed on the trait anxiety scores, a statistically significant decrease (mean = -3.41,  $p = .001$ ) was found between the pre & posttest trait anxiety scores.

**Conclusions:** The statistically significant increase in state anxiety scores may be attributed to a variety of issues including: clinical experiences, testing in courses perceived as difficult, or circumstances not identified such as personal challenges. The statistically significant reduction in the trait anxiety scores may be attributed to the effects of the Healing Touch session. Limitations include a convenient sample of junior nursing students from one university was studied. Due to student & Healing Touch practitioner availability, only 37 students received the Healing Touch session and only 33 students returned the completed second STAI form to the primary investigator. Although statistically significant findings occurred, more research in this area is warranted.

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### Contact

[gjklein@widener.edu](mailto:gjklein@widener.edu)

## H 10 - Perceptions: Variations from Patients to Staff

### Knowledge, Attitudes, and Perceptions of Preeclampsia Among First-Generation Nigerian Women in the United States

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Christine Okpomesine, PhD, RN, WHNP, USA

#### Purpose

remedy the misinformation acquired from mothers, grandmothers, aunts, and mothers-in-law, of first-generation Nigerian women living in the United States of preeclampsia thus improving the educational standard among any group of women with ancestral beliefs and may influence their decisions to seek early prenatal care in their next pregnancy.

#### Target Audience

to educate healthcare providers and the public about the cultural beliefs, attitudes, and perceptions of preeclampsia among women of different ethnic group in the United States; and women to better understand how to make positive healthcare decisions, without allowing cultural beliefs, attitudes, and perceptions to influence prospective choices.

#### Abstract

**Purpose:** Although numerous studies have documented the need for early recognition and treatment of preeclampsia to attain a good prognosis, first-generation Nigerian women living in the United States tend to seek obstetrical care after the first trimester (12 weeks), by which time prompt recognition may be missed. The purpose of this study was to measure the knowledge, attitudes, and perceptions about preeclampsia and limitations that determine the delay in seeking obstetrical treatment in early pregnancy among first-generation Nigerian women living in the United States.

**Methods:** This cross-sectional quantitative study consisted of 180 first-generation Nigerian women in the United States recalling their experiences of being diagnosed with preeclampsia and experiencing preeclampsia. The health-belief model served as the conceptual framework to predict the health behaviors of first-generation Nigerian women regarding their experiences in early recognition of signs and symptoms of preeclampsia. Data were collected through an online survey and analyzed using binary and ordinal logistic regression.

**Results:** The results indicated no statistical significance relation between knowledge, attitudes and perceptions of preeclampsia and demographic characteristics, socioeconomic status, acculturation, and access to healthcare.

**Conclusion:** Despite the non significance, these findings will help women better understand how to make positive health decisions and support the efforts of public health departments to produce and distribute a booklet on preeclampsia to all healthcare providers regarding the importance of early detection. This study contributes to positive social change by bringing awareness of preeclampsia, risk factors, and the need for early recognition and prompt treatment to first-generation Nigerian women living in the United States.

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#### Contact

[cokpomesine@yahoo.com](mailto:cokpomesine@yahoo.com)

## H 10 - Perceptions: Variations from Patients to Staff

### Understanding Hospital Staff Needs and Perceptions in the Provision of Palliative Care

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*Gail Ross-Adjie, RN, PhD, Australia*

#### Purpose

The purpose of this presentation is to discuss study findings which sought to investigate staff perceptions and experiences of palliative care in an acute hospital environment.

#### Target Audience

The target audience of this presentation is all hospital clinical staff who will, at some time provide palliative or end of life care in an acute hospital setting.

#### Abstract

**Purpose:** The primary aim of this study was to investigate hospital staff perspectives and experiences regarding palliative care provision. Secondary aims were to assess staff views about death and dying, their awareness of common causes of death in Australia and their assessment of which patients most warrant a palliative care approach.

**Methods:** All medical, nursing, allied health and pastoral care staff working in a large private hospital in Perth, Western Australia were invited to complete a combined quantitative and qualitative survey. The validated survey tool, previously used in other healthcare settings, used a combination of Likert-type scales and open ended questions. Descriptive statistics and intergroup comparisons were made for all quantifiable variables, while formal content analysis was used for text responses. In addition, four focus groups were held across different hospital areas allowing for more detailed discussion of the provision of palliative care.

**Results:** We had a pleasing 51% response rate (N = 302) with most staff reporting only working knowledge of palliative care but clinical proficiency in symptom control. Confidence in palliative care provision was lower amongst nursing than medical staff but educational needs were similar. Cancer diagnoses were consistently overestimated, and dementia and chronic obstructive pulmonary disease underestimated, as the most common causes of death.

**Conclusion:** Our study suggests that although clinical staff expressed confidence regarding symptom management in palliative care, they lacked understanding of the patients in whom a palliative approach could be applied and sought further education in areas such as end-of-life communication and ethical issues. Specific training and clinical interventions in palliative care provision would seem to be needed and justified.

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#### Contact

[Gail.Ross-Adjie@sjog.org.au](mailto:Gail.Ross-Adjie@sjog.org.au)

## H 10 - Perceptions: Variations from Patients to Staff

### Who Are the Family Caregivers?: Epidemiologic Research

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*Maria Joana Campos, RN, MScN, Portugal*  
*Abel Paiva Silva, PhD, MScN, RN, Portugal*

#### Purpose

Characterize families with dependent people and Describe the intensity and regularity of care provided by families towards the quality of care.

#### Target Audience

nurses, researchers and educators

#### Abstract

Background: Nowadays, many numbers of family members assume a great responsibility for taking care of a dependent person at home.

Taking care of a dependent person is not an easy task; it involves a new kind of skills and knowledge to be prepared for this new role.

Oliveira and Colleagues (2011) comparing patients with readmissions in hospital settings, and found less acute diseases (19.8%) and ontological diseases (5.5%), but more infections (44.0%) and exacerbation of chronic diseases (25.3%). These kinds of health problems may be associated with family caregiving skills or lack of preparedness to caregiver role.

So, we need to know more about it to provide professional care for family caregivers.

Caregivers dispend a lot of time on care, which has implications in its own health and dependent person's health (Campos, 2008).

**Purpose:** So, we proposed a study with the main objective:

- Characterize families with dependent people: income, household, the attributes of de person with dependence and the attributes of caregiver.
- Describe the intensity and regularity of care providing by family caregivers and the perceptions of self-efficacy in role acquisition

**Methods:** Quantitative research was used. We use an epidemiological study using a random sample. We used the formula published by WHO (Lwanga e Lemeshow, 1991) ( $n = Z^2 p (1-p) / d$ ) for these kind of studies.

Our sample is 2351 classic families. We have used a Geographical Database Referencing Information, which allows knowing the geographic distribution of households, and geographically stratified random selection of sub-regional accomplished through a system Geographic Information, using Arcgis®.

The data were collect by a form. Data were analyzed using the Statistical Package for Social Sciences - SPSS (version 18.0, SPSS Inc, Chicago, USA).

**Results:** Of these 2351 households, 1745 (74.22 %) had someone at the time of data collection opened the door, but 143 (8.2%) refused to answer the preliminary inquiry. We have identified 121 dependent people at home, 100 have one family caregiver and 20 have more than one.

Regarding the primary family caregiver, they are mostly women (81 % , n = 81 ) , the age ranges are from 18 to 83 years , with an average 59.51 ( SD = 13.66 ) . The findings shows us that 70.2 % ( n = 66 ) of the caregivers feels very competent, 19.1% ( n = 18 ) moderately competent, 9.6 % ( n = 9 ) competent and ( n = 1 ) incompetent in relation of perception of self-efficacy.

**Conclusion:** In the context of home care and with regard to family caregivers , although the perception of self-efficacy does not refer to the skills that people have , but the idea they have about what they can do (

Bandura , 1986; Le Boterf 2003 ) , this may be a predictor of behaviour. However, to realize the competence of caregivers, other variables will have to enter the equation.

Must be developed a full range of services, including home care for support family caregivers in is needs and prepare for new role.

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### Contact

[joana@esenf.pt](mailto:joana@esenf.pt)

## I 03 - Global Culturally Diverse Pediatric Concerns

### Systematic Evaluation of the Psychometric Properties of Pain Assessment Scales for Use in Chinese Children: Where Are We?

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*Jinbing Bai, PhD(c), MSN, RN, USA*

*Nan Jiang, MSN, RN, China*

#### Purpose

The purpose of this presentation is to discuss the psychometric properties and feasibilities of pain assessment scales for use in Chinese children

#### Target Audience

The target audience of this presentation is clinical nurses and pain-related researchers, as well as nurse managers who are interested in children's pain management.

#### Abstract

**Purpose:** Many children experience moderate to severe pain during hospitalization. Systematic pain assessment using reliable and valid pain scales is the foundation for adequate pain management in children. The psychometric properties of pain measures used with children in China are still largely unknown relative to their properties when used in children in Western countries. The purpose of this study was to systematically evaluate the psychometric properties of pain assessment scales used in Chinese children.

**Methods:** We searched Chinese-language databases (e.g., CNKI, Wanfang, VIP and SinoMed) and English-language databases (e.g., PubMed, CINAHL, Health and Psychosocial Instruments and PsycINFO) from its inception to December 2013. Studies were eligible for inclusion if the psychometric properties of pain measures were examined in Chinese children (aged 0-18 years). Two independent bilingual reviewers screened search results based on title, abstract and full article for eligibility. Both reviewers used an 11-item coding system developed by Zwakhalen et al. (2006) to evaluate the psychometric properties of pain scales in the eligible studies. Total scores (range 0-20) of this coding system were categorized into four levels: very good (15-20), good (12-14.9), acceptable (10-11.9), and unacceptable (< 10).

**Results:** Our initial literature search identified 352 and 434 potential articles from Chinese-language and English-language databases. According to the inclusion criteria, a total of six studies were identified in this review. Six pain scales were evaluated: the Face, Legs, Activity, Cry, and Consolability (FLACC) Scale, COMFORT-Behavior Scale, Asian Oucher Scale, Pain Observation Scale for Young Children, Neonatal Facial Coding System and Pain Assessment Scale for Preterm Infants. Four of these scales were adapted from Western countries and two were developed in Taiwan. These identified scales were mostly examined in children undergoing invasive painful procedures pain after surgery. Results showed that the FLACC, COMFORT-Behavior Scale, and Pain Assessment Scale for Preterm Infants had very good psychometric qualities when administered in Chinese children, with a total score of 18.2, 16.4, and 17.3, respectively. The Asian Oucher Scale and Pain Observation Scale for Young Children showed acceptable to good psychometric qualities, with a total score of 14.6 and 11.8. The Neonatal Facial Coding System had unacceptable psychometric qualities, with a total score of 7.3.

**Conclusion:** Pain measures whose psychometric properties were examined had acceptable to good psychometric properties for pain assessment in Chinese children, even though few had been validated in Chinese children. The development and validation of pain assessment scales for Chinese children is still far behind the Western countries (Bai 2013; Sun et al., 2013a, 2013b), indicating that there is still a big gap of pain assessment in Chinese children compared with the international standards. Future studies should validate these measures and self-report pain scales in particular among Chinese children of various age groups and in different pain situations.

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Contact

[jbai7@email.unc.edu](mailto:jbai7@email.unc.edu)

## I 03 - Global Culturally Diverse Pediatric Concerns

### The Experience of Dysmenorrhea and Its Related Self-Care Behaviors Among Adolescent Girls

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*Cho Lee Wong, RN, MSc (HlthCr), Hong Kong*

*Wan Yim Ip, RN, RM, BN, MPhil, PhD, China*

*Lai Wah Lam, RN, BN, MPhil, PhD, Hong Kong*

#### Purpose

The purpose of this presentation is to explore the experience and self-care behaviors among adolescent girls with dysmenorrhea in Hong Kong

#### Target Audience

The target audience of this presentation is school nurses or nurses work with adolescents

#### Abstract

**Purpose:** To explore the experience and self-care behaviors among adolescent girls with dysmenorrhea in Hong Kong.

**Methods:** This study had two phases – a survey in phase I and semi-structured interviews in phase II. This abstract presents phase II of the study. Based on the phase I results, purposive sampling was employed to recruit 24 adolescent girls with very high and very low levels of self-care behaviors using the Adolescent Dysmenorrhic Self-Care Scale. Semi-structured interviews were conducted with the help of an interview guideline to understand adolescent girls' experience of dysmenorrhea and their self-care behaviors towards dysmenorrhea. All interviews were tape-recorded. Interview data were transcribed and analyzed using qualitative content analysis.

**Results:** Four categories were emerged: perceptions of dysmenorrhea, impact of dysmenorrhea, managing dysmenorrhea, and educational needs. The findings revealed that adolescent girls perceived dysmenorrhea as pain but normal. They experienced inability to concentrate on studies and change of family relationship during the painful days. Girls preferred to manage dysmenorrhea by lifestyle changes, seeking advice and endurance. Besides, girls also expressed their educational needs for dysmenorrhea self-care.

**Conclusion:** Understanding self-care behaviors towards dysmenorrhea from adolescent girls' perspectives was important, as it could assist nurses in the development of culturally sensitive intervention to promote self-care behaviors of adolescent girls with dysmenorrhea.

#### Contact

[jojowong@cuhk.edu.hk](mailto:jojowong@cuhk.edu.hk)

## I 04 - Diabetic Management and Health Promotion

### The Influence of the Social Determinants of Health on Diabetes Self-Management in Rural Appalachia

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*Myra Leslie Clark, PhD, RN, NP-C, USA*

#### Purpose

The purpose of this descriptive phenomenological study was to explore the influence of the social determinants of health as they relate to diabetes self-management in rural Southern Appalachia.

#### Target Audience

The target audience of this presentation are researchers and public health professionals who work with rural uninsured individuals diagnosed with type 2 diabetes.

#### Abstract

**Purpose:** Diabetes, a worldwide public health concern, has been linked with lower socioeconomic status, obesity, poor nutrition, membership in certain racial and / or ethnic groups, and family history of diabetes – factors often present in both urban and rural regions. Researchers are finding that greater knowledge of the relationship between social determinants of health and diabetes may provide insight into individuals' health outcomes related to diabetes. The purpose of this descriptive phenomenological study was to explore the social determinants of health as they relate to diabetes self-management in a rural United States population.

**Methods:** This qualitative analysis is part of a study to gain insight into the individual's perspective on living with diabetes given the social determinants of her/his situation. Recruitment of 10 adults was accomplished through key community contacts, local physicians, and posted flyers. Participants were both male (n=6) and female (n=4), on average 46.5 years of age, and had been diagnosed with diabetes for about 11 months (range 2-18 months). For purposes of this study, qualitative data were collected from digitally-recorded sessions and then analyzed using constant comparison and procedures to avoid bias. Identified themes were extracted to provide insight into individuals' perspectives of living with diabetes.

**Results:** Data analysis revealed three major themes related to the influence of the social determinants of health on the individual's perspective on living with diabetes: (1) importance of work; (2) importance of social connectivity/support; and (3) importance of family and sense of place in self-definition.

**Conclusion:** Diabetes is a nationwide public health concern in the United States; however, individuals in rural communities often face unique barriers or challenges. Results of this qualitative study offer healthcare providers helpful insight about facilitators and barriers to living with diabetes among a sample of rural residents from Southern Appalachia, United States. Findings illustrate the influence of external or upstream social determinants on the individual's health. Further research to determine the influence of social determinants on diabetes self-management will help to improve individuals' health outcomes.

#### Contact

[mlc4bf@virginia.edu](mailto:mlc4bf@virginia.edu)

## I 04 - Diabetic Management and Health Promotion

### Effectiveness of Community-Based Multifaceted Intervention (STOP-DM) Designed for Korean-Americans with Type 2 DM

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Miyong T. Kim, RN, PhD, FAAN, USA

Hae-Ra Han, PhD, RN, USA

Kim B. Kim, PhD, USA

#### Purpose

The purpose of this presentation is to report the clinical outcomes of a randomized clinical trial to test the effectiveness of a community based, multifaceted intervention that designed to meet cultural and social needs of Korean Americans with type 2 Diabetes mellitus (DM).

#### Target Audience

The target audience of this presentation are clinicians and researchers who are seeking methodological insights in developing effective, culturally sensitive diabetes management programs for socially and/or linguistically isolated minority groups in the US or patients residing communities with limited resources across the world.

#### Abstract

**Purpose:** The primary objective of this translational study was to conduct an effectiveness trial of a community-based glucose control intervention program for Korean American immigrants (KAI) with type-2 DM. The self-help intervention program for Korean Americans (SHIP-DM) focuses on the self-help aspect of DM control by empowering patients through enhanced knowledge of DM and diet, utilizing available technology to develop the ability to self –monitor their glucose control status, facilitating better communication with their health care providers, and enhancing health literacy and general problem-solving skills. **Background:** Type 2 diabetes mellitus (DM) is a serious health problem in Asian-American communities, including the Korean American immigrant (KAI) community. KAI, one of the most underserved and understudied minority populations in the US, are at particularly high risk of developing type 2DM, a problem that is compounded by the fact that Asians who have emigrated to the West tend to gain weight after immigration. Our previous community research experience has indicated that an overwhelming number of KAI suffer not only from uncontrolled DM but also from a loss of self-confidence and social isolation stemming from language and cultural barriers. Like other immigrant ethnic minorities, they often have limited access to health care and information. Also, more than 50% of KAI have no health insurance and rarely receive routine checkups. As a result, KAI with asymptomatic chronic diseases, such as DM, go undiagnosed and inadequately treated. These health risks are further compounded by low health literacy levels: 90% of first-generation KAI adults are monolingual (Korean only), and more than 70% report having trouble understanding medical terminology, even when using materials that have been translated into Korean. These factors lead to high rates of undetected, undertreated, or poorly managed chronic illnesses, often with costly and tragic consequences. KAIs with type 2 DM urgently need effective interventions that help them achieve better glycemic control and restore their self-confidence with regard to diabetic management. To address this critical need within the KAI community, we designed a community-based clinical trial to test the effectiveness of a multifaceted DM management program (STOP-DM) that was designed to address the cultural and social needs of KAI with type 2 DM.

**Methods:** Using a community-based randomized control design with delayed intervention, we have recruited and enrolled 250 KAI (130 in intervention group, 120 in control group) with following eligibility criteria: (a) Age between 35 and 80; (b) having the type 2 DM, (c) being able to read Korean; (d) being at high risk of DM as measured by hemoglobin A1c at 7.0 or above; and (e) being able to stay in the program for at least a year. By providing our intervention to every participant (with different timeframes), we can be sensitive to the community's reasonable concern: not to use vulnerable immigrants with limited resources as research subjects without giving them any direct benefit. The 3 interventions were 6 week-long education on DM management focusing on comprehensive self-care skills including health literacy,

followed by telephone counseling and home glucose monitoring for 12 months. Main outcomes were measured at baseline, 3, 6, 9, 12 months.

**Results:** Among 250 enrolled, 209 (mean age, 58.9 ± 8.4 years) completed the 12 month–long follow-up data collection; 105 in the intervention and 104 in the control group. The majority of these participants were married (89%); the average length of stay in US was 23 years, and the majority had at least high school education at their home land. The average monthly income was \$4,269 and 52% did not have any access to health care.

Evaluation of the primary end point, the level of HgA1c revealed significant between differences at each measurement point. (Table 1).

Group/Period	Baseline	Month 3	Month 6	Month 9	Month 12
Intervention (A)	8.9 (1.95)	7.9 (1.50)	7.7 (1.44)	7.7 (1.46)	7.6 (1.17)
Usual Care (B)	8.7 (1.58)	8.4 (1.55)	8.3 (1.49)	8.2 (1.48)	8.1 (1.41)
Diff (A-B)	0.2	-0.5	-0.6	-0.5	-0.5
Prob(A-B) ≠ 0	0.31	0.01	0.00	0.02	0.01

Significant changes were observed over time in some psycho-behavioral outcomes, including self-efficacy for DM control, medication adherence behavior, DM related health literacy, diet pattern ( $p < 0.05$ ). In addition, the intervention and control group showed a significant difference in DM knowledge and the level of depression.

**Conclusion:** The study findings highlighted the importance of placing systematic efforts to developing tailored intervention to address the unique need of a target cultural group. While the methodological discussion regarding the effectiveness of the intervention of this kind is limited, especially in ethnic minority groups, we strongly believe that the systematic strategies and methodologies we used in this study are transferrable to other underserved communities. More importantly, lessons learned from our community-based trial using CBPR principles and community partners will be shared in the context of addressing the sustainability issue of this kind of program.

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#### Contact

[mkim@nursing.utexas.edu](mailto:mkim@nursing.utexas.edu)

## I 05 - Cultural and Language Barriers in Nursing

### Navigating Cultural Waters: Experience of Western Patients Being Cared for by Chinese Nurses in Beijing

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*Chanell Jan C. Concepcion, PhD, RN, China*

#### Purpose

The purpose of the presentation explored the patients' experience of being cared for by nurses who are culturally different from their own. This research presents Western patients' experience of care by Chinese nurses in China. It provides insight into knowing persons in caring in the midst of cultural diversity.

#### Target Audience

The target audience of this presentation is nurses in the clinical setting and nurse educators who encounter cultural diversity in nursing care settings. Nurses interested in Caring in Nursing and Transcultural nursing would also benefit from this session.

#### Abstract

**Purpose:** There is a paucity of studies that examine the nursing care received by patients who are considered 'foreigners' or are non-native to the country where they receive care. As China emerges as a major player in world economy, there is also a rise in the number of foreigners visiting and living in the country in the past decade. In the 2010 census, there are over one million foreign and non-mainland Chinese nationals living in China. About a quarter (23%) is from Western countries such as the United States, Canada, Australia and European countries such as France and Germany. This study aimed to explore the lived experience of patients from Western that were being cared for by Chinese nurses in Beijing, China. It specifically aims to look into the patients' experiences related to culture and care expectations.

**Methods:** Face-to-face interviews were conducted among 10 patients from countries considered to be "Western" (i.e. United States, Canada, and Europe). These participants were inpatients at an international-standard hospital in Beijing, China who has experienced being cared for by Chinese nurses for at least 3 days. Interviews were done in the English language and audio recordings were made and transcribed thereafter. The findings were analyzed and interpreted according to the philosophical framework congruent with hermeneutic phenomenology, particularly Van Manen's phenomenological approach and Munhall's (Munhall, 2012) stepwise approach as guide for the methodology of the study.

**Results:** Four primary themes emerged from the data pointing towards cultural diversity: navigating cultural differences, negotiating care expectations, pain management expectations and knowing persons through caring (Locsin, 2010, Boykin, & Schoenhofer, 2001).

**Conclusion:** The participants described how they find themselves navigating through cultural difference and negotiate their care expectations, including management of pain. As individuals who are experiencing health issues while away from their home countries, the Western patients have fears and uncertainties, which later turned to trust and confidence as they are being cared for by the Chinese nurses. In the process of caring, both nurse and patient celebrated their humanness by knowing persons in caring. Caring is created as an expression of the wholeness of persons and not just arising from a deficit or culture-related problem.

The study has potential to transform nursing practice within a sensitivity that is grounded in caring implicating disciplinary, professional, and practice perspective in settings such as Beijing, China. Implications of this study are incorporated in nursing training program in the study setting. The findings also provide implications for nursing research and education.

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Contact

[cjcarcallas@yahoo.com](mailto:cjcarcallas@yahoo.com)

## I 06 - Clinically Relevant Global Nursing Education

### Are Nurses Prepared for a Radiological Disaster?: Assessing the Knowledge of Nursing Students to Support the Need of Integrating Radiological/Disaster Content into Nursing Curricula

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Cary Brown, MSN, BSN, RN, USA

#### Purpose

The purpose of this presentation is to provide further evidence of the need for integrating radiological disaster preparedness content into nursing education curricula by assessing current knowledge of radiological emergency preparedness among licensed and pre-licensed nursing students using the Emergency Preparedness Information Questionnaire (EPIQ) survey revised for radiological emergencies (R-EPIQ).

#### Target Audience

The target audience of this presentation is international nursing education faculty.

#### Abstract

**Purpose:** The purpose of this project is to provide further evidence of the need for integrating radiological disaster preparedness content into nursing education curricula by assessing current knowledge of radiological emergency preparedness among licensed and pre-licensed nursing students using the Emergency Preparedness Information Questionnaire (EPIQ) survey revised for radiological emergencies

**Methods:** Undergraduate licensed and pre-licensed nursing students attending the University of West Florida completed the survey ( $N=60$ ). Pre-licensed students received a radiation instructional intervention and completed the survey post-intervention.

**Results:** Nursing students have a low level of self-reported knowledge of radiological emergency preparedness. Pre-licensed students had a greater awareness of preparedness for a radiological disaster after the intervention.

**Conclusion:** The inclusion of the radiation content in a class lecture can significantly prepare nursing students for a radiological emergency as demonstrated by improved post-intervention survey results. Low pre-intervention EPIQ scores and high post-intervention scores suggest there is a need to incorporate radiological/disaster content into nursing education curricula.

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## Contact

[cbrown7@uwf.edu](mailto:cbrown7@uwf.edu)

## I 06 - Clinically Relevant Global Nursing Education

### Evidence of Moving on: Education and Evidence-Based Practice

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*Donna Louise Waters, PhD, MPH, BA, RN, Australia*

#### Purpose

to promote awareness that understanding fundamental variations in how research and evidence-based practice is taught can improve curriculum design and the reliability and validity of competency assessment for evidence-based healthcare.

#### Target Audience

educational researchers, curriculum designers, teachers of research and evidence-based practice.

#### Abstract

**Purpose:** Since 2006, competency standards for Australian registered nurses have required demonstration of the ability to practice within an evidence-based framework, use the best available evidence in decision-making, and contribute to research and quality improvement (NMBA 2006). While these standards clearly articulate a vision for using research in practice, expectations around preparing nurses to provide evidence-based care and the skills required for contribution to research are much less clear.

Currently, undergraduate preparation for competence in EBP is presented and assessed in a variety of ways, neither of which have a strong evidence-base nor criteria against which to judge competence. Foundation learning for evidence-based practice (EBP) should begin with a clear articulation of what evidence means for nursing and an understanding of when and how research and other evidence can be used to improve patient care.

**Methods:** This paper will discuss findings from a documentary analysis of research and EBP units of study within nursing curricula from 10 universities offering undergraduate nursing programs in New South Wales between 2004 and 2013.

**Results:** These documents reflect a large variation in approaches to teaching research and EBP across this state, but also show evidence of maturation in the way these units of study have been presented over time. Progress towards designing a specific tool for measuring competence for EBP in nursing is presented as further evidence that nursing education for EBP may indeed be moving on. An example is used where these learnings are applied to the redesign of a pre-registration nursing curriculum.

**Conclusion:** Preparation for research and EBP are often not a high priority in the crowded undergraduate nursing curriculum. It is concluded that an agreed foundation level of skill and a common approach to the promotion of EBP must be adopted before it can be possible for nursing graduates to effectively translate evidence for nursing practice. The style and content of EBP subjects should parallel the level of undergraduate orientation to clinical practice. These subjects should include strategies to assist graduates to initially seek out EBP champions and networks within the clinical setting in which they will work rather than assume immediate competence as a researcher.

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#### Contact

[donna.waters@sydney.edu.au](mailto:donna.waters@sydney.edu.au)

## I 06 - Clinically Relevant Global Nursing Education

### Continuing Education Ensures Competence to Practise and Assures Public Safety

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*Rachael A. Vernon, RN, PhD, New Zealand*

*Mary Chiarella, RN, LLB (Hons), PhD, Australia*

#### Purpose

The purpose of this presentation is to discuss the notion that continuing education ensures continuing competence to practise and therefore assures public safety. Preliminary research data collected in a cross country study (Australia and New Zealand) will be presented and discussed to support this hypothesis.

#### Target Audience

The target audience for this presentation are nurse educators, nurse researchers, policy makers, nurse leaders and regulators.

#### Abstract

**Purpose:** The purpose of this research is to determine what evidence exists to support or refute the hypothesis that continuing education ensures continuing competence to practise and assures public safety. The research builds on a previous international study (Vernon, 2013) that focused on the development of an international consensus view for the assessment of continuing competence.

**Methods:** The research has been undertaken using a three stage mixed method evaluation design. Each stage of the research has been completed sequentially. Stage One focuses on a critical analysis of current Case law related to nurse competence notifications. Stage Two, an analysis of data competence notification data received and processed by regulatory authorities, and Stage Three, interviews with key staff employed by regulatory authorities to process these cases. Triangulation of data has occurred to derive the overarching outcomes from this study.

**Results:** A common indicator of continuing competence, required by regulatory authorities is continuing education or continuing professional development. However, does continuing education ensure continuing competence and assure public safety? Whilst continuing competence is agreed by regulatory authorities to be necessary to protect the public in health professional regulation (Secretary of State for Health (UK), 2007, Vernon et al., 2013b, National Council of State Boards of Nursing, 2009). Definitions of continuing competence within legislation and policy across developed nations have strong similarities, international research (Vernon, 2013) indicates that there is confusion over the level to which continuing competence needs to be demonstrated, the criteria against which continuing competence should be assessed and the role of continuing competence frameworks in ensuring public safety (Chiarella and White, 2013, Vernon et al., 2013a). In this presentation the preliminary research findings and opinion will be presented and discussed.

**Conclusion:** This research has sought to understand and determine the relationships between continuing education, continuing competence requirements for nurses in New Zealand and Australia, and the relevant legislation with regard to assuring public safety, and as a result the implication for nurses in terms of their continued safety to practice.

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Contact

[ravernon@xtra.co.nz](mailto:ravernon@xtra.co.nz)

## I 10 - Promoting Health in Multiple Disease Processes

### Differences in Scores on the Midlife Women's Symptom Index Between Women with and without Cardiovascular Disease

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*Youjeong Kang, MPH, CCRN, USA*  
*Ok Kyung Ham, PhD, RN, South Korea*  
*Timothy J. Sowicz, MSN, CRNP, USA*  
*Wonshik Chee, PhD, USA*  
*Eun-Ok Im, RN, MPH, PhD, CNS, FAAN, USA*

#### Purpose

The purpose of this presentation is to discuss the differences in scores on the Midlife Women's Symptom Index between midlife women with and without cardiovascular disease.

#### Target Audience

The target audience of this presentation is researchers and healthcare providers who are interested in the prevention of cardiovascular disease and self-care.

#### Abstract

**Purpose:** Menopause in midlife women is a risk factor for cardiovascular disease (CVD) due to changes in estrogen levels which may cause hypertension (Ashraf & Vongpatanasin, 2006; Colditz et al., 1987; Markovitz, Matthews, Wing, Kuller, & Meilahn, 1991; Rosano, Vitale, Marazzi, & Volterrani, 2007). Although menopause is not a disease, low levels of estrogen are associated with hardening of the arteries ('American Heart Association', Oct 1, 2013). Declines in estrogen are also associated with elevations in LDL cholesterol and triglycerides ('American Heart Association', Oct 1, 2013).

Biological measures such as serum estrogen levels and lipids are one method for assessing CVD risk in humans; however, these require a prescription from a health care provider. While these measures may yield important data on risk factors and markers of CVD and should be assessed based on current screening recommendations, women's self assessment and interpretation of their menopausal symptoms may be a self-care strategy that provides early signs and symptoms of CVD. The Midlife Women's Symptom Index (MSI) is a self-administered instrument to assess menopausal symptom frequency and severity (Im, Lee, Chee, Brown, & Dormire, 2010; Lee, Im, & Chee, 2010). Comparisons of the MSI scores between midlife women with and without CVD have not been reported in the literature. This study provides evidence that the MSI may not only be used to assess menopausal symptoms, but as a screening tool for CVD in midlife women. Thus, the purpose of this study is to compare the MSI scores between midlife women with and without CVD.

**Methods:** This is a secondary analysis of the data from a cross-sectional web-based survey on menopausal symptom experiences of 542 midlife women aged 40 to 60 years in the United States. Participants from the parent study were recruited through the Internet using convenience sampling. Data were collected using the MSI, which contains two subscales measuring prevalence and severity of menopausal symptoms (Lee et al., 2010). Both subscales are further divided into physical, psychological and psychosomatic menopausal symptom items (Lee et al., 2010). Prevalence is dichotomized (yes or no) and severity is reported using a Likert scale (Lee et al., 2010). Measures of central tendency and dispersion were performed for all included variables. To assess for differences between groups (midlife women with and without CVD), continuous variables were compared using one-way ANOVA. Categorical variables were compared using chi-square tests. For all analyses,  $p < 0.05$  was considered statistically significant. A linear regression using the Genmod procedure in SAS was employed, and a multiple linear regression model was built to examine differences between groups in reporting menopausal symptoms with adjustment for significant demographic variables.

**Results:** In the participants with CVD, mean age was 50 years ( $p=0.0112$ ), with 96% of using health advice from doctor's office, clinic or health center ( $p=0.0016$ ), 60% married ( $p=0.0027$ ), 70% reporting being healthy ( $p=0.0034$ ), and 49% being absence of period for one or more years ( $p=0.0198$ ). The

racial/ethnic composition of women differs between groups ( $p=0.0040$ ). Blacks (30.37%) had the highest prevalence of CVD compared to Hispanics (18.90%), Asians (13.82%) and Whites (16.56%).

Differences in the prevalence and severity of the MSI scores by group were analyzed without controlling for demographic variables. The participants with CVD reported higher prevalence and severity scores in menopausal symptoms than those without CVD. There were significant differences in the prevalence and severity scores between groups except for the severity of psychological symptoms ( $p=0.0889$ ).

The scores for the prevalence and severity subscales controlling for statistically significant demographic variables (age, health advice, marital status, racial/ethnic group, self-rated health and menopausal status) were analyzed. Those with CVD reported higher MSI prevalence and severity scores than participants without CVD while controlling for statistically significant demographic variables. There were significant differences in the prevalence and severity scores between groups except for the prevalence ( $p=0.1344$ ) and severity of psychological symptoms ( $p=0.3491$ ).

This study found significant differences in age, using health advice, self-rated health status, menopausal status, and racial/ethnic background between groups. Women with CVD were approximately two years older than women without CVD which is similar to data reported by Gold et al. (2001) which demonstrated age is related to all-cause mortality.

It is well documented that the experience (Freeman et al., 2001; Im et al., 2010), perception and tolerance of physical symptoms of menopause (Gold et al., 2001; Im et al., 2010) differ by ethnicity in U.S. women. In addition, Gold et al. (2006) demonstrated that Black women reported the highest rates of vasomotor symptoms; consistent with the findings from the present study.

The overall findings of this study show that there are differences in physical and psychosomatic menopausal symptom severity scores between groups. Overall, women with CVD reported higher MSI prevalence and severity scores compared to women without CVD. Thus, future research is needed to test MSI scores focused on specific types of CVD such as hypertension or heart failure using a larger sample.

**Conclusion:** Measurement of physical and psychosomatic severity symptom scores using MSI as a self-care tool may be reliable to predict CVD in midlife women. Recognizing symptoms of menopause as predictors of CVD risk may prompt women and health care providers to undertake measures to prevent CVD or slow its progression if diagnosed. Using the MSI as a self-screening tool allows women to use information gleaned from common signs and symptoms experienced during menopause to seek care from health care providers to protect themselves from CVD.

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Contact

[ykan@nursing.upenn.edu](mailto:ykan@nursing.upenn.edu)

## I 10 - Promoting Health in Multiple Disease Processes

### Nursing Services for the Prevention and Control of Non-Communicable Diseases

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*Lourdes Marie S. Tejero, RN, BSN, MA, PhD, Philippines*

*Josefina A. Tuazon, RN, BSN, MN, DrPH, Philippines*

*Vanessa Manila, RN, MA-HPS, Philippines*

#### Purpose

The purpose of this presentation is to explore the role of the nurse in the control of non-communicable diseases. With sharing of ideas from international nurses' experiences and systems in their countries, these will guide our courses of action towards strengthening the role of nurses in NCD control.

#### Target Audience

The target audience of this presentation is nurse practitioners involved with non-communicable diseases (NCDs). We also hope to get administrators involved in programs for the control of NCDs.

#### Abstract

**Purpose:** There is a global increase in the prevalence rate of noncommunicable diseases (NCDs) not only in the in the Philippines but all over the world. As such, this gained attention from the public health sector, more especially that the trend is not only true in the urban population, which it was significantly identified in the past, but also to the lower socioeconomic groups. In response to this alarming healthcare situation, several health packages and programs had been developed in all levels of care. Multidisciplinary in nature, nurses have played a role in bridging gaps between health care needs and present services delivered.

The study aims to explore both national and international policies, programs and standards in prevention and control of NCDs where nurses play a vital role. It seeks to identify the status of the local NCD program in selected urban and rural communities with nurses' involvement. It compares current practice to that of the standard expressed in literature and policies. As the role of nurses may be maximized in this approach, barriers and opportunities are determined and a recommended package of nursing service and delivery are described.

**Methods:** Exploratory investigation was conducted considering the elements of policy research. Policies, standards and practice in different nations in Africa, Europe, South Asia and United States, to name a few, were reviewed. Data collection done in 2013 consisted of two phases. First phase was done though a focused group discussion with the different local nursing organizations. Independent roles of nurses and package of nursing services, both documented and undocumented, were determined. The second phase, through interviews, records review, observations, studied the pilot areas for the NCD program status in the Philippines: the municipality of Pateros in Manila for the urban setting, and the province of Guimaras for the rural setting.

**Results:** Results of the study show that the national and international standards and policies on NCDs have a common objective to reduce mortality and morbidity due to NCDs by targeting population in the pre-disease stage and providing appropriate healthcare packages to those with NCDs. Through the policy and standard reviews majority of these countries' essential healthcare packages are geared towards deliverable and affordable hence, financially feasible and cost effective services.

In different countries, similarities seen in nurse led community based interventions involving promotion of physical activity, weight and salt intake reduction, lowering frequency of tobacco use and risk management. Nurse led clinics are increasingly the most commonly seen set-up. The services are being coordinated with doctors and other health professionals, thus multidisciplinary in approach. Seen also are nurses whose roles are strengthened by specialized trainings which were further empowered to practice though having a recognized set of roles and responsibilities in the team. Through this, family based care is possible which is more accessible to the population. In contrast to the local setting, the PHNs (Public Health Nurses) do not have any explicit roles as described in protocols in NCD prevention programs in health centers. Among their usual tasks include assisting consultation and providing care, community

coordination and clerical tasks. Special nurses however serve at the primary level rather than employed in any agency. Most, just like the PDNs, ostomy nurses, and diabetes nurses contract their services with the patients with the referral of the physicians.

Generally, the project done in both pilot areas of study reflected positive outcomes, from increasing awareness of people on healthy lifestyle to incorporating risk assessment to routine history taking and improving instruments in screening, prevention and treatment. Investing in human resource for health such as utilizing the current oversupply of nurses, and delegating to midwives and trained health workers do minor tasks, are an important strategy in the promoting effectiveness and efficiency of the NCDs programs.

As the trend in chronic illness management not only involves tertiary care but preventive care and risk management, nurses also moved to a higher level of practice. These kinds of professional development are seen in many countries. Here in the Philippines, as there is no legal barrier in forming groups of nurses practicing specialized care, it will be beneficial both on the side of healthcare service delivery and on the nurses to have this recognized, organized and systematized. Among the specialty groups are diabetes nurses, emergency care nurses, ostomy nurses, rehabilitation and cardiovascular nurses who can all practice in the hospital, clinic and community settings independently.

**Conclusion:** To be able to render expanded nursing services, as in the case of NCDs, crucial program inclusions are strategies in information dissemination and education, organization of services and specialized personnel training. As such, trainings should be rendered by a competent body of nursing recognized and certified by the regulatory commission. As one of the prominent issues in the pilot community is affordability, health insurance can also subsidize the package of nursing services of the low socio-economic classes, i.e., reimbursement of nursing services by PhilHealth. Similarly, these are also areas of improvements that can be further refined to make the nursing care packages more deliverable and effective.

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Contact

[Istejero@up.edu.ph](mailto:Istejero@up.edu.ph)

## J 03 - Health Promotion in the Pediatric Population

### Factors Associated with Physical Activity in Kindergarten Children

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Carol L. Hammonds, PhD, RN, CNE, USA  
Janet C. Meininger, PhD, RN, FAAN, USA

#### Purpose

To identify factors associated with the duration of physical activity (PA) at different levels of intensity as measured by accelerometry in 4 to 7 year old children in the public kindergarten setting in preparation for global interventions to aid in preventing and reducing the pandemic obesity phenomena.

#### Target Audience

Health care providers, educators, and parents worldwide. Health care providers are the leaders in continuing research to aid in preventing and reducing obesity. Parents and educators provide the influence to instill healthy behaviors and to integrate these behaviors in the educational environment as well as home environment of the child.

#### Abstract

**Purpose:** Reversing obesity is an urgent public health need for children: worldwide, in 2011 more than 40 million children under the age of five were overweight <sup>1</sup>. Increasing intensity and duration of physical activity (PA) is a strategy to aid in preventing and reducing obesity. According to limited available research, PA in kindergarten children is decreasing below recommended guidelines and sedentary behavior is increasing <sup>2</sup>;the potential to change the obesity trajectory, however, is greater in early childhood when healthy behaviors are “imprinted” and entrenched <sup>3</sup>. More than 11,207,000 children in the United States attend preschool/kindergarten programs that primarily provide sedentary activity, a level highly associated with childhood obesity <sup>4-7</sup>.

A lack of research to describe physical activity precisely and to identify factors associated with PA regarding obesity of children fostered this study of a small population of children to help determine and clarify such patterns and factors. The purpose of this study was two-fold, first to describe the patterns and duration of daily PA of kindergarten children at different levels of intensity (sedentary, light, moderate-to-vigorous, and vigorous) during a normal day in public kindergarten. Second, to identify the most predictive enabling factors (body mass index (BMI), motor skills, playtime on play equipment) and supporting factors (parental self- efficacy, parent modeling, teacher modeling, perceptions of competence, and enjoyment of PA) associated with duration of objectively measured moderate to vigorous and vigorous physical activity during the school day in 4 to 7 year old kindergarten children while controlling for demographic factors (age, gender, and ethnicity).

**Methods:** A cross-sectional observational study identified and described factors associated with the duration of PA at different levels of intensity. A sample of 38 children in a full day public kindergarten setting from five classrooms of one elementary school in southeast Texas was studied between September 2011 thru May 2012 school year.

Rather than observational measurements, an Actigraph GTX3+ accelerometer more accurately and objectively measured the duration of PA at different levels of intensity. Questionnaires and other factor-specific tools measured factors including body mass index (BMI), motor skills, duration of access to play equipment, parental support, and parental perceptions of competence and enjoyment, and parent and teacher PA behaviors. This study used the Preschool and Kindergarten Physical Activity Promotion Model modified by this researcher for the younger child from Welk’s Youth Physical Activity Promotion Model <sup>8</sup> to conceptualize these factors.

PA was measured and averaged from three 6-hour school days in 15-second epochs for an average daily measurement. Each epoch was categorized by intensity levels with the following cut-points per 15-second epoch: < 373 counts for sedentary (S), ≥ 373 to <420 counts for light (L), ≥ 420 to < 824 counts for moderate to vigorous(MV) and ≥ 824 counts/15 second epochs for vigorous (V). Anthropometric measures and motor skills were measured on the same school day the following week. Anthropometric

measurements followed Lohman, Roche, and Martorell<sup>9</sup> procedures. Motor skills measurement followed Williams<sup>10</sup> protocol for the Children's Motor Skill Tool. The Questionnaire on Physical Activity for Parents of Kindergarten Children and the Questionnaire on Physical Activity for Teachers of Kindergarten Children, were developed by the researcher based on McMinn's<sup>11</sup> Southampton Women's Survey and were used to measure other factors.

PA was described by the average daily duration of PA at different levels of intensity by gender and classroom and a time series approach was used to describe the patterns of PA over the 6-hour school day. Pearson Correlation was used to identify factors correlated with MV and V PA. Multiple regression was used to identify predictive factors.

**Results:** The 38 children's ages ranged from 5.14 to 7.1 years old with a mean age of 6.12 ±0.142 years. Females represented 60% of the sample. The prevalent ethnicity was African American (93%). Forty-seven percent of children lived with both mother and father. Based on BMI using U.S. norms (normal BMI 14-17 m/kg<sup>2</sup> for 4-7 year-olds, age and gender specific); 16% were overweight and 16% were obese. Mothers' mean BMI was 30 (SD 5.03) and teachers' mean BMI was 27.79 (SD 8.6).

The PA intensity measurements of the children were sedentary/light for 91% of the school day. The overall mean duration of moderately vigorous (MV)/and vigorous (V) PA was 36 minutes (95% CI 31 to 40). Patterns analyses indicated an increase in MV and V from 10 a.m. to 11 a.m. (free play) and from 1 p.m. to 2:30 p.m. (classroom guided PA and dismissal preparation, including turns at toileting and free play).

Enabling factor child's zBMI ranged from -1.77 to 2.27 with a mean of 0.59 (SD 1.06). Females (0.79) had a higher average zBMI than males (0.29). For motor skills, males and females total mean score was 129.4 (SD 13.29) and 119.22 (SD 14.76). The factor access to play equipment had little variability and was not used in subsequent analyses.

Supporting factor parental self-efficacy scored 4.06 (SD 0.74) on a 5-point Likert scale. Parent modeling and teacher modeling self-report mean of 178 minutes/day and 84 minutes/day, respectively. Parent self-report data was out of range of probability and was not used for further analyses. Supporting factors parental perceptions of their child's competence and enjoyment of PA and were measured using a dichotomous, and a 5-point Likert scale respectively. Seventy-four percent of the children were rated more active than their peers and the mean of child's PA enjoyment mean was 4.49 (SD 0.77). Exploratory ANOVA analysis to investigate statistical significance between classrooms and MV and V PA as the dependent variable were  $F(4) = 6.439$  with a significance of  $p = 0.001$  between classrooms.

Ethnicity was the only demographic factors with a  $p < 0.20$  and was retained to control for confounding. The remaining enabling and supporting factors were entered into a regression analysis. Teachers PA hr/day was the only statistically significant variable retained with 14% of the variance in MV and V PA can be explained by teacher PA while controlling for ethnicity.

**Conclusion:** This is one of the first studies to describe the patterns and duration of daily PA of kindergarten children at different levels of intensity during a normal day in public kindergarten using accelerometers. The two main findings were the patterns and duration of physical activity associated with brief periods of scheduled playtime; and the statistical significance of teacher PA predicting MV and V PA. While primarily sedentary during the school day, short durations of increased PA intensity spiked during free and guided play and dismissal preparation highlighting the need to incorporate increases of higher intensity level PA at other times during the school day. The significant variation in minutes of MV and V PA among classrooms, and the association of the teacher's self-reported PA on the dependent variable point to the potential for increasing children's PA by intervening with teachers and the need to take into account the clustering effect within classrooms in future studies. Limitations of the study include the small sample size and lack of racial/ethnic diversity. Strengths of the study include precision of PA measurement and use of an age-appropriate conceptual model. Further research is needed to replicate this study in a larger, more diverse sample. Questions remain regarding predictive factors to increase and influence PA levels among children not meeting recommended intensity levels of PA in kindergarten settings.

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#### Contact

[carol.l.hammonds@uth.tmc.edu](mailto:carol.l.hammonds@uth.tmc.edu)

## J 03 - Health Promotion in the Pediatric Population

### The Family Partners for Health Study: A Randomized Cluster Control Trial for Child and Parent Weight Management

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*Diane C. Berry, PhD, ANP-BC, FAANP, USA*

*Todd A. Schwartz, DrPH, USA*

*Robert G. McMurray, PhD, USA*

*Madeline Neal, BS, USA*

*Emily Gail Hall, BS, USA*

*Natharee Aimyong, MSc, USA*

*Dean J. Amatuli, BS, USA*

*Gail D'Eramo Melkus, EdD, C-NP, FAAN, USA*

#### Purpose

The purpose of this presentation is to present the results of the Family Partners for Health study.

#### Target Audience

The target audience of this presentation is researchers and health care providers including nurses, nurse practitioners, registered dietitians, and those interested in community-based public health.

#### Abstract

**Purpose:** The purpose of this study was to test a two-phased nutrition and exercise education, coping skills training, and exercise intervention for overweight or obese low-income ethnic minority 2nd to 4th grade children and their parents in rural North Carolina, U.S.

**Methods:** A cluster randomized controlled trial was carried out with 358 children (7-10 years) and a parent ( $n = 358$ ). General linear mixed models were used to determine the effects of the intervention on weight, adiposity, health behaviors and eating and exercise self-efficacy by examining changes in children and parents from baseline to completion of the study (18 months).

**Results:** At 18 months, children in the experimental group did not have a significantly decreased BMI percentile ( $P = 0.470$ ); however, they had slowed the increase of their triceps ( $P = 0.001$ ) and subscapular skinfolds ( $P < 0.001$ ), improved their dietary knowledge ( $P = 0.018$ ), and they drank less than one glass of soda per day ( $P = 0.052$ ) compared to the control group. Parents in the experimental group had decreased their BMI ( $P = 0.001$ ), triceps ( $P < 0.001$ ) and subscapular skinfolds ( $P < 0.001$ ), increased their nutrition ( $P = 0.003$ ) and exercise ( $P < 0.001$ ) knowledge and more often drank water or unsweetened drinks ( $P = 0.029$ ). At 18 months, children in the experimental group did not have a significant improvement in eating ( $P = 0.956$ ) or exercise self-efficacy ( $P = 0.976$ ). Experimental parents demonstrated improved socially acceptable eating self-efficacy ( $P = 0.013$ ), however did not significantly improve their emotional eating self-efficacy ( $P = 0.155$ ) or exercise self-efficacy ( $P = 0.680$ ).

**Conclusion:** The results suggest that including children and parents in the same intervention is an effective way to decrease adiposity and improve nutrition behaviors in both children and parents and improve weight and eating self-efficacy in parents.

#### Contact

[dberry@email.unc.edu](mailto:dberry@email.unc.edu)

## J 03 - Health Promotion in the Pediatric Population

### An Ecological Approach to Understanding Health Promoting Behaviors of Children from Low-Income Families: A Multi-Level Analysis

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*Jiyoung Park, PhD, RN, South Korea*  
*Hee Soon Kim, PhD, RN, FAAN, South Korea*  
*Tae Wha Lee, PhD, RN, South Korea*  
*Hyeonkyeong Lee, PhD, RN, South Korea*  
*Chung-Mo Nam, PhD, South Korea*  
*Chulhee Kang, PhD, South Korea*  
*Ja-yin Lee, BS, RN, South Korea*

#### Purpose

The purpose of this presentation is to investigate the ecological factors influencing health promoting behaviors of children from low income families.

#### Target Audience

The target audience of this presentation is health care providers including community nurses and school nurses who are interested in health disparities among children. Members of community organizations, policy makers and administrators working for health promotion of children are also invited.

#### Abstract

**Purpose:** 'Health disparity' is becoming a serious issue worldwide. The practice of health promoting behaviors (HPB) among childhood is influenced not only by individual factors but also by diverse environmental factors including family, peer relationship, school, and community organization. The purpose of this study was to investigate the ecological factors influencing HPB of children from low income families.

**Methods:** Participants of the study included 297 fourth to sixth grade elementary school students from low-income families, 297 caregivers, and 68 community children center teachers. Data was collected by structured self-report survey, and a multi-level regression analysis was conducted.

**Results:** The mean score of HPB of children was 3.16, and the highest point was in injury prevention whereas the lowest point was in exercise. The factors that influence HPB of children were as follows: self-efficacy and self-regulation among intrapersonal factors; caregivers' health instruction behaviors and peer relationship among interpersonal factors; and the period of operation, perceived environments by children, and disabled children/teacher ratio among institutional factors.

**Conclusion:** This study emphasized the importance of creating healthy environment for promoting health of children from vulnerable social groups and suggested that multi-level interventions would be more effective than interventions targeting a single level.

#### Contact

[sky831113@naver.com](mailto:sky831113@naver.com)

## J 04 - Global Research Regarding Undergraduate Nursing Students

### Educational Efforts for Enhancing Global Health Competencies Among Undergraduate Nursing Students in South Korea

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*Kihye Han, RN, PhD, South Korea*

#### Purpose

The purpose of this presentation are 1) to introduce educational efforts from a 4 year nursing school in Korea, which aimed to enhance global health competencies among undergraduate nursing students, and 2) to share research findings on associations of taking the courses with increased global health competencies among them.

#### Target Audience

The target audience of this presentation includes nursing educators, especially for global health nursing.

#### Abstract

**Purpose:** Globalization happens everywhere. Many of culture, information, resources, and workforces can be easily exchangeable without national boundaries. In South Korea, special demands are noted for nurses and nursing students. Domestically Korea currently goes multicultural very fast. To take care of patients/clients with different background, global health care industries are drastically expanding now and demanding health care providers, especially nurses, who have global competencies. Internationally, since Korea came to reverse its position from a recipient to a donor of Official Development Assistant in the 1990s, it is required to share experiences, resources and workforces, including health care systems and workers, with developing countries. To meet these domestic and international demands to Korean nurses, nursing schools start to put educational efforts for nursing students to be prepared. This study introduced educational efforts from a 4 year nursing school in Korea, which aimed to enhance global health competencies among undergraduate nursing students. In addition, it examined associations of taking the courses with increased global health competencies among them.

**Methods:** Since nursing schools have been initiating global health movements in Korea, two courses were taught to undergraduate nursing students in a 4-year nursing school: 'multicultural health' for the 1<sup>st</sup> year nursing students, and 'global leadership' for the 2<sup>nd</sup> year ones (both were 2 credits). The course 'Multicultural health' provides an overview about multicultural societies and related policies and health issues. The course contents include theory and concepts of multi-culture, examples of multicultural societies, law and policy on multi-culture, and concepts and issues of multicultural health. The 'Global leadership' course is designed to provide the concept of leadership within the contexts of global health systems. More specifically, this course provides an overview of major issues affecting global population health and the leadership roles of nursing in global health. In the 2013 Fall semester, the 1<sup>st</sup> year students were taught multicultural health and the 2<sup>nd</sup> year ones received the lectures of the global leadership course. The 2<sup>nd</sup> year students took multicultural health last year (in 2012). Otherwise, the 3<sup>rd</sup> and 4<sup>th</sup> year students were not received any of those. These differences allowed to examine associations of taking the courses with increased global health competencies among nursing students. For this, a cross-sectional survey was conducted to all nursing students in this school at the end of the semester (November and December 2013). Global health competencies were measured for 1) knowledge and interests in global health and health equity (11 Likert-type items, scale range 11-33), 2) global health skills (4 Likert-type items, scale range 4-20), and 3) learners' needs about global health (7 Likert-type items, scale range 7-42), using Veras and colleagues' (2013) global health competencies instrument for health professionals and students. The survey instrument showed reliable (all Cronbach alphas > 0.80 for the 3 subscales). Additional data were also accessed on 1) whether they had ever lived abroad in the past 10 years, 2) whether they had ever participated in student exchange programs, and 3) whether they had ever met any patients/clients with different (multicultural) background in their clinical practicums. Global health competencies were examined for their means by the school years using ANOVA with Tukey post hoc tests.

**Results:** Out of the 698 undergraduate nursing students, 578 completed the survey (252 freshmen, 199 sophomore, 79 junior, and 48 senior) yielding the response rate of 83%. The students were average 20 years old (range 18-28) and mostly female (91%). Out of the students, 13% had lived abroad in the past 10 years. While overall 10% of the students had participated in student exchange programs, higher year students tended to have more experiences in the programs: 5% of the 1<sup>st</sup> year, 11% of the 2<sup>nd</sup> year, 19% of the 3<sup>rd</sup> year and 23% of the 4<sup>th</sup> year students. Among the 3<sup>rd</sup> and 4<sup>th</sup> year students (n=127), 65% had met patients/clients with different background in their practicums. The 2<sup>nd</sup> year nursing students reported higher knowledge and interests in global health and global equity than the 1<sup>st</sup> and 4<sup>th</sup> year students (22.8 for the 2<sup>nd</sup> year students vs 20.1 for the 1<sup>st</sup> year and 21.0 for the 4<sup>th</sup> year students,  $F=16.56$ ,  $p<0.01$ ). The 3<sup>rd</sup> year students showed higher knowledge and interest than the 1<sup>st</sup> year students. There were no differences in global health skills and learners' need about global health despite more experiences of and exposure to patients/clients with different background and international social contacts with students in other countries.

**Conclusion:** Educational efforts through the two courses focusing on global health may have positive effects on enhancing global health competencies, especially on knowledge and interests in global health and health equity, for undergraduate nursing students. Experiences of and exposure to contacts with students and clients with different background may increase students' concerns to global health issues. Study findings should be interpreted with limitations. As the data were all self-reported, respondents might respond to the socially acceptable way. This was a cross-sectional design, and the study findings could not be confirmed for their causal relationships. Due to unbalanced sample sizes across the school years, statistical analysis could inflate the findings. Nonetheless, Welch F test, which corrects violation of homogeneity of variance in ANOVA, showed the same results. In conclusion, structured courses designed to increase global health competencies for nursing students may be a good strategy to meet social demands for nurses' roles in the globalized society in South Korea.

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#### Contact

[hankihye@cau.ac.kr](mailto:hankihye@cau.ac.kr)

## J 04 - Global Research Regarding Undergraduate Nursing Students

### Undergraduate Nursing Students' Beliefs and Readiness to Implement Evidence-Based Practice

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Janelle L. B. Macintosh, PhD, RN, USA

Katreena Merrill, PhD, RN, USA

Christopher I. Macintosh, RN, USA

#### Purpose

The purpose of this presentation is to disseminate findings of a study regarding nursing students' beliefs and readiness implement EBP. Student nurses' EBP beliefs and skills will directly influence the clinical setting including local, regional and global health care.

#### Target Audience

The target audience is nursing faculty and clinical nurses.

#### Abstract

**Purpose:** Evidence based practice (EBP) is the use of the best evidence combined with clinical experience and patient preferences to provide quality nursing care (Melnyk & Finout-Overholt,2010). Despite the fact that utilizing EBP results in improved patient outcomes, it still takes years to implement new evidence into clinical practice. This is due in part to the fact that students and clinical staff are taught research and EBP strategies in a classroom setting, which are often not translated into 'real world' practice. Additionally, nurses report being overwhelmed with the amount of literature presented and the ability to critique it. To move beyond the theoretical to concrete implementation, new educational tactics are needed. While there are multiple frameworks to implement EBP, there still remains a gap between evidence and practice (Melnyk, Finout-Overholt, Giggelman, & Cruz, 2010; Newhouse & White, 2011).

The purpose of this study was to explore nursing students' perceptions of EBP before and after implementation of innovative teaching methods in an undergraduate scholarly inquiry course. It was hypothesized that following the implementation of innovative teaching methods to teach evidence based practice and research; students would increase their belief and implementation of EBP and describe their experiences as more positive regarding the teaching methods.

**Methods:** A convenience sample of 120 student nurses currently enrolled in a scholarly inquiry course, during two separate semesters, were approached to participate in this study. At the beginning and at the end of the course students were given the *EBP Beliefs Scale*, the *EBP Implementation Scale* and demographics. The *EBP Beliefs Scale* is a 16-item questionnaire measuring general beliefs about the usefulness of EBP rated on a 1-5 Likert scale (Strongly Disagree to Strongly Agree). The EBP Implementation scale is an 18-item questionnaire that measures application of EBP activities in the 8-weeks prior. The questions are rated on a 0-4 scale (0 = No Application and 4 = Applied this Principle 8 or More Times). Validity and reliability statistics are previously reported (Melnyk, Fineout-Overholt, & Mays, 2008). Data were entered into an Excel (Mocrosoft, 2007) spreadsheet. All analyses were performed using SPSS version 16 (SPSS Inc., 2007). All variables were reviewed for missing data and outliers using appropriate descriptive statistics and plots. Paired t-tests were used to assess pretest/posttest changes in EBP belief and implementation scores. Students received weekly instruction as part of the course. Innovative teaching methods included PowerPoint presentations, video clips, interactive games, hands-on activities and a scenario-based written paper about implementation of EBP.

**Results:** A total of 109 participants (Response rate 91%) completed questionnaires (106 at pretest, 101 at posttest), with a total of 98 completing questionnaires at both time points. Participants were young and female (M= 20.7 years; 91% female). The average reported grade point average was 3.8 and 56% of the students reported working part-time in addition to attending school. EBP belief scores were negatively skewed and EBP implementation scores were positively skewed with univariate outliers noted in pretest scores for *EBP Beliefs* and *EBP Implementation*. Cronbach's alpha for the *EBP Beliefs* scale was .85 at pretest and .82 at posttest. Cronbach's alpha for the *EBP Implementation* scale was .87 at pretest and

.85 at posttest. Paired t-tests were conducted to assess changes from pretest to posttest for both EBP belief scores and EBP implementation scores. The test for EBP belief was significant  $t(97) = -12.67, p < .001, d = 1.4$ . EBP belief scores increased from pretest ( $M = 53.7, SD = 6.9$ ) to posttest ( $M = 62.7, SD = 5.6$ ). The test for EBP implementation was significant  $t(97) = -14.59, p < .001, d = 1.6$ . EBP implementation scores increased from pretest ( $M = 8.2, SD = 6.2$ ) to posttest ( $M = 19.6, SD = 8.0$ ). As skewness and outliers were noted in pretest scores for both EBP belief and implementation scores, the analysis was repeated with the outliers deleted with similar results. Nonparametric comparisons also yielded significant results.

**Conclusion:** Utilization of innovative teaching strategies were successful in improving the beliefs and implementation of EBP in undergraduate nursing students. The hypothesis was supported. These findings are corroborated by previous studies in the clinical setting that reported improved EBP beliefs and implementation following educational interventions (Wallen et al., 2010). More research is needed in the effect of EBP education strategies in nursing students and the long term retention of EBP beliefs and implementation.

This study was conducting using a convenience sample of relatively young and primarily female student nurses from one university. Therefore, the results may not generalize well to male or older populations of student nurses.

The use of the latest evidence in nursing practice is essential for the provision of high quality care. EBP beliefs are an important precursor to successful implementation. These beliefs need to be fostered in the early stages of undergraduate nursing education. In addition, in order to 'hard wire' EBP concepts into practice, students need opportunities to apply EBP principles in their practice. It is therefore essential for faculty to collaborate with clinical sites and promote innovative teaching strategies to successfully engage the student in long-life learning of EBP principles.

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#### Contact

[janelle-macintosh@byu.edu](mailto:janelle-macintosh@byu.edu)

## J 05 - Inspiring Nurse Leaders

### Executive Perspective on the DNP

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Mary Terhaar, DNSc, RN, USA

Martha Sylvia, PhD, MBA, RN, USA

#### Purpose

to present the findings of interviews with executives about the contributions of DNPs, to consider their role in the success of the strategic plan, and to evaluate outcomes to date

#### Target Audience

executives contemplating employing DNPs, nurses considering becoming DNPs, and educators who teach them

#### Abstract

**Purpose:** To describe what Chief Nurse Officers who employ or intend to employ DNPs think about the education, the contribution and the potential of the DNP in their organization and in health care

**Methods:** Semi-structured interviews (60 – 90 minutes in length) were conducted, in-person or by telephone, by an impartial interviewer with a total of seven respondents. Five (5) Chief Nursing Officers, one (1) director of nursing research and practice, and one (1) designee participated. These respondents represented academic teaching institutions, magnet facilities, and community hospitals. All were recorded and transcribed with interviewee consent.

Interviewees were asked to describe their thoughts about the DNP degree; the skills they would expect all DNP graduates to have in the areas of leadership, quality improvement, translation and dissemination of research and practice evidence. Respondents were asked to identify the *critical competencies and skills* they believed indicate DNP education had been effective. CNOs were asked to describe their experiences working with DNPs; as well as how returning DNP graduates have been able to apply their education to improve practice, outcomes and organizational performance.

CNOs were asked to describe how DNPs could benefit their organizations, with emphasis placed on identifying measurable outcomes. They were also asked to describe ways in which the DNP program could support graduates to increase the application and translation of educational outcomes. A final open-ended question invited participants to offer any perspective, suggestions or insight unique to the organization or their experience with DNPs.

Interview transcripts were analyzed by an evaluator and two faculty members blinded to the identity and practice setting of respondents.

**Results:** Several themes were identified from analysis of the interview transcripts these include:

- DNPs are making important contributions in their organizations. They are serving in traditional advanced practice roles (NP & CNS) and in assorted leadership roles as well (Managers, Directors, and Educators). Some have assumed leadership roles in informatics, quality improvement, and interdisciplinary functions.
- There is considerable variability in the performance of DNPs from program to program and from one DNP to the next.
- Many DNPs are helping bring evidence to bear on practice. Their approach is variable and so are the outcomes.
- Both graduates and programs are maturing and the outcomes are evident. Early graduates were not comfortable working with the data required to evaluate outcomes. More recently, graduates are comfortable and skilled with analytics. Likewise, early graduates were unsuccessful in efforts at dissemination. More recent graduates are increasingly successful.
- Confusion surrounds the role. Physicians and other disciplines are unclear about the purpose and contribution of the DNP. Graduates need to be prepared to teach others about the potential of the role and to demonstrate value.

- The value for traditional scholarship and publication in peer-reviewed journals was mixed. although the expectation that DNP graduates should be disseminating lessons-learned widely (through teaching in the hospital or at conferences, presentations at meetings, development of best-practices or policy guidelines, etc.) was unanimous. Participants believed these presentations should begin during the DNP program.
- Participants encourage collaboration between DNPs and PhDs, both during their training and upon graduation.
- All participants recognized and valued the DNP graduate's experience and expertise finding and reviewing evidence. They observe and report that many graduates use these abilities effectively to improve clinical practice and outcomes..
- Without exception, all interviewees suggested that more attention be given to the screening of potential DNP students, consideration of their baseline in critical skills areas (such as leadership and writing), establishing an expectation that planning for translation of learning should happen at the start of the DNP program, and increased focus on mentoring. All respondents expressed appreciation for the current evaluation that is fully engaging key stakeholders: DNP graduates and the CNO's who will employ them.

**Conclusion:** Some are concerned that DNP education may be more effective in the preparation of Advanced practice nurses than nurses administrators or executives.

The competencies most valued by participants include: ability to adopt a broad systems-perspective to quality improvement; political "savvy" to understand how to lead strategic change; tactical expertise specific to the rapidly evolving health care setting; experience with inter-professional initiatives; ability to motivate teams at all levels through expert communication and teaching of evidence-based practice concepts mastered in the DNP; the ability and discipline to envision and implement translation projects proactively; at least an intermediate knowledge of evaluation and how to demonstrate effectiveness; a commitment to life-long learning; willingness to seek out and partner with academic institutions for research or quality improvement projects; strong leadership skills; the ability to take carefully considered and monitored risks; and viewing themselves as a change agent. The need for academic writing skills was emphasized.

Concern was expressed about the rigor of projects required in the early DNP cohorts. All respondents knew many changes had been made to increase the level of rigor. Respondents also commended the program for its commitment to quality and responsiveness to evaluation.

Work in progress that resulted from this evaluation includes the following

1. An on-line survey is being deployed to employers of graduates and to nurse Executives across the state.
2. A DNP council has been established to provide support and opportunities for collaboration across the enterprise.
3. Participants endorsed the development of a forum in which graduates. We could continue to interact with each other and possibly other experts.

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### Contact

[msylvia1@jhu.edu](mailto:msylvia1@jhu.edu)

## J 05 - Inspiring Nurse Leaders

### For the Love of Nursing: Person-Centred, Ever Changing and Self-Fulfilling. Nursing-People, Change, Growth

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Anthony G. Tuckett, BN, MA, PhD, Australia

Fiona Bogossian, PhD, Australia

#### Purpose

to present qualitative research findings from an international electronic e-cohort study exemplifying what is great about nursing according to new graduates.

#### Target Audience

nurse educators, nurse managers and researchers interested in what the neophyte nurse, our profession's future workforce, prizes most about the work they do.

#### Abstract

**Purpose:** Qualitative evaluation of graduate nurses reasons for 'loving nursing'.

**Methods:** Graduate nurses from the Graduate Nurses e-cohort Study of Australian, New Zealand and United Kingdom, provided electronic responses to the open ended-question: "I love nursing because...". Data was then subjected to qualitative content analysis.

**Results:** Graduate nurses place great value on nursing work as a profession about people. Their language exemplifies this when they describe their love of nursing for its person-centric qualities where they can fully participate in patient care, help, and support. This person centeredness extends to include the family of their patients.

Graduate nurses additionally identify as part of the people that makes nursing work appealing, their co-workers. They enjoy working with a team, developing networks, and working with great people.

Overall, the quality that makes nursing so appealing is *outside* the self or *beyond* the 'i'. That is, external to the Graduate nurse.

Graduate nurses cherish nursing work's variability. The fact that every work day is different, unpredictable, never boring and *always* offering something new to learn makes nursing work wonderful. They love the challenge and challenges nursing work brings.

Graduate nurses know that nursing work offers them opportunity to travel and work abroad. Nursing work offers mobility.

This mobility provides opportunities that diversify employment at a ward level and beyond; and offers career choices and job security. Graduate nurses identify as a work characteristic they cherish, its flexibility in terms of shift work and making their work fit into their lives.

Overall, the quality that makes nursing so appealing is it offers them *movement within* and *without*.

Graduate nurses love that nursing work makes them think critically and problem solve. They are able to continue to learn, increasing their knowledge & skills whilst also passing on new knowledge and skills to others. To this end, they grow as a person and professionally.

Nursing work is furthers self-development and worth because of its capacity to inspire and motivate; provide them confidence and competence; earn them respect and they perceive they are respected; nursing work allows a degree of autonomy and leadership. It gives them joy.

Graduate nurses find their chosen profession rewarding. This is understood by those they care for simply saying: "Thank you" and the graduate recognises their work is appreciated and fulfilling.

For a minority, the quality of nursing is measured by its alignment with a 'calling' or the work of God. For the majority, however, the power of what they do is gauged by its capacity to impact society. They love

making a difference, changing peoples' lives, affecting care and having a lasting impact on those they care for. Nursing work is for the greater good.

Overall, the quality that makes nursing so appealing is internal or *for* the 'i'. That is, internal and *for* the Graduate nurse.

**Conclusion:** The views of graduate nurses facilitates critical reflection on current practices and systems. Whilst the nurse clinician will benefit from these shared views, so too will nurse educators, nurse leaders and nursing workforce planning representatives.

Contact

[a.tuckett@uq.edu.au](mailto:a.tuckett@uq.edu.au)

## J 05 - Inspiring Nurse Leaders

### A Program of Nursing Clinical Supervision in Primary Healthcare: Strategies to Implement

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*Regina Maria Pires, MS, RN, Portugal*  
*Fillipe Miguel Soares Pereira, MD, RN, PhD, Portugal*

#### Purpose

The purpose of this presentation is the dissemination of research undertaken in Portugal, in the implementation of programs of clinical supervision in nursing, reflect on the topic of clinical supervision and the process of qualitative research.

#### Target Audience

The target audience of this presentation are the nurses of clinical practice, managers, researchers and academics of this area.

#### Abstract

**Purpose:** In Portugal the discussion and research on clinical supervision in nursing has deepened in the last decade, it being understood that this is a formal process of professional support, facilitating the development of nurse's cognitive, technical, communication, attitudinal and ethical responsibilities and skills through formative, restorative and normative functions, promoting the quality of professional practice.

The interest in promoting quality health care in an integrated perspective that takes into account the simultaneous development of organizations, professionals and practices, has led to deeper reflection about clinical supervision and its adoption in clinical practice. In this sense, in Portugal, we have sought to develop programs of clinical supervision, which from our point of view, in our reality, should result from the work of clarification and legal construction, emerging contexts result of the work and involvement of all stakeholders, to they make sense.

The aim of this research is to contribute to the design of a nursing clinical supervision program in the context of primary health care by identifying a set of strategies of clinical supervision to integrate in it.

**Methods:** We carried out a exploratory study anchored in the qualitative paradigm. Data collection was done using half-structured interviews, with a sample of 16 nurses from a primary health care center, from a Cluster of Health Centers of the north of the country, between may and december of 2012.

We used the audio recording as a resource for the documentation of the data collected, with the permission of the participants in the written informed consent model. After transcription of the recorded data, we proceeded to its analysis, through content analysis according to the principles of the grounded theory method using the program Nvivo10.

About respect for the ethical questions that guided the study, was requested and obtained the favorable opinion of the Ethics Committee for Health of the North Regional Health Authority, and also by Executive Director and Nurse Supervisor at a Cluster of Health Centers of the north of the country.

**Results:** Nurses who participated in the study understand that clinical supervision program to implement in the primary health center should include strategies for professional guidance including in complex clinical situations; individual supervision sessions to discuss sensitive topics with supervisor, avoiding exposure in the group; group supervision sessions to share opinions, feelings and emotions, the working group as a support member; practices; observation by the supervisor; reflection on clinical practice; demonstration; continuing education; individual and group case analyze, self supervision; record analyze; reflexive report; feedback; emotional support from the supervisor; learning about coping strategies; safety of health care and prevention of error (standards and guidelines); supervision strategies for distance (phone, mobile and skype).

**Conclusion:** In Portugal the implementation of clinical supervision programs in health services is an emerging issue. In this sense we understand that the supervision programs to implementing should not be imported from other realities and cultures. From the existing models, nurses should reflect and work to build models or programs for their own institutions from the work, reflection and involvement of all stakeholders, to they make sense.

Being nursing clinical supervision a process that allows exploring innovative strategies to promote excellence in nursing practice, we understand that this research contributes in this direction by identifying a set of strategies that nurses consider to be included in a program of clinical supervision in the context of care primary health.

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#### Contact

[regina@esenf.pt](mailto:regina@esenf.pt)

## J 06 - Global Women's Health Concerns

### Do Nurses Have Worse Pregnancy Outcomes?

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Hui-Ju Yang, MS, RN, Taiwan

Li-Yin Chien, ScD, Taiwan

Feng-yu Kao, Taiwan

Yiing-Jenq Chou, PhD, Taiwan

Kuang-Yi Chang, PhD, Taiwan

#### Purpose

The purpose of this presentation is the learner will be able to aware of the higher risk associated with nursing job. The learner will be able to aware of that nurse have the higher risk of tocolysis, cesarean section, and preterm birth than non-nurse.

#### Target Audience

The target audience of this presentation are clinical nurse, academic nurse, and administrative nurse who are interested in the reproductive health of nurse.

#### Abstract

**Purpose:** Nurses encounter multiple occupational exposures in their daily work which may harm their reproductive health. The purpose of the study was to compare pregnancy complications and outcomes including cesarean deliveries, tocolysis, abortion, and preterm births between female nurses and non-nurse comparative women in Taiwan.

**Methods:** This nationwide population-based study was performed using the National Health Insurance Research Database from 1997 to 2008. We identified 3,656 pregnancies among 2,326 nurses and 111,889 pregnancies among 74,919 non-nurses. Generalized estimating equation was used to compare risks between the two groups.

**Results:** The rate of tocolysis (28.61% vs. 22.30%), abortion (6.21% vs. 5.37%), and preterm birth (8.07% vs. 5.66%) were significantly higher among nurses than non-nurses. After adjustment for background differences, nurses had significantly higher risk for cesarean section (adjusted OR=1.12, 95% confidence interval [CI] 1.03-1.22), tocolysis (OR=1.18, 95% CI 1.09-1.29), and preterm birth (OR=1.46, 95% CI 1.28-1.67). When labor/delivery morbidities were further adjusted for, risk for cesarean section became insignificant, while the risk for tocolysis and preterm birth remained.

**Conclusion:** Nurses are at higher risk for tocolysis, cesarean section, and preterm birth than non-nurses. Occupational exposures related to those adverse pregnancy outcomes should be examined. Strategies to decrease the risk should be developed in order to improve reproductive health among nurses.

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## Contact

[hiyang@vghtpe.gov.tw](mailto:hiyang@vghtpe.gov.tw)

## J 06 - Global Women's Health Concerns

### Changing Cultural Beliefs Contributing to Breast Cancer Deaths

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*Carol Estwing Ferrans, PhD, RN, FAAN, USA*

*Garth Rauscher, PhD, USA*

*Marilyn Willis, MS, USA*

#### Purpose

to report research showing that (1) cultural beliefs clearly contribute to breast cancer deaths, and (2) these beliefs could be changed by viewing a short film on DVD followed by a question and answer session, in a community-based setting, providing a simple, cost-effective technique that could be widely disseminated.

#### Target Audience

Researchers and clinicians interested in (1) improving health disparities in breast cancer; (2) changing cultural beliefs in breast cancer; (3) identifying models for community change applicable to other illnesses; (4) cross-cultural work to improve beliefs and health behaviors; (5) examples of effective community-wide interventions.

#### Abstract

**Purpose:** Chicago has one of the largest disparities in breast cancer mortality in the nation, with African American death rates twice that of Caucasians at its peak. Previous work of our team showed that the cultural beliefs we identified were associated with (1) longer delays after finding a suspicious breast symptom, (2) later stage of breast cancer at diagnosis, and (3) longer delays between diagnosis and the start of treatment for African American women. The purpose of this study was to determine whether cultural beliefs about breast cancer could be changed by viewing a short film on DVD followed by a question and answer session, which would provide a simple, cost-effective technique that could be widely disseminated.

**Methods:** A 14-minute film on DVD was produced, in which five African American cancer survivors address the cultural beliefs identified in our earlier work, speaking compellingly in their own words. A pretest-posttest design was used to evaluate the DVD, with 260 African American women participating in community settings. Cultural beliefs were evaluated by questionnaire before and after watching the DVD, and again after a question and answer period led by an African American nurse, all in one continuous session lasting 90 minutes.

**Results:** Changes in beliefs were found for the entire intervention (DVD plus Q&A), with the largest change occurring after watching the DVD, as shown by logistic regression ( $p < .0001$ ). Significant changes were found for total cultural belief scores, as well as specific beliefs. One of the most important beliefs that increased was endorsement of idea that breast cancer can be cured if treated correctly, even for poor women. There was a decrease in the belief that breast cancer would grow faster if it were cut open in surgery. Examples of faith-based beliefs that changed were faith in God can protect you from breast cancer and prayer can make breast lumps disappear. Ninety-nine percent considered the DVD to be worth watching, and 79% stated that it helped them decide to get screened for breast cancer (other women reported that they were already participating in screening).

**Conclusion:** This is the first study we are aware of that demonstrated that cultural beliefs about breast cancer can be changed by viewing a short film on DVD. This DVD provides a simple, cost-effective technique that can be easily used for wide dissemination, with the goal of reducing disparities in breast cancer mortality. Our team is currently conducting a dissemination project focused on the south side of Chicago with the DVD. To date more than 8,500 women have participated in the project. The film has been endorsed by the American Cancer Society and was selected for a national Telly Award.

This work was funded by the U.S. National Institutes of Health: National Cancer Institute, National Institute on Aging, and National Institute on Minority Health and Health Disparities.

#### Contact

[cferrans@uic.edu](mailto:cferrans@uic.edu)

## J 10 - Exploring Technology to Improve Patient Care

### Exploring Nursing Cost Using Patient Level Data

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*Peggy A. Jenkins, PhD, RN, USA*

#### Purpose

The purpose of this presentation is to share a contemporary methodology for measuring nursing cost at the patient level. Patient assignment software linking patients to nurses was used to quantify the variability in direct nursing cost per acute care episode and to explore the relationships among nursing characteristics and cost.

#### Target Audience

The target audience of this presentation is nursing scientists, leaders, administrators interested in new methodologies for nursing cost research. Standardizing nursing cost measurement at the patient level provides a common approach for nurses worldwide to benchmark direct nursing cost and gives nursing a more informed voice in resource allocation discussions.

#### Abstract

**Purpose:** A focus in the American healthcare system is on value-based delivery of services. Payment models will reward hospitals that can efficiently and effectively care for patients. Since nursing is the largest labor segment in the hospital, understanding this very important input is imperative in delivering high quality care at an affordable price. Traditional methods of accounting for nursing services have included measuring nursing hours per patient day, which is a unit level measurement that does not include variability in nursing care at the patient level. Nursing administrators, healthcare leaders, payers, and patients should be interested in understanding the cost of nursing service at the patient level. To benchmark patient level costs, hospitals need to move beyond current unit level measurements of cost to analytics linking individual patients to nurses. Using patient level data in nursing research provides a source capable of answering many unrequited questions about individual nursing contributions to patient outcomes. The current science of nursing cost will evolve and evidence can be provided through which value based healthcare is better built across the world.

The purpose of the study was 1) to explore the variability of nursing cost per acute care episode for patients with similar DRGs with and without major complications; 2) to investigate the relationship among patient characteristics, nurse characteristics, nursing intensity, and nursing cost as a patient outcome.

Four research questions included:

1. What is the variation in nursing cost per acute care episode for patients with the same DRGs without complications, with complications, with major complications?
2. What is the relationship among nursing characteristics (age, years of service, educational degree) on nursing cost per acute care episode?
3. What are the characteristics of nurses assigned to patients with complications and major complications?
4. What is the average nursing cost per day measured at the patient level?

**Methods:** A retrospective, exploratory, cost study using secondary patient level de-identified data was completed. The study site was one general medical surgical unit in a large academic medical center located in the Central United States. The study site organization has earned Magnet designation. Sample was 3111 patients and 150 nurses on the unit over a two-year period.

Important and time-consuming steps in secondary data analysis included data acquisition and management. The collaborative data acquisition process was complex and took almost two years to accomplish. The source of data was Clairvia® Care Value Management Patient Assignment software plus medical management and human resources databases. De-identification of data was completed before the researcher obtained data. Staff time to de-identify data was negotiated via conference calls and on-site meetings by the researcher with the president of the software company and the nurse scientist and other significant staff from the study site.

The researcher used a model for data management consisting of four steps; 1) planning, 2) organization, 3) computing, 4) documentation. 9 Stata do-files provided a tool to systematically record commands for each step of the data management and analysis process.

Forty-five variables were collected, cleansed, and new variables were constructed for a total of forty-nine final study variables. Data were analyzed at the shift level, day level, and patient episode of care level according to the research question. Shift level patient and nursing intensity data were one original source of data, which were aggregated to patient episode of care to understand nursing cost per acute episode. Patient and nurse characteristic data were another source of data that were merged with shift level data.

The conceptual definition of nursing cost per acute care episode (NCACE) was comprised of lower level elements (NI-nursing intensity) that were aggregated to form the emergent model (summation of individual nurse intensity per patient multiplied by individual nurse hourly wage).

$$NCACE = \sum NI * NW$$

NCACE represents Nursing Cost per Acute Care Episode, which was defined as the summation of the product of nursing intensity (NI) and nursing hourly wage (NW).

$$NI = f(\text{time spent with patient}) + (\text{skill level of nurse})$$

Nursing intensity was a function of time spent with the patient measured using Clairvia demand-driven patient assignment software. Nursing intensity was calculated in the patient assignment software based on the following methodology. The acuity score was a 1-12 point scale derived from an outcomes-driven model grounded in the Pesut and Herman conceptual framework, the Outcome-Present State-Test Model of Clinical Reasoning. 10 Nurses rated patients every shift or when condition changed on several outcomes using a 1-5 point scale that contributes to an algorithm producing the nursing intensity score. A monthly audit was completed to assure interrater reliability of acuity measurement and the result was 86% accuracy. Skill level of the nurse was recorded in the Clairvia software as RN, LPN, and Patient Care Associate.

$$NW = f(\text{experience, years of service, education, certification})$$

Nursing wage was operationalized using actual hourly wage for each nurse providing direct care.

The principle diagnosis was measured through the DRG. Complications were measured using a four level variable "compcode". The four value labels of the variable were 0 = no drg, 1= without complications, 2 = with complications, 3 = with major complications. Using the same DRG without, with, and with major complications allowed for a comparison of nurses assigned to increasingly complex patients. Nurse characteristics were measured and analyzed in relationship to cost of nursing care.

Variables describing the nursing unit that are contextual included unit type, number of beds, average acuity per patient, unit skill mix. Nurse characteristics measured included skill level, age, education level, years of service at institution, years of service on the unit, and float.

De-identified data from three databases were merged into a single file and analyzed using Stata software. Correlation analysis and regression analysis were used to explore relationships among patient characteristics, nursing characteristics, and nursing cost per acute care episode. Microeconomic measurement was used to determine the elasticity of nursing characteristics on patient acuity and direct nursing cost per patient.

IRB expedited approval and continuation was obtained from the study site and the researcher's University.

**Results:** Key findings included 1) patients with the same diagnosis have large variability in nursing intensity and nursing cost by shift, day and acute care episode (i.e. cost per day range DRG 192 \$5.68-287.37, 191 \$5.96-257.56, 190 \$10.06-366.86); 2) nurses may not be assigned patients based on experience and education level; 3) direct nursing cost per patient on the study unit was \$96.48 on average per day, which was only 5.8-7.3% of the daily room and board charge.

**Conclusion:** There is large variability in direct NCACE for patients with similar DRGs. An example is patients with COPD without complications (NCACE range \$54-1570, *M* \$325, *SD* \$242); COPD with complications (NCACE range \$17-3674, *M* 408, *SD* \$427); COPD with major complications (NCACE

range \$132-1455, *M* \$462, *SD* \$316). Nurse scientists have provided evidence for variability in nursing cost for patients with similar DRGs for decades, yet hospitals in America continue to be reimbursed under an assumption that patients with similar DRGs receive the same amount of nursing care. 11,12,13,14 This study refutes the assumption.

RN years experience in the organization was the nurse characteristic most associated with direct nursing cost. A 10% increase or 9.3 total nurse years experience in the organization for the patient episode of care is associated with a 9.9% or \$34.92 increase in direct cost of nursing care per episode for patients on the study unit holding all other variables constant.

Data did not support the hypothesis that nurses with greater experience or education level are assigned sicker patients. Average RN experience assigned per patient episode was not significant when regressed on average patient acuity. Percent of BSN nurses assigned was significant in the model with nominal effect.

The mean nursing direct cost per day for all patients in the study was \$96.48 (*SD* \$55.73, range \$.33-600.81). The room and board charge for each patient in a medical/surgical unit at the study hospital ranges from \$1321-1650 per day. Therefore, the direct nursing cost per day is only 5.8-7.3% of the daily room and board charge. Direct nursing care is a small percent of the cost, but patients don't know this because direct nursing cost is included in the room and board charge and not itemized on the patient bill.

Limitations of the study include de-identified data from a secondary source were used and cases with missing data were excluded. Data from large databases have been entered by multiple sources so threats to reliability and validity of data exist. Overtime and differential wage data were not obtained due to burden of extraction. The study was completed using data from a single unit in a one organization; hence the results of the study are not generalizable beyond the study unit. The methodology of using patient level data to explore direct nursing cost can be replicated and expanded using all units the patient is on during an acute care episode. Innovative patient assignment software provides a convenient source of data for nurse scientists and nurse leaders to use in creating next generation nursing science.

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## Contact

[pjenkins0701@gmail.com](mailto:pjenkins0701@gmail.com)

## J 10 - Exploring Technology to Improve Patient Care

### Using Social Network Analysis to Depict the Structure of Research Collaborations

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*Beth Baldwin Tigges, PhD, RN, CPNP, BC, USA*

*Shana Lane, MA, USA*

*Richard S. Larson, MD, PhD, USA*

#### Purpose

to describe the results of a social network analysis of cross-departmental research collaborations within one university on clinical and translational science pilot grants over three years.

#### Target Audience

researchers interested in the use of social network analysis to depict network structures

#### Abstract

**Purpose:** The purpose of this study was to examine the structure of internal pilot grant collaborations in the first three years of the University of New Mexico Health Sciences Center (UNM HSC) Clinical and Translational Science Center (CTSC) in the U.S. using social network analysis. Research funding agencies are increasingly prioritizing research that involves collaboration across multiple disciplines or specialties, institutions, or geographical locations. Social network analysis is one analytic tool that is useful for depicting the structure of collaboration and changes over time. In the U.S., initiatives such as the National Institutes of Health (NIH) Clinical and Translational Science Award (CTSA) program aim to transform academic health science centers and increase the speed with which basic scientific discoveries become widely disseminated health care interventions. Two of the strategies used by many institutions with CTSA to meet this aim are campus-wide pilot grant programs that provide preliminary data for extramural awards and structured opportunities for cross-disciplinary and -institutional collaboration. Team science is viewed as one possible catalyst for rapid outcomes from translational research; team members can work on multiple different, yet complementary aspects of a scientific clinical problem simultaneously. Pilot grant applications with multiple collaborators are often viewed more favorably by reviewers than single investigator proposals because of their potential for facilitating the formation of long-standing research teams. Yet little is known about the characteristics of such teams, including their composition. This study examined the structure of these collaborative research teams at one CTSA-funded institution in the U.S.

**Methods:** Study Design: The study was a secondary analysis based on retrospective document review of three years of awarded pilot grant applications at the UNM HSC NIH-funded CTSC. The pilot grant program is open to principal investigators from any of the three colleges or schools at the UNM HSC (College of Nursing, College of Pharmacy, 19 departments from the School of Medicine).

Sample: 80 awarded pilot grant applications (Year 1 = 24, Year 2 = 34, Year 3 = 40)

Procedures: Two separate reviewers evaluated the face pages and biosketches of the applications to identify the college or departmental affiliation of collaborators (inter-rater agreement = 90%). The primary author determined final inclusion when there was disagreement. Only internal UNM collaborations were included in this study. Collaborators were defined as any faculty or post-doctoral fellow who was either listed as a co-investigator on the face page of the application or had an included biosketch. Biostatisticians were not included if they did not have a faculty title or had a solely technical role in data analysis. An instance of collaboration was defined as two collaborators from two different UNM colleges or departments, either inside or outside of the UNM HSC. Collaborations within a single college or department were not counted. Multiple collaborators from the same college or department on a single application, who were collaborating with someone from another college or department, were counted as one instance of collaboration only.

Measures: Research collaborations were depicted visually using sociograms. Each node in the sociogram represented a university college or department. Edges in the sociogram (the lines between the nodes) represented collaborations on pilot grants. Thicker edges depicted more

collaboration. Density was the number of total edges (collaborations) between colleges or departments divided by the maximum number of possible collaborations (normalized range 0-1, with 1 representing a “complete network”). Degree centrality was the percent of all the direct collaborations that involved a given college or department. Betweenness centrality measured the number of times a college or department needed a given college or department to reach another. It measured position in the network. College and departments were rank ordered in terms of their betweenness centrality.

Analysis: Data matrices of collaboration counts were developed and entered into UCiNet software for analysis of network density, degree centrality, betweenness centrality, and generation of sociograms using compatible NetDraw software.

**Results:** Sociograms illustrated increased cumulative number and variety of research collaborations between colleges and departments over three years. Stepped cumulative density increased from .10 (Year 1), to .22 (Years 1, 2), to .29 (Years 1, 2, 3) demonstrating new partnerships with each successive year and increasing network cohesion over time. Collaborations were primarily within the UNM HSC, but there were collaborations within the broader UNM campus between a HSC college or department and UNM departments of Physics and Astronomy; Electrical and Computer Engineering; Psychology; or Health, Exercise, and Sports Science. Departments that consistently had the highest degree centrality (for two or more of the three years) and had key roles in collaborations were all from the School of Medicine: Internal Medicine (18% Year 1, 25% Year 2), Neurology (21% Year 1, 13% Year 3), and Pediatrics (15% Year 1, 13% Year 2). These collaborations tended to be with physicians of different specialties, rather than with PhD-prepared basic scientists, pharmacists, or nurses. Radiology (12% Year 1), Biochemistry and Molecular Biology (10%), Molecular Genetics and Microbiology (17%), and Psychiatry (13%) also had high degree centrality in one year each. The College of Pharmacy and the School of Medicine departments of Internal Medicine, Pediatrics, Molecular Genetics and Microbiology were the organizations with the most frequent betweenness centrality and the most strategic positions for facilitating collaboration. The College of Nursing increased in density, degree centrality, and betweenness centrality between Years 1 and 3. Nursing faculty collaborated with colleagues from Psychology, Internal Medicine, and Emergency Medicine. Cumulative overall network centrality increased from 11% in Year 1 to 20% in Year 3. Likewise, cumulative overall network betweenness increased from 13% in Year 1 to 35% in Year 3.

**Conclusion:** In the initial three years of a clinical and translational science pilot grant program at one CTSA-funded university in the U.S., new collaborations between investigators from different colleges and department continued to form and certain colleges and departments were consistently central to the formation of those partnerships. Social network analysis is a useful tool for researchers from around the world for depicting the structure of research collaborations. Feedback from the analyses may also be effective in encouraging investigators and organizations to either initiate collaboration for the first time or take a leadership role in facilitating collaboration within the institution.

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#### Contact

[btigges@salud.unm.edu](mailto:btigges@salud.unm.edu)

## J 11 - Integrating Global Community Mental Health Services

### Integrated Community Mental Health Services (ICMHS): Quality of Life and Patient Satisfaction

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*Vico C. L. Chiang, PhD, MHA, GDipMgtSt, BN, RN, MACN, FHKAN (CritCr), Hong Kong*

*M. Y. Chan, BB, Hong Kong*

*H. C. Li, BA (Hons), Hong Kong*

*W. L. Lin, BA (Hons), Hong Kong*

*W. M. Wong, BSS (Hons), Hong Kong*

*W. S. Wong, Hong Kong*

#### Purpose

There is a paucity of outcome studies on integrated community mental health service (ICMHS). The purpose of this presentation is to share with the international audience about the findings of QOL and patient satisfaction after ICMHS in Hong Kong. This may contribute to further development of ICMHS.

#### Target Audience

The target audience of this presentation are mental health professionals, in particular multi-disciplinary, who provide care and support to mentally ill clients in the community.

#### Abstract

**Purpose:** There is no fixed definition of integrated community mental health service (ICMHS) (England & Lester, 2005; Kodner & Spreeuwenberg, 2002); and a review of the literature indicated a paucity of studies in evaluating the outcomes of this service. Various yet segregated approaches of mental health services have been utilized in Hong Kong in the community. In this connection, the government has established the Integrated Community Centre for Mental Wellness (ICCMW) since October 2010 in all districts with a view to enhance the multi-disciplinary community support to patients and re-integrating them better into the community. It is necessary to investigate the outcomes of this newly introduced ICMHS with patient-defined outcomes for further service development.

This study aimed to investigate and enhance the understanding of patients' quality of life (QOL) and patient satisfaction after discharge from an ICCMW.

**Methods:** The design was a quantitative descriptive and correlational study. The setting was one of the 24 ICCMWs out of 18 districts in Hong Kong. Upon receiving informed consent of the participants, the study was conducted by face-to-face interview or phone interview with the Lehman Quality of Life Interview – Brief Version (QOLI – BV) (Lehman, Kernan, & Postrado, 1995) plus demographics collection (Section A) of the Full Version (Lehman, 1983); and the Risser Patient Satisfaction Scale – Chinese Version (RPSS – CV) (Chan & Yu, 1993; Risser, 1975).

There were a total of 206 clients discharged from the identified ICCMW with at least one psychiatric diagnosis categorized by DSM-IV who were discharged from March 2011 to March 2013. Among these patients, 169 were contacted and 53 patients agreed to participate in the study.

**Results:** There were 67.9% of the participants who expressed satisfaction in General Life Satisfaction subscale of the QOLI – BV with an overall mean of 4.86 (SD 1.19) at the level of neutral tending to satisfied. The overall Patient Satisfaction was also neutral tending to satisfied (mean 3.66, SD 0.27). For QOLI – BV, gender ( $p = 0.017$ ) and household composition ( $p = 0.033$ ) contributed to significant differences in the sub-scale of Satisfaction with Social Relations; while there was a significant difference in General Life Satisfaction between different household compositions ( $p = 0.044$ ). The areas of patient satisfaction with the service of ICCMW included genuine and welcoming staff; professional and diligent staff; popular group events and follow-up services; and the instrumental and psychosocial support. Patients also raised several areas for improvement: to increase frequency and duration of contacts, to maintain continuity of services, to enhance promotion of events, to expand services and resources, and to improve professionalism of staff. No significant correlation was found between QOL and patient satisfaction.

**Conclusion:** From the results of this study, there is room for improvement in educating about the treatment and progress of specific mental illnesses for individual patients who attended the service of ICCMW. Increased attention should be paid to the needs of patients, particularly for those without a partner in the community. More efforts may be put in improving patients' social relations, such as to set up a daytime drop-in service in ICCMW. For future studies, a specific QOL and patient satisfaction scale for ICMHS may be developed to better evaluate the outcomes of such service. Furthermore, qualitative studies should be conducted in order to better understand the experience and outcomes of post-ICCMW community life for the mental health patients.

Contact

[Vico.Chiang@polyu.edu.hk](mailto:Vico.Chiang@polyu.edu.hk)

## J 11 - Integrating Global Community Mental Health Services

### Implementation, Cultural Acceptability, and Impact of a Mental Health Program for Haitian Healthcare Workers Developed after the 2010 Earthquake

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*Rosina Cianelli, PhD, MPH, RN, FAAN, USA*  
*Nilda (Nena) Peragallo, DrPH, RN, FAAN, USA*  
*Carole Wilkinson, DNP, RN, USA*  
*Emma Mitchell, PhD, RN, USA*  
*Victoria B. Mitrani, PhD, USA*  
*Debbie Anglade, BSN, USA*  
*Marie Guerda Nicolas, PhD, USA*

#### Purpose

The purpose of this presentation is to describe the implementation, the cultural acceptability, and the impact of a Mental Health Training Program conducted in the north of Haiti after the 2010 earthquake.

#### Target Audience

This presentation is aimed at nurses and other professionals working in global health interested in the development of culturally-specific interventions that target mental health issues after a disaster.

#### Abstract

**Purpose:** The purpose of this presentation is to describe the implementation, the cultural acceptability, and the impact of a Mental Health Training Program conducted in the north of Haiti after the 2010 earthquake.

**Methods:** A qualitative descriptive approach was used to elicit information from 2 focus group (n=15) with Haitian health care workers who had participated in the Mental Health Training Program (MHTP). The researchers obtained information through group discussion using a semi-structured guide. Two focus groups were conducted with eight (8) MHTP trainers in one group and eight (8) MHTP trainees in the other group (in total 113 health care workers participated in the MHTP). Discussions centered on the cultural factors related to the design and implementation of the MHTP training as well as professional impact and acceptability of the training program. This study used qualitative content analysis to identify and define the major themes that emerged from the focus groups. Content analysis is used to recognize code and categorize patterns from text data. More specifically, when analyzing the transcripts directed content analysis was used. This approach is recommended when there is prior literature related to the phenomenon of interest that can benefit from further description. NVIVO (9) was used to conduct the analysis and to facilitate data storage. Two research team members, working independently, read through and coded each transcript. A codebook and coding sheet were developed to facilitate coding.

**Results:** The majority of the 16 participants were women (83.3%), with a mean age of 36 [1] 10.0 years (range = 24–54 years). Eight participants (50%) were single, 5 (31.3%) were married and 3 (18.7%) were in a relationship. Two participants (12.5%) reported working with no salary, 3 (18.7%) worked part-time, 8 (50.0%) worked full-time and 3 (18.7 %) worked in multiple locations or sites. Eight (50%) participants were nurses, 6 (37.5 %) were physicians and 2 (12.5%) were in other professions. Only one of the participants had formal training in mental health. All participants recognized the need for increasing MH services and the barriers that exist to implement mental health programs in Haiti. Especial consideration was given to stigma and culturally influenced perceptions of mental health. Personal impact of the MHTP was described not only in terms of HCWs' personal lives, but also in terms of their personal development as healthcare providers. The training allow the HCWs to give quality service to the population by providing them with more specialized skills in identifying and addressing mental health issues. Many changes have been made were the MHTP trainers now focus on dialogue, support, and follow ups with the patients. Participants were not only motivated to participate actively in the MHTP but also were readily engaged to apply knowledge in practice.

**Conclusions:** The study findings contribute to the knowledge base on mental health training among HCWs in Haiti. Given the lack of research on mental health in Haiti, it is indispensable to improve our understanding of the personal and professional impact and acceptability of the MHTP. This knowledge will help us implement the MHTP in other parts of Haiti as well as in other countries. The MHTP changed the HCWs perceptions about MH issues and provided them with the knowledge and skills to respond to growing community MH needs. The interdisciplinary nature of the MH calls for collaborative research efforts nationally and internationally. The MHTP can be applicable to other countries in the region and can prepare nurses to recognize and address the immediate and longer term mental health needs arising from catastrophic events. By increasing disaster response awareness, nurses can develop appropriate interventions to combat the negative mental health effect of natural disaster.

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## Contact

[rcianelli@miami.edu](mailto:rcianelli@miami.edu)

## J 12 - Psychiatric Research in the Pediatric Population

### The Relationship Between ADHD and School Attendance, School Behavior, and School Performance

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*Nancy M. H. Pontes, PhD, RN, APN, FNP-BC, USA*

*Manuel C. F. Pontes, PhD, USA*

#### Purpose

The purpose of this presentation is to show the relationship of Attention Deficit Hyperactivity Disorder (ADHD) to increased school absences, and greater problems with school behavior and schoolwork using U.S. nationally-representative data from the Medical Expenditure Panel Survey 2008-10 (MEPS). A multidisciplinary intervention team will be proposed to improve student outcomes.

#### Target Audience

The target audience for this presentation is school nurses, nurse practitioners, pediatric and family health care providers.

#### Abstract

**Purpose:** Previous research has shown that Attention Deficit Disorder (ADHD) is negatively associated with school attendance and school performance, and positively associated with school behavioral problems. However, these studies were conducted with samples drawn from individual schools or school districts. Few studies were conducted with nationally representative samples. One such study from the National Health Interview Survey (NHIS) was based on parent report, and did show a positive association between ADHD and missed days of school. The purpose of this research is to investigate the relationship between ADHD and school attendance, school behavior, and school performance of school-aged children in the US using a large nationally representative sample.

**Methods:** Multivariate analyses were used to examine the relationship between ADHD and school attendance, school behavior and school performance. Data are from the Medical Expenditure Panel Survey 2008-11 (MEPS), using a complex survey design. The Columbia Impairment Scale (CIS) was used to measure problems with school behavior and school work. The analysis was done by SAS version 9.2, using proc surveymeans, surveyfreq and surveylogistic for data analyses.

**Results:** ADHD had a significant positive relationship to increased school absences, and greater problems with school behavior and schoolwork. Analyses with health insurance, family income, family structure, and gender as covariates showed that ADHD had a significant positive relationship with increased school absences and problems with schoolwork.

**Conclusions:** These data illustrate the significant burden of ADHD on school performance. While some research has shown that better management of ADHD in school settings improve outcomes, further research is needed. More specifically, multidisciplinary teams with advanced practice nurses such as nurse practitioners in school-based health centers should be further explored to see if their intervention is associated with improved school performance in these children.

#### Contact

[nancy.pontes@camden.rutgers.edu](mailto:nancy.pontes@camden.rutgers.edu)

## J 12 - Psychiatric Research in the Pediatric Population

### Factors Affecting the Timing of an Autism Spectrum Diagnosis

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*Ashley Darcy Mahoney, PhD, NNP-BC, USA*

*Melinda Higgins, PhD, USA*

*Bonnie Minter, MS, CPNP, USA*

#### Purpose

To address the question of whether late-preterm (LPT, 34-36 weeks) infants carry the same risk for ASD as full-term infants and address how maternal education, race, age, marital status and neonatal factors collectively affect the timing of when a child is diagnosed with ASD, realizing that early diagnosis improves outcomes.

#### Target Audience

Nurses, Nurse Practitioners, and faculty

#### Abstract

**Purpose:** The prevalence of children with autistic spectrum disorders (ASD) has increased over the past two decades. Over this same time period, the number of infants born preterm has also increased. Early diagnosis of ASD enables interventions that improve the functioning of children with ASD. To address the question of whether late-preterm (LPT, 34-36 weeks) infants carry the same risk for ASD as full-term infants, this study explored possible relationships between gestational age and ASD diagnosis. Additionally, this study addressed how maternal education, race, age, marital status and neonatal factors collectively affect the timing of when a child is diagnosed with ASD, realizing that early diagnosis improves outcomes.

**Methods:** A retrospective cohort analysis of 664 children was undertaken at the largest Autism research and treatment center in the country. The application of Bayes rule was used given that we do not have sufficient information about the joint probabilities related to prematurity and autism. Using the estimated gestational age proportions within ASD diagnosis, plus national estimates of ASD and prematurity, probabilities for ASD within a given gestational age were calculated. For all variables, comparisons were made between infants diagnosed with ASD and those not diagnosed with ASD using independent group t-tests, non-parametric tests, and chi-square tests. The final predictive logistic regression model selected used forward stepwise likelihood ratio variable selection to create the best ASD predictive model for timing of diagnosis.

**Results:** On average, the 664 children in this cohort were 38.1 (SD 3.3) weeks with 7.1% Early Preterm (EPT, <33 weeks) and 13.9% LPT. Sixty-one percent of the infants seen (406/664) were diagnosed with ASD. Forty-six percent were Caucasian and 34% were African American. In comparison to full term infants, EPT infants were significantly more likely to be diagnosed with ASD (1.9 times higher risk (95% CI [1.3, 2.5] significant at  $\alpha=.05$ ). We observed an elevated prevalence of ASD among children born LPT (1.2 times higher risk (95% CI [0.9, 1.5] not significant at  $\alpha=.05$ ), the magnitude of the elevation was not statistically significant. Reviewing the hazard ratios, older, married parents were associated with a having a child diagnosed with ASD at a younger age. Male infants and African American infants had a higher probability of an earlier ASD diagnosis than female infants and Caucasian infants, respectively. No statistically significant difference of timing of ASD diagnosis was found in infants across gestational age groups.

**Conclusion:** EPT infants were significantly more likely to be diagnosed with ASD as compared to their term counterparts. Our study identified a two-times greater risk among children born EPT. We observed an elevated prevalence of ASD among children born LPT, the magnitude of the elevation was not statistically significant. This study also demonstrates that children are more likely to have an earlier ASD diagnosis if their parents are older, if the child's gender is male, and if the child's parents are married. Early identification of risk factors offers an avenue for early diagnostic evaluation and referral.

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## Contact

[ashley.darcy@emory.edu](mailto:ashley.darcy@emory.edu)

## J 12 - Psychiatric Research in the Pediatric Population

### Understanding the Families' Needs: Interventions for Family Members of Adolescents with Disruptive Behavior Disorders

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*Ukamaka Marian Oruche, PhD, RN, USA*

#### Purpose

The purpose of this study was to describe what family members of adolescents with Disruptive Behavior Disorders (DBD) said they need for support from mental health professionals.

#### Target Audience

The target audience of this presentation is nurse researcher and clinicians who are interested in psychiatric-mental health.

#### Abstract

**Purpose:** Adolescents with Disruptive Behavior Disorders (DBD) including Oppositional Defiant Disorder and Conduct Disorder present unique challenges to their families. DBD are prevalent and serious mental disorders first diagnosed in childhood. DBD are characterized by hostile, aggressive, defiant, and antisocial behaviors. These adolescents are at risk to drop out of school, abuse drugs, or be arrested. Therefore, family members of adolescents with DBD experience overwhelming and unrelenting stress related to the difficult challenges of managing the adolescents' behavior problems and interacting-often on a daily basis-with the mental health, schools, child welfare, and juvenile systems. While most empirically-supported treatments for DBD are family-based, the emphasis is typically on the behavior of the child rather than on the life challenges and the resultant distress experienced by the family members. To develop interventions to address the needs of family members, a better understanding of what mental health services they desire is needed. The purpose of this study is describe what multiple family members including those rarely considered (i.e., fathers, siblings, and other adult family members) need for support from mental health professionals.

**Methods:** The Double ABCX Model of Family Stress and Adaptation by McCubbin and Patterson (1983) was used to guide the study. The model proposes that families experience life events or stressors such as the serious illness of a family member. The stressor may overwhelm available family resources and lead to hardships that affect all family members. Based on this model, we anticipated that caring for an adolescent with DBD is a demand that will likely exceed the family's capacity to meet the demand and therefore could result in altered family functioning, emotional stress, and the need for outside support. Fifteen families of adolescents (13 - 18 years old) with DBD were recruited from a large publicly funded community mental health center in Midwestern United States. Data were gathered from participants (parents or primary caregivers, adolescents with DBD, siblings, and other adult family members) using in-

depth individual interviews and a focus group interview (three parents or primary caregivers). Interviews were analysed by standard content analytic procedures.

**Results:** The sample included 15 parents (14 females and one male, average age 45 years), 10 other adult family members (four females and eight males, average age 37 years), 15 adolescents with DBD (five females and 10 males, average age 15 years), and 12 siblings (four females and eight males, average age 14 years). The racial breakdown of the 52 participants was 61% African American, 16% Caucasian, and 23% biracial (mostly African American/Caucasian). The average annual household income for the families was less than \$30,000. Most of the data was provided by parents and other adult family members but a few of the adolescents with DBD and their siblings also gave their opinion about mental health interventions. Families said that they would prefer multi family groups that included both psychoeducational sessions led by professionals and the time to network with other families that share their challenges, and offered in their own neighborhoods. Families described a number of issues or topics they would like professionals to address, including managing the adolescents' disruptive behaviors, family communication and conflict resolution, education about the disorders, strategies to manage the adolescents' care and service use, the personal issues and feelings of family members, and positive outcomes experienced by families.

**Conclusion:** Findings provide the foundational data to begin the development of an empirically supported intervention for family members of adolescents with DBD. The findings also suggest that psychiatric nurses and other clinicians can clearly address some of the needs expressed by the family members in the context of everyday clinical practice.

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### Contact

[uoruche@iu.edu](mailto:uoruche@iu.edu)

## K 01 - Global Theoretical Issues in Healthcare

### Using Diaries to Explore the Lived Experiences of Primary Healthcare Clinic Nursing Managers in Two South African Provinces

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*Pascalina Ozida Munyewende, BSc (Hons), MA, South Africa*

#### Purpose

to discuss and explore the lived experiences of primary health care clinic nursing managers in two South African provinces using the diary method. It will also discuss the usefulness and limitations of using the diary as a research method with nursing managers.

#### Target Audience

Nursing practitioners/managers, supervisors, policy makers, academics and or researchers and other relevant conference attendees.

#### Abstract

**Purpose:** There is global recognition of the importance of the health workforce illustrated by the 2013 Global Forum on Human Resources for Health which asserted that the foundation for Universal Health Coverage and the post-2015 development agenda focuses around health care workers. Locally and internationally nurses are majority of health care providers in any health care system. In South Africa the majority of primary health care (PHC) clinics are managed by nurses. Currently, South Africa is on the brink of another wave of major health system reforms that underscore the centrality of PHC. Nurses will play a critical role in these reforms, requiring new leadership, management skills and competencies. There has been limited use of the diary method in nursing management contexts, particularly in low and middle income settings. Diary methods involve, "intensive, repeated self reports that aim to capture events, reflections, moods, pains or interactions near the time they occur" (Iida M 2012). Reflexive diaries can unravel the successes, ambiguities or challenges faced by nursing managers. This paper discusses and explores the lived experiences of primary health care clinic nursing managers in two South African provinces using the diary method.

**Methods:** During 2012, a sub-set of 22 nursing managers were selected from a larger survey sample in two South African provinces. After informed consent, participants were requested to keep individual diaries for a period of six weeks, using a clear set of diary entry guidelines. Nursing managers were asked to write about one thing that happened at work that week that really had an effect on them with specific instructions that said: please write a date whenever you make an entry about: (1) What was the event? (2) Why did it stand out for you or why did it stick in your mind? (3) How did it make you feel? (4) What did you learn from it? (5) How will it affect the way you work in the future? Reminders consisted of weekly short message service reminders and telephone calls. Diary entries were analysed using thematic content analysis and MAXQDA version 11. A diary feedback meeting was held with all the participants to validate the findings.

**Results:** Fifteen diaries were received, five were lost by the courier company and two nursing managers did not participate in the diary study representing a 98% response rate. The majority of respondents were female, aged 31 to 60 years with at least five years of work experience. Most participants made their diary entries at home. Diary entries largely reflect negative emotions and were dominated by primary health care nursing managers' reflections on: staff shortages or challenges; patient care or community issues; excessive workload; unsupportive supervision; and health system deficiencies. Key text from the diaries relating to the themes were extracted, below is a brief description of the themes: **Staff shortages** is a theme that occurred when shortages of professional nurses, nursing assistants, clerks, pharmacists, doctors, social workers, gardeners etc were mentioned. It also includes staff shortages induced by absenteeism, abuse of sick leave, staff leave, study leave, actual resignations and lack of staff retention. **Patient care/Community** related to PHC nursing managers concern about any aspect of patient care, disease programme management, patient complaints about perceived dedication and commitment of staff, political expectations from the community and long waiting times. **Excessive workload** includes diary entries that were made relating to overtime, taking work home, missing tea and lunch breaks and

neglecting admin work over patient consultations, doing what is perceived to be other people's work, e.g. ordering drugs is pharmacist role, being blamed when things go wrong, as well as a focus on the actual practise environment in PHC clinics. **Unsupportive supervision** related to negative remarks made by the clinic supervisor to the clinic manager, tensions between supervisors, vertical communication or leadership, delays in supporting clinic managers when requests for relief staff are made, missing appointments, disorganisation and the resultant confusion in clinic managers' schedules caused by clinic supervisors because of poor coordination and lack of planning. The fifth theme on **health system deficiencies** included issues such as management inefficiencies and lack of attention to human resources for health, lack of delegation and authority leading to disempowerment, paralysis caused by role confusion, high level decisions on operational issues that affect clinic management but are made without managers' consultation, disabling practice environment, problems with infrastructure, shortages of consumables, drugs and water.

**Conclusion:** The diary entries reveal the complexities, nuances and ambiguities of nursing management at the PHC level especially staff shortages and how they impact negatively on all clinic management activities. For research purposes, diaries are an innovative method in capturing the nature and dynamics of nursing management. The results from our study show that diaries were used as a tool for reflection and provided sufficient empirical information on nursing management experiences at the PHC level as well as the reality that they experience in the workplace vs. theory of nursing management. Diaries as a research method also provided nursing managers with a space for anonymity and confidentiality often not possible with other qualitative research methods. Nursing managers were able to write about sensitive information and experiences relating to specific aspects around which organisational norms in PHC clinic settings are organised. The results apply to the local South African context but may also be applied in an international context because most of the issues that concerned clinic managers such as staff shortages or challenges; patient care or community issues; excessive workload; unsupportive supervision; and health system deficiencies are universal. Therefore, the expressed concerns of nursing managers must be addressed to ensure the success of PHC re-engineering reforms and health systems strengthening at the PHC level.

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#### Contact

[pascaliamunyewende@wits.ac.za](mailto:pascaliamunyewende@wits.ac.za)

## K 01 - Global Theoretical Issues in Healthcare

### Psychometric Properties of a Short Version of Effort-Reward Imbalance in Blue-Collar Workers

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*Won Ju Hwang, MPH, PhD, RN, South Korea*  
*OiSaeng Hong, PhD, RN, FAAN, USA*

#### Purpose

The purposes of this study were to test psychometric properties of a short version of Effort Reward Imbalance (ERI) questionnaire and to identify its relationship with job demand in blue-collar workers.

#### Target Audience

The target audience of this presentation is researchers and nurses related to occupational health, specifically interested in job stress.

#### Abstract

**Purpose:** The purposes of this study were to test psychometric properties of a short version of Effort Reward Imbalance (ERI) questionnaire and to identify its relationship with job demand in blue-collar workers.

**Methods:** In this study, we sought to translate the ERI short form into Korean and to examining the psychometric properties in a sample of 250 blue-collar workers who are working at small companies. The internal consistency reliability, structural validity, and criterion (content) validity were analyzed.

**Results:** The Cronbach's alpha for the three scales were 0.75, 0.74, and 0.72, respectively. Confirmatory factor analysis showed a good fit of the data with the theoretical structure (RMSEA = 0.07, CFI = 0.84). Evidence of criterion validity was demonstrated. A significant synergistic interaction effect of ERI and overcommitment on Job stress (demand) was observed (synergic effect 7.35, CI 2.89-18.52).

**Conclusion:** The short version of the ERI questionnaire demonstrated good psychometric properties with Korean blue-collar workers. This supports further use of the instrument in future research and practice for working population in Korea.

#### Contact

[hwangwj@khu.ac.kr](mailto:hwangwj@khu.ac.kr)

## K 03 - Uses of Complementary and Alternative Medicine

### Use of Honey for Healing Pressure Ulcers: An Integrative Review

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*Katherine Ricossa, RN, MS, USA*

#### Purpose

The purpose of this presentation is to share research findings from the last decade as an Integrative Review of the Literature examining an international approach for healing pressure ulcers using honey as complementary and alternative method.

#### Target Audience

The target audience is to provide evidence based practice to the following nurses: those who provide direct patient care; work in the area of wound care; and/or can influence decisions to a multidisciplinary team about treatment modalities in the area of wound healing.

#### Abstract

**Purpose:** Using Complementary and Alternative **Methods** (CAM) offers a holistic approach of caring for those with pressure ulcers. The purpose of this paper is to examine the caring and the healing process using CAM to examine a Systematic Integrated Review of 9 randomized clinical trials on the use of honey and the healing of pressure ulcers.

The costs of wound healing continue to escalate. It is important to explore alternative holistic modalities which are cost effective and achieve the desired outcome of wound healing. Honey is the ideal substance to provide effective wound healing properties: antibacterial, antimicrobial, anti inflammatory, wound cleansing and debridement.

**Methods:** Several databases were examined: Natural Standard, Cochrane Library, PubMed, and Google Scholar. Internationally 8 randomized clinical trials were identified using honey for wound healing of pressure ulcers. No clinical trials were identified in the United States.

**Results:** In the last 10 years, internationally 6 randomized clinical and 1 Intervention Review have been published on clinical trials examining the effectiveness of honey to treat and heal pressure ulcers as well as other wounds. Each sample size was different based on the geographical area where the study was conducted and different types of honey were used to determine the effectiveness on wound healing. Honey was not always effective on some wounds, but the evidence indicates that honey is effective in wound healing.

**Conclusion:** Few studies have been conducted on the effectiveness of wound healing with honey internationally. It is suggested that honey is nature's perfect substance for wound healing for pressure ulcers. It is difficult to generalize on the effectiveness of honey based on these randomized clinical trials with heterogeneous samples and wound types. Based on these studies, honey is effective on healing pressure ulcers. However, additional research must be conducted using homogenous samples and pressure ulcer types to establish a basis for practice.

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Contact

[kathy\\_ricossa@hotmail.com](mailto:kathy_ricossa@hotmail.com)

## K 03 - Uses of Complementary and Alternative Medicine

### Use of Complementary and Alternative Medicine by Nurses in Nepal

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*Marcia Rucker Shannon, MSN, RN, USA*

*Andrea M. Winne, BSN, USA*

*Merina Dongol, MBBS, Nepal*

*Unisha Shrestha, BSc (Nsg), Nepal*

#### Purpose

The purpose of this presentation is to describe the utilization of Complementary and Alternative Medicine (CAM) by nurses in Nepal. CAM is a priority research area in Nepal according to the Nepal Health Research Council. There are no studies using nurses, so this descriptive study added to the body of knowledge.

#### Target Audience

The target audience for this presentation is nurses interested in alternative and complementary medicine usage in developing countries, specifically Nepal. Those wanting to explore international collaboration on research studies among nursing students will also be interested in this presentation.

#### Abstract

**Purpose:** The purpose of this research was to describe the utilization of Complementary and Alternative Medicine (CAM) by nurses in Nepal. The use of Complementary and Alternative medicine is a 2103 priority research area in Nepal according to the Nepal Health Research Council. There are currently no studies using this population, so this descriptive study added to the body of knowledge on CAM use in Nepal.

**Methods:** A 32 item questionnaire was used to collect data from a convenience sample of 223 practicing nurses, from 2 hospitals in the Kathmandu Valley in Nepal. The questionnaire collected data on types of CAM used, for what health problems, frequency of use, and if CAM was used alone or in conjunction with allopathic medicine. Reasons for recommending/using CAM were also collected.

**Results:** The most common type of CAM utilized was Ayurveda (35%) but this was followed closely by Naturopathy (34.1%). The most common health problem for which CAM was used was fever, followed closely by digestive problems, back problems and respiratory ailments. 24% of the respondents reported using self-CAM methods monthly or yearly, while 2.6% used some form of self-CAM daily or weekly. 49.6% reported using self-CAM every time they experienced a health problem. Frequency of use under a trained CAM provider was slightly different. 40% never used a trained provider, while 37.6% report using a trained CAM provider every time they have a health problem. Many nurses combined CAM with allopathic medicine. 54.9% reported using CAM even when taking allopathic medicine, while 40.2% do not. Overall 62.1% would recommend CAM to others while 14.7% would not. The reasons for recommending CAM included the belief that it is safe, easy to use, has minimal side effects and allows easy self-treatment with minimal guidance.

**Conclusion:** In many countries across the world, CAM is a common form of medical treatment, and Nepal is no exception. In Nepal, nurses use a wide range of CAM treatments and providers for a wide variety of health problems, alone and in conjunction with allopathic medicine. It is clear that nurses need to be aware of their own biases when discussing treatment decisions with patients, so as not to influence the outcomes. Further research is needed to determine the use of CAM in a variety of populations. More Evidence Based Practice research is needed on this topic.

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### Contact

[mshannon@svsu.edu](mailto:mshannon@svsu.edu)

## K 03 - Uses of Complementary and Alternative Medicine

### The Effects of Ballroom Dance on Blood Pressure, Heart Rate, Weight, Waist Circumference, and Body Mass Index Among Filipino-Americans: A Feasibility Study

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Alona Angosta, PhD, APRN, NP-C, USA

#### Purpose

The purpose of this presentation is to discuss the effects of 3-months ballroom dancing on blood pressure, heart rate, weight, waist circumference, and body mass index among Filipino American adults.

#### Target Audience

The target audience of this presentation is: nurses, nurse practitioners, nursing educators, researchers

#### Abstract

**Background:** Physical activity decreases the risk of obesity and hypertension, thereby reducing the risk of cardiovascular disease. Lack of regular physical activity is a common health problem among Filipino Americans and it is associated with the increased prevalence of hypertension, diabetes, and dyslipidemia in this population. There are several reasons for physical inactivity. The most common reasons given for physical inactivity in this population are lack of interest, dissatisfaction with the type of activity they are engaged in, and lack of time due to family and work obligations.

**Purpose:** The purpose of this feasibility study was to examine the effects of 3-month ballroom dance on resting blood pressure, heart rate, weight, waist circumference, and body mass index of Filipino American adults.

**Methods:** This quasi-experimental research used a single group pre and post intervention design. Thirty-seven Filipino Americans between 35-65 years old living in the southwestern part of the United States participated in the ballroom dance program during the fall of 2012. The ballroom dances that were selected were *cha-cha* and *salsa* due to the moderate physical effort required, and *rumba* due to its popularity among Filipino Americans. Participants danced every week for two hours. Resting blood pressure, heart rate, weight, waist circumference, and body mass index were measured pre dance intervention (week1) and post dance intervention (week 12); results were compared. The paired sample *t*-test was used to determine the significant differences in the sample mean score pre and post dance intervention.

**Results:** Group means of resting blood pressure (BP), heart rate (HR), weight (WT), waist circumference (WC), and body mass index (BMI) post- intervention are slightly lower than those of pre-intervention (except for WC and BMI), but the group means change are not statistically significant: BP (pre)127/80 mmHg and (post)124/79mmHg; HR (pre) 72 and (post) 73; WT (pre) 68.18 kg and (post) 67.73 kg; WC (pre) 89.59 cm and (post) 90.53 cm; BMI (pre) 26.15 and (post) 26.01.

**Conclusion:** Cardiovascular disease is the leading cause of death among Filipino Americans and lack of regular physical activity has been linked to this problem. This study examined the effectiveness of ballroom dance as another form of physical activity among Filipino Americans and tested the hemodynamics and anthropometric effects of ballroom dance. Although the results are not statistically significant, this study revealed a slight improvement in the BP, HR, and WT scores of the sample. Larger sample and/or longer dance intervention may be considered in future studies. This study can be used to further explore ballroom dance and similar types of activity that will benefit and motivate Filipino Americans and other populations to engage in regular physical activity.

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### Contact

[alona.angosta@unlv.edu](mailto:alona.angosta@unlv.edu)

## K 04 - Behavioral and Self-Care of the Heart Failure Patient

### Illness Representations and Self-Care Behavior of Patients with Heart Failure

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*Jen-Chen Tsai, RN, PhD, Taiwan*  
*Yen-Ting Wang, RN, MSN, Taiwan*  
*Pei-Shan Tsai, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to investigate the relationship between illness representations and self-care behaviors of patients with heart failure and to identify important factors related to illness representations and self-care behaviors among these patients.

#### Target Audience

The target audience of this presentation is clinical practice nurses and/or case managers in cardiac care specialty.

#### Abstract

**Purpose:** The purpose of this presentation is to investigate the relationship between illness representations and self-care behaviors of patients with heart failure and to identify important factors related to illness representations and self-care behaviors among these patients.

**Methods:** This study was conducted based on the self-regulation model. Patients with heart failure were recruited from a medical center in northern Taiwan. A descriptive correlational research design was used. Three questionnaires were administered to the study participants, including the illness representations questionnaire-revised (IPQ-R), the heart failure symptoms experience questionnaire, and the self-care behaviors questionnaires. Data were analyzed using independent t-test, Pearson's correlations and hierarchical regression.

**Results:** A total of 100 patients completed this study (mean age = 64.7±12.3). Age, education levels, and cardiac functional class were significant correlates of illness representation experienced by patients with heart failure. Emotional representation and perceived control of the illness were significantly related to self-care behaviors. Hierarchical regression analyses showed perceived personal control of the illness was the most powerful predictor, explaining 27% of the variance of self-care behaviors in patients with heart failure.

**Conclusion:** Patients may show better self-care behaviors if they perceived greater personal control for their diseases. Results of this study suggest that the development of personalized health education or intervention programs is needed to promote illness representations of patients with heart failure.

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#### Contact

[jenchent@ym.edu.tw](mailto:jenchent@ym.edu.tw)

## K 04 - Behavioral and Self-Care of the Heart Failure Patient

### The Effectiveness of a Patient Education Program on Promoting Self-Care in Patients with Heart Failure

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*Hsing-Mei Chen, PhD, RN, Taiwan*

*Shyh-Jong Wu, PhD, Taiwan*

*Liang-Miin Tsai, MD, Taiwan*

*Chee-Siong Lee, MD, Taiwan*

*Hsueh-Wei Yen, MD, Taiwan*

#### Purpose

The purpose of this presentation is to introduce a patient teaching program and the effectiveness of the program on promoting self-care, depression, sleep, quality of life, and readmission in patients with heart failure.

#### Target Audience

The target audience of this presentation is 1. To understand the heart failure patient teaching program including material and intervention modality. 2. To understand the effects of the patient teaching on promoting patient outcomes.

#### Abstract

**Purpose:** Self-care is fundamental to effective management of heart failure. However, patients with heart failure (HF) report poor self-care behaviors. Patient education is the best way to promote self-care. However, healthcare providers do not provide sufficient self-care information to the patients due to heavy working routines and poor quality of teaching materials. In considering many patients with HF are elderly or have vision or cognition impairments, a HF home self-care brochure with 8 topics was developed. The purpose of this study was to examine the effectiveness of a nurse-led self-care intervention on self-care behaviors, health-related quality of life, depression, sleep disturbances, and readmission in patients with HF from hospitalization to one month after discharge from hospital.

**Methods:** A quasi research design with a non-probability sampling was used. Participants were recruited from two medical centers located in southern Taiwan. Inclusion criteria were as follows: 1) a diagnosis of HF with NYHA functional class II and above; 2) age 20 or older; 3) able to communicate either by speaking or writing Mandarin; and 4) willing to participate in this study. Instruments included demographic questionnaire, heart failure characteristics questionnaire, Patient Outcome Questionnaire-9, Pittsburgher Sleep Quality Index, Kansas Cardiomyopathy City Questionnaire, and revised HF Self-Care Behavior Scale. After completing the questionnaires at baseline, participants in the experimental group were asked to receive a pre-discharge education session and a telephone follow-up or an outpatient follow-up. Control group received usual hospital discharge teaching. The posttest was done in one month after their discharges. T-tests were used to examine the differences between two groups.

**Results:** The results showed that 34 participants were assigned in the experimental group and 32 were in the control group. no statistical differences were found in demographic data, HF characteristics, sleep quality, depression, self-care, and quality of life between the experimental and control groups at the baseline. Among the three self-care variables, self-care maintenance was the lowest and the only one had score lower than the cut-off point of 70 in both groups (57.13 for experimental group vs. 64.84 for control group,  $p = .080$ ). At the posttest, the experimental group had significantly higher score in self-care maintenance (76.64 vs 66.09,  $p = .003$ ). However, there were no differences in the other major variables between the two groups. For the readmission, there was one readmission for the experimental group and three readmissions for the control group.

**Conclusion:** The study supports the effectiveness of the patient education program on promoting self-care maintenance in patients with HF one month after discharge from hospital. The study findings can be served as a reference for healthcare providers and researchers to promote self-care and conduct research studies in people with heart failure.

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## Contact

[hsingmei@ntu.edu.tw](mailto:hsingmei@ntu.edu.tw)

## K 05 - Self-Management of Chronic Illnesses

### Predictors of Self-Management for Chronic Low Back Pain

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*Jennifer Kawi, PhD, MSN, APRN, FNP-BC, USA*

#### Purpose

The purpose of this presentation is to increase understanding of predictors of self-management in chronic low back pain, a very prevalent worldwide problem. It is likely that certain subgroups of the population respond better to self-management interventions. Hence, identifying these predictors are essential to effective chronic pain management.

#### Target Audience

The target audiences for this presentation are all stakeholders involved in the area of chronic low back pain especially since self-management is an international initiative recommended for chronic illnesses. However, self-management may not be as effective to certain subgroups of the population.

#### Abstract

**Purpose:** This research study aimed to: (a) identify variables that best predict self-management (SM) of chronic low back pain (CLBP), and (b) evaluate differences in these variables between individuals in specialty pain centers and primary care clinics.

CLBP is a continuous or intermittent discomfort persisting for at least three months. It affects about 10% of the world population and is becoming increasingly prevalent. Globally, the ranking of CLBP increased from being the 12<sup>th</sup> leading cause of years of life lost and years lived with disability in 1990, to number 7 in 2010 (Murray & Lopez, 2013). SM strategies are strongly recommended internationally and in several chronic pain care guidelines to help address the major health and economic challenges in this patient population. SM is described as the performance of tasks and skills with self-efficacy to activate individuals in making appropriate decisions and engage in health-promoting behaviors (Lorig & Holman, 2003). SM has been shown to improve health outcomes in several chronic illnesses. However, the evidence of SM effectiveness in CLBP remains unclear. It is likely that SM programs are most effective only in certain subgroups of the chronic pain population. Hence, it is essential to identify variables that best predict SM in CLBP.

**Methods:** This research study is a secondary analysis of data collected from two previous CLBP research studies in specialty pain centers and primary care clinics ( $N = 230$ ). These two studies described several pain and patient-related variables in adults with non-malignant CLBP but did not address the predictors of SM. Descriptive statistics and general linear modeling were conducted for data analysis.

**Results:** Overall, five variables were found to be significant predictors of SM: age, education, overall health, SM support, and helpfulness of pain management. Those who were younger, had higher educational level, had better overall health, perceived more support from their healthcare providers, and perceived benefits from their pain management modalities were more likely to respond to SM. In specialty pain centers, SM support, support received from other than healthcare providers, religion or spirituality, and overall health were identified as significant predictors of SM. In primary care clinics, income, overall health, and SM support were significant predictors of SM.

**Conclusion:** Findings provide essential information to healthcare providers in intervening appropriately toward engaging CLBP patients in SM. Promoting healthy living through effective SM despite CLBP is a vital component of care since overall health has been consistently identified as a significant predictor of SM. Further, since nurses are in the forefront of chronic pain care, increasing our knowledge and skills in providing SM support is necessary. Adequate evaluation of individual's willingness and abilities to engage in SM, addressing psychosocial concerns that impact SM and pain, and advocating for healthcare system changes to increase availability of chronic pain care resources in the community are all essential considerations to enhance effective SM. Interprofessional collaboration is equally important to facilitate comprehensive management of the complexity of CLBP. Consequently, other strategies need to be identified for those who do not respond adequately to SM strategies.

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## Contact

[jennifer.kawi@unlv.edu](mailto:jennifer.kawi@unlv.edu)

## K 05 - Self-Management of Chronic Illnesses

### Self-Management in Chronic Illness: From Theory to the Practice

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*Fernanda S. Bastos, PhD, MsC, Portugal*

*Alice Brito, RN, McN, PhD, Portugal*

*Filipe Miguel Soares Pereira, RN, MD, PhD, Portugal*

#### Purpose

The purpose of this presentation is disseminating a tool built to identify the style of self-management as a contribution to more appropriate nursing interventions according to the vulnerability profile and promote the knowledge of the nursing theory of self-management, built in a empirical basis.

#### Target Audience

The target audience of this presentation is nursing researchers, nursing graduate and postgraduates nursing students.

#### Abstract

Chronic disease is responsible in the world, and particularly in Europe, for much of the mortality and morbidity, it is expected an increase of this scenario in the coming years. Often, chronic disease and its comorbidities, represent the cause of episodes of hospitalization for lack of disease control or its consequences. Intervention core to reduce health costs and promote quality of life is increase capacity for self-management in people with chronic illness.

The study issues on disease management and treatment regimen, as a self-care activities (self-management), assuming that the way the health/disease transition is experienced influences the way the adaptive processes move on, the development of mastery and a fluid identity, that incorporates the disease as part of the "self". In this context, we conceptualize "self-management style" as a synthesis of personality, attitudes and health behaviors.

**Purpose:** create an intervention model of self-management promotion in persons with chronic illness based on individual style and vulnerability profile.

The aim for this presentation is to disclose the development of the instrument to characterize self-management style.

**Methods:** The wider project is developed in three phases:

Phase 1 (ended) - Construction of an explanatory theory about self-management in chronic illness;

Phase 2 - Development of an instrument to characterize self-management style;

Phase 3 (in progress) - Construction and application of a model of intervention and follow up according the self-management style from each client and vulnerability profile.

Protocols with institutional partners were established for longitudinal study's, aiming to induce specific models of accomplishment according specific diseases and vulnerability profiles.

At this conference we propose to present the explanatory theory as the basis for construction of the tool for self-management lifestyle characterization and vulnerability profile of each client.

This instrument was pre-tested and four researchers evaluated each item for appropriateness, clarity and relevance. Suggestions for change was made, in special, about "how to put the question" on perspective of researcher and respondents. Finally a consensus version was obtained on a focus group, with seven experts.

**Results:** As self-management grounded theory identifies the categories, their properties and dimensions and, supporting by Nursing Outcomes Classification (NOC), the instrument had three different parts:

1. Identity traits and attitudes towards illness and treatment regimen questionnaire. This part of questionnaire had forty-five items, and identifies personal features and different ways of living with the disease.
2. Self-report perception of behavior towards the therapeutic regimen. Thirteen items indicate different behaviors related to the treatment of disease.
3. Self-management style characterization questionnaire in nurses perception. Fifteen items clarify different behaviors related to how each client manage his therapeutic regimen.

The scale ranges from 1 to 5 for strongly disagree to strongly agree.

**Conclusion:** This instrument is ready to be applied to contribute to greater positive discrimination based on personal characteristics and therefore the appropriateness of therapeutic nursing intensity and intentionality that allows them to be more significant for people with chronic disease. The instrument is being implemented expeditiously, taking on average about twenty minutes, is well accepted by customers and nurses. Suggests clinical application and known results suggest good internal consistency.

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### Contact

[fernandabastos@esenf.pt](mailto:fernandabastos@esenf.pt)

## K 05 - Self-Management of Chronic Illnesses

### Level and Predictors of Self-Care Behaviors (SCB) Among Educated and Uneducated Patients with Heart Failure (HF) in Pakistan

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*Ambreen Amirali Gowani, BSN, MSN, Pakistan*

#### Purpose

The purpose of this presentation is to share the information on self care from a developing country. so that in future, sustainable educational programs for the literacy challenged poor population can be developed and the burden of poor quality of life due to heart failure can be decreased.

#### Target Audience

The target audience of this presentation are cardiology nurses, student nurses, community nurses. all those health care providers who are related to the field of cardiology and research.

#### Abstract

**Purpose:** Self-care among heart failure patients is found to be affected by several factors including education as one of the most significant predictor. Prior studies on self-care, from western countries have revealed that higher the education better is the self-care. But the level of self-care and its predictors are yet unexplored in developing countries like Pakistan. Therefore, this study aimed to compare the level of self-care and its associated factors among educated and uneducated HF patients of a country which has lowest literacy rates.

**Methods:** 230 HF patients (115 educated and 115 uneducated) were recruited in the study. Their level of self care behaviors and its associated factors were assessed using European heart failure self-care behavior scale (EHFSCBs). via a cross sectional survey.

**Results:** The overall level of Self-care behavior was significantly higher among educated HF patients as compared to their uneducated counterparts ( $p=0.005$ ). However, income was significantly associated with better self-care among educated patients ( $p=0.001$ ) whereas, chronicity of HF diagnosis appeared as strong predictor of self care among the uneducated HF patients ( $p=0.024$ ).

**Conclusion:** The results of the study imply that continuous supportive-educative interventions by the health care providers may enhance the experiential learning and level of self-care among the uneducated population with heart failure.

#### Contact

[a\\_gowani@yahoo.com](mailto:a_gowani@yahoo.com)

## K 06 - Infection Control Through Global Research and Health Promotion

### A Preliminary Report on the Effectiveness of a Physical Anti-Microbial Dressing in Preventing Tenckhoff Catheter (TC) Exit Site Infection (ESI)

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Mee Ling Bonnie Tam, MSoSc, Hong Kong

#### Purpose

To explore the effectiveness of a nanotechnology anti-microbial dressing in preventing Tenckhoff Catheter (TC) Exit Site Infection (ESI) for the peritoneal dialysis patients.

#### Target Audience

The target audience of this presentation are the healthcare professional caring both hospital-based and community based peritoneal dialysis therapy patients.

#### Abstract

**Purpose:** According to the 'Peritoneal Dialysis (PD) First Policy', around 80% of renal dialysis patients are putting on different mode of PD therapy in Hong Kong.<sup>(1)</sup> For most patients receiving peritoneal dialysis (PD), there is evidence showing that their satisfaction and quality of life has been increasing.<sup>(2)</sup> However, the Tenckhoff Catheter (TC) can become a potential source of infection and peritonitis. If exit site infection (ESI) is not well managed it can lead to peritonitis or require removal of the TC<sup>(3)</sup>. Peritonitis is a well known cause of mortality in PD patients<sup>(4)</sup>. Consequently, suspending treatment due to access failure may affect patients' overall health status. The purpose of routine exit site care is to prevent ESI. There is a large volume of information focused on the prevention of ESI, with different approaches being proposed. The practice guidelines and protocols from institutions are varied and have not been adequately evaluated, although large volumes of data have been published on the prevention of ESI<sup>(5)</sup>.

Several recent trial studies showed that the application of JUC Physical antimicrobial Spray Dressing, has proven to be effective in prevention of lower urinary tract infection<sup>(6,7)</sup>, treatment of post-operative infection for oral cancer<sup>(8)</sup>, open wound treatment in emergency clinic (Shen & Li, 2006)<sup>(9,10)</sup> and managing radiation-induced acute skin reactions (Li, Lin, Cheng & Li, 2006)<sup>(10)</sup>. It is also an alternative to antibiotic treatment on wound management for patients with methicillin-resistant Staphylococcus aureus (MRSA) infection<sup>(11)</sup>. JUC spray dressing was developed in China in 2002 and registered as a dressing product by the United States Food and Drug Administration in 2006. It consists of 2% organosilicon quaternary ammonium salt and 98% distilled water, and is safe for application, even for contact with eyes and mucous membranes. The antimicrobial dual sided, nano-film forms a positively charged film that absorbs and neutralizes the negatively charged pathogenic microorganisms. The pathogenic micro-organisms are killed by the electrostatic force created between the positive and negative charges (Li et al, 2011)<sup>(12)</sup>.

Proper exit site care is of paramount importance in reducing TC associated infection and subsequent catheter loss. In current practice, patients having TC are usually advised to use the traditional antiseptic, 0.05% Gluconate Chlorhexidine in exit site care. In this study, JUC spray was applied to the TC exit site to compare the incidence of ESI with conventional care. In addition to ESI, the existence of skin allergy, catheter damage, and time spent on exit site dressing were examined.

**Methods:** The study was carried out through a randomized controlled trial. Seventy four patients were recruited from the renal unit of an acute regional hospital in Hong Kong with 1,700 beds. We reviewed patients whose TC had been in place for at least three months. To compute the sample size, we referred to Li's paper<sup>(11)</sup> on the effectiveness of JUC spray to prevent ventilator-associated pneumonia. To have 80% power, with 5% alpha, to detect a 27.9% reduction in incidence of bacterial colonization in pharyngeal cavity in experimental group as compare with control group, a sample size of 35 subjects for each group was required. Those patients who did not receive oral or external antibiotics and who had a TC in situ for at least three months were recruited sequentially. Patients presenting with signs and symptoms of exit site infection and poor healing of exit site were excluded. The same type of PD catheters was used for both groups of patients. A total of 78 patients were randomized into study or

comparison group using computer generated numbers. Baseline data were collected before randomization. The patients were not blind to the group assignment while the data collector was blind to group allocation. The study group patients used JUC spray dressing while the comparison group used 0.05% Chlorhexidine dressing daily for standard wound care. Skin tests with JUC spray and Chlorhexidine were carried out prior to intervention for both group patients. Coaching was provided by the nurses to ensure that the patients were able to perform the procedures correctly. The study team called the patients on the first three days and they were instructed to report any abnormalities they noticed to the nurses, such as signs and symptoms of infection, skin allergy, and damage of TC. They were treated with antibiotics if diagnosed for ESI and were continued with the study after treatment. Clinical efficacy was assessed for a period of six months after implementation of intervention. According to the study unit protocol, the presence of two out of three equivocal signs and symptoms of exit site infection were diagnosed as acute exit site infection, which included redness around the exit site, with 3-4 mm measurement from the edge and purulent discharge.<sup>(13)</sup>

**Results:** A total of 74 patients, with 37 from the study and comparison groups were included in the final analysis. The patients in the study group were significantly younger than the comparison group. Other demographic and clinical information, such as gender, presence of diabetes, abnormal albumin level, and previous history of ESI were examined and no significant difference was found between the two groups. See Table 1 for details. Table 1. Demographic Data and Clinical Characteristics of the Study Population (n=74)

	Study group (n=37)	Comparison group (n=37)	p-value
Age	56 (47.5 – 74)	72 (60 – 75.5)	*0.011
Duration of TC insertion (month)	25 (11 – 46)	17 (10.5 – 54.3)	0.94
Gender Male Female	18 (48.6%) 19 (51.4%)	14 (37.8%) 23 (62.2%)	0.348
Diabetes Yes No	10 (27%) 27 (73%)	14 (37.8%) 23 (62.2%)	0.321
Normal Albumin Yes No	14 (37.8%) 23 (62.2%)	21 (56.8%) 16 (43.2%)	0.103
Previous ESI Yes No	16 (43.2%) 21 (56.8%)	15 (40.5%) 22 (59.5%)	0.814

\*p<0.05

ESI developed in two patients (5.4%) in the study group and nine patients (24.3%) in the comparison group. The results was significant (p=0.022) for the two groups. Amongst the nine patients of the comparison group, ESI occurred twice during the six month period in two patients. No allergic reactions were reported for either group of patients. It was considered important to report whether the new treatment caused damage to the TC. One patient in the comparison group reported damage to the catheter as confirmed by the physician. Time spent on TC dressing was significantly shorter in the study group (median: two minutes) than in the comparison group (median: ten minutes). The study group patients were all satisfied with the new treatment. The cost for Chlorhexidine dressing was HK\$3.00 (equivalent to US\$0.38) per dressing, while the cost for JUC spray was HK\$0.5 per application. See Table 2 for results.

Table 2. Results at six months post-intervention

	Study group (n=37)	Comparison group (n=37)	p-value
Allergy No	37 (100%)	37 (100%)	----
Exit site infection Yes No	2 (5.4%) 35 (94.6%)	9 (24.3%) 30 (75.7%)	*0.022
TC damage Yes No	0 (0%) 37 (100%)	1 (2.7%) 36 (100%)	1
Time used for dressing (minutes)	2 (1 – 8)	10 (2 – 15)	*<0.001
Treatment cost (HK\$)	0.5	3.00	

\*p<0.05

Eleven samples were taken from the infected exit sites for bacteria analysis. Staphylococci, Diphtheroid bacillus, Pseudomonas and Streptococcus Salivalir were found mostly in the wounds of the comparison group. While Acinetobacter Species and the Pseudomonas species were found in the JUC group.

**Discussion :**Proper exit site care is of paramount importance to reducing TC-associated infections and subsequent catheter losses. Adequate immobilization of the catheter and daily exit site care are the significant issues to be investigated. Our study demonstrated that JUC spray can replace traditional disinfectants for exit site care as it does not cause adverse effects and can counter the problem of drug resistance. The results demonstrated that the incidence of ESI in the treatment group was significantly lower than that in the comparison group. Once JUC is sprayed on the skin surface, it dries almost instantly, thus reducing the time, effort, and discomfort of exit site care. Patients enjoy better quality of life, as daily exit site care is no longer a burden. However, our results on time savings need to be interpreted with caution as patients in the study group were significantly younger; and the younger patients may perform faster in daily activities than older patients, depending on the nature and severity of their respective conditions. Antibiotics resistance may be the result of extensive use of antibiotics for the end stage renal failure patients with compromised immune systems. The use of JUC spray can play an important role in exit site management for patients who may sensitive to Chlorhexidine and/or antibacterial agents. The use of JUC spray to replace traditional dressing materials and methods could reduce the financial burden on Hong Kong's health care system by reducing medication expenses.

**Conclusion:** TC is the life line of PD therapy patient. TC care at least daily is highly recommended and JUC spray is a safe, simple and sustainable (3S) dressing alternative to the traditional TC care. Further studies are required using a larger sample size to investigate and fully understand the applicability of JUC in exit site care in hospital renal units and the community setting.

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#### Contact

[bonnie.tam@polyu.edu.hk](mailto:bonnie.tam@polyu.edu.hk)

## K 06 - Infection Control Through Global Research and Health Promotion

### Successful Institution-Wide Sustained Reduction in Central Line Associated Bloodstream Infection (CLABSI) Using a Multidisciplinary Approach

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*Katherine Pakieser-Reed, PhD, RN, USA*

*Sylvia Garcia-Houchins, RN, MBA, USA*

*Megan Miller, MD, USA*

#### Purpose

The purpose of this presentation is to demonstrate the multidisciplinary team approach utilized across the continuum of patient care to reduce institution-wide CLABSI rates, and to share successful strategies used to maintain the low CLABSI rates initially achieved.

#### Target Audience

The target audience of this presentation is organizational nursing leaders, managers, and administrators in clinical practice, education, quality, and research, in addition to direct care provider nurses.

#### Abstract

**Purpose:** Central Line Associated Bloodstream Infection (CLABSI), a significant cause of morbidity and mortality in hospitalized patients, has been identified as a never event (CDC NHSN, 2013). The Centers for Medicare and Medicaid Services no longer reimburse for CLABSI-associated costs of care as an incentive to improve the quality of care and reduce healthcare costs (Kuhn, 2008). In countries with limited resources, rates of healthcare-associated infections including CLABSI are three to five times higher than those in the U.S., and CLABSI reduction has been identified as a priority for the International Nosocomial Infection Control Consortium (Rosenthal, Maki, & Graves, 2008). Many CLABSI prevention initiatives focus on sterile insertion technique and are limited to ICU settings or specific patient populations (Berenholtz et al., 2004; Southworth, Henman, Kinder, & Sell, 2012; McMullan et al., 2013). Despite initial efforts to reduce rates in ICUs and high-risk patients, CLABSIs continued to be an area of concern for our organization. In FY12, our goal was to reduce our institution-wide CLABSI rate by at least 10% through a multidisciplinary initiative that focused on the standardization of practices across the continuum of patient care. In FY13, our objective was to sustain low CLABSI rates via targeted education and reinforcement of successful clinical practices.

**Methods:** The CLABSI taskforce included leaders and staff from nursing, infection prevention, patient safety, supply chain, clinical documentation, and providers. Subjects were all hospitalized neonatal, pediatric, and adult patients with a CLABSI by the CDC definition between July 2011 and June 2013. CLABSI rates were calculated and communicated to each patient care unit on a monthly basis. In FY12, a "Scrub the Hub" protocol for accessing and maintaining central lines was taught via computer based training (CBT) and reinforced with 1:1 return demonstration for all registered nurses (RNs) from clinics, procedural areas, inpatient units, emergency departments, and home health services. The same protocol including CBT and return demonstration was added to monthly orientation for newly hired nurses across the institution. Custom-built standardized kits for central line insertion and dressing changes were adopted for each patient population and type of line. Providers were educated on proper line placement via CBT, followed by simulation validation for designated housestaff. The procedure for central line placement was modified to include both an "observer" and an "insertor", with sterile technique highlighted and audited. An electronic checklist tool requiring documentation by both the observer and insertor was implemented.

In FY13, monthly unit-specific CLABSI rates were reported across the medical center in adult and pediatric hospitals. Each CLABSI case underwent a collaborative quality review by representatives from infection prevention, nursing unit staff and managers, providers, and ancillary staff involved in central line maintenance. Specific gaps in care and opportunities for improvement were identified. These included targeted re-education for nursing staff on units with higher CLABSI rates and 1:1 return demonstration as needed to validate skills for accessing and maintaining central lines. Providers were encouraged to

reassess each patient's need for a central line daily and to remove central lines as soon as no longer required. The "Scrub the Hub" protocol was reviewed during annual nursing competency sessions for nursing staff and continued during monthly new hire orientation. CBT training on central line placement was required as part of orientation for all incoming housestaff in FY13 and monthly simulation validation sessions are ongoing.

**Results:** In FY12, 1452 RNs from all patient care areas across the institution completed the CBT and 1:1 return demonstration of skills for accessing and maintaining central lines. A total of 559 providers completed the CBT on proper central line placement, including 368 residents, 61 fellows, and 130 faculty members. Eighty-five housestaff (62 residents, 23 fellows) from the departments of medicine, surgery, emergency medicine, anesthesia, critical care, and pediatrics participated in the simulation validation sessions.

In FY13, multidisciplinary quality reviews were performed for all 26 CLABSI cases. Timely and unit-specific data improved the awareness of nursing staff and managers and renewed their responsibility for CLABSI prevention. Increased attendance and participation from all practitioners involved in each case helped identify actionable items, such as the need for re-education on standardized practices, improvements in documentation, and changes to local systems. During annual competency sessions in FY13, 698 nurses from medical-surgical and critical care units were re-validated on the on the "Scrub the Hub" protocol. In addition, 317 newly hired nurses underwent training with successful return demonstration. A total of 217 new housestaff completed the CBT on proper line placement as part of FY13 orientation, and 96 have participated in the simulation validation exercise.

Institution-wide CLABSI rates decreased from 1.06/1000 central line days in FY11 to 0.6/1000 central line days in FY12 ( $p = 0.01$ ). In FY13, the annual rate further decreased to 0.5/1000 central line days ( $p < 0.001$  compared to FY11). The CLABSI rate was reduced by 43% from FY11 to FY12 and an additional 17% from FY12 to FY13. The mean number of monthly CLABSI cases was 4.5 in FY11 (range 1-9), 2.6 in FY12 (range 1-8), and 2.2 in FY13 (range 0-5). Since the inception of our multidisciplinary team approach in July 2011, an overall reduction in CLABSI rates of greater than 50% has been achieved and sustained across the medical center in all patient populations.

**Conclusion:** Clinical education coupled with institution-wide standardization of procedures and supplies led to a statistically significant decrease in CLABSI from FY11 to FY12, reducing rates by 40% to surpass our initial goal. In contrast to other CLABSI prevention initiatives limited to the ICU setting, our multidisciplinary approach spanned all patient care areas in adult and pediatric hospitals. An early focus on uniform protocols for central line access and maintenance with education and return demonstration helped drive success. Readily accessible supply bundles for central line placement and dressing changes in all patient care areas streamlined workflows. Modifying the central line insertion procedure to include an observer empowered nursing staff to ensure proper sterile technique and improved communication with providers. Provider education and simulation validation on proper central line placement were critical to address gaps in knowledge and skills for housestaff.

In FY13, the communication of unit-specific data across the institution increased transparency regarding our CLABSI rates. Quality reviews of each case were instrumental in bringing all practitioners together to identify areas for improvement. Feedback informed interventions that generated clinical impact for specific nursing units and patient populations. Investment at the individual and unit levels was particularly valuable in preventing CLABSIs and sustaining low rates across the medical center. We learned that training for newly hired nurses and housestaff, while essential, must be supplemented with continuing education and validation to maintain skills for all practitioners involved in central line care.

Elements critical to the success of our institution-wide 50% reduction in CLABSI rates included the multidisciplinary team approach, standardization of supplies and practices, and support at every level of patient care and leadership. Our methodology could be readily adopted by other national and international organizations challenged with patient safety and quality improvement initiatives such as CLABSI reduction.

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#### Contact

[Katherine.Pakieser-Reed@uchospitals.edu](mailto:Katherine.Pakieser-Reed@uchospitals.edu)

## K 06 - Infection Control Through Global Research and Health Promotion

### Clean or Not to Clean: A Comparison of Urine Collection Techniques

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*Shu-Fang Su, MS, RN, Taiwan*

*Yueh-Yen Fang, PhD, RN, Taiwan*

*Wan-Wen Chiu, RN, Taiwan*

*Yao-Mei Chen, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to compare the accuracy of urine collection between clean-catch midstream technique and non-cleansing midstream technique in females.

#### Target Audience

The target audiences of this presentation are nurses, nurse managers, and nursing faculty.

#### Abstract

**Purpose:** The purpose of this study was to compare the validity of urine collection between clean-catch midstream technique and non-cleansing midstream technique in females.

**Methods:** Meta-analyses were conducted to compare urine contamination rates between samples collected from females by using clean-catch midstream technique (CCMS) and non-cleansing midstream technique (NCMS). Four English and one Chinese electronic databases were used to search literature up to June, 2013. MeSH terms 'urine specimen collection' and 'urine collection' were used to search published studies. References addressed in included studies were also screened. Studies that provided comparisons on urine sample contamination rates between NCMS and CCMS were included. To promote validity of data abstraction, data were extracted by two researchers independently. Disagreement on data abstraction was resolved by complete consensus between researchers. Study quality was evaluated by the Johns Hopkins Nursing Evidence-based Practice Quality Rating Scale. Data analysis was performed by using the random effect model.

**Results:** Six studies that provided seven comparisons were identified from 2812 citations. The total subjects involved were 1181 patients. Four studies were conducted in the United States, and two studies were conducted in the England. Two studies used a single group pre-post design; four studies applied a two group experimental design. Only two studies randomized study subjects into groups. Study qualities of included studies ranged from Ib to IIc. The result of meta-analysis on two studies with one group pre-post design suggested no difference in contamination rates of urine samples collected by either NCMS or CCMS techniques (OR=.962,  $p=.608$ ). The meta-analysis of four studies with two independent groups also presented a similar result (OR=.892,  $p=.638$ ).

**Conclusion:** The CCMS technique was recommended since early 1950s. It is also a practice standard recommended by many authorities. However, the CCMS requires a time-consuming instruction, and is frequently performed not correctly. It is also costly for supplies. This meta-analysis study suggested that results of current urine collection studies consistently supported no variation in validity between NCMS and CCMS techniques. Because of lower study quality of included studies, this study encouraged more high quality studies to be conducted before having the NCMS technique as the clinical practice guideline for urine collection.

#### Contact

[sushu1202@yahoo.com](mailto:sushu1202@yahoo.com)

## K 10 - Health Promotion in the Healthcare Industry

### Migraine Triggered Following Endoscopic Foreheadplasty Surgery

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Julia Lassegard, RN, CRNA, MS, USA

#### Purpose

to inform for the first time, women experiencing headache pain following endoscopic foreheadplasty surgery (EFS) meets migraine diagnosis criteria. EFS migraine is commonly experienced in women following EFS. Similar to migraine, those with EFS migraine experience deteriorating emotional and functional status postoperatively. Hormone replacement therapy influenced postoperative experience and incidence.

#### Target Audience

all research and clinical health care professional involved with patient assessment, evaluations, and pain management.

#### Abstract

**Purpose:** The purpose was to examine headache pain experienced by women following EFS, an extracranial surgical dissection involving the trigeminal nerve. Specifically, this study described: 1) intensity, location, quality, and duration of headache pain; 2) compare headache experience following EFS with migraine; 3) examine medication use and perceived relief; 4) to evaluate the relationship between headache pain and a) emotional status and b) functional status; and 5) to evaluate the effect of estrogen levels on headache for women following endoscopic foreheadplasty surgery (EFS).

**Methods:** Forty-two women (44-74 years of age) undergoing EFS were recruited from ten cosmetic surgeon private practice offices in three southern California counties. Four telephone interviews were conducted on postoperative days 1, 3, 7, and 30 using two questionnaires, the Acute Short-Form 12v2 and Headache Questionnaire.

**Results:** Most women experienced bilateral headache (97%), with the majority reporting severe to moderate pain (71%), which was not consistently relieved with prescriptive strategies. Most women 78% (N=33) experience pain with symptoms meeting International Headache Society Criteria for migraine or probable migraine for. Physical health scores were significantly below normal on postoperative days (POD) 1, 3 and 7 ( $p < 0.05$ ), and had recovered on POD 30. Mental health scores were below normal on postoperative days 1 and 3, returning to baseline by POD seven. These study findings present for the first time evidence that migraine can occur from extracranial events.

**Conclusion:** Women experience pain following EFS, which is usually similar to migraine. This similarity suggests that, for some patients, migraine preventives may benefit management of postoperative headache pain. With regards migraines outside of the context of EFS, these findings raise the possibility that some episodes are initiated by extracranial events activating the trigeminovascular system. This study also offers more evidence that HRTs and with a history of migraine both influenced headache episodes and characteristics. It would be of interest to explore if HRTs and history of migraine has influence on other medical conditions and surgical procedures with and without pain. The findings of major influences of HRT and migraine family history on pain experience suggest these factors may predict varying pain responses to other medical conditions or procedures. In summary, management of EFS patients postoperatively should address pain which may last for up to a month, and which may not be well controlled with standard medications.

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### Contact

[j.lassegard@ucla.edu](mailto:j.lassegard@ucla.edu)

## K 10 - Health Promotion in the Healthcare Industry

### Tobacco Smoke Pollution and Compliance Before and After Passage of a Comprehensive Statewide Smoke-Free Law

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*Kelly Buettner-Schmidt, PhD, RN, USA*

*Blake Boursaw, MS, BMS, USA*

*Marie L. Lobo, PhD, RN, FAAN, USA*

*Mark J. Travers, PhD, MS, USA*

#### Purpose

The purpose of this presentation is to disseminate results of an evaluation of a comprehensive statewide smoke-free law on tobacco smoke pollution in hospitality venues (n=65). A statistically significant reduction in pollution levels occurred; compliance with the law varied; results were also analyzed by rurality. Policy implications and recommendations are described.

#### Target Audience

The target audience of this presentation are nurses interested in policy development, implementation, and evaluation for health policies and behaviors influenced by policies.

#### Abstract

**Purpose:** The purpose of this study was to determine to what extent the passage of North Dakota's comprehensive statewide smoke-free law has influenced the quantity of tobacco smoke pollution in hospitality venues statewide.

**Methods:** This post-law study included selected pre-study venues that had been chosen by random sampling, a statistical best practice rarely used in studying indoor tobacco smoke pollution. The indoor air quality indicator of particulate matter 2.5  $\mu\text{m}$  aerodynamic diameter or smaller (PM<sub>2.5</sub>) was assessed in 65 restaurants and bars using a modification of Roswell Cancer Park Institute's protocols.

**Results:** A statistically significant 83% average reduction in tobacco smoke pollution levels occurred in hospitality venues studied after passage and implementation of North Dakota's comprehensive statewide smoke-free law. Compliance with North Dakota's new law varied. An analysis of tobacco smoke pollution levels from pre-law to post-law by rurality revealed statistically significant reductions in each of the rural categories. After passage of the comprehensive statewide smoke-free law, no statistical difference by rurality occurred. This was in contrast to the pre-law study. Additionally, compliance did not differ by rurality.

**Conclusion:** A policy implication is the objective support of the effectiveness of North Dakota's comprehensive statewide smoke-free law to dramatically decrease the levels of tobacco smoke pollution both in bars and restaurants. These decreases remained true across the levels of rurality. Although overall compliance with the comprehensive statewide law was varied it did not differ by level of rurality. A strong recommendation, based upon the low compliance rates with some of the new law's requirements, is to intensify education and enforcement efforts to increase compliance with the law. Ongoing assessment studies and enforcement similar to the Synar requirements to prevent tobacco sales to minors, are recommended to determine and increase compliance. A study of outdoor compliance should be repeated after sufficient time for education and enforcement has passed and with consideration of identifying seasonal differences. Future statewide studies within North Dakota should be conducted to determine continuing effectiveness of the law to protect the public against the dangers of exposure to tobacco smoke pollution.

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### Contact

[kelly.buettner-schmidt@minotstateu.edu](mailto:kelly.buettner-schmidt@minotstateu.edu)

## K 10 - Health Promotion in the Healthcare Industry

### The Role of Hypothalamic-Pituitary-Adrenal Axis Responsivity in Accumulative and Sustained Paclitaxel-Induced Mechanical Hypersensitivity in Male and Female Rats: A Three-Strain Comparison

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Sharon Kozachik, RN, MSN, PhD, USA

Gayle G. Page, RN, DNSc, USA

#### Purpose

The purpose of this presentation is to articulate the hypothalamic-pituitary-adrenal axis and sex differences that are implicated in the accumulative and sustained neuropathic pain consequences of paclitaxel therapy.

#### Target Audience

The target audience of this presentation includes nurse researchers and clinicians whose area of research/practice interest is oncology

#### Abstract

**Purpose:** The purpose of this presentation is to articulate the hypothalamic-pituitary-adrenal axis and sex differences that are implicated in the accumulative and sustained neuropathic pain consequences of paclitaxel therapy.

Cancer pain is a significant issue, reaching global proportions. Recognizing the enormity of cancer pain, the International Society for the Study of Pain named 2008-2009 the *Global Year Against Cancer Pain*. 1.6 million Americans were diagnosed with cancer in 2013 (American Cancer Society), many of whom underwent chemotherapy. Paclitaxel, a commonly prescribed chemotherapy for solid tumor and lymphoid cancers, is associated with a painful, dose-limiting neuropathy that can persist long after adjuvant therapy is completed (Dougherty et al., 2004; Marupudi et al., 2007). Approximately 20% of all patients undergoing a paclitaxel protocol require dose reductions of upwards to 25%; an additional 6% have premature cessation of treatment secondary to neuropathy and neuropathic pain (Mielke et al., 2003). Despite these alarming numbers, little is known about the risk and resilience factors in the precipitation and perpetuation of paclitaxel-induced neuropathic pain. The purpose of this study was to determine whether there were sex- or hypothalamic-pituitary-adrenal (HPA) axis responsivity differences in paclitaxel-induced mechanical hypersensitivity.

**Methods:** This reverse-translational, bedside to bench study employed 82 adult, male and female rats (n= 29 Sprague Dawley, n = 26 Lewis, n = 27 Fischer 344 [F344]). The in-bred F344 and Lewis rats were employed due to their HPA axis hyper- and hypo-responsivity, respectively (Sternberg et al., 1992). Rats were entered into the study at 14-16 weeks. Rats were maintained on a 12:12-hr light:dark cycle (lights on at 0800), in an environmental temperature of 23° C (+ 2°), with standard rat chow and water available ad libitum.

Baseline blood withdrawal per tail tip clip was performed during the latter half of the dark phase; no less than 48 hours later, rats were video recorded undergoing the novel stress apparatus Elevated Plus Maze (EPM) for 5 minutes. This testing was conducted during the latter half of the dark phase in a room illuminated with dim red lighting. At the conclusion of EPM testing, rats were returned to the vivarium. Post EPM blood withdrawal was conducted 30 minutes after removal from the EPM apparatus. All blood was collected in a heparinized tube, centrifuged, aliquoted and stored at -80o C. Corticosterone levels were measured in duplicate using corticosterone Enzyme Immunoassay kits from Enzo Life Sciences (Plymouth Meeting, PA).

von Frey Hair testing (VFH) was used to operationalize mechanical hypersensitivity. VFH filaments, also used to measure neuropathy in humans, are a series of small monofilaments of incrementally increasing bending force, ranging from 0.45 to 16.69 gms. The 8-middle VFH filaments were used in this study. Rats sat in small plexiboxes, atop wire mesh. The middle VFH was applied to the plantar hindpaw, between footpads, with force applied to bend it. If a brisk paw withdrawal resulted, the next lower VFH was applied

next; in the absence of response, the next higher VFH was applied. This resulted in 4-9 perturbations to each foot. 50% paw withdrawal threshold (PWT), the measure of mechanical hypersensitivity, was calculated according to the methods of Dixon (1980). To be eligible for study entry, rats had to exhibit bilateral 50% PWT of 10 grams. Rats underwent VFH testing daily throughout the protocol, during the latter half of the light phase.

Paclitaxel (Henry Schein) was diluted in 0.9% bacteriostatic saline, just prior to administration, to a concentration of 1 mg/kg; vehicle-injected rats were injected with 0.9% bacteriostatic saline. Rats were weighed on the evening prior to injections. Rats were injected every other day for 7 days (days 1, 3, 5, 7); the next 7 days (8 – 14) were drug free. Injections were completed before lights on. This 14-day cycle was repeated twice (days 15 – 28 and 29 – 42) to model a clinical chemotherapy protocol.

50% PWT data were log transformed to meet normality assumption. Two Repeated Measures ANOVA models were run: (1) to determine the accumulative (post 4, 8, and 12 mg/kg) effects of paclitaxel, in addition to sex and rat strain on mechanical hypersensitivity, and (2) to determine the sustained (7 days after 4, 8, and 12 mg/kg) effects of paclitaxel, in addition to sex and rat strain on mechanical hypersensitivity. Linear regression was run to determine whether HPA axis responsivity was a predictor of paclitaxel induced mechanical hypersensitivity.

This study was approved by the Johns Hopkins Animal Care and Use Committee, Protocol # RA08M267.

**Results:** There were no significant strain differences in baseline corticosterone level. Following the 5 minute novel stressor EPM, Lewis rats exhibited significantly reduced corticosterone response compared to F344 ( $p < 0.001$ ) and Sprague Dawley rats ( $p < 0.02$ ). Female rats exhibited significantly greater corticosterone response to stress ( $p < 0.05$ ). Neither baseline corticosterone, nor post-stress corticosterone levels significantly predicted 50% PWT.

The accumulative effects of PAC resulted in significant reductions in 50% PWT ( $F(1,80) = 50.77$ ,  $p < 0.001$ ) and there was a significant strain by drug interaction ( $F(2,79) = 4.75$ ,  $p < 0.05$ ), with Sprague Dawley rats demonstrating greater PAC-induced mechanical hypersensitivity than Lewis or F344 rats.

The sustained effects of PAC resulted in significant reductions in 50% PWT ( $F(1,80) = 9.53$ ,  $p < 0.01$ ), and there were significant interaction effects including sex by strain ( $F(2,79) = 3.34$ ,  $p < 0.05$ ), with Sprague Dawley male and Lewis female rats exhibiting significantly reduced 50% PWT compared to their strain counterparts; and strain by drug ( $F(2,79) = 7.35$ ,  $p < 0.01$ ), with PAC-injected Sprague Dawley rats (both sexes pooled) exhibiting significantly reduced 50% PWT compared to both in-bred rat strains. PAC-injected F344 rats did not exhibit sustained effects secondary to paclitaxel and exhibited 50% PWT that were not statistically different from their VEH-injected counterparts.

**Conclusions:** To our knowledge, this is the first rodent study of paclitaxel-induced mechanical hypersensitivity to employ a paclitaxel paradigm that modeled a clinical chemotherapy protocol that a person with cancer might undergo. Compared to baseline, PAC-injected rats exhibited significantly reduced 50% PWT at the completion of each active drug phase. Compared to the in-bred F344 and Lewis rats, known for their HPA axis hyper- and hypo-responsivity, respectively, the out-bred Sprague Dawley rats exhibited significant, sustained, adverse effects on 50% PWT that were maximized 7 days after receipt of 12 mg/kg cumulative. HPA axis responsivity was not a significant predictor of mechanical hypersensitivity. The a priori hypothesis was that female F344 rats would exhibit significantly greater PAC-induced mechanical hypersensitivity, but our data did not support this hypothesis. The F344 rats nearly returned to baseline 50% PWT levels during the recovery week of each paclitaxel cycle, demonstrating the ability to recover from the adverse effects of the paclitaxel. Work in other labs suggests that the F344 rat's hyper-responsive HPA axis with its resultant enhanced glucocorticoid and the influence of corticotrophin-releasing hormone on immune response may contribute to the resilience against certain types of pain (Webster et al., 2002), or possibly due to upregulation of brain-derived neurotrophic factor mRNA in the dorsal root ganglia (Herradon et al., 2007).

Paclitaxel receipt is associated with a painful and debilitating neuropathy that can begin early in treatment or weeks after treatment cessation, and it may last for many months. This painful and dose-limiting peripheral neuropathy can adversely affect a cancer patient's ability to perform activities of daily living, engage in usual roles, and ultimately worsen their quality of life (Bakitas, 2007; Bezjak et al., 2004). Nurses are well-positioned to educate patients and families on the early signs and symptoms of

paclitaxel-induced neuropathic pain, as well as assess patients at each chemotherapy appointment. As the prevalence of cancer survivors grows, it is imperative that we better understand the long term pain consequences conferred by paclitaxel therapy and learn the means through which paclitaxel-induced pain onset can be averted or delayed, and/or pain severity reduced. If these findings hold in humans, future research can be conducted to determine: (1) Mechanisms that may confer resilience against chemotherapy-induced neuropathic pain, and (2) Whether therapies targeted at altering HPA axis responsivity show promise in attenuating paclitaxel-induced neuropathic pain.

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## Contact

[skozach1@jhu.edu](mailto:skozach1@jhu.edu)

## **K 12 - Nursing Research to Improve Clinical Quality Strategies**

### **Which Clinical Supervision in Nursing Strategies Nurses Wish to be Implemented in Their Health Contexts?: Construction and Validation of an Questionnaire**

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*Inês Alves da Rocha e Silva Rocha, MS, RN, Portugal*

*Maria Margarida Reis dos Santos Ferreira, MS, RN, PhD, Portugal*

*Regina Maria Pires, MS, RN, Portugal*

## Purpose

To introduce and analyze the phenomenon of Clinical Supervision in Nursing in Portugal, through the application of the Questionnaire of Frequency Assessment of Clinical Supervision in Nursing Strategies that enables to identify the strategies that nurses wish to be more implemented in both hospital and primary health care settings.

## Target Audience

Nursing teachers and practitioners, since the supervisory process can be applied in the supervision of students (mentorship), induction to the profession (preceptorship) or professional supervision (clinical supervision in nursing).

## Abstract

**Purpose:** This research aims to improve the quality of care through the identification of clinical supervision in nursing strategies that nurses wish to be more implemented in the supervisory processes in use in the different contexts of health. With this study we intended to achieve the following objectives: build and validate an instrument to assess the frequency in which nurses wish the clinical supervision in

nursing strategies were implemented; identify the clinical supervision in nursing strategies nurses wish that were more often implemented in health services and identify the clinical supervision in nursing strategies nurses wish that were never implemented in health services.

**Methods:** This research is part of a quantitative paradigm and it is a comparative descriptive, exploratory and cross study. The non-probabilistic sample consists in 273 nurses of different wards and institutions in Portugal. Data were collected through the application of the Questionnaire of Frequency Assessment of Clinical Supervision in Nursing Strategies, from may to september of 2012, and the analysis was performed using descriptive and inferential statistics. During the development of this research, all ethical issues were taken into consideration.

**Results:** Nurses working in the health context report that the clinical supervision in nursing strategy they wish to be more implemented is observation (48,0%; n=131) and the reflective report is the strategy they wish to be less (4,8%; n=13). Nurses also said they wish the strategy support was more implemented in their health context (38,5%; n=105). The clinical supervision in nursing strategy that nurses more wish never to be implemented is the distance supervision by skype® (38,5%; n=105). On the contrary, feedback is the strategy that nurses wish less to never be implemented (1,1%; n= 3). In the hospital setting, observation is also the strategy that nurses wish to use more (46,3%; n=81) and the reflective report the strategy they wish to use less (4,6%; n=8). In this context, nurses wish the supervisory group sessions strategy was less implemented (12,0%; n=21) than individual supervision sessions (17,7%; n= 31). In the primary health care setting, observation is still the strategy nurses wish to be more implemented (51,5%; n=50) and the supervisory group sessions the strategy nurses wish to be less implemented (4,1%; n=4). If we compare the results obtained in the hospital setting with the primary health care setting, in one hand we can conclude that nurses from the primary health care setting wish feedback, reflective report and the three supervision at distance strategies were more implemented. On the other hand, nurses from the hospital setting wish case analysis with the supervisee, supervisory group sessions and case analysis in group strategies were more implemented. There are statistically significant differences ( $p < 0,05$ ) between primary health care and hospital nurses' desire to implement reflective report ( $U=7299,0$ ;  $p=0,044$ ), supervision at distance by phone ( $U=6957,0$ ;  $p=0,012$ ) and supervision at distance by email ( $U=6885,0$ ;  $p=0,008$ ) strategies: nurses from the primary health care want to use more those clinical supervision in nursing strategies than nurses who work at the hospital setting. The Cronbach alpha coefficient was calculated to assess the internal consistency of the Questionnaire of Frequency Assessment of Clinical Supervision in Nursing Strategies. Once all clinical supervision in nursing strategies obtained a Cronbach alpha value greater than 0.90, we may say that there is a good internal consistency of the instrument.

**Conclusion:** As conclusion of the study we highlight that the clinical supervision in nursing strategies that nurses wish to be more frequently implemented in health services are observation, demonstration and support. We may also conclude that there are statistically significant differences ( $p < 0,05$ ) in reflective report, supervision at distance by phone and supervision at distance by email strategies: nurses from the primary health care want to use more those clinical supervision in nursing strategies than nurses who work at the hospital setting. The Questionnaire of Frequency Assessment of Clinical Supervision in Nursing Strategies has reliability and content validity, therefore it can be used in the context of Mentorship, Preceptorship or Clinical Supervision in Nursing.

#### Contact

[inesarsrocha@gmail.com](mailto:inesarsrocha@gmail.com)

## K 12 - Nursing Research to Improve Clinical Quality Strategies

### Nursing Preparation of the Caregiver By Continuous Care Teams: Quality Indicators

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*Joana Isabel Vieira, RN, Portugal*

*Maria Margarida Reis dos Santos Ferreira, MS, RN, PhD, Portugal*

*Regina Maria Pires, MS, RN, Portugal*

#### Purpose

The purpose of this presentation is to disseminate the knowledge produced about the caregiver, contributing to the development of nursing

### Target Audience

Practice nurses, managers and academics in nursing

### Abstract

**Purpose:** The progressive aging of the population associated with the cumulative effect of declining fertility and mortality has resulted in increased life expectancy, along with an improvement in the health status of the population (Decreto-Lei, 2006). It is estimated that the population have become progressively more aging across the European Union (European Commission, 2010). According to data released by the National Statistics Institute (INE, 2011) regarding the 2011 Census of Portugal, for every 100 young people there are 131 elderly (65 years old and over), verifying an increase in the elderly dependency ratio of 25 to 30 per 100 people of working age. Appear linked growing dependence levels either by economic or social factors, whether by disease situations, increasingly a concern for the society to create a network of support that is responsive to the needs of citizens dependent of a third person. Although there is an improvement in the health status of our population over the last 40 years there has been a parallel increase in the prevalence of people with chronic and disabling diseases, so there are gaps at the national level (Portuguese national level ) in providing long-term care (Decreto-Lei, 2006).

Family was established as a privileged mean of supportive care to health and life of its members (Figueiredo, 2009). Nurses, especially those working in primary care, cause the nature of the relationship and proximity of the families may contribute to the improvement of the performance of the caregiver and subsequent lower levels of burden. Caregiver can be understood as "the one who assists in the identification, prevention, or treatment of illness or disability that meets the needs of a dependent" (Conselho Internacional de Enfermeiros, 2010, p.115). It is necessary to prepare the caregiver for his role and for the promotion and maintenance of the quality of life of both, the dependent person and the caregiver's own, so it is crucial the share of information, training and support provided to the caregiver (Guedes, 2011).

To meet these needs the Portuguese government has created the so-called Continuous Care Teams (ECCI). These "direct their multidisciplinary intervention to people experiencing functional dependence, terminal illness, or in process of recovery, with the social support network, whose condition does not require hospitalization" (UMCCI, 2011, p.10). Their mission also support the qualification of caregiving by family members or informal caregivers (UMCCI, 2011).

It has been difficult to objectively translate the contribution of nurses to the gains of their clients' health in the preparation of caregivers, since there is a lack of indicators of their professional practice (Petronilho, 2008). The supervisory dynamics have been proving to be a key factor in the improvement of the quality of care provided by nurses, so that in recent decades have been argued about the relevance of the implementation of policies to promote and improve the quality of professional practice, involving the clinical supervision in nursing as a process that contributes to this goal, governed for this purpose by quality indicators of the clinical practice.

This study comes as part of a project entitled *Design of a program of clinical supervision in nursing in the context of primary health care*, aiming to provide an input to the construction of a program of clinical supervision in nursing, through the identification of quality indicators of professional practice in the preparation of the caregiver in the primary health care area.

**Methods:** The paradigm of research is grounded in qualitative perspective, having a descriptive cross-sectional nature. The study population are the nurses of the ECCI 's Cluster Health Centers of the Alto Tâmega and Barroso, and the participants were selected through a process of non-probability sampling of convenience .

Data were collected through a focus group interview addressing the areas of the preparation of the caregiver, quality indicators and nursing clinical supervision, and lasted about two hours. We used the audio recording as a resource for the documentation of the data collected, with the permission of the participants in the written informed consent model. After transcription of the recorded data, we proceeded to its analysis, through content analysis according to Bardin (2009). From the data analysis emerged

around 32 indicators, such as effectiveness in the diagnostic of risk of caregiver's stress; gains expressed in support perceived by the informal caregiver; gains in knowledge of the caregiver about the treatment management; gains in learning skills of the caregiver to manage the treatment, among others.

In order to respect the ethical principles for conducting this research was requested and obtained the favorable opinion of the National Commission for Data Protection, the Ethics Committee for Health of the North Regional Health Authority, and also by Executive Director and Nurse Supervisor at Cluster Health Centers Alto Tâmega and Barroso.

**Results:** After completion of the study it was found that there are still many reserves on the use of quality indicators in nursing, and especially many uncertainties with regard to the implementation of nursing clinical supervision programs. It is safeguarded the importance that the indicators have been assuming in everyday health organizations, however, the results obtained from their use, and method of application are dubious for participants. Nevertheless, several indicators were considered essential by participants in the preparation of caregivers. These indicators are based primarily on gains in knowledge and learning skills of the caregiver in various areas relating to the care of the dependent person and the preparation of the caregiver to the performance of his role, as well as indicators related to the caregiver's stress. It is noteworthy that the main emphasis is attributed to the involvement and satisfaction of the caregiver, being considered by participants as key areas that should be identified as indicators in their clinical practice.

**Conclusion:** With the identification of these indicators we are intended to provide guidance for the work performed by nurses in preparation of the caregiver in ECCI's, in order to highlight the work done by such units with customers, respective families and caregivers, translating it into gains in health and in clarification to the contribution of nurses to the health of their customers.

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#### Contact

[joanairvieira@gmail.com](mailto:joanairvieira@gmail.com)

## L 03 - Global Care of the Dialysis Patient

### Living with End-Stage Renal Disease: Perceived Impact of Treatment in a Mexican Hemodialysis Clinic

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*Luxana Reynaga-Ornelas, PhD, MSN, RN, Mexico*

*Carol M. Baldwin, PhD, RN, AHN-BC, FAAN, USA*

*Christian Rodríguez-Pérez, RN, Mexico*

*Midhael Todd, PhD, USA*

*Karla Susana Vera-Delgado, MS, RN, Mexico*

#### Purpose

The purpose of this presentation is to describe how persons with end-stage renal disease in Mexico perceive their quality of life and health status while depending on the hemodialysis treatment to live. Results encourage nursing strategies based on evidence to improve their health-related quality of life.

#### Target Audience

The target audience of this presentation is nurses from all over the world who work with patients with chronic diseases and/or end of life issues and are engaged in the holistic perspective in nursing practice.

#### Abstract

**Purpose:** End-stage renal disease (ESRD) has great impact in patients' health-related quality of life (HR-QOL), which is globally considered as a reliable measure of health outcome. In Mexico, the prevalence of type 2 diabetes, the leading cause of ESRD, is 14.4%; it is predicted that 18% of the adult population in Mexico will have type 2 diabetes by 2025. In 2006, Mexico reported the prevalence and incidence rates of ESRD of 510.4 and 345.9 per million population, respectively. The lack of a formal national registry system in Mexico, however, could result in underestimation of these rates.

**Methods:** Sixty-nine Mexican patients attending a hemodialysis clinic in Central Mexico were interviewed about their HR-QOL and disease impact in their daily lives based on the MEI adaptation of ENH's Spanish KDQOL 1.3 version (Benjamin Arnold). The KDQOL-SF assesses the functioning and well-being of people with kidney disease and on dialysis. It consists of 80 items divided into 19 dimensions: SF-36 (8 dimensions/36 items; 1 health transition item), kidney-disease-targeted items (11 dimensions/43 items). Scores presented are the Physical Component Summary (PCS), the Mental Component Summary (MCS), the health transition item and the 11 kidney-disease-targeted. The scores range from 0 to 100, with higher scores reflecting better HR-QOL. Data were analyzed using SPSS software (V21).

**Results:** Demographic data showed participants to be 43 ±19 years old, female (64%), married (49%), 5.±3 years of education, without monthly salary (40%), with health insurance (91%). Predominant comorbidity was diabetes (27%) and they attend to the clinic mostly mornings (45%) and evenings (43%), two-three (36%-62%) times a week, from three to four hours connected to the hemodialysis machine (96%) ; vascular access were a catheter (55%) and arterio-venous fistula (45%) installed less than a year (43%) or two (36%) ago. Forty-six percent of them reported at least one hospitalization during the last year from 1-3 days (43%); 71% referred to take hypertensive medications.

Low scores showed impairment in both physical and mental dimensions (PCS=439.9±10, MCS=40.3±8), as well as when questioned about health status compared with last year (26±33). Work status (36±37), burden of kidney disease (39±34), quality of social interaction (49±15) and effects of kidney disease on daily life (59±20) were found to be the most affected dimensions of HR-QOL for this population. Interestingly, dialysis staff encouragement (88±22) and social support (85±24) were the best scored dimensions in contrast with the health status reported in PCS and MCS scores. Factors related to this phenomena in PCS were years of education (p<0.01), marital status (p<0.05), comorbidity (p<0.01) and age (p<0.001). Factors related with MCS scores were marital status (p<0.01), hospitalization (p<0.01), antihypertensive medication (p<0.05). The health transition item was related with factors as insurance (p<0.05), comorbidity (p<0.01) and hospitalization (p<0.05).

**Conclusion:** In this population, there is a high impact of disease and treatment on HR-QOL of persons with ESRD treated with hemodialysis. It is imperative to structure evidence-based and holistic-oriented health care strategies based in order to address best health outcomes.

Contact

[luxanar@gmail.com](mailto:luxanar@gmail.com)

## L 03 - Global Care of the Dialysis Patient

### Age Difference in Adherence to a Renal Therapeutic Regimen: The Perspectives of Chinese Patients Undergoing Continuous Ambulatory Peritoneal Dialysis

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*Lai Wah Lam, RN, BN, MPhil, PhD, Hong Kong*

#### Purpose

The purpose of this presentation is to share with healthcare professionals the age difference in adherence to a renal therapeutic regimen so as to facilitate them to support patients with different age groups to live with the chronicity of end-stage renal disease and its related treatment.

#### Target Audience

The target audience of this presentation is healthcare professionals taking care of patients with chronic illnesses, particularly those looking after patients with end-stage renal disease and undergoing continuous ambulatory peritoneal dialysis.

#### Abstract

**Purpose:** Patients suffering from end-stage renal disease (ESRD) have to rely on renal replacement therapy (RRT) to sustain life. Due to global shortage of donor organs (Baid-Agrawal & Frei, 2007), all new patients requiring RRT are prescribed continuous ambulatory peritoneal dialysis (CAPD) in Hong Kong unless this is contraindicated (Li & Szeto 2008). It is generally believed that successful management of ESRD and its related treatment depends on patients' continuous adherence to the four components of the renal therapeutic regimen, which include dietary and fluid restrictions, and medication and dialysis prescriptions (Denhaerynck et al., 2007). As such, studies have been conducted to investigate patients' adherence rates to different components of the renal therapeutic regimen and factors associate with their adherence. In addition to the various adherence rates reported, younger patients are persistently found to be more non-adherent than older patients (Kara et al., 2007; Kugler et al., 2005; Lam et al., 2010). Due to the study design, patients were not asked to provide explanations for their adherence. This study aimed to identify age difference in adherence to a renal therapeutic regimen from the perspectives of Chinese patients undergoing CAPD.

**Methods:** A qualitative exploratory design was employed. Purposive sampling was used to recruit participants from a renal unit of an acute hospital in Hong Kong. The inclusion criteria were adult patients who were performing home CAPD independently. Thirty-six participants of different genders (18 male participants), ages (35–76 years), and lengths of dialysis experiences (11–103 months) were recruited. Semi-structured one-to-one interviews were conducted using an interview guide. Examples of the interview questions are: "After the commencement of CAPD, what changes have taken place in your daily living?" and "How do you feel about having to adhere to all the advice that you have been given?" The interviews were conducted in individual participant's home with each lasted for 40 to 80 minutes. Content analysis was employed to analyse the transcribed data. Data collection and analysis were conducted simultaneously. Subgroup analysis was carried out to identify age difference in adherence to the therapeutic regimen. The 36 participants were categorised into 2 groups, with age below 60 as the younger group and age equal to or above 60 as the older group. There were 21 and 15 participants in the younger and older groups, respectively. Findings from both groups were compared to identify similarities and differences.

**Results:** Participants in both groups unanimously described how they sacrificed their freedom to struggle to live with strict adherence, particularly in the first few months of dialysis. Participants in the younger group expressed more intense feelings about "disruption of social life" after the commencement of dialysis and "the need for permanent strict adherence". Being fixed up by the dialysis schedules, younger participants complained about the inability to maintain their previous lifestyles, such as joining social gathering with friends and travelling aboard. Although the majority of these participants' primary hope for the future was to receive a kidney transplant, they also realised that the chance was very slim. Anticipating that they had to undergo long-term dialysis, the younger participants kept saying that permanent strict adherence was impossible. Most of them perceived life as boring and expressed that

they seemed to live for doing dialysis. Despite realising the need for long-term strict adherence, younger participants provided more justifications for “adopting an easy-going approach to adherence” and “modifying their treatment regimen more readily”. Participants in the older group were comparatively more concerned about maintaining their stable health condition to avoid becoming ill. Several older participants repeatedly claimed that longevity was not their priority and they were not afraid of death. Instead, their major concern was not to suffer from a prolonged process of death and become a burden to their family. Therefore, they were more willing to endure hardship in order to adhere to instructions to prevent complications.

**Conclusion:** This is the first study to explain from patients’ perspectives the reasons why younger patients are more non-adherent to the renal therapeutic regimen than older patients. The participants’ journey of learning to live with adherence was full of thorns and obstacles. To adopt strict adherence, regardless of patients’ age, they have to make radical changes to their former lifestyles and endure hardship (Lam et al., in press). The traditional Chinese culture of submission to authority might have caused the older participants to conform more readily (Bond, 1991). On the contrary, participants in the younger group were more concerned about the restrictions imposed on them and attempted to regain their normality. After receiving dialysis for several months, participants in both groups started to adopt an easy-going approach of various degrees to adherence by trial and error. To facilitate patients to come to terms with the extensive lifestyle limitations imposed by the disease, additional professional support is needed, particularly in the initial stage of dialysis. While devising guidelines for patients to adhere, healthcare professionals have to take into consideration individual patients’ personal needs, lifestyles and goals for care. Allowing some flexibility in the regimen enables patients to participate in their former social activities. Helping them integrate the therapeutic regimen into their daily living facilitate them to live with the disease with greater ease.

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#### Contact

[lwlam@cuhk.edu.hk](mailto:lwlam@cuhk.edu.hk)

## L 03 - Global Care of the Dialysis Patient

### Outcomes of a Nurse-Led Case Management Program on Home Exercise Training for Hemodialysis Patients

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*Xingjuan Tao, MSc, RN, China*

*Susan Ka Yee Chow, RN, BN, MPH, PhD, China*

*Frances Kam Yuet Wong, RN, BSc, MA, PhD, China*

#### Purpose

The purpose of this presentation is to report the outcomes of a nurse-led case management program on home exercise training for hemodialysis patients.

#### Target Audience

The target audience of this presentation is clinical nurses and researchers who are interested in designing and implementing case management program or exercise program for patients with chronic diseases.

#### Abstract

**Purpose:** The purpose of this study was to examine the effects of a 12-week nurse-led case management program on home exercise training for maintenance hemodialysis patients. The interventions aimed at increasing physical function, improving patients' perceived exercise benefits, removing perceived exercise barriers, enhancing health-related quality of life, and relieving depressive symptom for the patients.

**Methods:** The study was a two-group randomized, controlled trial. Ninety participants were recruited from the hemodialysis units of two tertiary hospitals in Nanjing, China in 2013. They were randomly assigned to either study group (n = 45) or comparison group (n = 45). Participants in both groups received the in-center exercise training (20 minutes) before hemodialysis sessions weekly for 6 weeks and were instructed to perform exercise at home. The in-center training was conducted by the researcher with a group of four to six participants focusing on flexibility and strengthening exercise only. Patients were encouraged to have cardiovascular exercises at home which will improve their cardiovascular conditions and endurance. The list of cardiovascular exercise included brisk walking, bicycling, jogging. Participants in the study group were instructed to start walking or brisk walking at low duration and gradually progress to a maximum of 30 minutes daily per week. To facilitate exercise progression, the nurse case managers discussed exercise benefits, explored exercise barriers and developed mutual goals with patients. The nurse will motivate them and check the exercise behaviors to ensure adherence to the recommended exercise regime. The nurse case managers interviewed the study group patients weekly for six weeks and biweekly for another six weeks. Participants in the comparison group only participated in the in-center exercise training. The control group patients received usual care from the nurse without the interviews and mutual goals developed. Gait speed (both normal gait speed and fast gait speed), 10-repetition sit-to-stand (10-STS), health-related quality of life, perceived exercise benefits and barriers, and depressive symptom were measured at baseline, 6- and 12-week. Data were analyzed by the two-way repeated-measures ANOVA with an intention-to-treat analysis. Missing values were replaced by the last observed values from the same participants.

**Results:** For fast gait speed test, Repeated-measures ANOVA showed a significant difference between groups across the three time points ( $F=4.79$ ,  $p=0.031$ ). For 10-STS performance, significant within-group effect ( $F=21.91$ ,  $p=0.000$ ) was observed for both groups. For health-related quality of life, a significant difference was found between the groups in the subscale for Symptoms of Kidney Disease ( $F=5.60$ ,  $p=0.020$ ), and significant within-group differences were noted from the study group in the subscale for Burden of Kidney Disease ( $F=3.51$ ,  $p=0.041$ ) and Mental Component Summary ( $F=3.37$ ,  $p=0.037$ ). There were significant within-group differences in the perceived benefits and perceived barriers scores ( $F=15.55$ ,  $p=0.000$ ;  $F=13.79$ ,  $p=0.000$ , respectively), and both the study group and comparison groups seemed to improve over time; while no significant difference for the between-group effects. The scores for

Depressive symptom decreased for both groups, there were no significant differences for between and within group effects. No injuries were observed during the program.

**Conclusion:** The findings reinforce the notion that exercise is safe and beneficial for hemodialysis patients. The structured 12-week nurse-led case management program on home exercise training is practical and effective to improve the physical function and health-related quality of life of the patients.

Contact

[tao.xingjuan@connect.polyu.hk](mailto:tao.xingjuan@connect.polyu.hk)

## L 04 - Health Promotion and Prevention for the Obese Patient Population

### Comparison of Family Eating Habits and Activity Practices Among Blacks, Hispanics, and Filipinos: Implications for Prevention and Control of Overweight and Obesity

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Luz S. Porter, PhD, MSN, BSN, ARNP, FAAN, FAANP, USA

#### Purpose

The purpose of this study is to compare and analyze family eating habits and physical activity practices among Filipinos, Blacks, and Hispanics to provide a comprehensive database for development of culturally sensitive public health education programs, and raise public awareness of the increasing prevalence of obesity in the global community.

#### Target Audience

The target audience of this presentation are nurses, nurse practitioners, nursing educators, public health educators, school health educators, nursing students. and family physicians.

#### Abstract

**Purpose:** The purpose of this study is to compare and analyze the eating habits and physical activity practices among Filipino, Black, and Hispanic families. Overweight and obesity among children and adults is well-documented as an escalating problem. Concern about this rise centers on the link between obesity and increased health risks that translate into increased medical care and costs. Preventing childhood obesity is a national priority. Findings of earlier studies point to the interplay between/among personal attributes and environmental factors in development of overweight and obesity in childhood and adolescence.

**Methods:** This descriptive study was conducted on a sample of 78 mother-child dyads, comprised of 22% Black, 50% Hispanic, and 16% Filipinos, aged 7- 17 years (children) and 24-55 years (mothers). The data, collected via self-administered questionnaires and guided interview (Family Eating and Activity Habits Questionnaire and Background Information Questionnaire), were analyzed via descriptive and inferential statistics (t-tests, ANOVA, linear regression). Findings significant at  $p < .05$  are interpreted as statistically significant; findings falling between  $p = .05$  and  $p = .10$  are interpreted as showing trends.

**Results:** Findings revealed differences in eating and activity practices between Blacks and Hispanics or Filipinos. There was an inverse correlation between the mothers' or children's weight and activity level. Overweight mothers tend to have overweight children. Mother-child dyads were similar in eating pace. The 3 ethnic groups spend most of their physical activity time in TV viewing and computer usage.

**Conclusion:** Research findings may raise public awareness of the increasing prevalence and consequences of overweight and obesity in mothers and children, particularly among Hispanics and Blacks. Study findings provide a database for nurse practitioners and other health service providers for the development of culturally sensitive, focused public health education programs.

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Contact

[luzporter@comcast.net](mailto:luzporter@comcast.net)

## L 04 - Health Promotion and Prevention for the Obese Patient Population

### The Association of Inflammation with Obesity and Depressive Symptoms Among People with Multiple Cardiovascular Disease Risk Factors

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*Kyoung Suk Lee, PhD, RN, MPH, USA*  
*Debra K. Moser, DNSc, RN, FAAN, USA*  
*Terry A. Lennie, PhD, RN, FAHA, FAAN, USA*  
*Gia Mudd-Martin, PhD, MPH, RN, USA*  
*John M. Novak, BDS, LDS, MS, PhD, USA*  
*Baretta R. Casey, MD, MPH, FAAFP, USA*  
*Alison L. B. Ailey, MD, USA*

#### Purpose

The purpose of this presentation is to examine combined effects of obesity and depression on the inflammatory marker in people with multiple Cardiovascular disease risk factors

#### Target Audience

The target audience of this presentation is practitioners and researchers.

#### Abstract

**Purpose:** Obesity and depression are associated with inflammation. Inflammation is a biological mechanism underlying cardiovascular disease (CVD). Obese people with depression may be at a greater risk for CVD due to increased inflammation, compared to obese people without depression or non-obese people with depression. However, potential combined effects of obesity and depression on inflammation have not been investigated. The purpose of this study was to examine combined effects of obesity and depression on the inflammatory marker, high sensitivity C-reactive protein (hs-CRP), in people with multiple CVD risk factors.

**Methods:** A total of 859 people (52 yrs, 75% female) provided blood for serum hs-CRP and had height and weight measured for body mass index (BMI=kg/m<sup>2</sup>). The Patient Health Questionnaire-9 (PHQ-9) was used to measure depressive symptoms. Hierarchical regression was used to examine whether the interaction of BMI and depressive symptoms (BMI\*PHQ-9) predicted hs-CRP levels after controlling for covariates (age, gender, HbA1C, and smoking history). In Step 1, covariates and depressive symptoms were entered, followed by BMI in Step 2. In Step3, the interaction of BMI and PHQ-9 scores (BMI\*PHQ-9) was added.

**Results:** In Step 1, PHQ-9 scores independently predicted hs-CRP levels. In Step 2, BMI, but not PHQ-9 scores, independently predicted hs-CRP levels. In Step 3, there was no BMI\* PHQ-9 interaction; only BMI predicted hs-CRP levels (Table).

**Conclusions:** In the company of obesity, depressive symptoms do not significantly contribute to increased inflammation in people with multiple CVD risk factors. This study suggests that obesity is more strongly linked with inflammatory processes relevant to cardiovascular risk than depressive symptoms in this population.

**Table. Predictors of hs-CRP (N=859)**

Outcome= hs-CRP(log-transformed)			
Step 3	Unstandardized $\beta$	standardized $\beta$	p-value
PHQ-9 scores (depressive symptoms)	.03	.97	.33
Body mass index (BMI)	.06	8.50	<.001

BMI * PHQ-9 scores	-.001	-.10	.46
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**Note.** Covariates included in the model (Step 3): age, gender, HbA1C, and smoking history

Contact

[kslee4@wisc.edu](mailto:kslee4@wisc.edu)

## L 04 - Health Promotion and Prevention for the Obese Patient Population

### Nurses' Commitment and Motivation to Improved Personal Health: The Role of Hospital Administration

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Carey Marie Phelan, BA, USA

#### Purpose

The purpose of this presentation is to convey the most effective interventions that employers could institute to motivate nurses to increase their physical health status, particularly in three major facets: decrease BMI, increase physical exercise and eat healthier, more nutritious foods. Increased health of nurses would impact entire healthcare systems.

#### Target Audience

The target audience of this presentation is anyone involved with the implementation of healthcare; particularly administrators and policy makers will benefit from the study as well as nurses looking to make a difference in their institutions.

#### Abstract

**Purpose:** As nurses comprise the largest sect of the healthcare industry, their health affects the overall effectiveness of health systems. Nurses are highly educated, yet, for many there is a disconnect between knowledge and the status of their physical health. Thus, it is important to investigate what could motivate nurses to improve their health, particularly in three major facets: decrease BMI, increase physical exercise and eat healthier. The purpose of the research is to ascertain the most effective interventions that employers could institute to motivate nurses to increase their physical health. Currently, there is a drastic lack of knowledge related to how nurses are motivated. This research will bridge the gap between intrinsic motivation and extrinsic interventions.

**Methods:** The study was a mixed design, containing both quantitative and qualitative data. Subjects read and signed a consent form, then completed a demographics questionnaire. Specific questions on the demographics sheet included: how much physical exercise they participate in, if weight loss was a goal for them and if they believed that their diet was healthy. The 139 participants were all nurses and lived in the Northwest region of the United States at participating facilities.

Subjects were given a case study generated by the researcher. The case study involved Nurse X and how Nurse X had gained weight and had become less active. Nurse X subsequently decided that she/he wanted to improve their health status. The participants were asked to transpose themselves as Nurse X and rate (on a Likert Scale) which of the given scenarios would best motivate and gain their commitment to increase their health status. The scenarios ranged from employers offering more healthy food choices to reductions in health insurance premiums for improved health.

Furthermore, the subjects also responded to the following three open-ended questions: 1) name three factors that have impeded you from obtaining your optimal health, 2) describe three interventions that employers could provide to help you improve your health, 3) what additional thoughts do you have about achieving optimal health.

A partition was set up to guarantee the anonymity of the subjects taking the survey. Next to the partition were two sealed drop boxes; one for the signed consent forms and one for the subject's surveys; materials were set up in break-rooms. There was no direct participant contact. The survey and demographics tool were used in a pilot study to test the validity and the accuracy of the tool.

**Results:** Data presented represents results from 139 surveys collected over a five month time period. The majority of subjects were female (84.0%). For 53.9% of the respondents, weight loss was a goal. The majority (78.4%) responded that their diet was healthy and nutritious. Quantitative data is displayed in Table 1.

Table 1. *Kruskal-Wallis non-parametric statistical test*

Intervention	Response to intervention	H Value	Degrees of Freedom	Number	Probability	Mean		
						Ranks	Overweight	Obese
Facility offering healthier food choices	Motivation	H= 7.72	df= 2	136	P= 0.0211*	58.0	87.1	70.3
	Commitment	H= 4.22	df= 2	137	P= 0.1212	65.0	85.3	66.7
Onsite workout facilities	Motivation	H= 5.35	df= 2	137	P= 0.0689	60.2	84.6	69.7
	Commitment	H= 0.80	df= 2	137	P= 0.6703	64.8	68.5	71.6
Group weight loss program	Motivation	H= 25.95	df= 2	137	P=0.0001*	63.8	109.5	60.5
	Commitment	H= 25.59	df= 2	137	P< 0.0001*	62.7	109.3	61.2
Decreased health insurance premiums	Motivation	H=29.23	df= 2	137	P< 0.0001*	80.6	101.0	53.0
	Commitment	H= 19.97	df= 2	137	P< 0.0001*	74.1	99.9	57.1
Cash for losing percentage of body fat	Motivation	H= 1.37	df= 2	137	P= 0.5143	74.6	68.8	65.8
	Commitment	H= 1.42	df= 2	137	P= 0.4916	74.1	71.4	65.3
Paid an hourly wage to work out	Motivation	H= .57	df= 2	133	P= 0.7520	70.2	68.8	64.7
	Commitment	H= .49	df= 2	133	P= 0.7827	69.9	68.7	64.9

Note. H Value = The Kruskal-Wallis Test. P-value of 0.05 or less was selected as statistically significant, depicted using an asterisk (\*).

Six qualitative themes emerged in response to the open-ended questions:

- Theme I: Lack of Time -- Nurses described a lack of time both on the job and at home as barriers to their optimal physical health status. Examples of this included: "There are only 24 hours in a day and I already have too much on my plate." "I cannot even find time in the day to use the bathroom, let alone take a break. I am still on orientation, so I hope it doesn't last too much longer like this or I will die." This poignant depiction of this nurse schedule was mirrored by several other subjects.
- Theme II: Twelve Hour Work Schedules and Lack of Breaks Affect the Quality of Life -- Thirty-eight percent of subjects described the twelve hour shifts as barriers to their optimal health in addition to the issues with contractual break allowances. Nurses overwhelmingly described that breaks were not restful, but, in fact were just an opportunity to catch up on tasks. The dichotomy between patient safety and the health of the nurse was a common thread woven into this theme.
- Theme III: Physical Demands of Nursing -- Respondents described the emotional and physical demands of the nursing profession. Examples of this included: "I give everything to my patients, by the time that I can go home, I am mentally and physically drained." Subjects also described physical pain caused by nursing.
- Theme IV: Lack of a Supportive Work Environment -- Forty-two percent of nurses commented on what they believed was both a lack of support from their employer as well as employer created obstacles to optimal health. "Hospitals in general only care about the bottom line, they do not see the benefit of prevention." Nurses reported the hypocrisy of teaching patients about prevention and health promotion when the institution that they work for does not champion or sponsor employee health.
- Theme V: Personal Accountability -- Subjects acknowledged their own roles in obtaining and maintaining optimal health. Respondents described either not caring about health, committing sabotaging behaviors, or poor self-control. Nurses used eating to mitigate hard days at work, "I comfort myself with food." An obese nurse responded that, "I am apathetic to being a bit overweight."
- Theme VI: Being Overweight is a Benefit to the Nursing Profession -- Qualitative findings were segmented into three groups as a function of BMI (normal, overweight and obese). No significant qualitative differences were found between the overweight and the normal weight groups. However, responses from the obese group were thematically distinctive. Several nurses within the obese category responded that being overweight helped them to be better nurses, "my weight doesn't affect my nursing, I am healthy," and the idea that, "if I did not have some extra weight, I could never do this job." In addition to nurses feeling that being overweight did not interfere with their ability to

deliver effective patient care, several respondents noted that they felt as if being obese was important for communication and the nursing process. One indicated that, "I think that having a few extra pounds makes me more approachable than the 'skinny nurses'." Commonly, nurses explained that being overweight was a bonus and almost a necessity to provide exceptional nursing care. A morbidly obese nurse responded that, "My weight doesn't affect my nursing, I am healthy." 24.0% of the respondents in the obese category responded that they believed they were healthy.

**Conclusion:** If an employer was to institute a health promotion intervention, this research would help to guide them to design the most effective strategies. The two ways that this study could guide an administration are to supply the most effective intervention as indicated by self-reported levels of commitment and motivation as well as to help employers focus their attention on a specific weight group (i.e. overweight). The most effective interventions for all three weight groups were related to financial incentives; this included a decrease in insurance premiums, a cash incentive for a percentage of weight loss as well as paid time to work out. This is believed to be related to the financial incentive related to each and the tangible reward for a health improvement.

This research suggests that employers should emphasize resources on the overweight group who were the most motivated and committed towards the interventions proposed. The obese group was the least motivated and less committed towards improving their health. The obese group was the only group to respond to the research materials using profanity and expletives. The obese group also reported that they were believed themselves to be healthy. It is suspected that this was attributed to the frustration related to their body weight. Some subjects responded with a tone of helplessness and futility. With the upcoming nursing shortages and healthcare being dramatically remodeled in the United States, supporting nurses' health becomes paramount. Patients look to nurses for information on health promotion and disease prevention. If a nurse is obese, the nurse loses credibility and reliability. Employers, patients and nurses can all benefit from improving nurses' health.

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## Contact

[cphelan@carroll.edu](mailto:cphelan@carroll.edu)

## L 05 - Family Health Promotion

### The Risk Demographic Predictors of Low Health Promotion Lifestyles in Caregivers of Children with Disabilities

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*Jen-Kuei Ko, MSN, RN, Taiwan*  
*Jih-Yuan Chen, PhD, RN, Taiwan*  
*Ying-Hui Lin, EdD, RN, Taiwan*  
*Ming-Hong Yen, Taiwan*

#### Purpose

The purpose of this presentation is to present and share our academic works, concepts and new discoveries for the health promotion demands in caregivers of disabled children.

#### Target Audience

The target audience of this presentation is interdisciplinary professional staffs, families of disabled children, teachers, researchers and anyone else who will care the health promotion in caregivers of disabled children.

#### Abstract

**Purpose:** The purpose of this study is to investigate the risk demographic factors is related to the risk of low Health Promotion Lifestyles scale and subscales scores in caregivers of disabled children. We can early find the groups of risk demographic factors and provide those who have risk factors about the health promotion information and intervention.

**Methods:** A total of 251 caregivers for health promotion assessment in the department of pediatric psychology and hereditary counseling and a setting of Taiwan muscular dystrophy association at southern Taiwan. Health-promoting lifestyle Scale in Chinese version was used to collect data, this HPL scale include six subscales of nutrition, exercise, health responsibility, stress management, social support and life appreciation. These data were analyzed by multiple logistic regression model and used the SPSS statistics softwave.

**Results:** In order to compare the low HPLs (Health promotion lifestyle scale) scores and high HPLs scores groups from demographic factors, while adjusting for other effects in the multiple logistic regression model, we find that individuals with higher risk of low HPLs are those who under junior high school (OR=5.18, p=0.004, CI=1.69~15.85) higher than people who are graduate degree, no married (OR=4.81, p=0.000, CI=2.13~10.86) higher than people who are married, and who are living in urban (OR=2.40, p=0.007, CI=1.27~4.54) higher than people who are living in rural and town, overall prediction accuracy of this model is 79.3%. In the subscale of Nutrition, we find that individuals with higher risk of low Nutrition subscale are those who are monthly income under 30,000 NT dollars (OR=4.14, p=0.000, CI=2.02~8.50) higher than people who are monthly income over 50,000 NT dollars, overall prediction accuracy of this model is 76.9%. In the subscale of Exercise, we find that individuals with higher risk of low Exercise subscale scores are those who are no married (OR=4.14, p=0.000, CI=2.02~8.50) higher than people who are married, and who are living in urban (OR=2.65, p=0.003, CI=1.41~4.99) higher than people who are living in rural and town, prediction accuracy of this model is 78.90%. In the subscale of Health responsibility, we find that individuals with higher risk of low Health responsibility subscale scores are those who are living in urban (OR=2.28, p=0.007, CI=1.25~4.15) higher than people who are living in rural and town, and male (OR=2.13, p=0.015, CI=1.16~3.91) are higher than female, overall prediction accuracy of this model is 76.1%. In the subscale of Stress Management, we find that individuals with higher risk of low Stress Management subscale scores are those who are monthly income under 30,000 NT dollars (OR=2.27, p=0.018, CI=1.18~6.04) and monthly income between 30,000 ~50,000 NT dollars (OR=3.09, p=0.006, CI=1.39~6.86) higher than people who are monthly income over 50,000 NT dollars, overall prediction accuracy of this model is 82.1%. In the subscale of Social Support, we find that individuals with higher risk of low Social Support subscale scores are those who are no married (OR=2.94, p=0.005, CI=1.39~6.22) higher than people who are married, overall prediction accuracy of this model is 75.5%. In the subscale of Life Appreciate, we find that individuals with higher risk of low Life

Appreciate subscale scores are those who are monthly income under 30,000 NT dollars ( OR=2.79, p=0.004, CI=1.38~5.65) high than who are monthly income over 50,000 NT dollars, overall prediction accuracy of this model is 78.9 %.

**Conclusion:** Summary the results of this study, the implications in clinic practice, the caregivers of children with disabled those who are lower income, no married, male, lower education level and living in urban must be provided support and intervention for nutrition, exercise, stress management, social support, health responsibility, and life appreciation.

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#### Contact

[jenkueiko@gmail.com](mailto:jenkueiko@gmail.com)

## L 05 - Family Health Promotion

### Supportive Education and Follow-Up for New Fathers

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Terri L. Newsom, MSN, RN, USA  
Terry Throckmorton, PhD, RN, USA

#### Purpose

present the results of a study designed to evaluate the impact of a specialized multi-modal program for new fathers on their expectations of the baby, depression, anxiety, and stress (DASS21), and quality of life.

#### Target Audience

men whose wives/significant others were pregnant.

#### Abstract

**Purpose:** The purpose of this study was to evaluate the efficacy of a specialized multi-modal program for new fathers on their expectations of the baby, depression, anxiety, stress (DASS21), and quality of life.

**Methods:** This exploratory study employed a one group, repeated measures design to evaluate a facilitated program to educate and support new fathers during the transition into fatherhood. Prospective fathers were recruited from the rosters for the antenatal classes taught at a medical center hospital system in Texas. Fathers who agreed to participate in the study had the study explained and were consented. They were asked to attend a three and a half hour session including content on: the first issues for new fathers, challenges in forming a parenting team, the fathering role, Kangaroo Care, caring for mom, caring for the infant, capabilities of the infant, finding support systems, available resources for fathers, and safety issues. The class was taught in the prenatal period. Once the baby was born, the facilitator visited the fathers with their babies on the postpartum unit. The facilitator answered questions, demonstrated any skills that the fathers requested, and allowed the fathers to voice concerns regarding the new role. After discharge, the facilitator contacted the father by phone at 1 week, 1 month, and four months to allow the father to ask questions and discuss issues. Prior to the class, at one month and at four months, the father was asked to complete the Self Efficacy in Infant Care Scale and the What Being a Parent of a New Baby is Like scale to measure self efficacy and satisfaction with parenting. The fathers were asked to evaluate the program on a 1-10 scale in terms of meeting their needs, accessibility of the information, and usefulness in assuming the new role.

**Results:** Eighty four dads completed the study. They were primarily Caucasian, Catholic or Protestant, and married. Their ages varied from 19 to 47. Five were high school graduates, 47 had baccalaureate or masters degrees, six had PhDs, and 21 had some college or an AD. Time with partner varied from 0.83 years to 12. Infant care experience varied from zero to care of own child. Forty seven (56%) had attended child birth classes. Fifty six (67%) accessed pregnancy/childbirth/parenting information 2-4 times per month. Satisfaction scores for the class varied from moderate to high satisfaction. There was a significant difference in infant expectations before and after the class (T40.8; p 0.0). Quality of life scores dropped slightly from pre-test to post delivery, but the difference was not significant. DAS21 scores remained the same from pre- to post-delivery as did relationship assessment scores. The full presentation will provide a more detailed overview of the scales and subscales.

**Conclusion:** The course was well received by the fathers. The results indicated that this approach was feasible and beneficial to the fathers.

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#### Contact

[tthrockmorton@chamberlain.edu](mailto:tthrockmorton@chamberlain.edu)

## L 05 - Family Health Promotion

### Relationship Between Families Perception of Health and Family Support in Vulnerable Children Care

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*Jih-Yuan Chen, PhD, RN, Taiwan*

*Hong-Sen Chen, PhD, Taiwan*

*Meng-Chi Liu, MSN, Taiwan*

*Mei-Chyn Chao, MD, Taiwan*

#### Purpose

The purpose of this presentation is to provide the knowledge about relationship between families perception of health and family support in vulnerable children care

#### Target Audience

The target audience of this presentation is health professional staffs, nursing faculties, doctoral students, and master students.

#### Abstract

**Background:** Family support in care of vulnerable children is rarely discussed yet has a major impact on family member health. The vulnerable children care setting is characterized by a rare disease of genetic, behaviors disturbed, or disability health. Family perceptions of health in relation to various outcomes of the children have including family health and family support has not been explored exclusively in outpatient care.

**Aim:** First, assess families' perception of health associate with their children in different vulnerable care. Second, examine families' perception of health with a defined sample of vulnerable children in psychiatric clinic, genetic counseling clinic, and muscular dystrophy institute, using the Duke Health Profile (DUKE). Third, explore the relationship between 286 families' perception of health and family support in vulnerable children care.

**Methods:** The study used secondary data to present the study aims. An aggregated data used for this research was part of three studies funded by a southern Medical University Hospital in Taiwan that constructed family health promotion model aimed at improving vulnerable children care health and family support of two clinics in one hospital and one setting in an Institute. Multiple unit/clinic comparisons were analyzed by ANOVA. The final was explored using regression model for the data measuring by the DUKE and Family APGAR (FAPGAR).

**Results:** The sample of parents/family members/patients included family have children with muscular dystrophy attention deficiency and hyperactivity disorder (ADHD) and chromosomal abnormality. The Cronbach's  $\alpha$  of the DUKE and the FAPGAR are .71 and .88. Significant differences between clinics/setting were noted for the subscales of physical health, mental health, perceived health, and the overall score. Self-esteem received highest score, social health receiving the second higher score in the sample. Significant differences between the three study period/different samples were noted for the subscales of physical health, perceived health, and the overall score ( $F = 5.90, 9.11, \text{ and } 3.26; P = .01, .01, \text{ and } .04, \text{ respectively}$ ). Significant differences in family support score, and subscale of adaptation and partnership score were noted between setting/clinics ( $F = 2.57, 3.12 \text{ and } .16; p = .05, .03, \text{ and } .03, \text{ respectively}$ ). The final regression model, social health is predictor accounting for 31% of the variance in family support. Adjust variance attributable to the social health was .28, which was significantly different from zero,  $F_{10,275} = 12.09, p = .001$ .

**Conclusion:** The internal consistency of subscales of positive health were higher than the DMD and SMA group, the ADHD group, and in 1999 and 1997's. Higher scores in subscales of negative health/ anxiety, depression, and anxiety-depression for DMD and SMA group compared with ADHD or chromosome abnormal group. In 2007, DMD group's caregiver perceived higher scores in physical health, perceived health, and overall health than DMD and SMA group in 2012. DMD and SMA group reported higher scores in adaptability and partnership than those ADHD group. The results were impressive, perceived

health and perceived self-esteem exists in muscular dystrophy group or ADHD were lower than the chromosome abnormal group. DMD and SMA group reported higher scores in adaptability and partnership than those ADHD group.

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#### Contact

[jjyuch@kmu.edu.tw](mailto:jjyuch@kmu.edu.tw)

## L 06 - Psychosocial Issues in Family Health

### Family Reintegration Experiences of Soldiers with Combat-Related Mild Traumatic Brain Injury

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*Kyong S. Hyatt, PhD, FNP, RN, USA*

#### Purpose

The purpose of this presentation is to describe the family reintegration experiences, including challenges and management strategies of soldiers and their spouses following mild traumatic brain injury.

#### Target Audience

The target audience of this presentation is healthcare providers as well as general public to increase awareness of symptoms of mild traumatic brain injury and rehabilitation needs.

#### Abstract

**Purpose:** Approximately 12% to 22% of service members (more than 325,000) returning from Iraq and Afghanistan are estimated to have sustained some level of mild traumatic brain injury (mTBI) and it is among the most widespread and undertreated injury of the conflicts. Mild traumatic brain injury (mTBI) affects not only the injured individuals, but also their families. A major gap in the current literature on family reintegration/adjustment following an mTBI is the absence of an empirically derived framework for describing and understanding family reintegration experiences and coping processes. Clearly, there is a compelling need to understand the unique family reintegration process in order to help researchers and clinicians develop more effective support programs and devise outcome measurements of their effectiveness. Therefore, the purpose of this study is to explore the problems and challenges of military family reintegration following a combat-related mTBI. This study is one of the first to examine reintegration experiences of both injured soldiers and their spouses.

**Methods:** Participants were recruited by self-referral, healthcare provider referral from the TBI clinic at a large Army Medical Center, or direct approach in the clinic. If prospective dyads met the study inclusion criteria, the spouse was contacted by phone to get verbal consent and scheduled a face-to-face meeting. Participants were active duty soldiers with deployment-related mTBI and their legally married civilian spouses who spoke English. All soldiers were between 2 and 24 months post-deployment. Strauss and Corbin's grounded theory methodology was used to collect and analyze the data. Sampling was directed by theoretical sampling methods, which means that recruitment of study participants was guided by emerging and theoretically relevant constructs drawn from analysis of collected data. This sampling strategy allowed the investigator to broaden and refine emerging categories during the theory building phase.

This study received approval from the Institutional Review Board of a large Southeastern university. The primary method for data collection was face-to-face, semi-structured interviews. Conjoint interviews were conducted first to determine each dyad's shared views of family reintegration. These shared views were further explored during separate individual interviews. Nine dyads yielded a total of 27 interviews (9

conjoint soldier-spouse interviews, 9 spouse interviews, and 9 soldier interviews). During the first part of each interview, the investigator used broad, open-ended queries, such as: *Tell me about your family's experiences of being reunited after deployment.* Separate face-to-face interviews, first with the soldier and then with the spouse, were conducted approximately 1 week after the initial joint interview.

In both joint and separate individual interviews, the open-ended questions were influenced by the ongoing analysis, and the direction of subsequent interviews was guided by the emerging theory. Participants were recruited and interviewed until data saturation was reached, that is, until no new themes of family reintegration challenges or coping strategies were identified. Quality control and rigor of data collection was maintained through the use of mentor-guided interview techniques and established data collection protocols. These included independent coding corroboration with colleagues and 100% auditing of the first five joint interview transcripts by two expert mentors. Dependability of the data was assured through participant validation of the key points of the interview at its conclusion and explicit procedures for data selection, analysis, and synthesis.

**Results:** Majority of soldier participants (n=8) were male. More than 50% of the soldiers (n=5) and 75% of the spouses (n=7) were White. The soldiers' rank ranged from specialist to field grade officers. More than 65% of couples (n=6) had 1 or 3 children at home. Fifty-six percent (n=5) and 44% (n=4) of soldiers reported clinically significant depression and anxiety symptoms, defined as a score 11 or greater of each of the depression and anxiety subscales of the Hospital Anxiety and Depression Scale (HADS). Ten percent (n=1) of spouses disclosed clinically significant anxiety symptoms based on the HADS subscale score. Fifty-six percent (n=5) of soldiers reported unsatisfactory marital relationship, as indicated by a score of less than 100 on Marital Adjustment Test (MAT); whereas, 22% of the spouses (n=2) reported dissatisfaction with their marriage. Sixty-seven percent of soldiers revealed clinically significant Posttraumatic Stress Disorder (PTSD) symptomatology on the PCL-M scale, represented by a score of 50 or above.

Overarching theme of reintegration experience was finding the new normal. A new normal was defined by participants as the couple's new, post-mTBI expectation of the family unit or family routine. The idea of a new normal is supported by the following themes: facing up to the soldier's unexpected homecoming, managing unexpected changes in the family routine, experiencing mismatched expectations, and adjusting to new expectations for the family. First, when the soldier returned home with an mTBI, the couples encountered unexpected changes from their normal family routines and often indicated that these changes were unlike any past experiences. This finding may be unique to these study participants since, unlike civilians with mTBI, these soldiers sustained their mTBI while they were separated from their families, thus presenting them and their spouses with a series of delayed (and unexpected) changes upon their return. Second, couples were required to manage the challenges of day-to-day life and somehow try to fit the injury-related changes into their daily family routine. This finding was congruent with findings of both Naalt and Miles, who suggest there is significant post-mTBI impact on the marital relationship as married couples go through a process of adjustment. Third, couples needed to resolve mismatched expectations of the soldiers' post-mTBI functional capabilities, which created family conflict. Finally, couples who successfully negotiated household roles and responsibilities accepted post-mTBI changes and recognized limitations with the soldiers' functional capabilities. These couples looked toward rebuilding a new normal for their family.

Almost all couples indicated that post-mTBI symptoms had impacted their marital relationship. This study supports findings from previous studies indicating that after mTBI, both partners have to adapt to new life situations and renegotiate their roles and responsibilities. In particular, this study shows how changes in a soldier's mood and short-term memory loss can impact a couple's communication and relationship. These findings support Blais and Boisvert's research findings showing that spousal perceptions of the injured individual's communication skills have significant effects on both psychological and marital satisfaction. In the present study, the post-injury alterations in couple communication resulted in the uninjured spouse avoiding communication and the soldier blaming him or her for the problems, which caused further deterioration in the relationship.

The way couples managed unexpected changes in the soldier and post-mTBI family reintegration appears to have been influenced by the spouse's prior reintegration experiences and the soldier's length of service in the military. Soldiers with more years of service and who were senior ranking appeared to

accept the post-mTBI changes as being one of the risks or costs of serving in the military, whereas soldiers with fewer than 10 years of service viewed the post-injury changes as a loss of their career and of the lifelong dream of being a career soldier. In general, soldiers with more time in the Army and longer marriages adjusted to the new normal better than soldiers whose Army careers had just begun and/or who had newer marriages. Couples with more mature marriages (marriages of at least 10 years) adjusted to post-injury changes faster and better than couples with more recent marriages (less than 10 years). All spouses who had been married longer than 10 years indicated that they did not have clear boundaries about family roles or responsibilities; instead, these couples worked as a team and shared whatever tasks that needed to be done. These spouses appeared to be experienced homemakers who maintained their homes independently while their soldier spouses were gone. At the same time, they were willing to give up part of their independence upon the soldier's return.

The study findings suggest that the process of post-mTBI family reintegration—finding a new normal—is an evolving process that includes facing reality and accepting changes. This study provides a basic understanding of the needs of soldiers and their spouses following mTBI. Unlike other studies that focused exclusively on the view of the spouse, this study offers views of both injured individuals and their spouses, thus providing a more comprehensive understanding of how married couples manage the challenges of post-mTBI changes.

**Conclusion:** Individuals with mTBI and their families may benefit from interventions that directly address mismatched expectations and promote the acceptance of new normal. Due to mTBI's lack of visible injury, soldiers may confuse their mTBI symptoms with those of other deployment-related injuries and therefore delaying treatment. Future studies with longitudinal designs that examine mTBI symptoms as they evolve over time may provide a deeper understanding of how injured individuals and their uninjured spouses experience the variable nature of mTBI. These studies may illuminate how couples can achieve a successful recovery over time and can thus provide a basis for creating effective rehabilitation and support programs. In addition, future research that explores individual and family coping post mTBI could provide a foundation for developing interventions that are tailored to family post-injury adjustment challenges.

Contact

[happyhyatt@aol.com](mailto:happyhyatt@aol.com)

## L 06 - Psychosocial Issues in Family Health

### African-American Grandmothers Raising Grandchildren: Results of an Intervention to Reduce Caregiver Psychological Distress

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*Susan J. Kelley, PhD, FAAN, USA*  
*Deborah M. Whitley, MPH, PhD, USA*  
*Peter E. Campos, PhD, USA*

#### Purpose

The purpose of this presentation is to describe the results of an intervention to improve the well-being of African American grandmothers who are raising grandchildren in the absence of birth parents. More specifically, we will discuss the results of a home-based intervention designed to reduce psychological distress.

#### Target Audience

The target audience of this presentation includes nurses practicing in a variety of clinical settings, as well as nurse researchers.

#### Abstract

**Purpose:** Globally, millions of grandmothers are assuming full-time caregiving responsibilities for grandchildren when birth parents are unable to do so. While the reasons for this caregiving arrangement vary by global region, they often include HIV/AIDS, child maltreatment, workforce migration, mental health issues, and substance abuse. The purpose of this study is to determine the results of an intervention to improve the well-being of grandmothers who are raising grandchildren in parent-absent homes. More specifically, we examine the role of a home-based, interdisciplinary intervention in reducing psychological distress in caregiving grandmothers.

**Methods:** The sample comprised 549 predominantly low-income, African American grandmothers raising an average of 2.47 (range 1-8) grandchildren. The mean age of the caregiver was 56.3 years, with a range of 33 to 83 years. The study intervention was designed to improve the psychological and physical well-being of caregiving grandmothers; it included home visitation by registered nurses and social workers, participation in support groups and parenting classes, as well as legal service referrals and early intervention services for children aged 5 years and younger. Data were collected at baseline and at completion of the one year intervention. Psychological distress was measured with the 51 item, Brief Symptom Inventory (BSI) (Derogatis, 1993).

**Results:** The major reasons the children were being raised by participants included substance abuse, abandonment, and neglect. Overall psychological distress, as measured by the Global Severity Index (GSI) of the BSI, decreased significantly from baseline to post-test ( $p < .001$ ). Furthermore, there were significant decreases across all nine symptom dimensions of the BSI ( $p < .01$ ). Results based on select demographic variables will also be presented.

**Conclusion:** Study findings suggest that the intervention model is a promising approach to improving the well-being of this caregiving population. Practice, policy, and research implications of study findings will be presented.

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#### Contact

[skelley@gsu.edu](mailto:skelley@gsu.edu)

## L 06 - Psychosocial Issues in Family Health

### A Reflection on Psychosocial Assessment and Support As a Component of Routine Holistic Antenatal Care

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*Johanna M. Mathibe-Neke, PhD, MCur, BACur, South Africa*

#### Purpose

The purpose of this presentation is to highlight the importance of psychosocial care for pregnant women in an attempt to design care that is holistic and comprehensive. The holistic approach offers an opportunity for midwives to address the needs of the pregnant woman as an individual

#### Target Audience

The primary target audience are Midwifery Care Practitioners both in Education and Clinical Practice but the information/ presentation is extended to all categories of nurses as holistic and psychosocial care is applicable to all health care disciplines.

#### Abstract

**Purpose:** The purpose of the presentation is to address the importance of pregnant women's psychological status to the benefit of her foetus and her pregnancy and postnatal wellbeing. This can be achieved through the introduction of an antenatal risk assessment program that would identify and manage women during pregnancy as they are psychosocially at risk. The final outcome would be the provision of a holistic antenatal care to women.

**Methods:** Qualitative and quantitative research designs were used by way of methodological triangulation. Triangulation was further achieved through the use of multiple data sources. The qualitative method was used as preliminary to the quantitative method. An interpretive qualitative approach was used to validate quantitative data by providing a different perspective on psychosocial care.

**Results:** A screening tool was developed in response to the findings from the midwives' focus group discussions, the cross-sectional survey results from midwives, midwifery experts, the responses of self administered questionnaires for pregnant women, and the information obtained through the review of the antenatal records used by women during antenatal care. Responses from focus group discussions with midwives and indepth interviews with midwifery experts further recommended that a tool that incorporate psychosocial care during pregnancy should be developed and implemented. The tool was piloted in the partipating sites and thematic responses of its use by midwives will be shared in the presentation

**Conclusion:** An ideal option for effective antenatal care is the incorporation of psychosocial care as a component of antenatal care, acknowledging women's own experiences of pregnancy. Midwifery, which means "to be with women", is based upon a philosophy of care in which the management of pregnancy is shared between the midwife and the woman, with a focus on informed choice, shared responsibility, mutual decision-making and women articulating their health needs.

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#### Contact

[mathijm@unisa.ac.za](mailto:mathijm@unisa.ac.za)



## L 07 - Utilizing Social Networks in Healthcare

### Strategies for Data Collection and Analysis Using the Online World: Trials and Tribulations

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*Judy Mannix, RN, BEd (Nsg), MN (Hons), Australia*

#### Purpose

The purpose of this presentation is to report on strategies employed to develop a suitable on-line survey that sought nurses' views on aspects of clinical leadership. In addition, various methods of recruitment using social media and on-line announcements will be critiqued.

#### Target Audience

The target audience of this presentation includes nurse researchers from the clinical setting and the academy involved in research (with limited funds), interested in using the on-line world for data collection, and seek to maximise potential participants for their study.

#### Abstract

**Purpose:** The purpose of this presentation is to report on strategies employed to develop a suitable on-line survey that sought nurses' views on aspects of clinical leadership. In addition, various methods of recruitment using social media and on-line announcements will be critiqued.

**Methods:** The development of the on-line survey tool involved the adaptation of existing instruments. The survey comprised 47 items requiring participants to respond using a 5 point Likert scale. A short demographic profile was requested at the beginning of the survey – seeking information about their nursing career. A third part of the survey provided participants the opportunity to describe in a text box an example from their practice of aesthetic leadership. Once developed, the survey tool was tested by an expert panel of experienced registered nurses. Following expert panel feedback, minor adjustments were made to the survey and it was loaded onto an existing on-line software program. A link was created to the survey which was included in all recruitment announcements. Recruitment announcements were sent out using email, Facebook and Twitter inviting nurses to complete the survey.

**Results:** Using an existing on-line survey software program facilitated the ease with which the survey was made available in the study. It also enabled the number of respondents to the survey to be monitored after different methods of on-line announcements were utilised. Overall, while all forms of on-line announcements yielded completed surveys, more were completed following an announcement on Twitter. The recruitment strategies employed exposed the survey to a large number of potential respondents, without necessarily a guarantee of who completed the survey. However, analysis of the responses from participants, as well as the completed demographic data did enable a degree of certainty as to whether the survey was completed by a nurse.

**Conclusion:** Seeking information using on-line technologies is not for the faint-hearted. A certain degree of persistence and endurance is required to ensure that a reasonable response rate is elicited for data analysis. The use of on-line announcements and social media has the potential to maximise exposure for the collection of research data.

#### Contact

[j.mannix@uws.edu.au](mailto:j.mannix@uws.edu.au)

## L 07 - Utilizing Social Networks in Healthcare

### Researching with Young People As Participants: Issues in Recruitment

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*Ainsley M. James, BN, GradCertPaeds, GradCertHigherEd, MN, Australia*

#### Purpose

The purpose of this presentation is to present issues encountered while recruiting 16-24 year old males and females for a project on their lived experiences of having type 1 diabetes living in rural Australia. Insights and strategies will be presented to assist researchers recruiting young people to their research.

#### Target Audience

The target audience of this presentation is those researchers recruiting young people (aged 16-24 years) to their research

#### Abstract

**Purpose:** An essential element of human research is the successful recruitment of participants, because without participants there can be no research. Many researchers appear to be able to recruit participants quickly and without significant issues, while other researchers encounter challenges. When researching the lived experience of young people aged 16-24 years, with type 1 diabetes living in a rural setting, we assumed that gaining ethics approval to interview the 16-18 year old participants would be a challenge. Ethics approval was granted following minimal changes to the application. Participant recruitment however presented a significant challenge. This paper presents some issues we encountered when recruiting participants for this phenomenological research project. Insights and strategies are presented to assist researchers when recruiting young people to their research.

**Methods:** Recruitment of participants began with advertisements in organisations such as medical clinics and community health centres that employed a paediatrician and/or a diabetic educator. Permission was also sought from Diabetes Australia to provide information of the research project in their communications (i.e. newsletters) to clients and families who met the selection criteria. When potential participants responded to the invitation, an explanatory statement and consent form were provided and any questions were answered. Once consent was obtained, a mutually agreeable time and place was arranged for the interview to be conducted. After little success in recruiting participants further organisations were contacted; a regional tertiary institution, a government department, additional medical clinics, organisations specific to type 1 diabetes including Diabetes Victoria and the Juvenile Diabetes Research Foundation, and a number of social networking sites. As a result of recruiting no participants, it became apparent that an additional recruitment strategy was required to reach the 16-24 year old age group and successfully recruit them to the research. Traditional recruitment techniques were rethought and adjusted to entice and encourage 16-24 year olds to contact the researchers. In today's technologically advanced society and with the age group sought for this research, utilising social networking became a viable option

**Results:** Our experiences from the recruitment phase of this research have led us to insights and recommendations for improvement in relation to recruiting young people to a project. The insights and recommendations include; the importance of knowing your participant/s, the relevance and use of the traditional poster/flyer, and also in addressing the questions of: 'What's in it for me? Why would I want to contact a stranger?'

**Conclusion:** Recruitment of participants can make or break a research project and also influence the quality of the final outcomes. Knowing the *where* and *how* to recruit participants is essential for quality research. This paper has discussed the issues we experienced while recruiting participants for a phenomenological research study, investigating the lived experience of young people with type 1 diabetes living in a rural setting. From our experience the utilisation of the social network medium Facebook was a successful strategy for recruiting young people to research. Suggestions from our insights have been offered to researchers for recruiting young people to their projects.

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## Contact

[ainsley.james@monash.edu](mailto:ainsley.james@monash.edu)

## L 07 - Utilizing Social Networks in Healthcare

### Engagement and Emotional Connection with Virtual Communities Among Nursing Students

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*Ying-Hsiu Chen, RN, Taiwan*

*I-Ching Wang, RN, Taiwan*

*Wen-Ting Chen, RN, Taiwan*

*Yueh-Yen Fang, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to share the findings of a study that investigated nursing students' engagement and emotional connection with virtual communities, as well as benefits students had perceived through participating virtual communities.

#### Target Audience

The target audience of this presentation is nursing faculty.

#### Abstract

**Purpose:** The purposes of this study were to investigate nursing students' engagement and emotional connection with virtual communities, as well as benefits they had perceived through participating virtual communities.

**Methods:** Based on the theory of planned behavior and innovation diffusion theory, a survey was developed to collect data. 300 students enrolled in a baccalaureate nursing program in Taiwan were invited to participate in this study. 290 students had completed the survey. Data were analyzed by both descriptive and comparative statistics.

**Results:** All students responded the survey had participated at least one virtual community (VC). 142 (49%) had joined 2 VCs, and 97 (33%) had joined 3 VCs. Facebook was the most popular VC, it attracted 289 (99.7%) students. Line was ranked the second popularity, 269 (92.8%) students joined this VC. Most students (270; 93.1%) joined VCs that provided social support; only 47 (16.2%) students utilized VCs that were designed for exchanging learning information. Participating VC was an important social connection with others. 258 (89%) students participated VC before sleeping. The average participation time before sleeping was 1.23 hours; the daily average participating time was 5.95 hours. Most students (254; 87.6%) used mobile phones to participate VCs. Major benefits of participating VCs that students perceived were entertainment and emotional comfort. 62.1% students expressed that they would feel boring if they did not participate VC. Without VC, 21.4% students would feel empty, 11% students would be anxious, 9% students did not know what to do, 7.9% students would feel lonely, and 5.5% students would be panic. Students from lower school year valued more positively than senior students in VC's functions of self-actualization, entertainment, emotional health, and interpersonal communication ( $p < .05$ ). They also spend more time in participating VCs ( $p < .05$ ).

**Conclusion:** The computer and information technology not only brings an impact on knowledge development but also plays an indispensable role in human communication and emotional connections. Using virtual communities to enhance learning is an emerging paradigm in nursing education. However, knowledge related to how nursing students are engaged in and value virtual communities is limited. In this study, time that nursing students spent on VC and the acceptance of VCs by the younger generation suggest that integrating VC into nursing education is an inevitable trend. Students' long-hour engagement and emotional connection with VCs as well as their insufficient use of VCs in learning activity challenge nursing education. Future studies are encouraged to investigate VCs' impact on students' academic and professional performances and link the findings to curriculum reform.

#### Contact

[cats41023@gmail.com](mailto:cats41023@gmail.com)



## L 10 - Staff Related Clinical Nursing Leadership

### Improving the Experiences of Night Shift Nurses in Australian Regional Public Hospitals: An Action Research Project

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*Idona N. Powell, RN, RM, MHLthSc (Man), PGDipClinN (Psychiatry), Australia*  
*Greg Fairbrother, RN, BA, MPH, PhD, Australia*

#### Purpose

to describe an action research approach that was able to explore recommendations from a qualitative case study and to successfully move these recommendations into action strategies to improve the night shift experience, enhance delivery of patient care and thus facilitate organisational improvement.

#### Target Audience

administrators, nurse leaders, nurse managers, nurse educators, night shift and non-night shift nurses working in acute 24 hour facilities.

#### Abstract

**Purpose:** To develop a participatory plan to improve the working experience of night shift nurses and enhance delivery of patient care in Australian regional acute inpatient facilities.

**Methods:** A participatory action research approach was utilised to take up the findings of an initiating qualitative research study which explored the expressed needs and experiences of regional Australian night shift nurses. The original research study was conducted by the presenting author in 2011. A study reference group consisting of night shift clinical nurses and nurse managers took a problem solving approach to working with the data from the initial study. Key areas for potential action/change were identified. In 2012, the reference group invited nurses from four regional hospitals to contribute their ideas via focus groups (primary data source), email or anonymous open-ended questionnaire. Separate focus groups were held for managers and nurses. Focus group facilitators were not in organisational or managerial relationships with focus group participants. Focus group discussions and open-ended questionnaires were organised around the key potential action/change domains derived from the initiating study. These domains were: professional development; leadership and support; interdepartmental cooperation; communication and valuing the night shift role. Specific action steps were developed within each domain.

**Results:** Sixty-nine nurses and nurse managers attended focus groups across the four hospital sites, 54 questionnaires were returned and four emails were received. Opportunistic conversations were held between reference group members and nurses during this phase of the study period. A constructivist paradigm was employed in the interpretation of all study data in order to develop solutions to problems of both a practical and professional-cultural nature. Nurse empowerment was a key interpretive lens used to derive potential changes and solutions from the data. A spectrum of findings evolved that grouped naturally into two categories based on a locus of approval for change. Five potential actions required changes to nursing related legislation (Category 1). Sixty-four primary action steps and 36 secondary action steps that were within the scope of control of local health district managers or their staff were identified (Category 2).

**Conclusion:** Some of the changes sought by the night shift nurses could only be achieved through extensive lobbying and legislation. Many more identified positive change areas were actionable locally. A number of these changes were potentially cost neutral. The views of the nurses and nurse managers relating to identified changes were not always in agreement. Nonetheless, through mutual consideration, major improvements for the night shift are being planned and actioned. This workplace improvement project is ongoing and the action research reference group continues to meet and inform/guide cycles of localised change as they develop.

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Contact

[dona.powell@ncahs.health.nsw.gov.au](mailto:dona.powell@ncahs.health.nsw.gov.au)

## L 10 - Staff Related Clinical Nursing Leadership

### Use of Temporary Nursing Staff and Nosocomial Infections in Intensive Care Units, a Pilot Study

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*Sung-Heui Bae, PhD, MPH, RN, USA*

#### Purpose

The purpose of the present study is to describe the nature and prevalence of the use of temporary nursing staff and to examine relationships between the use of temporary nursing staff and nosocomial infections in the ICUs.

#### Target Audience

The target audience of this presentation will be registered nurses, nurse managers, and health policy makers who are concerned about the use of temporary nursing staff in the intensive care units and its impacts on nosocomial infections.

#### Abstract

**Purpose:** The use of this temporary nursing staff is controversial issues. Although hiring temporary nursing staff can help to increase staffing levels, it can also affect other nursing staff as well as care process, which leads to poorer patient care (Alonso-Echanove et al., 2003; Castle, 2009). Higher use of temporary staff can increase administrative burdens, disrupt routines and teamwork, and require additional supervision by permanent staff (Bae, Mark, & Fried, 2010). In a similar vein, empirical findings in this topic are also mixed. Some studies found that use of temporary nurses was related to the spread of nosocomial infection among patients (Alonso-Echanove et al., 2003), back injuries among nurses and patient falls (Bae et al., 2010). On the other hand, other studies found no relationships between the use of temporary nursing staff and quality indicators (Aiken, Shang, Xue, & Sloane, 2013; Xue, Aiken, Freund, & Noyes, 2012). Arguments behind this relationship are that temporary nursing staff are not less qualified than permanent staff (Aiken et al., 2013; Aiken, Xue, Clarke, & Sloane, 2007; Xue, Smith, Freund, & Aiken, 2012). An empirical study found that using temporary nursing staff were not related to poor quality of patient care, but poor work environments are the factor contributing to poor quality of care (Aiken et al., 2013; Xue, Aiken, et al., 2012). Although the intensive care units (ICU) are the work setting where temporary nursing staff spent most of their time, in the previous studies, researchers did not distinguish temporary and permanent nursing staff in their nurse staffing measures. Therefore, the purpose of the present study is to describe the nature and prevalence of the use of temporary nursing staff and to examine relationships between the use of temporary nursing staff and nosocomial infections in the ICUs.

**Methods:** A secondary data analysis was conducted with data from the Western New York Center for Nursing Workforce and Quality. This data consisted of nursing unit level data on 14 ICU from 6 hospitals located in New York State. All data were collected monthly. A total of 144 ICU-month data points were used for the analysis sample. Nosocomial infections include central line associated blood stream infections (CLABSI), ventilator associated pneumonia (VAP), and total number of nosocomial infections combining those two. The use of temporary nursing staff was measured by nursing care hours per patient day provided by temporary nursing staff (in total & only by registered nurses). Also other nursing unit characteristics (nurse staffing, skill mix, unit size, and practice environment) were collected as control variables. Logistic regression models were used to examine the relationship between the temporary staffing and nosocomial infections.

**Results:** The monthly means of CLABSI and VAP were 1.89 per 1,000 central line days and 2.18 per 1,000 ventilator days. In total, 2.73 nosocomial infections per 1,000 patient days occurred monthly. On average, 0.30 temporary nursing care hours per patient day were provided and 0.26 care hours by only temporary RNs. From the logistic regression models, we found that the use of temporary RN staff was not related to neither CLABSI nor VAP after controlling for other nursing unit characteristics.

**Conclusion:** The findings of this pilot study suggests that the use of temporary nursing staff in ICUs was not related to nosocomial infections. As more temporary nursing staff are used to increase nurse staffing

levels in ICUs, it is important to evaluate the impact of those temporary nurse staffing on patient outcomes. To make a conclusive decision about this relationship, future studies need to use a larger sample with other control variables which might affect both the use of temporary nursing staff and nosocomial infections.

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### Contact

[sbae@nursing.utexas.edu](mailto:sbae@nursing.utexas.edu)

## L 10 - Staff Related Clinical Nursing Leadership

### Nursing Support Workers and Tasks Performed, Delayed or Not Completed

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*Michael A. Roche, RN, PhD, MHSc, BHSc, DipAppSc, CertMHN, Australia*  
*Christine Duffield, RN, PhD, Australia*

#### Purpose

To develop an understanding of the importance of effective integration of nursing support workers in the acute hospital setting and the potential impact for patient and nurse outcomes.

#### Target Audience

The target audience of this presentation is nurses interested in understanding the integration of nursing support workers and licensed staff in the acute hospital setting.

#### Abstract

**Purpose:** Direct patient care has been undertaken by a combination of licensed and unlicensed nurses for many years. However, persistent nursing workforce shortages and increased patient acuity and throughput has led to increased employment of large numbers of nursing support workers internationally (Bureau of Labor Statistics, 2013; Health Workforce Australia, 2012; NHS, 2013). Concurrently, tasks formerly completed by registered nurses have moved to the nursing support worker (Gillen & Graffin, 2010; Plawewski & Amrhein, 2010). This change has raised questions regarding the role and effective utilization of support workers. However, there has been limited research on the impact of these workers in the acute hospital workplace. This paper compares the nature of tasks performed, delayed or not completed by nursing support workers and licensed nurses, and the factors associated with these outcomes.

**Methods:** This paper reports a secondary analysis of data collected in three studies of medical and surgical units across three states of Australia. Data from a recently completed project were combined with that from two previously reported studies (Duffield et al., 2011; Roche, Duffield, Aisbett, Diers, & Stasa, 2012). In total, data were collected on 132 randomly selected units in 25 public general acute hospitals across three Australian states between 2004 and 2010. Data collection procedures in all studies were similar. All direct personal care workers on the selected wards were asked to complete a survey anonymously. An overall response rate of 60.4% was achieved (3945 of 6528 potential consenting respondents). The survey included demographic items, employment characteristics, six questions on specific tasks performed, and 11 questions on direct-care interventions delayed or left undone at the end of the most recent shift. The survey also included the Practice Environment Scale (Lake, 2002) and the Environmental Complexity Scale (O'Brien-Pallas, Irvine, Peereboom, & Murray, 1997; O'Brien-Pallas, Meyer, & Thomson, 2005). In addition, a profile of each unit that included bed numbers, support services and other characteristics was obtained. Analyses explored differences between groups and potential explanatory factors via regression models.

**Results:** Significant differences were found between nursing support workers and licensed nurses in tasks undertaken, delayed and not completed. As expected, nursing support workers undertook more tasks such as delivering meal trays and housekeeping, although also undertaking some tasks that may have been out of their scope of practice. Nursing support workers also reported fewer tasks delayed (completion of vital signs, responses to call bell, routine mobilization and documenting nursing care). Unit support services, the practice environment, violence towards nurses and overtime were important explanatory factors in relation to tasks delayed or not completed for both licensed nurses and support workers.

**Conclusion:** Increasingly, nursing support workers are providing direct care to patients in the acute hospital setting and this may have implications for patient safety and quality of care. Along with effective delegation of tasks, an important consideration is the model of care (i.e. a substitutive or supportive model) adopted when support workers are included in the staff mix. The ongoing shortage of registered nurses and increased use of support workers challenges nursing unit managers to effectively integrate

these staff into their workplace and to confirm these support workers are operating within their scope of practice.

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### Contact

[michael.roche@uts.edu.au](mailto:michael.roche@uts.edu.au)

## L 12 - Care of the Depressed/Suicidal Patient and Family

### Individuals Use to Promote Healing after a Suicide Attempt: Action/Interaction Strategies

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*Fan-Ko Sun, PhD, Taiwan*  
*Ann Long, PhD, United Kingdom*  
*Mei-Ting Chi, RN, Taiwan*  
*Ti Lu, MD, MS, Taiwan*

#### Purpose

The purpose of this presentation is to inform an audience of psychiatric nurses about action/interaction strategies and how to help patients use them to promote healing after a suicide attempt.

#### Target Audience

The target audience of this presentation are the psychiatric nurses whom evaluate suicidal patients.

#### Abstract

**Purpose:** It is a very difficult task to recover following a suicide attempt. Individuals struggle with numerous difficulties following a suicide attempt. Some individuals can recover from a suicide attempt but other individuals re-attempt or commit suicide. The aim of this study was to develop a theory to guide the healing and recovering process, which human-beings traverse following a recent suicide attempt and the main aim of this paper was to discover the action/interaction strategies that they use on this life journey.

**Methods:** A qualitative approach using Grounded theory was used in this research. Data were collected in a medical centre hospital in Taiwan from 2011 to 2012. Theoretical sampling was used to guide the selection of participants. The final number of interviews conducted to achieve data saturation was 14 patients who had recovered from a suicide attempt and returned to normal life at least one year later. Data were analysed using the constant comparative method together with NVivo Version 9 to aid the process of data analysis.

**Results:** A theory was developed to guide the suicidal individuals to help in healing after their suicide attempt. Three categories and eight subcategories surfaced in relation to the 'action/interaction strategies' used. They were: becoming flexible and diverse thinking (Imaginative thinking, Hopeful thinking); re-building and re-gaining self (Changing myself, Believing in self, Self affirmations, Retrieving the value of life), and trying to enjoy the pleasures of life (Looking for methods to cope with stress, Looking for happy times).

**Conclusion:** Nurses could use the findings of this paper as a guide to help people recover following a suicide attempt and, perhaps, help prevent further attempts.

#### Contact

[sunfanko@isu.edu.tw](mailto:sunfanko@isu.edu.tw)

## L 12 - Care of the Depressed/Suicidal Patient and Family

### The Factors Associated with the Caregivers of Suicidal Patients Stress, Attitude and Ability: A Path Analysis

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*Chun-Ying Chiang, RN, PhD, Taiwan*

*Fan-Ko Sun, RN, PhD, Taiwan*

*Chu-Yun Lu, PhD, RN, Taiwan*

*Hung-Yen Lin, MD, Taiwan*

#### Purpose

The purpose of this presentation is to inform an audience of nurses on the findings of a study that examined the extent of caring stress of caregiver has direct/indirect effects on suicide care ability and suicidal attitude.

#### Target Audience

The target audience of this presentation is nurses who taking care of suicidal individuals and their family members.

#### Abstract

**Purpose:** The purpose of this study was to examine the extent of caring stress of caregiver has direct/indirect effects on suicide care ability and suicidal attitude.

**Methods:** This is a cross-section correlational study. We recruited 164 caregivers of suicidal patients. The inclusion criteria included: primary caregiver of suicidal patient, at least 18 years old, and no obvious mental impairment. All the participants were recruited from a Suicide Prevention Center and two psychiatric hospitals. There were 3 instruments administered to the participants: the Caring Stress Scale (CSS), the Suicidal Attitudes Scale (SAS), and the Suicidal Caring Ability Scale (SCAS). Data was analyzed by using SPSS and AMOS 19.0. Bivariate analyses include correlation, t test, and analysis of variance. Path analysis is employed using structural equation modeling (SEM) approach to analyze the relationships among caregiving stress, attitude, and ability toward caring for suicidal patients. Data were collected in 2009 and 2010.

**Results:** The average age of the participants was 43.9 years ( $SD = 13.84$ ). The majority of participants had religious beliefs ( $n = 132, 80.5\%$ ), lived with suicidal patients ( $n = 127, 77.4\%$ ). More than half of participants were female ( $n = 101, 61.6\%$ ), married ( $n = 89, 54.3\%$ ), working more than 20 hours per week ( $n = 93, 56.7\%$ ). The results of bivariate analyses indicated age and suicidal attitude was negatively correlated ( $r = -.16, P = .048$ ), suggesting the older of caregivers, the less positive attitude toward suicidal patients. Female caregivers had higher level of stress than male caregivers (83.1 vs. 77.0,  $P = .02$ ), but no difference in suicidal attitude and suicide care ability. Caring stress was treated as an exogenous variable and suicide care ability and suicidal attitude were endogenous variable. In the final model, being female caregiving status increased the level of caring stress ( $b = .20, P = .02$ ). Caring stress had a direct effect on suicidal attitude ( $b = .27, P = .01$ ), but not on suicide care ability ( $b = .15, P = .11$ ). The association between suicidal attitude and suicide care ability was significant ( $r = .65, P < .001$ ). Results indicated that female caregiver would have higher levels of caring stress, caring stress could prompt the attitude toward caring for suicidal patients, and positive attitude toward suicidal patients would be associated with ability to care for suicidal patients.

**Conclusion:** Age and sex are the factors associated with caregivers's attitudes toward suicidal patients. Nurses can consider these factors into nursing intervention when they are taking care of patients who attempted suicide.

#### Contact

[chunying@isu.edu.tw](mailto:chunying@isu.edu.tw)

## M 01 - Using Quality to Impact Global Nursing Leadership

### Current Assessments of Quality and Safety Competencies in Registered Professional Nurses: An Examination of Nurse Leader Perceptions

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*Elaine Smith, EdD, MSN, MBA, BS, RN, NEA-BC, ANEF, USA*

#### Purpose

to report the findings of a mixed methods study undertaken to determine the degree to which U.S. nurse leaders are satisfied with the practice of registered nurses with respect to the QSEN quality and safety competencies.

#### Target Audience

nurse administrators and nurse educators interested in knowing more about the status of quality and safety competencies in practicing registered nurses.

#### Abstract

**Purpose:** The purpose of this study is to determine the degree of satisfaction nurse leaders possess with respect to the six Quality and Safety Education for Nurses(QSEN) core competencies :use of evidence-based practice; teamwork and collaboration; patient-centered care; quality improvement; safety ;and the use of informatics. Are these competencies reflected in the practice of new graduate registered nurses and in the practice of their incumbent experienced staffs? Nurse leaders differentiated their responses based on the educational level and experience level of the nurses. Additionally, teaching and learning resources within healthcare facilities related to the domains were identified. Facilitators of and barriers to quality and safety learning were explicated.

The research questions included:

1. To what extent are nurse executives and managers satisfied with their new graduate registered nurses' practice related to each of the six QSEN core competencies for nursing?
2. Are there perceived differences based on educational preparation of the new graduate?
3. To what extent are nurse executives and managers satisfied with their experienced registered nursing staff's practice related to each of the six QSEN core competencies?
4. Are there perceived differences based on educational preparation of the experienced nurse?
5. What types of learning opportunities that support the six QSEN core competencies are available to existing registered nurses employed in their clinical agency?
6. What are the barriers to and facilitators of learning experiences for nurses related to the six QSEN core competencies within healthcare facilities?

**Methods:** This mixed methods study used survey methodology and focus group meaning making activities. The survey was developed based on literature review and content expert opinion. It was fielded with 3 groups of nurse leaders with iterative revisions. The instrument was constructed in Survey Monkey to facilitate blinded data collection and aggregation .The survey contained 12 forced response items with open- ended comments permitted. Demographic data on respondent title and years of experience, facility location and size were also collected. Following IRB approval, the survey was launched via the American Organization of Nurse Executives email blast to their membership with an invitation to participate. The survey was open for 3 weeks with two email requests to participate. 110 nurse leaders responded. Two focus groups of nurse leaders from two major tertiary care hospitals were recruited. A total of 11 nurse leaders participated in the 90 minute focus groups. After obtaining informed consent and participant permission, the sessions were audio-taped and field notes were taken. Participants were given the aggregated responses from the electronic survey and asked to discuss the findings using a structured interview guide. Tapes were transcribed and thematic analysis conducted. Focus group findings were reviewed by an external expert reviewer for validation of the emergent themes. Focus group data were presented in content analytic tables with representative comments. Focus groups alone answered research question four.

**Results:** Differences in nurse leader satisfaction across the six domains were identified among the groups based on education and experience. Nurse leader levels of satisfaction with staff quality and safety competencies do vary based on level of experience and degree type. The competencies rated most highly overall included: patient-centered care; teamwork and collaboration; and safety. Satisfaction with quality improvement was rated lowest for all categories of nurses except experienced associate degree for whom evidence-based practice was lower. New graduate nurses prepared at the associate degree/diploma level received the lowest satisfaction scores across five of the six domains. Only in the area of informatics did they score slightly higher than experienced ADN staff members. Baccalaureate prepared nurses both experienced and new graduates receive higher levels of satisfaction than their associate degree counterparts in all six domains. Striking differences were noted in the dimensions of evidence-based practice, informatics and quality improvement. Satisfaction ratings for these three domains were considerably lower for the experienced associate degree/diploma nurse when compared to their experienced BSN counterparts. In fact, BSN new graduates surpass the experienced associate degree nurses in each of these three competencies. With increasing use of technology, it is encouraging to note that new graduate baccalaureate nurses also slightly exceed their BSN experienced counterparts in the areas of informatics.

As a subset of experienced nurses, clinical preceptor proficiency in the six quality and safety competencies, regardless of educational preparation, is cause for concern given the predominance of this model for promoting skill acquisition in nurses. Without addressing preceptor knowledge and skill in the QSEN competencies and their ability to successfully impart it, an ineffective teaching/learning dyad is reinforced.

A wide variety of learning opportunities are available within healthcare facilities to promote quality and safety competency development. Orientation and preceptor-led clinical experiences are the most widely reported methods. One unexpected finding was the relatively low utilization of new graduate residency programs reported by leaders. These programs are noted to be very effective in the overall professional development and retention of new graduate nurses.

Several barriers to and facilitators of quality and safety learning in healthcare facilities were identified. Given the complexity and acuity of healthcare environments, the most frequently cited barrier is the lack of time practicing staff nurses have available in the work environment for learning activities. Leaders have a large role to play in facilitating quality and safety learning. Setting clear expectations for continued growth and professional development and establishing supportive unit cultures promotes the development of these critical competencies.

**Conclusion:** This study has provided insight on nurse leader satisfaction with the quality and safety competencies of their registered nurse staffs. The findings have illustrated areas of strength and limitation for both new graduate and experienced nurses. Differences are noted in the performance of associate degree/diploma prepared nurses and baccalaureate prepared nurses particularly in the domains of evidence based practice and quality improvement. These differences have several implications and calls for action by nurse leaders and educators. It has been learned that quality and safety education is provided through an array of educational strategies inside healthcare facilities but that more emphasis needs to be placed on learning activities to promote development of quality improvement expertise. It is hoped by focusing attention on patient-centered care, teamwork and collaboration, quality improvement, evidence-based practice, safety, and informatics that the practice of incumbent registered nurses can be enhanced to promote safer patient care and to improve the healthcare environments in which they work. Nursing has a significant role to play in the provision of high quality, safe patient care and it requires the joint forces of academic and service partners to assure that healthcare becomes safer than it is.

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Contact

[ESMITH7@NSHS.EDU](mailto:ESMITH7@NSHS.EDU)

## M 01 - Using Quality to Impact Global Nursing Leadership

### Nurses' Scope of Practice and the Implication for Quality Nursing Care

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*Lizeth Roets, PhD, MSocSc (Hons), BSocSc, South Africa*

*Johanna Catharina (Irene) Lubbe, PhD, MSocSc (CritCrNsg), AdvDipEducMgmt, BSocSc, South Africa*

#### Purpose

The purpose of this presentation is to provide an overview of the implications for patients' health status and care needs when assessments are performed by nurses not licensed or competent to perform this task. The "Waterlow™ scale" scenario is used as a practice example to illustrate this case.

#### Target Audience

The target audience of this presentation is nurse managers, nurse educators and nurse practitioners.

#### Abstract

**Purpose:** The purpose of this presentation is to give an overview of the implications for patients' health status and care needs when assessments are performed by nurses not licensed or competent to perform this task. The "Waterlow™ scale" scenario is used as a practice example to illustrate this case.

**Methods:** A retrospective quantitative study was utilised. A checklist was used to perform an audit on a random sample of 157 out of an accessible population of 849 patient files. Data was gathered in May 2012 and the analysis was done using frequencies and percentages for categorical data. Reliability and validity were ensured and all ethical principles were adhered to.

**Results:** Eighty percent of risk assessments were performed by nurses not licensed/enrolled to perform this task unsupervised. Areas such as tissue malnutrition, neurological deficits and medication were inaccurately scored, resulting in fifty percent of the Waterlow™ risk-assessment scales, as an example, being incorrectly interpreted. This has implications for quality nursing care and might put the patient and the institution at risk.

**Conclusion:** Lower-category nurses and student nurses should be allowed to perform only tasks within their scope of practice for which they are licensed or enrolled. Nurses with limited formal theoretical training are not adequately prepared to perform tasks unsupervised, even in the current global nursing shortage scenario.

To optimise and ensure safe and quality patient care, risk assessments should be done by a registered professional nurse, who will then coordinate the nursing care of the patient with the assistance of the lower category of nurses.

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#### Contact

[roetsl@unisa.ac.za](mailto:roetsl@unisa.ac.za)

## M 01 - Using Quality to Impact Global Nursing Leadership

### Leveraging Data to Drive Quality Patient Care: The Value of a Unit-Specific Nursing Performance Dashboard

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*Lianne P. Jeffs, RN, BScN, MSc, PhD, Canada*

*Susan Beswick, RN, MN, Canada*

*Joyce Lo, RN, BScN, MN, Canada*

*Heather Campbell, RN, MS, Canada*

*Ella Ferris, RN, MBA, Canada*

#### Purpose

The purpose of this presentation is to explore the perceptions and experiences of front-line nurses and managers associated with the implementation of a unit-level dashboard.

#### Target Audience

The target audience of this presentation is clinical nurses, educators, clinical leaders/managers.

#### Abstract

**Purpose:** Performance data can be used to monitor and guide interventions aimed at improving the quality and safety of patient care.[1-4] Nursing plays an important role in quality management and performance improvement at the clinical level due to their interactions with patients and at an operational level nurse leaders have a key role in informing resource allocation and patient safety monitoring.[1,3,4] To use performance data effectively, nurses need to understand how to interpret and utilize data in meaningful ways to guide practice. Unless clinical nurses have knowledge about performance improvement measures, exposure to data reporting mechanisms, and shared accountability for quality, it may be difficult for them to participate in data-driven care.[1] One mechanism to provide feedback on patient outcomes, experiences, and processes of care is the use of dashboards. In this context, one hospital developed a unit specific dashboard aligned with the implementation of the Registered Nurses Association of Ontario's Best Practice Guidelines. A study was undertaken to explore the perceptions and experiences of front-line nurses and managers associated with implementation of a unit-level dashboard.

**Methods:** A qualitative study was undertaken to explore the perceptions and experiences of front-line nurses and managers associated with the implementation of a unit-level dashboard, referred to as the CUE dashboard. The CUE dashboard initiative was implemented throughout a large, urban teaching hospital in Toronto, Ontario, Canada and involved six hospital units (outpatient mobility, emergency department, general internal medicine, general surgery, cardiac intensive care, and respirology). Data was analyzed using a directed content analysis approach.

**Results:** A total of 61 interviews (56 front-line nurses and 5 unit managers) were conducted from the following clinical units: general internal medicine (n = 12); general surgery (n =11); respirology (n =10); out-patient mobility (n = 5); emergency (n = 12); and coronary care unit (n=6). Key themes emerged around the enablers and barriers associated with implementation that included learning in a supportive work environment and finding times amidst clinical care priorities.

**Conclusion:** The study findings highlight how front-line nurses and managers viewed implementation of a unit-specific dashboard. This study also provided insight into the experiences nurses and managers had during this process as well as key recommendations on how it could be better utilized. Based on these results, nurse leaders may consider investing in the use of dashboards as a quality improvement strategy, or may use study findings to optimize the use of performance data by using dashboards in their organizations.

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Contact

[lojo@smh.ca](mailto:lojo@smh.ca)

## M 02 - Educational Support of New Staff

### Research on the Sense of Coherence (SOC) of Newly Graduated Nurses in Japan within Their First Sixth Month of Employment

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*Yasue Yamazumi, MSN, RN, Japan*

*Akira Kitagawa, MSN, RN, Japan*

*Chie Ikoma, RN, Japan*

*Fumiko Yasukata, RN, PhD, Japan*

#### Purpose

The purpose of this presentation is newly graduated nurses in terms of SOC (sense of coherence), stressors, and social support six months after starting employment, and to identify factors that influence the SOC of newly graduated nurses.

#### Target Audience

The target audience of this presentation is nursing manager of hospital and academic faculty staff.

#### Abstract

**Purpose:** According to the Japanese Nursing Association, the newly graduated nurse's turnover rate continued to decrease between 2008 and 2012. The turnover rate of newly graduated nurses in 2012 was 7.5%.

7.5% of newly graduated nurse's amounts to 3900 graduates from 50 nursing colleges all over Japan in 2013. The total number of graduates from all colleges and universities in Japan who started working in 2013 was 50,200.

Compared to the turnover rate of 11.4% for all new hires who graduated from college in 2009 this turnover rate for nurses is not particularly high. However, considering that one in nine new employees in the specialized profession of nursing leaves his or her job, measures designed to prevent nurses leaving their jobs are clearly necessary.

The reason of this is not only the support system in the workplace, but also more complex causes such as stressors and a lack of stress coping abilities in individuals.

To research the status of newly graduated nurses in terms of SOC (sense of coherence), stressors, and social support six months after starting employment, and to identify factors that influence the SOC of newly graduated nurses.

**Methods:** Survey requests were made to directors of the nurses at accredited hospitals of the Japan Council for Quality Health Care Hospital Evaluation Program with 300 beds or more in the Tokyo metropolitan area, Osaka and Fukuoka Prefectures.

Self-administered questionnaires were distributed to 914 novice nurses hired in 2012 at 37 facilities from which consent was obtained. Returning the questionnaire constituted consent to participate in the study, and responses were collected from 283 individuals by mail (response rate 30.9%). After excluding the questionnaires of three individuals due to missing data, 280 individuals were subjected to analysis (valid response rate 98.9%).

The questionnaire surveyed basic attributes such as age, sex, and basic educational background, comprised the 13 items in the simplified Japanese sense of coherence scale and the Brief Job Stress Questionnaire.

The 13 question items from the sense of coherence involved selecting 1 of 7 answers from "I completely agree" to "I completely disagree," with the lowest possible score being 13 points and the highest score 91 points. The sense of coherence is composed of the three subordinate concepts of meaningfulness, comprehensibility, and manageability. The Cronbach's alpha was 0.78.

The Brief Job Stress Questionnaire comprises the following nine stressors: "the psychological strain from work (volume)," "the psychological strain from work (quality)," "subjective degree of physical stress," "stress in interpersonal relationships in the workplace," "stress caused by work environment," "degree of control in your job," "degree of utilization of technical skills," "perceived adequacy of your job" and "job satisfaction." The Cronbach's alpha was 0.75.

An additional scale measured the following four stress relaxation factors: support from "family and friends," "colleagues," "superiors," and "social support." The Cronbach's alpha was 0.78.

Multiple linear regression analysis was performed using SOC as the dependent variables and basic attributes, Job Stress and stress relaxation factors as independent variables.

In regard to ethical considerations, we explained the following to subjects: responding to the questionnaire constituted consent to participate in the study; subjects would not suffer any disadvantages by refusing to participate; and identities would be protected by making questionnaires anonymous.

This survey was conducted with the approval of the ethics committee of Fukuoka Prefectural University.

**Results:** I think there are three reasons why the survey questionnaire recovery rate is low.

- 1) There are 16 pages of questions, which is probably too many.
- 2) Subjects may not have answered the high number of personal questions out of concern for their privacy.
- 3) The survey objectives may not have been communicated clearly to the respondents.

Subjects' mean age was  $25.6 \pm 6.0$  (mean  $\pm$  S.D.), ranging from 20 to 49 years old. Males comprised 5.7% while females comprised 94.3%. Basic education was obtained from universities 30%, junior colleges 61% and other 9%.

The average SOC score for all respondents was  $50.4 \pm 10.6$ . Four factors that influenced SOC were extrapolated as follows:

- 1) "perceived adequacy of your job ( $\beta=0.290^{***}$ ),"
- 2) "job satisfaction ( $\beta=-0.232^{***}$ ),"
- 3) "satisfaction with job and life balance ( $\beta=0.249^{***}$ )"
- 4) "the degree of utilization of technical skills ( $\beta=0.101^{**}$ )". (Adjusted R-square= 0.341) (\*\* $p<0.001$ , \*\* $p<0.01$ , \* $p<0.05$ )

**Conclusion:** Based on this research, it was ascertained that in the current study the respondents' ability to cope with stress was high.

Data from respondents with high sense of coherence (SOC) scores was compared to those with low scores. It was considered that those with higher scores were able to deal well with stress and were better at acquiring support from workplace colleagues as they were highly capable at seeking help.

Newly graduated nurses tend to be in the early stages of adulthood, which is the period when SOC is formed and developed.

Further, it was felt that they were able to smoothly establish an occupational identity and had a strong sense of self-efficacy. The formation and development of sense of coherence (SOC) is important in preventing resignations and workplace burnout, so going forward it is necessary to enhance workplace support for this group, to carry out a phased expansion of their discretionary powers, and to conduct measures to encourage them to have successful experiences of coping with stress.

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Contact

[yasue007@gmail.com](mailto:yasue007@gmail.com)

## M 02 - Educational Support of New Staff

### Peer Support in Research Capacity Development

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*Gisela H. Van Rensburg, DLittetPhil, South Africa*

#### Purpose

The purpose of the presentation is to provide educators with information that could facilitate peer support to enhance research capacity development. Peer support could contribute to an enriching learning environment within which students' and researchers' experiences and potential are enriched.

#### Target Audience

research supervisors and nurse educators

#### Abstract

**Purpose:** The purpose of the presentation is to provide educators with information that could facilitate peer support to enhance research capacity development. Peer support could contribute to an enriching learning environment within which students' and researchers' experiences and potential are enriched.

**Methods:** This presentation addresses an objective that is part of a larger study that focuses on innovative support strategies to enhance postgraduate research capacity. A qualitative approach was used to explore the peer support practices of postgraduate students at a distance learning institution. Data were collected from two samples of postgraduate students using semi-structured narrative essays. The eight steps suggested by Tesch were used to analyse the data. The data obtained is discussed within the specific context of an open distance learning environment.

**Results:** The results provided significant insights into the value of peer support as a strategy to develop research capacity. The findings pointed to the mutual support and thus participative learning that peer support provides. Both formal and informal peer support encourage critical reflection on their research capacity and assist in addressing shortcomings and hidden assumptions. Peer support could be both direct and indirect, providing various opportunities to develop as researchers in a safe environment.

**Conclusion:** The recommendations include the use of peer support in diverse groups of postgraduate students in an open distance learning context. Peer support could offer a type of support that is not necessarily part of the open distance learning context. It may address some of the issues experienced in such a context by alleviating the feeling of 'distance' and 'aloneness' when doing postgraduate studies at an open distance learning institution.

#### Contact

[vrensg@unisa.ac.za](mailto:vrensg@unisa.ac.za)

## M 02 - Educational Support of New Staff

### Bridging the Education-Practice Gap: Integration of Current Clinical Practice into Education on Transitions to Professional Practice

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Cheryle G. Levitt, PhD, MSN, BSN, RN, USA

#### Purpose

This purpose of this presentation is to share results from a study that solicited content topics from nurse clinicians to be used to develop a core course in transitions to professional practice in a RN-BSN program. Direct input from practitioners creates a partnership to bridge the education-practice gap.

#### Target Audience

The target audience of this presentation is nursing educators in baccalaureate programs throughout the global nursing community, as well as nursing clinicians. The involvement of clinicians for direct input into course development provides a dynamic and realistic partnership that enhances nursing education.

#### Abstract

**Purpose:** There is an acknowledged gap between the content in undergraduate nursing education programs and the expected performance standards and roles of nursing in the healthcare setting. The continual changes in the healthcare system are not sufficiently reflected in basic nursing education, and the gap results in graduates that may not be sufficiently prepared for the current role expectations for nurses in various settings. Nursing education is charged with preparing graduates to integrate into reconceptualized roles that include areas such as collaboration, leadership, quality management, use of technology, and care management. The Institute of Medicine study on the Future of Nursing (2011) identifies this gap as an issue for improvement for nursing education in order to create an effective transition for graduate nurses to a range of practice settings. To address this, faculty in a RN-BSN program contacted clinicians in various healthcare settings to seek their input for topics to guide course development, in order to provide an opportunity for a direct connection from the field into the classroom. This descriptive study sought to bridge this gap by providing suggestions directly from practitioners in the field to contribute to course development in an online RN-BSN program, for a core course in transitions to professional practice. The study queried practitioners for the content topics they deem essential for nursing students to learn, in order to transition into professional nurses. A secondary purpose was to reveal and identify differences between clinicians vs. faculty recommendations for areas of content.

**Methods:** This study, approved by the university IRB, collected information via an electronic survey, from experienced BSN and MSN nurses (93% with > 5 years experience) in a diverse selection of roles and clinical areas, faculty currently teaching in a RN-BSN program, and graduates of a RN-BSN program. Clinical roles of participants included staff, preceptors, managers, and administrators in acute care facilities, both rural and metropolitan, in teaching and community hospital settings, long term care, and outpatient settings. Participants (total respondents: n=206) were asked to identify and prioritize, from a list of topics provided, the pertinent content areas to include in a core foundational course for transition to the roles of professional nursing. Topics were selected using standards for professional practice, evidence from the literature, and texts on professional practice. Participants were invited to add their own content ideas and further suggestions for the subject areas of the course.

**Results:** Results were analyzed with descriptive statistics and for differences, using a series of Kruskal Wallis tests. The survey was piloted prior to distribution. Participants were asked to choose their top ten topical areas and to rank them in order of priority. The top content areas were: accountability and autonomy; collaboration and coordination in caring; critical thinking, clinical reasoning; ethical principles and standards; evidence based practice; informatics and technology; leadership and management; professional communication; professional nursing concepts; quality improvement. No significant differences in mean importance rankings for any of the nursing curriculum topics were found according to age. A significant result was found for *history of nursing* ( $\chi^2=7.846$ , 2 df,  $p=.020$ ) where it was found to be at the bottom of the ranked list, for *leadership and management principles* ( $\chi^2=14.061$ , 5 df,  $p=.029$ ), for *critical thinking, clinical reasoning* ( $\chi^2=8.790$ , 2 df,  $p=.012$ ) and for *professional nursing concepts*:

*philosophy, identity, standards, roles, behaviors* ( $\chi^2=6.213$ , 2 df,  $p=.045$ ). No significant differences in mean importance rankings were found according to highest degree earned by the participant, for geographic location, between rural and metropolitan groups, according to clinical setting, or between clinicians, faculty, and recent graduates. Significance for excluding nursing history, previously in the course, was highest among less experienced nurses.

**Conclusion:** The results identified priority content areas, that were combined with standards for baccalaureate education, and applied directly into course development for a core transitions to professional nursing course, as well as integrated into other courses within the program. The course was developed and launched within 4 months of the results of the study, thus providing rapid utilization of the results. The study sought to help to prepare nurses with realistic content that can assist them to be effective practitioners in the present and future healthcare environment, to reduce a gap between education and practice, and to provide faculty with the pertinent content to enable this outcome. The congruence in results between clinicians and faculty was gratifying. The faculty felt that the course was the most current possible, and was supported by clinicians who would likely be working with graduates of the program at a future date. It is recommended to use this collaborative approach for development of other courses in the baccalaureate curriculum.

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### Contact

[levittcg@delhi.edu](mailto:levittcg@delhi.edu)

## M 03 - Global Nursing Leadership Initiatives

### The Relationships Among Leadership Style, Safety Climate, Emotional labor and Intention to Stay for Clinical Nursing Staff in Taiwan

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Hui-Yu Liang, RN, Taiwan

Shu Yu, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is to identify the relationships among leadership style, safety climate, emotional labor, and intention to stay for nursing staff in Taiwan.

#### Target Audience

The target audience of this presentation is nurse, administrator, and policy makers in hospitals.

#### Abstract

**Purpose:** Nurses shortages is global issues, stable nursing workforce and improving nursing practice environment are important for the current policy of retention. Organizational factors are becoming more important for intention to stay among nurses. The purpose of the study was to identify the relationships among leadership style, safety climate, emotional labor, and intention to stay for nursing staff in Taiwan.

**Methods:** A cross-sectional research design was conducted in this study. Subjects were selected by using a purposive sampling method. A satisfactory reliability and validity structured-questionnaire was used to collect data and completed by 202 subjects with a response rate of 73.3%.

**Results:** The finding indicated that most of the nurse staff intent to stay in nursing workforce (the mean score was 3.27 out of a possible score of 5; SD = 0.74) and 46.5% nurses staff express higher degree of intention to stay. Leadership style ( $r= 0.31, p<0.01$ ) and safety climate ( $r=0.48, p<0.01$ ) revealed positive relationships with intention to stay; emotional labor revealed a negative relationship with intention to stay ( $r= -2.52, p<0.01$ ). The finding of multiple regression analysis indicated that nurses staff working experience ( $\beta= -0.24, t= -352, p=0.01, 95\% CI= -3.89$  to  $-1.09$ ), leadership style ( $\beta=0.31, t=4.64, p<0.01, 95\% CI=0.05$  to  $0.11$ ), safety climate( $\beta=0.48, t=7.78, p<0.01, 95\% CI=0.11$  to  $0.18$ ) and emotional labor ( $\beta= -0.25, t= -3.68, p<0.01, 95\% CI= -0.05$  to  $-0.02$ ) were significant predictors of intention to stay and explained 32.9 % of the total variance.

**Conclusion:** Job related emotional labor is recognized in this study which can contribute to developing a program to decrease first-line nurses emotional stress. Besides, based on our findings, we suggest that create positive workforce, effectiveness of leadership style, culture of safety climate should be established.

#### Contact

[11205@ymuh.ym.edu.tw](mailto:11205@ymuh.ym.edu.tw)

## M 03 - Global Nursing Leadership Initiatives

### Nurses' Perceptions of Ethical Issues in an Academic Hospital Setting

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Linda E. Jensen, PhD, RN, MN, USA  
Christine Swanson, MA, USA

#### Purpose

The purpose of this presentation is to: 1. Discuss methodology and stakeholders to involve when assessing perceptions of nurses about ethical consultation services 2. Identify barriers to ethical consultation and needs for inservice education as perceived by registered nurses in an academic hospital in a rural area of the U.S.

#### Target Audience

The target audience of this presentation is nursing administrators, clinical educators, researchers, and/or ethics committee members concerned about measuring nurses' perceptions of ethical dilemmas and their abilities to protect their patients and improve patient and family-centered care.

#### Abstract

**Purpose:** Today's healthcare organizations are becoming increasingly accountable for the many ethical issues and challenges that have arisen as a result of corporate management, technological advances, reproduction issues, genetic healthcare, and the demands of cost containment affecting the delivery of safe and effective cares (Cooper, 2002). With such changes and challenges in the healthcare system, studies have found that the once traditional ethical principles of autonomy, beneficence, and justice provided by today's healthcare professionals are being severely tested (Cooper, 2002, p. 331). In addition, despite the Joint Commission on Accreditation of Healthcare Organization accreditation standard requiring healthcare organizations to develop and operate under a code of organization ethics, and the imperative need for healthcare professionals' to perform in an ethical manner, research has found that there are still barriers between the clinical and organization ethics within the hospital systems.

Despite the prevalence and the identification by recent studies regarding the ethics consultative services vital role in resolving ethical disputes, little research has been conducted to evaluate the effectiveness and or barriers to the ethics consultation services within university or community hospitals as perceived by the nurses working in that institution. Studies have further recognized that there is significant lack of data on "the effectiveness of ethics committees and the committee members' lack of education and skills for effective participation in case consultation.

Research Question: What are the perceptions of the registered nurses about common ethical dilemmas and the services of the Ethics Consultation Services (ECS) within an academic hospital setting?

**Methods:** Any person who is concerned about a potential clinical ethics issue at that academic hospital could request an ECS consult: patient, family member or friend, student, health care provider, administrator, or other hospital employee. Typically the consultant would ask the caller to describe the ethical issue(s) and elicit background information. If the query is a straightforward request for information, the telephone call may suffice. If a formal consult appears to be indicated, the ECS consultant would address the patients' primary medical physician to ask whether he/she is aware of the consult. If the primary medical physician is not aware, the inquiring individual and the consultant may negotiate who will alert the primary physician. The ECS consultant would then discuss the case with the appropriate individuals (primary physician, relevant consulting services, nursing, social work, significant others and patient), conduct a chart review, and pursue any other information needed to frame the issues. The ECS consultant may hold a formal case conference if needed. At the conclusion of the consult, the ECS member will document a brief description in the patients' medical chart including actions taken, and recommendations made or agreements reached. The ECS consultant will further allude to the appropriate personnel that they are an advisory service; its recommendations are not enforceable.

Ethics consultant's services were available 24 hours a day and seven days a week. A dedicated ECS pager was available for members of the ethics consultation services who do not carry their own

paggers. The ECS members were assigned to ethics services based from a rotation schedule that is set on a quarterly basis with assistance from the Medical Executive Office. The administrative assistant entered the rotation in the hospitals e-call system and communicates any schedule changes to the ECS members. The ECS chair served as back-up call. The ECS consultants were able to ask for assistance on a case from one another, from hospital administration (e.g., chaplaincy, social work, patient relations, risk management, administrator on call, legal counsel), and from other medical services (e.g., ECS might recommend a consultation by psychiatry, palliative care, etc.). In addition, the ECS consultants were able to converse with medical personnel, family members, primary care physicians and other sources of information on the patient's goals, values, preferences, medical status, and treatment options.

A 10-item survey was designed to determine the extent to which nurses witnessed specific ethical issues, take actions to increase the involvement of ethics consultation services, and also to evaluate the RNs' perceptions of the ethics consultation services. In addition, the survey included questions that measured the nurses perception regarding requesting an ethics consultation. A four-point Likert scale extending from 'always', which was scored as 1, to 'rarely', which was scored as 4, yes and no questions, and a five-point Likert scale extending from 'very important', which was scored as a 1, to 'not at all', which was scored as a 5, were utilized within the study. An open ended question was also provided at the end of the survey to elicit detailed comments and or recommendations about ethical issues or the ethics consultation services. Validity of the survey was developed as the team sat with a member from the ethics committee. The questions were changed several times to measure what the nurse "perceives" the ethics consultation to be. In addition, several nurse administrators at the hospital, the college Institutional Review Board (IRB), and the hospital IRB, also approved the questionnaires and the research methodology. Data collection was conducted with an online survey software tool which sent a survey to all registered nurses at the academic health center.

**Results:** Analysis of the data from 282 registered nurses showed most nurses perceived adequate support from the administration and the physicians in ethical dilemmas, however 69% of the participants responded as having no prior experience with the ethics consultation services at the hospital, and 32% were not aware of the ethics consultation services. Over thirty percent found the concerns for retaliation from a coworker, the time required for an ethics consult, the perception by some providers that an ethics consult suggests wrongdoing or failure, and the difficulty of asking for a consult were important barriers to asking for an ECS consult. In addition, several qualitative responses were provided by the nurse participants elaborating on the experiences they have had with concerns for retaliation from a coworker. Additional results will be discussed.

**Conclusion:** A recommendation was made to include ethics consultation education in the general orientation process as well as within yearly in-services held by the Ethics Consultations Committee. Furthermore, it was recommended that nurses within the inpatient hospital setting should become more aware of the ethical resources available to them within their hospital work environments and the appointed ethics consultation services available to them so that they utilize the ECS more in resolving ethical dilemmas or disputes, improving patient care by responding to healthcare professional's requests, and assisting in the debate and resolution of ethical cases and ethical policies. In addition, to allow for a more thorough evaluation, further studies to evaluate the perceptions of ethics consultation services by various disciplines within the academic hospital setting (patients, family, other health care team members) should be conducted.

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#### Contact

[jensenlinda@clarksoncollege.edu](mailto:jensenlinda@clarksoncollege.edu)

## M 04 - Using Online Technologies for Education

### Utilizing the Technology Acceptance Model (TAM) for Predicting Usage and Adoption of an iBook© in Online Graduate Nursing Courses

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*Maria E. Lauer, PhD, RN, MSN, USA*  
*Mary Judith Yoho, PhD, RN, CNE, USA*  
*Leah M. Phillips, MSN, RN, USA*  
*Desirae Freeze, MSN, RN, USA*

#### Purpose

The purpose of this presentation is to share research outcomes related to the degree faculty would adopt an iBook© for online nursing programs. The Technology Acceptance Model (TAM) was used to examine perceptions of usefulness, attitude and preferences to predict faculty acceptance of the iBook© format in online nursing courses.

#### Target Audience

The target audience of this presentation is undergraduate and graduate faculty interested in expanding technological modalities and strategies with the use of an interactive textbook, which can potentially change the way educators and learners meet learning objectives.

#### Abstract

**Purpose:** Little is known about the use of iBooks©, in fact, “Inspiring Future Nurse Educators” is currently the only known iBook native to the iAuthor©software. As with any new technology, it is vital to assess the likelihood of adoption by faculty and learners. This study adapted the Technology Acceptance Model (TAM) (Ventakesh and Bala, 2008). to examine perceptions of usefulness, attitude and preferences in an effort to predict faculty acceptance of the iBook© format. The purpose of this presentation is to share research outcomes related to the degree faculty would adopt an iBook© for use in online graduate nursing programs. The Technology Acceptance Model (TAM) was used to examine perceptions of usefulness, attitude and preferences to predict faculty acceptance of the iBook© format.

**Methods:** A survey method design was used to study the research hypotheses.

H1: Perceived usefulness (PU) will have a significant influence on attitude towards usage (ATU).

H2: Perceived ease of use (PEOU) will have a significant influence on attitude towards usage (ATU).

H3: Perceived ease of use (PEOU) will have a significant influence on perceived usefulness (PU).

H4: Attitude towards usage (ATU) will have a significant influence on users’ behavioral intention to use (BIU) an iBook.

**Results:** The iBook was reviewed by faculty who teach online courses. Faculty downloaded the iBook onto their ipads so they would have full access to the interactive links. Faculty varied in experience from novice to very experienced in using iBooks to novice users, with 64% reporting they are advanced users of technology.

Once reviewing the iBook, 100% faculty stated they were generally favorable attitude toward using iBooks, and found the iBook easy to use. 79% of faculty stated they intend to use iBooks frequently for teaching.

**Conclusion:** The iBook was positively received by faculty who teach online courses. Interactive textbooks may have the potential to change the way educators and learners meet learning objectives. Comments provided by the study participants will be implemented in the editing and updating of the iBook. A replicated study is planned to include a larger pool of faculty teaching at other online nursing programs.

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Contact

[myoho@chamberlain.edu](mailto:myoho@chamberlain.edu)

## M 04 - Using Online Technologies for Education

### Using an Online Learning Module to Improve Australian Palliative Care Nurses' Pain Assessment Competencies and Patients' Reports of Pain

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*Jane L. Phillips, RN, BS, PhD, Australia*

*Louise D. Hickman, BN, RN, MPH, PhD, Australia*

*Nicole Heneka, MHumNut, Australia*

*Lawrence T. Lam, PhD, MPubH, MAppPsy, BSc (Hons), Hong Kong*

*Tim Shaw, BSc (H1), PhD, Australia*

#### Purpose

is to report the results of a translational research project utilising QStream, a novel on-line learning platform on palliative care nurses' pain assessment capabilities (knowledge, skills and clinical practices) and patient reported pain outcomes.

#### Target Audience

nurses interested in translating evidence into practice.

#### Abstract

**Purpose:** Pain is a complex multidimensional phenomenon moderated by consumer, provider and health system factors. Even within specialist cancer and palliative care settings where pain is almost always universally experienced by patients, there is often poor compliance with routine pain screening and assessment practices, with patient reported pain intensity ratings frequently not documented.<sup>1,2</sup>

Effective pain management in these specialist care settings cuts across professional boundaries, with failure to screen and assess contributing to the burden of unrelieved pain.

Translating evidence into practice and changing behaviour in dynamic clinical environments is challenging, and requires a systematic and critical analysis of priorities and presumed causes. A range of predisposing, enabling and reinforcing factors are known to shape clinicians pain assessment practices, including: their assessment knowledge, skills and practices (competencies)<sup>3</sup>; understanding of suitable assessment tools; commitment and capacity to integrate pain assessment findings into clinical decision making<sup>4</sup>; communication skills; and capacity to address their patients' care needs within the context of multi-professional practice.<sup>5</sup> While numerous education interventions have been developed to address these gaps in the cancer or specialist palliative care settings<sup>6</sup>, few have targeted pain assessment as a distinct and separate learning component, with most embedding assessment into the overall pain management intervention.<sup>1</sup> Implementing an intervention that increases nurses' pain assessment capabilities is required to improve patient reported pain outcomes.

Qstream is an on-line learning platform, that takes advantage of the psychological finding that education encounters which are 'spaced' and 'repeated over time' result in more efficient learning and improved retention compared to a bolus distribution learning format.<sup>7</sup> The Qstream learning platform delivers clinical content questions to participants via regular email. In over 12 randomised controlled trials, Qstream has been demonstrated to: increase health professionals' clinical knowledge and competencies; promote active learning and retention in specialist areas; impact on clinical practice; and change clinicians' behaviour.<sup>8-10</sup>

The primary aim of this study was to test the impact of a Qstream pain assessment learning module on specialist palliative care nurses' pain assessment competencies, and to determine if this education impacted positively on palliative care patients' reported pain ratings.

**Methods:** This quasi-experimental (pre-post-test) pilot continuing professional development intervention study was conducted at two Australian specialist palliative care services in 2012. All of the 103 registered and enrolled nurses (nurses) employed for more than 16 hours per week at these services were invited to participate.

The continuing professional development intervention consisted of 11 case based pain assessment scenarios developed by a multidisciplinary expert panel delivered to participants via Qstream over 28 days. The 'Self-Perceived Pain Assessment Competencies' (Self-PAC) survey and chart audit data (n=60), including patient reported pain intensity ratings, were collected pre (Time 1) and post intervention (Time 2) and analysed using inferential statistics to determine key outcomes.

The Self-PAC-Survey has three distinct sub-scales, with Cronbach alpha reporting acceptable internal consistency reliability: seven item pain assessment knowledge (0.944); three item pain assessment tool knowledge (0.846); and seven item pain assessment confidence (0.919) scales.

Independent sample t-test were used to compare the 'responders' (participants who completed the Time 1 and Time 2 survey's and the intervention) and 'non-responders' (participants who only completed the Time 1 survey). A paired sample t-test was used to determine if there was a difference between nurses' pain assessment: knowledge, tool awareness and confidence scores at Time 1 and Time 2. The difference in number of documented pain ratings in the medical records by Qstream participants between Time 1 and Time 2 was calculated and the association between Qstream participation and assessments at the two time points was examined using Pearson chi-square test. Differences in patient reported pain rating between admission and audit date were examined using paired t-test. A significance level of 5% was used for all hypothesis testing.

**Results:** The results reported conform to the STROBE Guidelines. Thirty Four nurses out of the 74 who enrolled in the study completed the intervention and the Time 1 and Time 2 surveys. Participants felt more confident documenting their pain assessment findings following the learning module (mean 7.52 to 8.17) with participants also more confident undertaking a comprehensive pain assessment at the end of the program compared to baseline (mean 7.27 vs. 8.24). Participants were more likely to document pain intensity scores in patient's medical records than non-participants (95% C.I.=7.3% - 22.7% , p=0.021). Qstream participants increased their knowledge of comprehensive pain assessment elements, assessment tools and confidence to undertake a pain assessment (p<0.001). There was also a significant reduction in the mean patient reported pain ratings between the admission and audit date at post-test (mean=2.4) compared to pre-test (mean=3.9) (t=1.51,df= 82, p<.0010).<sup>11</sup>

**Conclusion:** This pilot confirms the Qstream delivery method as an online learning format with the capacity to improve specialist palliative care nurses' pain assessment practices and reduce patient rated pain intensity scores. Given the central role nurses play in pain assessment processes this is an important result. Especially as determining the best way of managing the patients' pain is dependent upon systematic and robust assessment, identification of the underlying pain mechanism, and integration of appropriate multi-modal approaches tailored to address each patient's pain requirements.

An adequately powered larger pragmatic trial with a larger sample is required to confirm these results. There is potential for Qstream to be integrated into larger multi-faceted translational research interventions targeting nurses' knowledge, attitudes and practices.

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Contact

[jane.phillips@nd.edu.au](mailto:jane.phillips@nd.edu.au)

## M 04 - Using Online Technologies for Education

### Exploration of Personality Traits of Online and On-Campus Family Nurse Practitioner Students

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*Kaye I. Bultemeier, PhD, MSN, APRN/BC, USA*

*Dustin Wattenberger, MSN, BS, USA*

#### Purpose

to provide a summary of personality traits of students who enroll in Family Nurse Practitioner programs. The results reveal traits of online and on-campus cohorts to assist educators as they prepare advanced practice nurses

#### Target Audience

faculty of family nurse practitioner and advanced practice programs. Special interest for those moving toward online education formats.

#### Abstract

Personality types and specialty selection have been identified in physicians who select family practice. However data is not available for nurses who select Family Nurse Practitioner as their specialty. There is a 10% attrition of students who enter on-campus education programs and a 20% attrition rate for online students. Personality types of nurse in general and family nurse practitioner students specifically have not been conducted.

**Purpose:** To explore the personality types of Family Nurse Practitioner students. Additional exploration of differences between online and on-campus students is explored.

**Methods:** Non-experimental exploratory study of 109 newly enrolled family nurse practitioner students. A two site cohort study with cohort one a large private northeaster US university and cohort two a small private university in the southern part of the United States. Fifty students were enrolled in an online program and 59 were enrolled in on-campus program. Instrument was Myers-Briggs, Form M personality inventory. The profile was completed anonymously as students were directed to the Myers-Briggs web site.

**Results:** Sample: Males (7 on-campus, 13 online). Average age 31.7 years online and 33.29 on-campus.

Chi square analysis revealed a significant difference was found in the personality trait of Sensing vs Intuition (p.000)

A significant difference was noted with students judging vs Perceiving (p.013). The sample was too small to calculate a difference between the 16 total personality types

**Conclusion:** The results indicate that FNP students are predominately judging and Sensing. There is need to determine if similar traits are noted in practicing Family Nurse Practitioners. Additional long term studies to look at job satisfaction and successful completion of the education program differs with educational program.

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#### Contact

[kayebultemeier@gmail.com](mailto:kayebultemeier@gmail.com)

## M 05 - Traumatic Issues in the Pediatric Population

### Robbing the Cradle: An Analysis of Trends in Infant Abduction in the United States

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*Teresa W. Ryan, DNS, USA*

#### Purpose

to inform healthcare practitioners of trends in infant abduction and prevention practices. As security in hospitals and maternity centers becomes increasingly stringent, potential abductors have employed other methods, including violence, to obtain newborn children.

#### Target Audience

nurses, nurse practitioners, midwives, and childbirth educators who are involved with expectant women from the early prenatal period to post-delivery must be knowledgeable about trends in infant abduction and be able to educate expectant women and their families about infant abduction and how best to safeguard themselves and their babies.

#### Abstract

**Purpose:** Abduction of an infant by a nonfamily member is an extremely rare event but it is an event that can devastate families and caregivers alike. Hospitals and birthing centers in the United States have successfully employed procedures, from parental education to high-tech security perimeters, to thwart infant abductions so that while abductions from hospital or other healthcare facilities has decreased, abductions from the home or public places, has risen and often times the perpetrators have resorted to violence to overcome and incapacitate parents. Of note is the rise in “fetal abductions”, where term or near-term fetuses are removed from their mother’s uterus by crude cesarean sections, endangering both mother and child. Perpetrators of hospital or nonhospital abductions tend to conform to a strikingly common profile that should be known to all healthcare workers who care for women and children. Nurses are at the forefront of maternal-newborn care and can contribute to the safety and security of expectant women and their children by having a thorough knowledge of abduction risks and developing parental education programs for parents that start with the first prenatal visit and continue through the postpartum period.

**Methods:** A literature review on infant abduction in the United States was performed to obtain statistics on the incidence of abduction, common characteristics of perpetrators of infant abduction, and successful techniques for the prevention of infant abduction.

**Results:** Statistics reveal a trend away from hospitals to less secure venues for infant abduction, due to the use of technology and strict identification procedures commonly enacted in maternal-newborn units. The profile of an infant abductor remains relatively unchanged although there is a new and alarming willingness to resort to violence in order to obtain a child.

**Conclusion:** Although infant abduction rates are statistically small, the safety and security of mothers and newborns remains a high priority for nurses. By being aware of physical security of maternal-newborn units, educating expectant parents on the methods used by potential abductors, and working with community resources, these tragic incidents can be prevented.

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Contact

[ryant@nwfsc.edu](mailto:ryant@nwfsc.edu)

## M 05 - Traumatic Issues in the Pediatric Population

### Parents Reactions to Multi-Disciplinary Perinatal Palliative Care during Pregnancy with a Lethal Fetal Diagnosis

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*Denise Cote-Arsenault, PhD, RN, USA*

#### Purpose

to describe parents' reactions to interactions with care providers from multi-disciplines during pregnancy with a known lethal fetal diagnosis. This naturalistic, longitudinal study of 16 couples include helpful and non-helpful interactions, and various forms of care coordination. Using quotes from both parents, recommendations for perinatal palliative care will be presented.

#### Target Audience

care providers and researchers focused on care of parents experiencing pregnancy with poor prognosis or perinatal loss. Those interested in longitudinal naturalistic research methods will also find this informative.

#### Abstract

**Purpose:** Some parents learn through prenatal testing that their wished-for child has abnormalities that are incompatible with life. Their fetal diagnoses launch them into appointments with sonographers, obstetricians, genetic counselors, perinatologists, maternal-fetal medicine specialists, bereavement nurses, perinatal palliative care programs, hospice, and neonatologists. The purpose of this presentation is to describe parents' reactions to interactions with care providers from multi-disciplines during such pregnancies and to make recommendations of useful interaction styles to care providers.

**Methods:** Naturalistic, longitudinal. Inclusion criteria: currently pregnant mothers and their willing partners who intend to continue their pregnancy, are 18 years of age or older, speak English and do not have a multiple gestation. Recruitment was done through care providers who obtained permission to contact for us. The goal was to have two interviews with both parents during pregnancy and two more after the birth/death of the baby. The PI conducted all of the interviews either in-person, on the phone, or via video-conference; all interviews were recorded, professionally transcribed, and transcripts were carefully verified. Field notes were included in the transcripts, then entered into Atlas.ti for data management.

Analysis was an iterative process that began at the interview, then moved to transcript texts; done independently and then with the research team. Memos were written, categories and themes were identified; exemplar quotes were extracted.

**Results:** 16 mothers and 14 partners were interviewed; most were interviewed 3 times over 6 months. Interviews lasted 1-2 hours. Parents were interviewed together and separately, to gain their unique views. Parents found that compassionate, straight forward, and non-judgmental care providers were very helpful. Unhelpful approaches included silence, withholding information, absent of hope, making assumptions, not asking about personal preference, and only focusing on the baby's abnormalities.

Interactions with care providers that were helpful led to parental understanding of their baby's condition, assisted them with birth planning, supported their grief, and facilitated their relationship with their baby, and their personal growth. Unhelpful interactions caused emotional distress, anger, frustration, and increased grief. Care coordination across disciplines was seen as very helpful, supportive, and caring. Using quotes from both parents, recommendations for care providers and perinatal palliative care will be presented.

**Conclusion:** Parents' journey drastically changes course after learning their fetal diagnosis. Interactions with multiple care providers can be stressful or helpful. Coordination of care could reduce the stress and provide helpful support for parents. Given the painful situation parents are in, the best possible care should be given that honors the baby and facilitates healthy grieving of the parents.

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Contact

[d\\_cotear@uncg.edu](mailto:d_cotear@uncg.edu)

## M 05 - Traumatic Issues in the Pediatric Population

### Family Structure; Process of Family Life, Communication Patterns and Prevalence of Smoking, Alcohol and Illicit Drug Use Among Primary Children

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*Yim Wah Mak, PhD, RN, RM, BSc, MSc, Hong Kong*

*Alice Yuen Loke, PhD, RN, Hong Kong*

#### Purpose

This study examined the family structure; process of family life, communication patterns and patterns of smoking, alcohol and illicit drug use among primary children in a deprived district in Hong Kong.

#### Target Audience

those who are interested in adolescent health, prevention of health risk behaviours such as smoking, alcohol use or illicit drug use.

#### Abstract

**Purpose:** This study examined the family structure; process of family life, communication patterns and patterns of smoking, alcohol and illicit drug use among primary children in a deprived district in Hong Kong.

**Methods:** A two-stage random sample of primary five and six school children aged 10-12 years were recruited from 5 schools in two deprived districts in Hong Kong. Children from the schools were completed structured questionnaires in the classroom. Their family life (structure, parenting patterns and process), communication patterns and practices of health risk behaviors (smoking, alcohol and illicit drug use).

**Results:** The prevalence of experimentation with smoking, alcohol use and illicit drug use among primary 5-6 children were 1.1%, 28% and 0.1% among the 796 children who have completed the questionnaire. Most of the participated children were males (53.8%), living with fathers (85.3%), mothers (93.5%) or siblings (66.8%). The study shows that near half of the fathers (47.3%) and the mothers (61%) were perceived had communicated with their children about consequences of smoking, alcohol or drug use. Children who perceived "authoritarian" or "neglecting" parents reported more experimentation with smoking, alcohol or illicit drug use.

**Conclusion:** The results of the present study suggest that prevalence of smoking and illicit drug experimentation is congruent between children from the deprived districts and the general Hong Kong population. However, our data revealed a significant higher ever use of alcohol among children from the two districts than the general population. Perceptions of young children on family life which are importance for their experimentation with health risk behaviors.

#### Contact

[yw.mak@polyu.edu.hk](mailto:yw.mak@polyu.edu.hk)

## M 06 - Health Promotion in an Aging Society

### Longitudinal Comparison of ADL Function Between Green House Nursing Home and Traditional Nursing Home Residents

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*Ju Young Yoon, PhD, RN, USA*

*Barbara Bowers, PhD, RN, FAAN, USA*

#### Purpose

The purpose of this presentation is to share the study findings on the effects of a small-scale nursing home model from the longitudinal health outcome trajectories.

#### Target Audience

The target audience of this presentation is researchers, practitioners and policy makers who are interested in improving the quality of nursing home care.

#### Abstract

**Purpose:** In the past few decades, many traditional nursing homes have attempted to transform themselves from hospital-like environments to be more homelike. This model change is generally referred to as a nursing home culture change which includes comprehensive efforts to redesign nursing home environments and transform care delivery to residents. Although care outcomes are significant and ultimate evidence that shows the effects of the new models, research findings about the resident outcomes are still limited and mixed. The purpose of this study is to investigate the effects of a small-scale nursing home model from the longitudinal health outcome trajectories. This study used Green House (GH) homes in the U.S as a representative small-scale nursing home model, and compared the change patterns of activities of daily living (ADLs) over time in GH homes and traditional nursing homes. There were two specific research questions in this study: (1) Does the facility type (whether GH homes or traditional nursing homes) influence the change in ADL function over time? (2) Does the facility type (whether GH homes or traditional nursing homes) predict different patterns of change in ADL function over time?

**Methods:** This study is a retrospective longitudinal analysis using minimum dataset (MDS). The total sample included 95 GH home residents and 146 traditional nursing home residents. The health outcome was measured with ADL function indicating higher scores are more dependent (range: 0 – 40). Growth curve modeling (GCM) was utilized to examine the effect of the facility type on the mean ADL function trajectories between the two groups controlling for age, comorbidity score, cognitive function and depressive symptoms. Growth mixture model (GMM) was employed to identify different patterns of change in ADL function over time and examine the effect of facility type on predicting different patterns of change in ADL over time. After deciding the latent classes (number = 2 in this study), the logistic regression was applied to examine the effect of facility type to predict the class membership controlling for age, comorbidity score, cognitive function and depressive symptoms.

**Results:** Major study findings are: (1) the ADL function of both groups were reported to become worse over time (slope = 0.56,  $p=0.017$ ), but no statistically significant differences of the overall pattern of change in ADL function over time between the two groups controlling for age, comorbidity score, cognitive function and depressive symptoms at baseline. (2) Two different patterns of change in ADL function were identified using GMM including persistent independent group ( $n=41$ , intercept = 8.34 [ $p = 0.049$ ], slope = -0.78 [ $p = 0.199$ ]) and persistent dependent group ( $n=200$ , intercept = 19.70 [ $p = 0.000$ ], slope = 0.61 [ $p = 0.823$ ]). Again, higher ADL scores were more dependent status. After controlling age, comorbidity score, cognitive function and depressive symptoms at baseline, the facility type factor staying in the GH homes did not predict the resident's likelihood of being in the persistent independent group than being the persistent dependent group at the statistical level (Odds ratio = 1.19, 95% Confidence interval = [0.58, 2.46]).

**Conclusion:** As a conclusion, the changes in ADL function over time were not different between the two types of nursing home residents whether in GH homes or traditional nursing homes. The essential

elements of small-scale nursing homes include private rooms and bathrooms in a small-scale unit, and encouraging independence for residents, so a physical environment that inspires self-care in private areas is generally expected to improve ADL function in small-scale nursing homes. Furthermore, GH nursing homes philosophically emphasize communal eating in the dining area like a family and self-care in their private rooms and bath-rooms, which may encourage mobility or walking with or without assistance compared to other types of nursing homes. However, while there are positive aspects to private rooms, isolation has been identified as a potential problem in the GH nursing home model because many residents who are not cognitively intact spend more of their time in their rooms. In addition, the limited involvement in structured activities may lead nursing home residents to not have many opportunities to improve or maintain physical or ADL functions in small-scale nursing homes. Thus, further replication studies to examine the effectiveness of small-scale nursing home models using larger number of sample size are necessary. In addition, as concrete strategies of care processes are important to provide practical information to improve residents' functional status, the kinds of care processes that may influence the maintenance or improvement of ADL function of nursing home residents need to be explored together in the future.

Contact

[yoona26@wisc.edu](mailto:yoona26@wisc.edu)

## M 06 - Health Promotion in an Aging Society

### The GREAT Program: Promoting Physical, Psychological and Economic Health in an Aging Population

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*Joseph DeRanieri, DM, MSN, RN, USA*  
*Ingrid Pretzer-Aboff, PhD. MSN, RN, USA*

#### Purpose

to demonstrate that therapeutic exercise is a cost effective method to significantly increase activity, function and quality of life for people with Parkinson's disease (PD) and stroke. And that this program has the potential to improve function in other segments of the population.

#### Target Audience

nurses and other clinicians who work with patients with chronic diseases and stroke patients who are seeking to learn a new cost effective community based model to improve and maintain function and increase quality of life.

#### Abstract

**Purpose:** Lack of activity is a major risk factor for the aging population. This is particularly true for the 1.5 million individuals with Parkinson's disease (PD) and 4.4 million stroke survivors whose daily function, mobility and communication are often impaired leading to a sedentary and isolating lifestyle. Each year the United States spends over \$25 billion dollars treating PD patients and over \$65 billion dollars a year to treat stroke patients. There is growing evidence that therapeutic exercise is an effective method to significantly increase physical activity, function and quality of life for people with stroke and PD and to also decrease the overall utilization of health care services. However, the availability of appropriate community programs is rare. Our aim was to test the feasibility and impact of a unique tri-therapeutic program that physical, occupational, with speech language therapy techniques. And to also track resulting health care utilization. This program fills a gap that exists in the rehabilitation spectrum between traditional therapy and community gyms in an effort to improve function and activity levels.

**Methods:** This study utilized a single group repeated measures design; one group for PD patients and one group for stroke patients. Testing was completed at baseline, 3, and 6 months post start of group exercise. Fifteen volunteers with PD and 12 volunteers with stroke were enrolled into a one hour (2x per week) group session run by physical or occupational therapy assistants under the supervision of licensed therapists. This 12 week program incorporated vocalizations, breathing exercises, memory and recognition, fine and gross motor mobility exercises for extremities and trunk, balance activities and progressive distance walking techniques. We also tracked patients for one year following the 12 week intervention, to assess hospital admissions and overall utilization of health care services.

**Results:** Our preliminary results show a significant increase in balance, speech volume, quality of communication, walking speeds, and improved cognition. Significant improvements were seen in walking speed (6 meter walk test), voice loudness, quality of life (PDQ-39, communication), cognition (MOCA), and disability (UPDRS, total). Additionally, subjects reported improved clarity of voice. Post intervention interview indicated that socialization was exceedingly important to the group's adherence. Results of our preliminary study indicate the potential for reduced admissions to acute care, rehabilitation and nursing facilities as well as reduced utilization of other health care services.

**Conclusion:** People with PD and stroke benefit from this tri-therapeutic program. The PT, OT and speech components were easy to integrate during all exercise classes and demonstrated significant clinical benefits. The researchers were also able to demonstrate a decrease in hospital admissions and a decrease in utilization of health care services.

#### Contact

[drjoed2@gmail.com](mailto:drjoed2@gmail.com)



## M 06 - Health Promotion in an Aging Society

### Health-Related Quality of Life and Its Relationships with Poor Exercise Capacity and Dyspnea in Thais with COPD

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*Naiyana Noonil, PhD, RN, Thailand*

#### Purpose

This study aims to explore the health-related quality of life (HRQL) and its relationship with exercise capacity and dyspnea of the southern Thai patients with stable COPD.

#### Target Audience

staff nurse and student

#### Abstract

**Purpose:** This study aims to explore the health-related quality of life (HRQL) and its relationship with exercise capacity and dyspnea of the southern Thai patients with stable COPD.

**Methods:** The methodology was the cross-sectional descriptive study. The sample consists of 126 patients with COPD attending the outpatient pulmonary clinic of Thasala hospital. The patients were assessed the HRQL by the Saint George's Respiratory Questionnaire (SGRQ), age, BMI, dyspnea by the Modified Medical Research Council (MMRC), exercise capacity by the 6-min walk distance (6MWD), and hospital utilization.

**Results:** The results found that most patients were male 84%; they had a mean(SD) of age 69.6(9.5) years, FEV1 70.0(9.6) % predicted, and BMI 21.9(4.4). The HRQL indicated moderate impairment: symptom 47.0(22.2), activity 49.7(30.3), impact 41.9(21.2) and total scores 45.1(21.7). The regression analysis shows that HRQL were the most affected by 6MWD and dyspnea, hospitalization, age respectively ( $\beta = -.429, .295, .172, \text{ and } -.152; R^2 = .443, p < .001$ ). Also, patients with poor exercise capacity (6MWD <350m) and dyspnea scored significantly higher (greater impairment) on all dimensions of SGRQ.

**Conclusion:** Stable COPD patients should be motivated to exercise for promoting exercise capacity (6MWD) and also HRQL.

#### Contact

[nnaiyana@wu.ac.th](mailto:nnaiyana@wu.ac.th)

## M 07 - Global Health Practices in the Psychiatric Population

### Qualitative Assessment of Answer Letters of Patients with Chronic Fatigue and a Psychiatric Disorder

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*P. Vermeir, RN, MPM, MBA, MPA, Belgium*

*S. Degroote, MS, Belgium*

*D. Vogelaers, MD, Belgium*

*E. Tobback, PhD, Belgium*

*L. Delesie, RN, Belgium*

*D. Vandijck, PhD, Belgium*

#### Purpose

The purpose of this presentation is to stress the importance of an efficient communication between health care providers.

#### Target Audience

The target audience of this presentation is people interested in quality and safety, communication and improvement initiatives by nurses.

#### Abstract

**Purpose:** Care delivery is a complex process, involving many different actors (physicians, nurses,...). Appropriate communication between those actors is of key to guarantee qualitative and thus safe care. Referral letters are one of the most important means of communication between care providers. The aim of this study was to perform a qualitative assessment of the content of referral letters (second to first level providers) of patients with chronic fatigue and a psychiatric disorder.

**Methods:** The study was conducted by the head nurse of the department of General Internal Medicine of Ghent University Hospital. Based on a comprehensive search of the literature, a checklist of respectively 24 quality indicators was developed assessing the content and way of interdisciplinary communication between -second and first level providers. Indicators were considered as dichotomous variables (present/absent). All referral letters (June 2010–February 2011) of 126 patients with chronic fatigue and a psychiatric disorder were considered.

**Results:** The study cohort consisted of 108 (85.7%) females, mean age was 39.3±11.1 years. Of the 24-item checklist, on average 18.7±2.1 of the indicators were present. Telephone number of the referring physician was never included 0% (0/126), reason of initial referral was not mentioned in 96%(121/126) of the letters. Information about allergic status was missing in 42.9%(54/126), current medication in 17.5%(22/126), surgical and medical history in 34.1%(43/126) and 9.5%(12/126) of the cases. Psychosocial information was not included in 22.2%(28/126) and 63.5%(80/126) of the letters did not mention the dates investigations were performed. Average time-delay between consultation with secondary care provider and sending the referral letter was 44.2±47.7 days .

**Conclusion:** In this patient sample, referral letters from secondary to primary care level providers often lack crucial information that is of key to ensure high quality of patient care. Targeted interventions aimed at improving communication inefficiencies between multidisciplinary care levels are warranted.

#### Contact

[Peter.Vermeir@UGent.be](mailto:Peter.Vermeir@UGent.be)

## M 07 - Global Health Practices in the Psychiatric Population

### Caregiver Satisfaction and Its Correlates Among Taiwanese Families Living with Schizophrenia

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*Chiu-Yueh Hsiao, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to provide healthcare providers with an understanding of positive caregiver satisfaction and its correlates in the care of relatives with schizophrenia. Finding from this study would contribute to the development of family-centered care for meeting individual and family needs.

#### Target Audience

The target audience of this presentation is healthcare providers who work with the affected families living with mental illness

#### Abstract

**Purpose:** The aim of this study was to investigate the degree of caregiver satisfaction and its determinants in Taiwanese families of individuals with schizophrenia.

**Methods:** A cross-sectional, descriptive correlation design was used. Data were collected using questionnaires with a convenience sample of 140 families (243 individual family caregivers) of individuals with schizophrenia. Descriptive statistics and a mixed linear modeling were used for data analysis. Participants were individually interviewed to complete questionnaires regarding demographic information, pile-up of demands, sense of coherence, mutuality, and caregiver satisfaction.

**Results:** The primary source of caregiver satisfaction was the cared-for person, especially keeping the individual clean, comfortable, and well turned out. In interpersonal dynamics, family caregivers mostly rooted their source of satisfaction in their way of expressing love to the cared-for person. As for satisfaction relating to the family caregiver, the majority of the family caregivers expressed being satisfied with fulfilling sense of duty. Female caregivers, greater sense of coherence, and increased mutuality were found to significantly increase caregiver satisfaction.

**Conclusions:** Family caregivers living with schizophrenia may have positive experiences. Supportive interventions need to focus on tapping into amplifying resiliency factors (e.g., sense of coherence and mutuality) and promoting the sense of satisfaction with caregiving for assisting family caregivers.

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#### Contact

[chsiao@csmu.edu.tw](mailto:chsiao@csmu.edu.tw)

## M 10 - Researching Issues Early in Patient's Life

### Obtaining Required Childhood Vaccinations: The Latino Immigrant Experience

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*Barbara deRose, PhD, MSN, NP-C, USA*

#### Purpose

The purpose of this presentation is to present findings of the Latino immigrant experience in obtaining required childhood vaccinations for their children. Issues in obtain vaccinations will be discussed from the immigrant perspective. The audience may wish to compare these findings to the immigrant vaccination experience in their respective countries.

#### Target Audience

The target audience of this presentation: persons involved in global health, public health, refugee or immigrant health, and those persons who are instrumental in vaccination practice reform and/or health disparities research. The presentation may be of interest to persons working on the World Health Organization vaccination project.

#### Abstract

Vaccinations are an important step in preventing childhood illnesses and disease outbreaks in the community. Complete immunizations before school assure eligibility for enrollment and protect children against severe illness. The fact that foreign-born children of Latino immigrants face health disparities in receiving vaccinations is well documented. However, there is little information in the literature about the actual experience of immigrants facing the complexities of the health system, and through their eyes, which factors ultimately affect vaccination rates of immigrant Latino children.

**Purpose:** The purpose of this study was to give voice to Latino immigrant families who recently immigrated to the United States, in terms of the issues they encountered when engaging the health care system for vaccinations.

**Methods:** A convenience sample consisting of eleven Latino immigrant parents was obtained from information-rich participants of the immigrant Latino population, identified through clinics and churches. Each participant experienced seeking immunizations for their foreign born children during their first five years residing in the United States. Interpretative phenomenology guided the framing of the broad interview questions, probes, and data collection methods. Heideggerian hermeneutics guided the interpretation of the Latino parents' world with regard to seeking immunizations for their children from the picture they provided. By sharing their experiences, the immigrant parents provided a glimpse of their world with regard to childhood immunizations and the effects of individual, community and policy factors.

**Results:** The importance of trust in patient-provider relationships was the overarching finding of this study. Trust also emerged as a major factor in vaccinations practices i.e., causing revaccinations in situations where the medical provider mistrusted foreign documentation. Subthemes that emerged under the umbrella of trust were health literacy, health disparities, finding a medical home, and preserving the family unit. The subthemes provided a framework to examine the immigrant journey from arrival to the United States, settling into a community, and projection into the family's future.

**Conclusion:** Implications for nursing practice stemming from these findings are the further exploration of vaccination practices, improvements in health provider cultural competency, and nursing advocacy in the arena of health policy. The broader goal of this study is to inform providers who review the study, and to improve outcomes for this vulnerable population.

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### Contact

[bderose@iupui.edu](mailto:bderose@iupui.edu)

## M 10 - Researching Issues Early in Patient's Life

### Safe Sleep Advice to Safe Sleep Action: Pilot of the Pepi-Pod Program in Indigenous Communities

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Jeanine Young, PhD, BSc (Hons), RN, Australia

Leanne Craigie, BSc, GradDipEduc, GradDipIndgHlthPromo, Australia

Lauren Kearney, PhD, IBCLC, GradDipClinNsg (ChAdolHlth), BSN, Australia

Karen L Watson, RN, GradDipCritCr, MS, Australia

Stephanie Cowan, MEd, BSc, Dip (Tch), New Zealand

#### Purpose

The purpose of this presentation is to describe an innovative strategy that reduces Indigenous infant mortality by combining practical real-time support with a health promotion intervention that uses community networks used by vulnerable families, values cultural and individual family parenting practices, while promoting safety and wellbeing of vulnerable infants.

#### Target Audience

The target audience of this presentation includes all nurses, midwives and Indigenous health workers who care for families with young infants, and have a role in parent education about safe infant care practices and health promotion strategies.

#### Abstract

**Purpose:** *Background:* Sharing sleep spaces with babies is a common infant care practice in Australia [1], and the cultural norm in many Indigenous communities [2]. While forms of co-sleeping may reduce risk of sudden unexpected death in infancy (SUDI) and enhance breastfeeding in some cultural groups, some shared sleep environments are extremely hazardous for infants [3]. Aboriginal and Torres Strait Islander babies currently die suddenly and unexpectedly at a rate almost four times higher than non-Aboriginal and Torres Strait Islander infants (252.1 deaths per 100,000 compared with 66.4 deaths per 100,000 respectively). A considerable proportion of infant deaths are associated with co-sleeping environments [3]. Innovative strategies which allow for the benefits of bed-sharing, respect cultural norms and infant care practices, whilst also enabling the infant to sleep in a safe environment are necessary if a reduction in SUDI is to be achieved amongst Aboriginal and Torres Strait Islander communities.

The Pēpi-pod Program is a safe sleep space combined within a targeted safe sleeping health promotion initiative for families with known risk factors for SUDI. Cowan and colleagues, who implemented the Pēpi-pod Program in New Zealand amongst a sample of Maori families displaced during the Christchurch earthquakes (n=642) have reported positive interim findings [4]. Feedback from participants (n=100) identified that the Pēpi-pod Program was beneficial for: having baby close; peace of mind; safe bed-sharing; portability and infant settling. The program in New Zealand has been expanded to include 4000 vulnerable families throughout selected health boards across the country. Acceptability or effectiveness of portable sleep spaces for co-sleeping Indigenous families have not been previously reported but is an area Indigenous families have identified as being important for investigation [5].

*Aim:* The purpose of this study was to determine the acceptability of the Pēpi-pod Program, a portable infant sleep space embedded within safe sleep health promotion, within a sample of Aboriginal and Torres Strait Islander families in Queensland, Australia.

**Methods:** *Design:* An exploratory descriptive design was used to report parent experiences of using the Pēpi-pod Program to support safe infant sleep practices.

*Population, Sample and Participant Selection:* Families were purposively selected through four health services in Queensland which provide antenatal and maternity care services to Aboriginal and Torres Strait Islander families. These services include metropolitan, rural and remote areas of Queensland:

- 1) Ngarrama Antenatal and Birthing Project
- 2) Townsville-Mackay Medicare Local – New Directions: Bubba's Business
- 3) Woorabinda Multi-Purpose Health Service

4) Logan Aboriginal and Torres Strait Islander Community Health Service (ATSICHS) Mums and Bubs Clinic

Eligible participants were parent/s and/or carers of a baby (ideally <1 month of age) with the presence of one or more known SUDI risk factors [3] including:

- identification as Aboriginal and/or Torres Strait Islander (at least one parent)
- maternal smoking, during pregnancy and/or post-natal
- intention to bed-share (regularly/irregularly)
- recent drug use, including prescribed medications that may affect consciousness
- alcohol use
- pre-term birth ( $\leq 36$  weeks)
- low-birth weight ( $< 2500$  grams).

Eligible families were identified by their health care worker through usual health assessments and referred to the Pēpi-pod Program facilitator, with family permission. Eligible families were provided with an information sheet and if willing to participate in the study, consent form to complete. Ideally families were identified prior to their baby's birth, however were recruited up to an infant age of 8 weeks or 2 weeks post discharge from hospital if born prematurely.

*Intervention: The Pēpi-pod program*

The Pēpi-pod Program was delivered as three interlinked components:

- 1) Safe Space: was a general purpose polypropylene box transformed into an infant bed through addition of a culturally suitable fabric cover, an upholstery-density, fabric covered, tight fitting mattress; and bedding: mattress protector, base slip-on sheet, wrap around sheet, light blanket. The Pēpi-pod provides a zone of physical protection around baby wherever they sleep where suffocation risk is heightened, e.g. on adult beds, couches or makeshift beds.
- 2) Safe Care: parent education includes a 'Rules of Protection' [1] safety briefing and practical safe infant sleeping information for families to adapt for their family situation. Safe Space + Safe Care = Protection. Rules of Protection Messages included a poem for parents to facilitate recall of the messages: On the back, face clear; Only baby in here; Every sleep, everywhere; Always breathing, smoke free air; Drugs and drinking nowhere near; Own space, best care.
- 3) Role of family: families were asked to make a commitment to spread what they had learned about protecting babies as they sleep. Giving families a role as well as the Pēpi-pod Sleep Space is intended to empower, entrust and extend the influence of the program within priority networks [5,6].

*Data Collection:* Data collection included acceptability and use of the Pēpi-pod Sleep Space. Parent questionnaires were administered face to face or by telephone [6] within 2 weeks of receiving the Pēpi-pod; then monthly thereafter until pod use ceased at approximately 4-6 months dependent upon baby's growth and development. Questions included:

- Knowledge of SUDI risk factors and strategies to enhance safety
- Circumstances of pod utilisation
- Usual baby care 'yesterday' and 'last night'
- Infant care enhanced by pod use
- Limitations/adverse events associated with pod

**Results:** The target of five eligible families (infant age 8 days to 9 weeks) were recruited and followed up each month to pilot study methods and documentation. Demographic characteristics included; 3 of the 5 families were partnered; all were of Aboriginal background apart from one mother who identified as Maori whose partner was Aboriginal; all families had the intention or need to bed share and the presence of two or more risk factors for SUDI. Four of the five families identified that they had utilised the Pēpi-pod as an infant sleep space. The acceptability of the Pēpi-pod as a safe sleep space for babies was supported by parent responses that related to three key themes: safety, convenience and portability.

Examples of parent reports related to these themes are provided by the following quotes under these three headings.

- Safety
  - *“Can have it (the Pēpi-pod with baby) in the bed and not worry” (mother of baby 8 week 3 days)*
- Convenience
  - *“Easy to pack away”*
  - *“Baby can be in Pēpi-pod on the couch until falls asleep; I find this convenient – don’t have to disturb him”; “..don’t have to touch him”; .father can carry him into bedroom without waking him.”*
  - *“Baby can be in Pēpi-pod while Mother cleaning in the lounge or “doing stuff” – “don’t always have a bouncer” (Mother of baby 8 weeks)*
- Portability
  - *“Can take to (baby’s mother’s) mother’s house”*
  - *“Especially good when they go out to friends BBQ (for example) – they live out of town a bit.” (Mother of baby 8 weeks, 6 days)*

One mother indicated that knowing about the Pēpi-pod as soon as possible would have been useful:

*“Like it, would have been good to know about it sooner than I did. Good to have known about it earlier to have straight out of hospital” (Mother of baby 8 weeks)*

### **Conclusion:**

The Pēpi-pod program was accepted as a portable sleep space for infants and used appropriately by parents living in several communities in Queensland. Responses relating to use, acceptability, convenience and safety of the infant sleep space were positive. Pilot results from this study have informed the design of a larger trial (n=300) of the Pēpi-pod Program within six communities across Queensland being conducted during 2013-2014.

*Implications for practice:* Health services have a responsibility to follow through from simply informing about safe infant sleep practice to *enabling safe infant sleep action*. Evaluating innovative and culturally respectful strategies to reduce SUDI risk will better inform the evidence-base used by educators, clinicians, researchers and policy makers in supporting parents to use safe infant sleeping strategies.

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### Contact

[jyoung4@usc.edu.au](mailto:jyoung4@usc.edu.au)

## M 10 - Researching Issues Early in Patient's Life

### Mindfulness Intervention for Perinatal Grief: A Pilot and Feasibility Study in Rural India

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Lisa R. Roberts, DrPH, MSN, FNP, RN, USA

Susanne Montgomery, PhD, MPH, USA

#### Purpose

The purpose of this presentation is to raise awareness of the effects of perinatal grief among poor, rural women in Central India and inform attendees of the mixed-methods research process undertaken to pilot test an intervention. Feasibility, cultural adaptation, and results will be discussed.

#### Target Audience

The target audience of this presentation is nursing professionals and those interested in international research.

#### Abstract

**Purpose:** India is among the ten countries that contribute 67% of all stillbirths globally. The 2009 national stillbirth rate of India was estimated at 15-24.9/1000 births. However, there are great variances in stillbirth rates within the country, with rates of 66/1000 births or higher in Central India. A small rural hospital in Central India even reported a stillbirth rate of 330 in 2006. At this hospital in 2010 and 2011 the stillbirth rate was 103 and 118, respectively. While still high, this sharp decrease occurred with the use of cardiotocograph and increases in staff available for emergency Cesarean sections. (Unfortunately, mothers typically present for delivery after failing to give birth at home.)

After experiencing stillbirth, these women suffer significant perinatal grief. Factors that contribute to perinatal grief include traditional social norms, and perceived lack of social support. An understanding of women's perceptions and social norms for women in this context guided the development of a culturally rooted intervention designed to positively impact their ability to cope, utilizing mindfulness modalities.

Mindfulness based stress reduction (MBSR) is an empirically supported 8-week intervention effective in helping individuals cope with clinical and non-clinical problems. There are five facets of mindfulness: observing, describing, acting with awareness, non-judging of inner experience, and non-reacting to inner experience. Mindfulness has been defined as a state of moment-to-moment awareness without judging one's experience. A state which can be cultivated with practice. The purpose of this pilot study was to explore the feasibility and fit of a mindfulness-based intervention for perinatal grief, among poor, rural women in Central, India.

**Methods:** Data were collected in two phases. Phase one ( $N = 16$ ) involved qualitative data collection to explore concept acceptability, receptivity, and modality. Phase two involved the actual implementation of a subsequently developed mindfulness-based intervention and was delivered to women in a village referred by snowball technique from a phase one participant. It consisted of a brief version of the 8-week intervention delivered to 22 participants over two lengthy sessions, one week apart, with daily practice between sessions. (None of the participants in phase one participated in phase two.) Pretest included a validated perinatal grief scale, Cronbach's alpha for this sample = 0.95 ( $n = 13$ ). Pre and posttest included validated scales for mindfulness, satisfaction with life, social support, religiosity, depression, and anxiety; Cronbach's alpha ranged from 0.68 to 0.84 ( $n = 6$ ). Program evaluation consisted of twelve Likert-type items and three open-ended questions.

**Results:** Phase one: Key informant interviews ( $n = 10$ ) were conducted with a doctor, a staff nurse and women of reproductive age that had experienced stillbirth (< 1 year to 17 years prior). A focus group ( $n = 6$ ) was conducted with women of reproductive age who had a stillbirth history (< 1 year to 8 years since event). Data indicated concept acceptance and acknowledged need for an intervention. High receptivity for the proposed intervention was indicated by enthusiastic response and requests for immediate intervention delivery. Intervention modality was carefully explored and helpful suggestions for cultural adaptation received for didactic materials. Phase two: Participants in the first session ( $n = 13$ ) had

experienced stillbirth within the last one to seven years; with an average of 19.31 months (*SD* 21.34) since the event, and had high levels of perinatal grief; mean perinatal grief index score 106.39 (*SD* 22.68) where  $\geq 91$  indicates a high degree of grief. Nine women who had experienced stillbirth attended the second session, however, only six of these women had attended the first session and were eligible to complete the posttest. Statistically significant changes were noted on paired *t*-tests ( $n = 6$ ) for Overall Religious Coping ( $p = .025$ ) and Describing ( $p = .024$ ). All participants indicated daily practice of mindfulness skills. Pilot evaluation results indicate strong modality fit, women's appreciation of what they had learned and their intent to attend 8-weekly sessions if given the opportunity to participate in the full intervention. However, we also learned that women lacked the ability to follow through on their desire to attend, due to intervening life events and family expectations.

**Conclusion:** Perinatal grief, particularly prolonged perinatal grief such as noted in this sample, puts women at risk for mental health issues, somatic symptoms, and decreased function. This prolonged grief places these Indian women at further risk for domestic violence and displacement from her family or community, and other social issues, particularly if she has failed to produce a child, preferably a son.

Stigmatization of mental health and reproductive issues plus a strong cultural belief in the inter-relatedness of mind, body, and spirit, in addition to a lack of mental health resources points to mindfulness as a possible solution. This mindfulness-based intervention utilizing yoga and meditation was well suited and well received among these women suffering with perinatal grief. However, delivery of the intervention proved problematic. It is not feasible for these women to attend weekly sessions, even when provided in the village, within walking distance. Their time is structured by familial duties; work dictated by environmental variations, such as harvesting; and community events, such as weddings and festivals. Additionally, the women lack autonomy, therefore, to attend a session was considered only after all other obligations and family concerns had been satisfied.

Although the sample size in this pilot limits interpretation of the quantitative findings, the preliminary reliability and relationship tests suggest that the tools will adequately measure and show significance in a larger study. Additionally, mindfulness is a culturally acceptable intervention. However, while results are promising, a full MBSR intervention is not feasible. Though the women are enthusiastic about the intervention, note that they need it, and want it, given the realities of their lives the rigorous schedule of MBSR will be impossible to deliver. Given our results we have continued wrestling with how to deliver the intervention to women in this rural Indian context, and have come upon a one-day intensive mindfulness intervention that may be adaptable yet effective. Additionally, we intend to provide childcare and run a concurrent mother-in-laws group to better accommodate the limited autonomy and resources of these women. Also, moving to this intensive one day format we feel it is critical to conduct individual follow-up sessions with participants and plan to accomplish this by partnering with local staff nurses and nursing students doing their community health rotations. The follow-up sessions will be used to reiterate mindfulness concepts, monitor progress, promote continued practice of mindfulness skills, and receive feedback. This partnership will be instrumental to the success of implementing and sustaining the intervention in the future.

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Contact

[lroberts@llu.edu](mailto:lroberts@llu.edu)

## M 12 - Using Research to Promote Outcomes

### Barriers and Facilitators to Utilizing Nursing Research

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Jessie M. Colin, PhD, RN, FRE, FAAN, USA

#### Purpose

The purpose of this presentation is: 1) explore nurses perceptions of barriers of research utilization; 2) explore nurses perceptions of the facilitators of research utilization; and 3) determine if there is a significant difference among the nurses perceptions of barriers and facilitators in utilizing nursing research within a multi-hospital system

#### Target Audience

The target audience of this presentation are nurses in clinical practice, nurse managers, nurse leaders, nurse educators and researchers.

#### Abstract

**Purpose:** Nursing research has been shown to improve patient outcomes and decrease length of hospital stays. The purpose of this research is to: 1) explore nurses perceptions of the barriers of research utilization; 2) explore nurses perceptions of the facilitators of research utilization; and 3) determine if there is a significant difference among the nurses perceptions of barriers and facilitators in utilizing nursing research within a multi-hospital system.

**Methods:** This research project is a non-experimental descriptive study, involving a multi-hospital system (5) in a South Florida. Upon approval from the International Review Board (IRB) at Barry University and the healthcare system, a convenience sample of 150 nurses complete the *Barrier Survey*. A researcher designed demographic questionnaire was used to collect data to describe the population.

**Results:** The data was analyzed using construct validity of the instrument using an exploratory factor analysis. Internal consistency and reliability of the instrument was assessed using cronbach's alpha coefficient. Multiple linear regression analyses depending on the level of measurement of the outcome variables was be used to compare differences between the nurses at the sites. A *t-test* was to calculate the four sub-scales of the *Barrier Scale*. The demographic characteristics of the sample was analyzed using frequencies, percentages and measures of central tendencies and measures of variabilities based on level of measurement.

**Conclusion:** Transferring research findings into practice is crucial for the development of nursing and for improving patient outcomes and decrease length of stay. This study will identify barriers and facilitators to practicing nurses utilizing research in the clinical arena. This research may ultimately enable healthcare organizations in identifying strategies to support the utilization of nursing research and thereby decrease the barriers perceived by the staff nurses.

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#### Contact

[jcolin@mail.barry.edu](mailto:jcolin@mail.barry.edu)

## M 12 - Using Research to Promote Outcomes

### The Red Box Strategy for Contact Precautions

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*Melissa A. Pollard, DNP, RN-BC, ARNP, USA*  
*Kathleen Wickens, BSN, RN, CCRN, USA*

#### Purpose

Disseminate the results of research completed including findings on the effects of using the Red Box Strategy on healthcare giver compliance with personal protective equipment and potential cost savings.

#### Target Audience

Nurses in direct patient care, those working in leadership and infection prevention, and those with an interest in bedside nursing research.

#### Abstract

**Purpose:** This work originated in a small community hospital who committed to achieving Magnet designation. As part of this commitment, an identified need was to develop a means to promote and support nursing research in our organization which did not have any university affiliations. Our Magnet Journey was successful, and this presentation reflects work done by one of our first direct care staff nurses with the support of the nursing research committee.

Contact precaution policy requires healthcare personnel to always put on Personal Protective Equipment (PPE) before entering a contact precaution room. Although instituted to prevent hospital-acquired infections (HAIs), this process takes a significant amount of time, causing delays that produce patient anxiety, frustration and dissatisfaction with care. Research shows that health care workers spend less time with patients in isolation. Contact precautions decrease the quality and frequency of interactions provided by staff to patients and decrease compliance with precaution policies. There is significant cost associated with the use of PPE. Previous research has shown that contact precautions can be modified to promote interaction between patients and care givers without increasing the risk of spreading HAIs. A previous study conducted by Trinity Regional Medical Center, a Magnet Hospital in Illinois, showed that a "Safe Zone" created at the contact precaution room doorway allowed staff to safely enter a short distance into the room without putting on PPE for the purpose of interacting with the patient. The objectives included to evaluate the effects of "The Red Box Strategy" for contact precautions on patient and healthcare giver satisfaction with the contact precaution process, healthcare giver compliance with personal protective equipment (PPE), and potential cost savings of personal protective equipment.

**Methods:** Likert Survey was performed for patient and healthcare giver satisfaction of contact precautions before and after instituting "The Red Box Strategy". A Mann-Whitney test for independent samples was performed to examine the relationship between satisfaction of the contact precaution process before and after instituting "The Red Box Strategy". Data collection was performed on personal protective equipment compliance of 4 different caregiver types on hand hygiene, gowns, and gloves before and after instituting "The Red Box Strategy". A Chi-Square test was performed to examine the relationship between compliance with the contact precautions process before and after implementing "The Red Box Strategy". The frequency of the use of "The Red Box Strategy" by caregivers was measured and the potential cost savings of gowns was estimated.

**Results:** A statistically significant relationship was found between pre and post implementation survey responses. Patient and healthcare giver satisfaction increased for contact precautions after "The Red Box Strategy" was implemented. A statistically significant relationship was found for all aspects of PPE measured for compliance when "The Red Box Strategy" was used for contact precautions by RN's, LNA's, and RT's. A statistically significant relationship was found for hand hygiene compliance upon entering a room for MD's but not for hand hygiene out, gown on and tied and gloves worn for MD type. For all healthcare giver types hand hygiene compliance for entering a room increased 32%, hand hygiene compliance when exiting a room increased 11%, gowns on and tied increased 16%, and gloves worn increased 4%. Data collected for evaluating "The Red Box Strategy" affect on potential cost savings was insufficient to analyze, so further analysis of the data is being undertaken.

**Conclusion:** Using “The Red Box Strategy” increased patient and caregiver satisfaction with the contact precaution process. The strategy increases compliance for many aspects of PPE for most caregiver types. The exceptions to this were no relationship was found between the strategy and MD compliance with hand hygiene upon room exit, gown and gloves worn. “The Red Box Strategy” staying power demonstrated consistency with the trial’s findings, with compliance rates holding at 6 months post implementation.

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#### Contact

[mpollard@ehr.org](mailto:mpollard@ehr.org)

## M 12 - Using Research to Promote Outcomes

### Building Sustainable Community-Based Participatory Research

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*Linda F. Samson, PhD, RN, BC, NEA, BC, USA*

#### Purpose

Discuss the process and outcomes of a program of community engaged participatory research in an underserved community.

#### Target Audience

Nurse clinicians and researchers conducting community based research designed to improve health outcomes for underserved populations.

#### Abstract

**Purpose:** The purpose of the study was to develop a model of community-based participatory research as a part of a larger Center of Excellence in Health Disparities Research. Demographic data indicated increased incidence of chronic health conditions in the community including diabetes, hypertension, obesity, and other cardiac disorders. At the start of the planning efforts for project development community members expressed distrust based on previous experiences where researchers would come into the community, determine what they wanted to do to or for the community and then intervene and leave. Community members made it clear from initial efforts that their purpose in participating was to play a key role in determining what needs the community had and finding ways to address those needs.

**Methods:** The interdisciplinary researcher team that developed the Center application was located in a suburban underserved community in the Midwestern United States. The PI and her team worked with a coalition of community groups to determine willingness to collaborate. After agreeing on shared goals for the research a smaller group wrote the first application. The community group provided an outline for the development of the Community Engagement Core in the application, detailing the agreed conduct of that Core. Work with the community continued in the post-submission and pre-funding period. After funding, the Community Engagement Core began its work as detailed in the project and the work plan. The Core Director, a member of the Community and a member of the grant leadership team was given the authority and budget to implement the research plan. Community Advisory Board Members monitored the research, evaluated outcomes, met with stakeholders, and modified agenda.

**Results:** Successes achieved during the first grant period led to submission and funding of a subsequent five year project. The partnerships continued during the second grant period and have been sustained even after the completion of eight years of NIH funding. The community has been able to actively engage in identification of health care needs, develop projects to address those needs, and conduct comprehensive evaluations that have allowed the PI/researcher to better understand how to improve health outcomes in minority communities. The continuing partnership is developing new models of community collaborative research driven by community identified needs.

**Conclusion:** Building the processes for community-based participatory research requires time commitment and a willingness to change the way that researchers have traditionally conducted their research. To be successful in this venture, researchers must seek to learn from the community, take the time to build trust in the relationships and trust that the community, if you have the right people at the table, understands its needs better than outsiders do. As a researcher, the PI has gained enormous understanding and insights into health disparities and social determinants of health through the lived experience of CBPR. The processes and outcomes achieved in this project would not have been possible without the dynamic leadership of one key community activist who has committed over 40 years to helping her community address its health needs. The PI was extremely fortunate that she and I have become kindred spirits.

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### Contact

[lsamson@govst.edu](mailto:lsamson@govst.edu)

## N 01 - Global Reflections on Nursing Education

### Reflecting on International Nursing Programs

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*Dalit Wilhelm, RN, MA, Israel*

*Cheryl Zlotnick, RN, MS, MPH, DrPH, Israel*

#### Purpose

The purpose of this study was to conceptualize the patterns, processes and knowledge development of international students placed in clinical settings.

#### Target Audience

The target audience of this presentation is educators, administrators of study abroad programs, and researchers in transcultural nursing.

#### Abstract

**Purpose:** "Nurses shall engage in critical reflection of their own values, beliefs, and cultural heritage ...," states the Expert Panel on Global Nursing. The evidence is clear. As Leininger argues in her theoretical framework, self-reflection is an integral part of nursing education as it promotes self-awareness and assists us to gain cultural-based knowledge. Culture influences the manner in which we obtain, process, and conceptualize (i.e., epistemic beliefs) new knowledge. This qualitative study explores the written reflections of international students who worked on surgical units, and illustrates the impact that culture has on the patterns, processes and knowledge development of students placed in a very different international setting.

**Methods:** Data consist of reflective materials that international students wrote to describe their clinical experience. Content analysis was used to examine their writings. Reflective journals (n=30) were analyzed from international students working in surgical rotations.

**Results:** "I am clearly used to a different culture..." wrote one international student. Two main core categories were identified in the narratives: patterns and processes.

Within the patterns, we noted several themes including habits, self-perceptions, impressions and assumptions. One written impression was, "In the clinic I saw a lot of family members, patients and staff with different skin colors and clothing, and the general atmosphere felt a lot different than a Norwegian hospital." The students also held many assumptions. For example, one student queried, "It was clear that they were from different ethnicities. How can we care for a patient unable to express his own needs?"

Processes included comparisons, interactions and generalizations. Written in the reflections was, "we didn't have to ask her all the questions we had set up because she answered them before we got to ask her." Introductions in this new culture were very different. "...we didn't shake hands. We always do that we present ourselves in Norway."

**Conclusions:** International students used the frameworks they knew – the ones' from their own culture. Faced with the Israeli environment, international students struggled to make sense of this dissimilar population, rhythm of clinical practice, atmosphere, and ways of acting and reacting. This caused dissonance.

Norwegian students grew up in a homogeneous and collective culture, and consequently, were comfortable learning in that environment. They relied on their culture to support the development of their knowledge. They repeatedly spoke about how "we" understand, act or do things. They expressed themselves as a collective unit. This contrasted dramatically with the very different heterogonous Israeli population, with strong Jewish and Moslem ethnic groups and idiosyncratic environment. This different environment colored the lens through which they learned.

Reflections are a useful and important method for learning; however, the target of the reflections may differ based on culture. While some students benefit from reflecting on personal experiences in clinical practice, that is not the ideal method of developing transcultural and clinical knowledge for Norwegian students. They benefit more from structured information using established sources to build logical thinking and focusing on evidence-based knowledge would be a better mode of reflection. Understanding the way that different cultures learn and develop knowledge is vital for teaching international students.

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## Contact

[dwilhelm@univ.haifa.ac.il](mailto:dwilhelm@univ.haifa.ac.il)

## **N 01 - Global Reflections on Nursing Education**

### **Reflections of Second Year Nursing Students in Australia on Improving Their Cultural Competence in Relation to Aboriginal and Torres Strait Islander Health**

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*Glenda E. McDonald, PhD, BSocSc, Australia*

*Leanne Hunt, RN, Australia*

*Sharon Patricia Hillege, RN, RM, BHS, PGCert, PhD, Australia*

#### Purpose

This presentation reports on the key findings of an investigation into the development of cultural competence through a narrative learning experience. Study participants were second year nursing students in Australia studying an Indigenous health unit.

#### Target Audience

The target audience would be nurse educators, clinicians and researchers with an interest in cultural competence.

#### Abstract

**Purpose:** Nursing students around the world require the capacity to provide nursing care in a culturally competent manner, given the complex patterns of migration and the increasingly multicultural nature of our societies and health system populations. In particular, nursing students need to understand the social and political aspects of majority and minority groups within societies and the impact they have on health access and outcomes.

**Methods:** This qualitative research study investigated the development of cultural competence in 76 culturally diverse, second-year nursing students in a metropolitan region of Australia, while they studied a compulsory unit about Australian Indigenous health issues. Students were asked to reflect on the development of their cultural competence and propose ways they could personally engage in culturally competent nursing care. Thematic analysis of two reflective writing excerpts from a workbook assessment task, denoting an earlier and later phase of student learning, was conducted.

**Results:** Major themes were revealed of students' improved knowledge of the social, historical and cultural determinants of health for Australian Indigenous peoples, and greater confidence in their abilities to communicate sensitively and provide culturally competent health care. Findings revealed additional insights about self-awareness and critical reflection in nursing education, and the role of narrative reflective strategies in the enhancement of cultural competence skills.

**Conclusion:** The implications for future nursing practice and the educational relevance of acknowledging one's own cultural filters and visualizing personal propositions for *malparara* – people working and walking together as friends – will be highlighted.

#### Contact

[g.e.mcdonald@uws.edu.au](mailto:g.e.mcdonald@uws.edu.au)

## N 01 - Global Reflections on Nursing Education

### Capacity Building Partnership for Global Nursing

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*Faye I. Hummel, PhD, RN, CTN-A, USA*

*Sara L. Jarrett, RN, EdD, CNS, USA*

*Kathleen Whitney, RN, MS, USA*

#### Purpose

The purpose of this presentation is to communicate the process and structure of capacity building in the development of a graduate nursing education program in a underserved country where nursing seeks to be acknowledged and recognized as a fully contributing health care profession as defined by international standards.

#### Target Audience

The target audience for this presentation is nursing educators who seek to be engaged in education development partnerships across the globe. Nurses involved in capacity building in their organizations are a target audience.

#### Abstract

**Purpose:** Strengthening nursing capacity and enhancing the knowledge of nurses worldwide is recognized as a global imperative by the World Health Organization. Strengthening the nursing education infrastructure is essential to building nursing capacity as well as improving patient care outcomes. The purpose of this presentation is to communicate the process and structure of capacity building in the development of a graduate nursing education program in a underserved country where nursing seeks to be acknowledged and recognized as a fully contributing health care profession as defined by international standards.

**Methods:** The first master in science of nursing program in Vietnam is the result of a partnership between a nongovernmental organization (NGO) in the United States and a public university in Vietnam (University). The process and structure of the development of a graduate nursing education program including curriculum planning and revisions, implementation, and evaluation rely on the strengths and resources of each partner. Nursing faculty from the United States with expertise in graduate nursing education and research teach nursing courses and serve as research mentors. Vietnamese university faculty teach non-nursing courses and serve as research mentors. Program logistics, management and evaluation are successfully achieved through communication and collaboration between three members of the NGO steering committee and leadership at the University. Details of the curriculum structure, exemplars of teaching learning activities including distance education strategies will be discussed. The essential dimensions of and challenges to effective collaboration in global education will be discussed.

**Results:** Methodologies for program monitoring with measurement of progress and achievement of outcomes will be reported as well as program outcomes. Program outcome results, quantitative and qualitative of graduate nursing program will be reported. Outcomes related to human resource capacity building will be provided. Outcomes are linked to generation of nursing knowledge development and capacity building in nursing education and practice.

**Conclusion:** International nursing education partnerships are productive and mutually benefit all stakeholders. Obstacles are minimized by the synergy of the collaborative efforts by members of the partnership. Future nursing education development needs to focus on resources availability and sustainability.

#### Contact

[faye.hummel@unco.edu](mailto:faye.hummel@unco.edu)

## N 02 - Exercising the Chronically III

### The Impact of Yoga Education Among Postmenopausal South Asian Women at Risk for Cardiovascular Disease: A Family Affair

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Amandah L. Hoogbruin, RN, BScN, MScN, PhD, Canada

#### Purpose

The purpose of the presentation is to provide information about the relevance of this randomized, clinical, pilot study for a target population at risk for cardiovascular disease, and to share how study participants' families influenced their capacity to learn yoga properly.

#### Target Audience

The target audience of this presentation is health care team members who are interested in applying a conceptual model about applying yoga to prevent heart disease, and learning how central the families of the study participants were in supporting the women to learn and practice yoga regularly

#### Abstract

**Purpose:** The purpose of the study is to determine the efficacy of using a random controlled design to measure the effects of a gentle 12 week structured Hatha yoga program on lipid profile (fasting blood cholesterol, high-density lipoprotein (HDL), low-density lipoprotein (LDL), and triglycerides) and blood pressure, as primary outcomes. Other related indices of cardiovascular risk including measures of visceral adiposity (waist circumference, waist-hip ratio, body mass index (BMI)); insulin sensitivity (fasting glucose/insulin); inflammation (C-reactive protein (CRP)); sympathetic activity (resting heart rate, heart rate; and perceived stress, mood, and sleep will be examined as secondary outcomes.

The yoga program is based on hatha yoga that has been adapted by the use of props and standardized, scripted poses that can be easily replicated and readily performed by individuals who are elderly, overweight, unfit, or who suffer from a chronic illness.

**Methods:** In Canada, the third largest group of South Asians is located in Surrey, British Columbia. In February, 2013, a 12 week pilot study was implemented consisting of 33, postmenopausal, sedentary, South Asian women who were randomly assigned to participate in either weekly Hatha Yoga education and individual at home yoga sessions, or a no yoga, the control group. Screening assessments were done to at the beginning of the study to obtain baseline data about quality of life and specific markers related to physiological and psychological indices of CVD risk. Repeat screening assessments were done at the end of the yoga intervention (@ 3 months); and at 6 months. Final screening sessions were completed in late September.

**Results:** Applying a yoga intervention and study procedures in a community setting posed unique challenges and required cultural sensitivity. All the study participants indicated that their role as the primary family caregiver greatly influenced their capacity to practice yoga regularly. At the same time, all of them agreed that their families were instrumental in enabling them to attend yoga classes regularly.

**Conclusion:** This pilot study is among the first in Canada to rigorously examine the specific effects of yoga therapy on CVD risk profiles among postmenopausal, sedentary, South Asian women. Given the nature of the intervention (involves lifestyle modification), factors affecting study participants, (i.e., the role of family and its influence on regular yoga practice in the home), need to be considered when implementing a more extensive, clinical trial.

#### Contact

[amandah.hoogbruin@kpu.ca](mailto:amandah.hoogbruin@kpu.ca)

## N 02 - Exercising the Chronically III

### The Effectiveness of Exercise Program for Aerobic Fitness in Adults with Systemic Lupus Erythematosus: A Systematic Review and Meta-Analysis

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Mei-Ling Wu, MSN, Taiwan

#### Purpose

The purpose of this presentation is to review current knowledge concerning the effectiveness of exercise program for cardiopulmonary function among systemic lupus erythematosus patients by performing a meta-analysis.

#### Target Audience

The target audience of this presentation is to those who focus on the research in exercise program and/or systemic lupus erythematosus.

#### Abstract

**Purpose:** The purpose of this research aims to review current knowledge concerning the effectiveness of exercise program for cardiopulmonary function among systemic lupus erythematosus (SLE) patients. Furthermore, a meta-analysis was performed to examine the cumulative evidence of aerobic fitness.

**Methods:** Studies were identified through a systemic search process. The keywords used were *exercise, physical exercise, therapeutic exercise, supervised exercise, exercise therapy, physical fitness, physical activity, exercise training, aerobic training, walking, bicycling, yoga, dancing, or jogging* in combination with *lupus or systemic lupus erythematosus*. Inclusion criteria were experimental study, the intervention consists of a physical exercise program with at least 8 weeks duration, the outcome measures including any cardiopulmonary function parameter, and was an original study. Age under 18, animal study, not English, no control group or qualitative study were excluded. The databases searched were PubMed, CINAHL, Cochrane Library, and PsychINFO from their inception to November 2013. The quality of each selected study was assessed by CONSORT checklist. Data was analyzed using Cochrane Collaboration's Revman 5.2.

**Results:** Five RCTs and one quasi-experimental study with 234 subjects were included in this systemic review. In addition, four studies with 194 subjects were included in the meta-analysis. Five studies conducted supervised exercise program and one study conducted home based exercise program. Walking was the primary exercise type. Meta-analysis showed that exercise could improve exercise tolerance (mean difference (MD) 1.95, 95% CI 1.66,2.24 , *p*-value 0.00), maximum O<sub>2</sub> consumption (VO<sub>2max</sub>) (MD 0.83, 95% CI 0.31,1.35, *p*-value 0.002), and maximum pulmonary ventilation (VE<sub>max</sub>) (MD 2.56, 95% CI 1.14,3.98, *p*-value 0.00).

**Conclusion:** The present data indicate that at least 8 weeks exercise program benefits cardiopulmonary function among SLE patients. However, there is limited study and subjects. It was not possible to make recommendation on exercise type and exercise program. In the future research, large sample size and different type of exercise are needed.

#### Contact

[mlwu@gw.cgust.edu.tw](mailto:mlwu@gw.cgust.edu.tw)

## N 02 - Exercising the Chronically III

### Stand up for Health: Using Yoga as a Transitional Platform to Increase Physical Activity Levels in Sedentary Adults

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Kyeongra Yang, PhD, MPH, RN, USA  
Amanda Lefkowitz, MA, BSN, RN, USA

#### Purpose

The purpose of this presentation is to present a study which investigated whether a mind-body exercise program was an effective tool to increase PA levels among sedentary overweight adults.

#### Target Audience

The target audience of this presentation is clinicians and researchers who are working with sedentary overweight adults.

#### Abstract

Physical inactivity is linked to debilitating chronic diseases (Neal, 2013; Dwyer-Lindgren et al., 2013) and deaths and disability-adjusted life-years (US Burden of Disease Collaborators, 2013). Despite best efforts to promote physical activity (PA) in the last decade, research found very minimal improvement in the percentage of adults increasing PA levels (Carlson et al., 2010) and physical inactivity remains highly prevalent in the U.S. (CDC, 2010a; CDC, 2010b; CDC, 2013). Research confirmed weight status was significantly associated with physical inactivity (Dorsey et al., 2011; Young et al., 2009); accordingly, the chronically sedentary may find it especially difficult to adopt and maintain an active lifestyle. As such, radical adjustments and new strategies to increase PA among sedentary adults must be explored. One alternative form of PA that may be an effective intervention in the fight against physical inactivity is yoga (Bernstein et al., 2013; Bryan et al., 2012). Weekly yoga among sedentary adults led to improved health outcomes (Groessl et al., 2013). Hatha yoga, the most accessible form of yoga, can improve strength and flexibility, lower obesity and reduce physiological/psychological distress (Dhananjai et al., 2013). Yoga participation and mastery can also improve the degree of exercise self-efficacy, and perhaps, lead to adherence to a PA program and its attendant benefits (Yang et al., 2011; Oleshansky, 2004).

**Purpose:** The purposes of this 6-month pilot study were to investigate whether a mind-body exercise program was an effective tool to increase PA levels and whether the delivery method of the program, either instructor-based or self-guided, influenced the level of change among community-dwelling overweight sedentary adults.

**Methods:** The yoga program used in this study consisted of 2-months of an intervention period in which participants practiced 90-minute weekly sessions of Hatha yoga either directly by guidance from an instructor [*Face Group*] or indirectly by self-learning from a DVD [*DVD Group*], followed by 4-months of self-reported PA maintenance. Participants were screened for age, family history of diabetes, and medical and/or physical conditions that would prevent them from exercise in order to ensure safety of the intervention. Measurements were recorded at baseline, 2, 4, and 6 months. Program adherence was measured by self-reported minutes/week of PA; sedentary behaviors/levels of PA were monitored by the Modifiable Activity Questionnaire. Descriptive statistics and nonparametric tests were used to describe the sample and examine differences by group and time.

**Results:** Fourteen adults (10 White, 4 Non-white) participated in the study. Their mean age was 58.6 years (SD = 5.4) and 12 (85.7 %) was female. Their mean years of completed education was 15.0 (SD = 2.1) and the mean BMI was  $31.8 \pm 5.8$  kg/m<sup>2</sup>. There was no significant differences in demographic variables between groups. Results showed significant changes in PA levels from baseline to each measurement point ( $p < .05$ ). Although both groups in this pilot study showed increased PA, the DVD Group showed higher levels of PA at each interval than the Face Group (statistical significance occurring at 4 months). The participants of this study also reported yoga increased their strength, flexibility, balance, and mind-body awareness.

**Conclusion:** Our results indicate that a yoga program, either instructor-based or self-guided, may be used as a transitional platform to increase regular PA among overweight sedentary adults. Further research with a larger sample is needed to evaluate the efficacy of this program, with a particular focus on the use of the self-guided method.

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## Contact

[yangk@utexas.edu](mailto:yangk@utexas.edu)

## N 03 - Health Promotion for the Cardiac Patient

### Sensitivity, Specificity, and Sex Differences in Symptoms of Acute Coronary Syndrome

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Holli A. DeVon, PhD, RN, FAHA, FAAN, USA

Anne Rosenfeld, PhD, RN, FAHA, FAAN, USA

Alana Steffan, PhD, USA Mohamud Daya, MD, MS, USA

#### Purpose

The purpose of this presentation is to provide the latest evidence for the sensitivity, specificity, and predictive value of 13 symptoms for a diagnosis of acute coronary syndrome in women and men.

#### Target Audience

The target audience of this presentation is emergency department nurses, other clinicians caring for cardiac patients, and cardiovascular researchers, particularly those interested in symptoms and measurement challenges.

#### Abstract

**Purpose:** Clinical symptoms are part of the risk stratification approaches used in the emergency department (ED) to evaluate patients with suspected acute coronary syndrome (ACS). The purpose of this study was to determine the sensitivity, specificity, and predictive value of 13 symptoms for a diagnosis of ACS in women and men.

**Methods:** The sample included 736 patients admitted to four EDs with symptoms suggestive of ACS. Symptoms were assessed with the 13-item validated ACS Symptom Checklist. Mixed-effects logistic regression models were used to estimate sensitivity, specificity, and predictive value of each symptom for a diagnosis of ACS, adjusting for age, obesity, stair climbing ability, and diabetes.

**Results:** Patients were predominantly male (63%) and Caucasian (70.5%), with a mean age of  $59.7 \pm 14.2$  years. Chest pressure, chest discomfort, and chest pain demonstrated the highest sensitivity for ACS in both women (66%, 67%, and 66%) and men (63%, 69%, and 72%). Six symptoms were specific for a non-ACS diagnosis in both women and men. The predictive value of shoulder (OR = 2.06, 95% CI = 1.09-3.87) and arm pain (OR 2.27, 95% CI = 1.20-4.35) in women was nearly twice that of men (OR = 1.14, 95% CI = 0.69-1.87 and OR = 1.24, 95% CI = 0.76-2.02). Shortness of breath (OR = 0.44, 95% CI = 0.28-0.71) and unusual fatigue (OR = 0.62, CI = 0.40-0.99) predicted a non-ACS diagnosis in men.

**Conclusions:** There were more similarities than differences in symptom predictors of ACS for women and men. Shortness of breath, arm pain, and shoulder pain may be key symptoms which add predictive value to an ACS diagnosis for women.

#### Contact

[hdevon1@uic.edu](mailto:hdevon1@uic.edu)

## N 03 - Health Promotion for the Cardiac Patient

### Fibromyalgia and Risk of Coronary Heart Disease: A Population-Based Cohort Study

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*Pei-Shan Tsai, PhD, Taiwan*

#### Purpose

to present evidence supporting the predicting role of fibromyalgia and the risk of developing coronary heart disease.

#### Target Audience

nurses who frequently encountered patients who suffer from chronic pain, nurses who work in cardiovascular units, and nursing scientists who are interested in conducting population-based research using claims database.

#### Abstract

**Purpose:** Prospective cohort studies have shown that depression is associated with an increased subsequent risk of CHD. Depression and chronic pain, such as that in fibromyalgia, often occur simultaneously, and studies have suggested that the two diseases may share common pathogenic mechanisms. This study examined whether fibromyalgia patients have an increased risk of adverse coronary events, compared with age- and sex-matched control patients. We hypothesized that fibromyalgia increases the risk of coronary heart disease (CHD).

**Methods:** Using a matched-cohort study design, we analyzed data retrieved from the Longitudinal Health Insurance Database (LHID) 2000 released by the National Health Research Institutes, Taiwan. The LHID2000 includes medical claims data and registration files for 1 million enrollees randomly selected from the 2000 Registry for Beneficiaries (n = 23.72 million) of the National Health Insurance program. Patients treated for fibromyalgia at least once a month for 3 consecutive months following their initial diagnosis were enrolled in our study. The primary endpoint was the composite of CHD events, including percutaneous coronary intervention and coronary artery bypass grafting procedures. The hazard ratios (HRs) and the 95% confidence intervals (CIs) were estimated using multivariate Cox proportional-hazards regression models.

**Results:** After adjusting for the prognostic factors that differed significantly between the fibromyalgia and comparison cohorts, including diabetes mellitus, hypertension, hyperlipidemia, chronic obstructive pulmonary disease, antidepressant use, non-steroids anti-inflammatory drug use, cardiovascular drug use, and the number of cardiology visits, the patients with fibromyalgia showed a significantly higher subsequent risk of a CHD event (HR = 2.19, 95% CI = 1.52 - 3.17, P<0.001) than the patients without fibromyalgia.

**Conclusion:** Patients with fibromyalgia had at least twice the risk of a subsequent coronary event when compared to those without fibromyalgia.

#### Contact

[ptsai@tmu.edu.tw](mailto:ptsai@tmu.edu.tw)

## N 03 - Health Promotion for the Cardiac Patient

### Factors Associated with Prehospital Delay in Acute Coronary Syndrome, Among Men and Women in Karachi, Pakistan

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*Saleema Mansoor Allana, MScN, BScN, Pakistan*

#### Purpose

The purpose of this presentation is to disseminate the findings of a study done on Pakistani Acute Coronary Syndrome (ACS) patient population, aimed at identifying the gender differences in the pre hospital delay time, its components, and in the factors of delay among ACS patients.

#### Target Audience

The target audience of this presentation is nurses and physicians, who work either in primary, secondary or tertiary care settings, and who frequently encounter cardiology patients. Educators and administrators are also part of the audience as implications of the findings are quite related to nursing and medical education and administration.

#### Abstract

**Purpose:** Prehospital delay in Acute Coronary Syndrome (ACS) is the time from the onset of ACS symptoms till the patient's arrival at the hospital's Emergency Department (ED). Despite the known significance of prehospital delay time (PDT) in determining clinical outcomes in ACS, quite prolonged delay times have been reported among ACS patients, globally. Gender differences in PDT and its associated factors have been explored internationally; however, this phenomenon has not been studied before in Pakistan. The current study aimed to identify gender differences in the PDT, its components, and in the factors of delay among ACS patients. The study also aimed to explore the independent correlates of the PDT, among men and women with ACS.

**Methods:** This analytical, comparative, cross-sectional study was conducted on 249 ACS patients at the Aga Khan University Hospital and at the Karachi Institute of Heart Diseases, between February and April, 2011. Data was collected through the modified 'Response to Symptoms Questionnaire', and it was analyzed using comparative and regression analyses.

**Results:** The median PDT of women was found to be 7 hours, as opposed to 3.5 hours among men (P-Value: 0.001). Women had a median decision delay' of 3 hours, versus 1.5 hours among men (P-Value: <0.001). The median physician-to-hospital delay' was 4.5 hours among women, versus 2 hours among men (P-Value: 0.008). Significantly prolonged delay times were observed when patients consulted general physicians (GPs). Moreover, most women delayed due to social factors, like responses of attendants to the patients' symptoms' (P-Value: 0.002), delayed because was worried about expenses required for the treatment' (P-Value: 0.002), and not wanting to trouble others' (P-Value: 0.1); whereas, most men delayed due to individual related factors, like waiting for symptoms to subside' (P-Value: <0.001), not recognizing the symptoms as cardiac' (P-Value: <0.001), and behavioral response to the symptoms' (P-Value: 0.08). Having anxiety' and lack of knowledge about symptoms' were associated with extended PDT among both genders.

**Conclusion:** This study concludes that women delayed more than men in reaching the hospital, and both the genders had different factors of delay. The findings of the current study may be of value for other international studies on the subject. With respect to Pakistan, this possibly seminal baseline study may provide important insights for designing empirical and interventional studies, in the future.

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#### Contact

[saleema.allana@aku.edu](mailto:saleema.allana@aku.edu)

## N 04 - Nurses' Perceptions from Student Through Clinician

### Exploring Registered Nurses' Attitudes Towards Post Graduate Education in Australia: A Pilot Study

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Linda C. Ng, LLB, BN, MN (CritCr), Australia

Anthony G. Tuckett, BN, MA, PhD, Australia

Stephanie Fox-Young, RN, BA (Hons), GradDipEd, MEd, PhD, Australia

Victoria Kain, PhD, RN, Australia

Robert M. Eley, BSc, MSc, PhD, FSB, CBiol, CSci, Australia

#### Purpose

The purpose of this presentation is to assist the profession in evaluating the functions and benefits of postgraduate education for specialty practice. The findings of this study will also inform and thus assist in improving the education of specialty nursing.

#### Target Audience

The target audience of this presentation is academic, clinical and administrative staff. The findings of this study will assist the academic and administrative in encouraging the interest of registered nurses in pursuing specialty nursing education.

#### Abstract

**Purpose:** Nursing education is a dynamic process designed to enable nurses to competently meet the healthcare needs of society. Health system restructuring has been associated with diminishing postgraduate specialist nursing numbers worldwide.

The transfer of Australian postgraduate specialty nursing education from hospitals to the tertiary (higher education) sector took place in the late-90s (Chaboyer, Dunn, & Najman, 2000). Postgraduate education in nursing has continued to grow over the years but the benefits to students, employers, patients and overall impact on practice remains unclear (Gijbels et al., 2010; Griscti & Jacono, 2006; Pelletier, Donoghue, & Duffield, 2005). Valid instruments that monitor and evaluate nurses concerns are a central component in planning effective education, and are currently unavailable.

The objective of this study is to describe the development and design of an instrument to measure the Registered Nurses Attitudes Towards Post Graduate Education (NATPGE) in a representative sample of registered nurses in Australia.

**Methods:** Items on the NATPGE were drawn from the literature review which was used to inform the content and the structure of the NATPGE questionnaire. A number of processes have been undertaken to ensure the validity and reliability of the NATPGE questionnaire.

- 1. Content validity** is a crucial factor in instrument development that addresses item rigour- that is, whether an item adequately measures a desired domain of content (Grant & Davis, 1997; De Vaus, 2002). Four content experts (CE) who specialised in: specialist-nurse education, psychometric scales; development and analysis of instruments were selected to undertake judgment-quantification and agree on the final version of the NATPGE survey-instrument prior to testing its face validity.
- 2. Face validity**, sometimes referred to as representative validity, is the degree of accuracy with which a measurement instrument represents what it is trying to measure (Bowling, 2002; Polit, Beck, & Hungler, 2001). A convenience sample of 25 Registered Nurses (RNs) was selected from four major Queensland tertiary hospitals to assess the instrument content readability and relevance.
- 3. Reliability** is the consistency of a set of measurements or of a measuring instrument (Polit & Beck, 2010). Pilot studies are used in different ways in social science research and one of it can be the pre-testing or 'trying out' of a particular research instrument (Baker 1994 pp 182-3) including testing its reliability. A random sample of 100 RNs from the Nurses and Midwives e-Cohort Study (NMeS) were invited to participate in a test-retest pilot as part of the process of assessing the reliability of the online

NATPGE. To gauge the test-retest reliability, the instrument was administered at two different time points, 3 weeks apart, under similar conditions

**Results:** The content and face validity was assessed using descriptive statistics. For the test-retest reliability the 15 NATPGE questions were analysed on an item by item basis to calculate the intra-rater reliability using the weighted kappa ( $k_w$ ) statistic and its standard error (SE). The  $k_w$  implicitly assumes that all disagreements are equally weighted as are all agreements. The reference values for the strength of agreement are in accordance with Altman (1991) (0.0- 0.2 as poor, 0.21-0.40 as fair, 0.41-0.60 as moderate, 0.61-0.80 as good and 0.81-1.00 as a very good agreement). Data were analysed using Stata 12 (StataCorp. 2011, TX: StataCorp LP.).

**Content and face validity** - Overall both the CE and the RNs ranked the NATPGE, using the CVI, as a realistic training platform that would be useful for evaluating RNs' attitudes towards postgraduate education. The comments received from the CE resulted in some minor changes to the wording of some items for better clarity and simplicity. No particular concerns were raised about any of the items by the CE. The CE was agreeable that the items were arranged in a positively and negatively worded sequence, which was intentional as to prevent response bias.

**Reliability: Pilot Test** - Complete data is available and was analysed for 36 of the 100 (36%) sample of RNs who completed the test-retest reliability of the NATPGE instrument. Overall the results display an 80% fair to moderate kappa ( $k_w = 0.29-0.57$ ) agreement; however, there is some variability ( $k_w = 0.0$  to 0.79) between the test and retest  $k_w$  for each individual question (Graph 1).

**Conclusion:** The present research indicates very good content and face validity and whilst the test-retest reliability overall was moderate, several individual questions did have poor kappa values. As such, we plan to refine the instrument, before its validation in a larger sample using factor analysis. This work is currently being undertaken.

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## Contact

[linda.ng@uqconnect.edu.au](mailto:linda.ng@uqconnect.edu.au)

## N 04 - Nurses' Perceptions from Student Through Clinician

### Nurses' Attitudes Toward Restraint Use in Japanese Hospitals

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*Miho Matsui, RN, PhD, Japan*

#### Purpose

The purpose of this presentation is to investigate nurses' attitudes towards restraint use and related factors.

#### Target Audience

The target audience of this presentation is nurses and care workers taking care of older adults.

#### Abstract

**Purpose:** The use of restraints is a controversial issue that may present nurses with legal, ethical and practical dilemmas. Restraint use can result in numerous problems for the patients, including death by strangulation, falls injuries, deconditioning, skin breakdown, incontinence, constipation and psychological effects such as agitation and emotional distress. The aim of this study was to investigate nurses' attitudes towards restraint use and related factors.

**Methods:** A descriptive study was conducted to measure nurses' attitudes toward restraint use. Nurses employed in areas of internal, surgical, and sanatorium wards of three hospitals received the questionnaire. Japanese Version of Perceptions of Restraint Use Questionnaire (PRUQ), which is 17 item questionnaire measures nurses' attitudes toward restraint use, was used. Each item is ranked on a 5-point Likert type scale. A higher score indicates that the item is considered to be an important justification for the use of physical restraints. The instrument was judged to have face and content validity by a panel of gerontology nurse experts.

**Results:** The questionnaire was sent to a total of 227 nurses and was returned by 205, giving a response rate of 90.3%. The sample had a mean age of 35.8 years (range 20–62 years, SD 10.1) and had been nursing for an average of 7.6 years (range 0.4–34 years, SD 7.4). As expected, the majority of respondents were women (94.6%). Nearly half of the respondents (45.1%) worked in internal wards, and surgical wards (24.4%) or sanatorium wards (25.4%). The mean score on the PRUQ was 2.897 (possible range 1–5), indicating that respondents in this sample had a slightly negative attitude toward the use of restraints. Positive attitudes were shown about items such as preventing a patient from breaking open sutures and pulling out a catheter, feeding tube, and IV. Twelve of 17 items were significantly different due to type of ward, especially surgical wards indicated positive attitudes.

**Conclusion:** Nurses' attitudes toward restraint use showed positive about preventing from pulling out catheter, feeding tube, and IV, moreover, different attitudes were observed among three wards.

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#### Contact

[mihomatsui1002@yahoo.co.jp](mailto:mihomatsui1002@yahoo.co.jp)

## N 04 - Nurses' Perceptions from Student Through Clinician

### Nursing Students' Perception of the Clinical Learning Environment in Macao

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*Wai Sha Poon, RN, BN, MSc, United Kingdom*

#### Purpose

The purpose of this presentation is to emphasize the influence of the clinical learning environment on student learning on placement.

#### Target Audience

The target audience of this presentation is mainly aimed at nurse educators, mentors and nurses who involved in the clinical learning process.

#### Abstract

Background: Nursing is a practice based discipline. Clinical placements provide a social context for nursing students to engage in the profession and apply their knowledge to practice. However, the clinical learning environment is not primarily designed for education purposes. It is therefore essential to understand students' expectation and their experience in the clinical learning environment.

**Purpose:** The aim of this study was to investigate students' expectation and perception towards the clinical learning environment in Macao.

**Methods:** A survey using the Clinical Learning Environment Inventory (CLEI) was conducted in the academic year 2012-2013. The CLEI is a 42-item self-report inventory measuring students' perception of the psycho-social aspect of the clinical learning environment. It consists of 6 subscales (individualization, innovation, involvement, personalization, task orientation and satisfaction), and the subscale satisfaction is used as an outcome measure. The inventory was translated to Chinese and administered to all second to fourth year students of a nursing college in Macao. Participants were invited to complete the preferred form of the CLEI before placement commencement and the actual form on the last day of placement. SPSS version 21 was employed to analyse the data.

**Results:** A total of 147 preferred forms and 150 actual forms were returned, with 88% and 90% response rate respectively. The mean scores of the subscales of the preferred form ranged from 19.71 to 23.44 and from 16.22 to 20.66 for the actual form. Personalization was found to be the most important domain on both preferred and actual clinical learning environment. Paired sample t-test demonstrated that the subscale scores of the actual form were significantly different from the preferred form ( $p < 0.001$ ). Effect sizes were large for individualization, innovation and personalization, and medium for student involvement and task. The result of multiple linear regression showed that student involvement, task orientation and individualization are the predictors of the model, and account for 54% of the variance of student satisfaction in the actual clinical learning environment. The Cronbach's alpha of the subscales for the preferred and actual form ranged from 0.54 to 0.81 and 0.39 to 0.83 respectively.

**Conclusion:** The study shows that there are significant differences between students' expectation and their perception towards the actual clinical learning environment. A thorough investigation on the influence of the clinical learning environment on student learning will be essential to maximize learning outcome on placements.

#### Contact

[sarapoon@ymail.com](mailto:sarapoon@ymail.com)

## N 05 - Evaluations of Global Nursing Faculty

### Nurse Teachers' Accounts of Their Perceptions and Practices of Written Feedback

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*Raisa Gul, PhD, MHA, BScN, RM, RN, Pakistan*

*Sajid Iqbal, RN, BScN, MScN, Pakistan*

#### Purpose

The purpose of this presentation is to share findings of a research study, undertaken in Karachi, which explored nurse teachers' accounts of their perceptions and practices of written feedback.

#### Target Audience

The target audience of this presentation is teachers/educator, school administrators, and students of any level

#### Abstract

**Purpose:** Written feedback is an important aspect of students' assessment and learning. Although the phenomenon of written feedback has been studied in various countries, most of the studies have focused on students' perceptions or on the analysis of teachers' marked papers. This study aimed to explore the nurse teachers' perceptions of their practices of written feedback. Moreover, the factors that affected teachers' practices of written feedback were also investigated.

**Methods:** A descriptive exploratory design was employed in the study. A purposive sample of 12 teachers from public and private nursing institutions in Karachi, Pakistan, participated in the study. Using a semi-structured guide, in-depth interviews were conducted with the participants, between February-May, 2013. The interviews were tape recorded and transcribed verbatim. The data were manually coded and categorized.

**Results:** Analysis of the data led to four categories and sub-categories. The main categories were: teachers' perceptions about written feedback, effects of written feedback on students from the teachers' perspectives, teachers' practices of providing written feedback on students' assignments, and factors that affect the teachers' practices of providing written feedback to their students. The findings indicated that although the teachers realize the importance of written feedback and its impact on students' learning, several factors, including teachers' competence and commitment, students' receptivity, and contextual barriers, affected their practices.

**Conclusion:** Overall, this study has implications for teachers, students, and higher education institutions. To actualize the potential role of written feedback, the contextual factors must be known and addressed by the stakeholders.

#### Contact

[raisagul@aku.edu](mailto:raisagul@aku.edu)

## N 05 - Evaluations of Global Nursing Faculty

### Evaluation of Teaching Competence in Taiwan Nurse Educators: Presence and Value

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*Jiun-Ying Liang, MS, BS, Taiwan*  
*Yueh-Yen Fang, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to explicate current status of professional education knowledge and skills among Taiwan nurse educators and identify learning needs in professional education knowledge and skills for yourself.

#### Target Audience

The target audience of this presentation is nurse educators of colleges and universities.

#### Abstract

**Purpose:** Teaching as a profession was addressed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1966. The core content of the statement insisted that a teacher should be equipped with professional teaching competence before he/she is able to deliver professional knowledge to students. The academic preparations of nursing faculty who work for college or university are mainly professional nursing knowledge and research methodology, not professional teaching knowledge and skills. This study aimed to assess and understand the current status and value in teaching competence among nursing faculty in Taiwan.

**Methods:** Based on a review of literature, a survey questionnaire was constructed and distributed to 353 nursing educators employed in 24 universities and colleges in Taiwan.

**Results:** A response rate of 64.3% was achieved. The study results showed that teaching competence varied by the educator's seniority of teaching, academic position, and the major teaching subjects. Faculty with higher seniority presented better teaching competence in both knowledge and skills than those with lower seniority. However, all nursing educators expressed a lack of knowledge in history, philosophy, and sociology of education. Regarding the impact of academic positions on teaching competence, faculty with professorship contained better knowledge in educational theory, instruction principle, curriculum design, and assessment of teaching outcomes and situations, as well as teaching skills in linguistic expression and communication, than lecturers.

**Conclusion:** Analysis of nursing educators' value in learning teaching knowledge and skills showed a higher learning needs in education philosophy, sociology, psychology, and theory, as well as classroom management, but lower attention in curriculum design and teaching strategy related competence.

#### Contact

[nurse0006@yahoo.com.tw](mailto:nurse0006@yahoo.com.tw)

## N 05 - Evaluations of Global Nursing Faculty

### Adapt or Sink: Exploring the Nurse Educator-Student Relationship in Democratic South Africa

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Theresa Sheila Mokoboto-Zwane, PhD, MCur, BCur letA, RN, RM, South Africa

#### Purpose

The purpose of this presentation is to share a description of the lived experience of nurse educators and nursing students in South Africa regarding their relationship with each other with a view to urging the nursing education system to introduce policies that enhance adaption to changes in the political climate

#### Target Audience

The target audience of this presentation includes policy-makers in the nursing education system, Management of nursing schools, colleges and universities, nurse educators, as well as other interested parties/stakeholders.

#### Abstract

**Purpose:** The purpose of this presentation is to provide insight into the nurse educator-nursing student relationship by describing their lived experience of interacting with one another in a large nursing college within the context of a new democratic dispensation in South Africa, and to urge policymakers in the nursing education system to introduce policies and programmes that promote adaptation to changes brought about by the socio-economic and political climate.

**Methods:** A qualitative study was conducted in a large nursing college in South Africa. Data was collected utilizing in-depth phenomenological interviews which were transcribed and analysed using Tesch's method. A protocol was designed and given to an independent coder who is doctorally qualified in qualitative studies, with a request to also analyse the data, using the same method. A purposive method was used for sampling participants. Because of the sensitive nature of the phenomenon under study, in addition, snowball sampling was also used to allow participants to suggest other willing participants who met the criteria. The size of the sample depended on saturation of the data. Data saturation was reached after 19 participants were interviewed, 10 nurse educators and 9 nursing students. Ethical rigor was ensured by obtaining approval from the Research Ethics Committee, the Hierarchy and Management of Nursing College concerned, as well as informed consent from individual participants following a briefing session which focused on beneficence, respect for human dignity and justice. A pilot interview was conducted first using the following central question for students: "Please describe to me how you experience relationship with your nurse educators, based on your interaction with them," and for nurse educators: "Please describe to me how you experience relationship with your students, based on your interaction with them."

**Results:** The two groups of participants provided rich, dense and detailed accounts of their experiences of interacting with one another and their relationships. These were grouped into two main categories, namely *Facilitative Elements* and *Stumbling Blocks*. Within the Facilitative Elements were Positive Interaction and Positive Feelings, whilst Stumbling Blocks entailed what was perceived as Negative Interaction and Negative Feelings. A third category was identified as Variable, where participants reported a mixture of both positive and negative experiences. Findings reflected positive relationships experienced by the majority of nursing students, with a few reporting negative experiences. These largely positive relationships are a product of positive interaction, and concomitant positive feelings. Similarly, negative relationships were found to be a product of negative interaction and concomitant negative feelings between these two groups. Nurse educators on the other hand, also enjoyed positive relationships with their students. A few highlighted that their relationship with students was sometimes variable

**Conclusion:** Nurse educators should provide opportunities for professional and personal time with their students, and trust them enough to include them in decision-making. They should also make time to understand the evolving politics and dynamics in the country and integrate these in the teaching programs. Policymakers should review the preparation and evaluation of nurse educators in line with the

political and socio-economic changes that are taking place in the country. They should consider in-service training and workshops that lead to higher levels of student satisfaction. To increase job satisfaction and fulfilment, they should also provide support programmes that include mentoring and coaching for nurse educators.

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### Contact

[mokobtsb@unisa.ac.za](mailto:mokobtsb@unisa.ac.za)

## N 06 - Health Promotion in Nursing Practice

### Engaging Nurses Across Disciplinary, Organizational and Sectoral Boundaries for the Health of Vulnerable Populations: A Systemic Model of an Unfolding Interface Nursing Practice in Quebec (Canada)

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Lauralie Richard, RN, BS, Canada

#### Purpose

The purpose of this presentation is to describe a systemic model of an unfolding nursing practice operating at the interface of Health and Social Service Centres (HSSC) in Quebec (Canada) and community resources with the aim of reducing social vulnerability and health inequalities for vulnerable populations.

#### Target Audience

The target audience of this presentation is nurses as well as other health care professionals interested in primary care practices aiming to reduce social vulnerability and health inequalities for vulnerable populations.

#### Abstract

**Purpose:** It is internationally renowned that primary care nurses are key actors in public health programs that are dedicated to vulnerable populations. In Québec (Canada), such programs provide opportunities to develop a nursing practice at the interface of Health and Social Service Centres (HSSC) and community resources in order to reduce social vulnerability and health inequalities. Some nurses are now crossing their disciplinary, organizational and sectoral boundaries to engage in what we refer to here as interface nursing practice. Yet, to our knowledge, no study has documented this unfolding practice. The objective of this study was to produce a systemic model of interface nursing practice in the context of social vulnerability.

**Methods:** A qualitative exploratory study was undertaken in three urban HSSCs. Fifteen primary care nurses participated in semi-structured interviews, followed by one year of direct and participant observation of the interface practice of two nurses. During this time, informal interviews with administrators, interprofessional teams and community actors, as well as an analysis of program and governmental documents, were conducted to further our understanding of the context of interface nursing practice. Thematic analysis was initiated during data collection, whereas Le Moigne's systemic modelling methodology was instrumental throughout the interpretive process of qualitative analysis and for the representation of our study results and further theoretical elaboration.

**Results:** Four inter-related themes qualify interface nursing practice. First, this practice is guided by a goal that is articulated as a social obligation for vulnerable populations, that of becoming autonomous. Second, relational processes are central as nurses interconnect vulnerable individuals with various actors and resources in the community. The third theme depicts interface nursing practice as strategic action. Finally, the fourth theme highlights opposing or contradictory processes that are experienced by nurses engaged in interface practice and that appear to change their sense of professional identity.

**Conclusion:** This study demonstrates the relevancy of creating coherent linkages with knowledge from various disciplines to strengthen our capacity to theorize nursing practice as well as intervention in the context of social vulnerability in order to reduce health inequalities. Further examination of our results, at the intersection of nursing knowledge and social science theories, underscores fundamental dimensions of the concept of practice that are essential to consider in nursing theory development: the central concepts of care and environment, in addition to those of knowledge and projects.

#### Contact

[lauralierichard@gmail.com](mailto:lauralierichard@gmail.com)

## N 06 - Health Promotion in Nursing Practice

### The Use of Allostatic Load for Health Promotion with New Graduate Nurses in the U.S.

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*David P. Hrabe, PhD, RN, USA*

*Jaclyn Buck, PhD, RN, NE-BC, USA*

*Janet A. Gatto, MS, MPS, RN, USA*

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

*Lorraine Sinnott, PhD, USA*

#### Purpose

to provide an overview of how allostatic load can be used to calculate lifetime risk of developing chronic diseases.

#### Target Audience

Clinicians who work in non-acute, employee health or academic settings will benefit from attending this session.

#### Abstract

**Purpose:** With over 2.6 million practicing Registered Nurses in the U.S., nurses represent the largest sector of the health professions (American Nurses Association, 2011; Bureau of Labor Statistics, 2010). While nurses' education prepares them to promote the health of the patients and families they serve, too often they fail to adequately care for themselves and engage in unhealthy lifestyle behaviors. Some of the profession's most vulnerable populations, new graduate nurses, often struggle between the transition from school to work. Successful transition of newly licensed nurses into practice is essential for safe nursing practice (Roth, 2010). Yet, the transition of nursing graduates to their first position often results in very high turnover: 35-60 percent of new graduates leave their first nursing position within the first year (Advisory Board Company, 2006) and up to 25% of new graduate nurses leave nursing altogether (Hwang, 2004). Nurse internship/residency programs have been created to address the new graduate nurse dilemma and have been somewhat successful in reversing these trends. Our university hospitals sponsor a robust program in which Nurse Interns participate in a year-long program that is designed to increase new graduate confidence, autonomy, and satisfaction. This study is focused on determining if the integration of a two-day workshop about personal health and well-being conducted during the Nurse Intern residency improves health behaviors in new graduate nurses.

**Methods:** A descriptive correlational design was used with baseline data from new graduate nurses attending the two-day *Nurse Athlete™* program, a workshop that focuses on nutrition, energy management and physical activity (some results reported previously). Among the psychosocial and biometric markers that have been collected on this population of new graduate nurses, a relatively new measure, the **Allostatix Load Test™**, has been collected and analyzed. Allostatic load is the physiological wear and tear on the body that results from ongoing adaptive efforts to maintain stability (homeostasis) in response to stressors. Typical health risk assessments do not predict future health problems well; in fact, Sacks' seminal 1980 article on the reliability of the health hazard appraisal found that only 15% of participants studied gave consistent answers at baseline and follow up, giving little accuracy to what is likely to happen to an individual's health in the future. More than 20 years ago, a group of noted scientists from UCLA, Rockefeller University, Princeton, and the University of Wisconsin began a decades-long study of the application of allostatic load to predicting future health. Thousands of individuals were followed for many years as they developed diseases or died. The subjects were between 18 and 70 years of age at the start of the studies. Several peer-reviewed research papers have been published from these data, illustrating the clear efficacy of using allostatic load as a reliable measure of future health (Carr, et al., 2005; Seeman, Karlamangia & Singer, 2006; Seeman, et al, 2004). The Allostatix Load™ (AL) test score is calculated by combining the results of various blood and physiologic tests, chosen to provide information on the functioning of multiple body systems. Individual test results are combined algorithmically to produce a single score that represents the cumulative impact of stress on

the individual at the time of the tests. The algorithm takes into consideration the full range of test results, not just whether the results are within or outside the standard reference ranges, as well as the interactions among the test results from a whole body system perspective.

**Results:** For allostatic load, we tested whether there was an on average difference in baseline and six month scores. Change scores for participants (n= 38) were computed by subtracting the baseline score (Time 1) from the six-month (Time 3) score. Overall, there was no significant difference between Time 1 and 3 (-1.26, SD = 24.96, p = .76).

**Conclusion:** Analysis of allostatic load is another indicator of overall health with predictive ability. The findings so far in this study have not been significant regarding the impact of the *Nurse Athlete™* intervention upon allostatic load. The test itself, however, provides additional information that could be used as a motivational tool in promoting improvement in health behaviors. More research is needed to explore this facet of the data.

Contact

[hrabe.1@osu.edu](mailto:hrabe.1@osu.edu)

## N 06 - Health Promotion in Nursing Practice

### Evaluation of a Government Deployment Project for Unemployed Nurses as Input to Policy and Programmatic Directions

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*Josefina A. Tuazon, RN, BSN, MN, DrPH, Philippines*

#### Purpose

The purpose of this presentation is to evaluate implementation and outcomes of a government deployment project for unemployed nurses called Projects RNHEALS to underserved hospitals and community centers in terms of enhancing clinical and public health competencies and potential employability of deployed nurses as input to policy and programmatic directions.

#### Target Audience

The target audience of this presentation is nurses in key administrative positions both in academe and practice who can gain from this study in developing programs in terms of deployment of nurses as well as the methods employed in evaluating this Project.

#### Abstract

**Purpose:** At the peak of nurse unemployment in 2011 with the US and global financial crisis, the Philippine Department of Health organized a training-cum-deployment project for nurses to be fielded in underserved government hospitals and rural health centers called Project RNHEALS. The Project aimed to enhance competencies of nurses in clinical and public health nursing and augment access to health care in underserved communities. This study is a program evaluation focusing on assessing implementation and outcomes of the Project as input to policy and programmatic directions. Specifically, it (1) assessed recruitment, selection, deployment process and incentives within the context of the project objectives and guidelines and (2) determine whether the training program enhanced competencies of participating nurses.

**Methods:** This study used a mixed-method design. Records review, key informant interviews, focus group discussion, a self-administered questionnaire, and an online competency assessment called Nurse MetriX were the main methods of data collection measured at the beginning of the deployment and at 10 months. Competencies of RNH nurses were measured at 3 points: prior to deployment and at 3 and 10 months of deployment. Through a multi-stage stratified random sampling with probability of selection proportional to size sampling technique, 7 provinces including NCR in 4 regions of the country were covered with a total of 729 RNHEALS nurses from both hospital and rural health units. A total of 172 implementers of the project were also included as key informants. These included chief nurses, assistant chief nurses, training coordinators, senior hospital staff nurses, city/municipal health officers, senior public health nurses, DOH representatives, as well as DOH-HRDU personnel.

**Results:** This report will focus on results of process evaluation and RNH nurse competencies at 3-months of deployment. 72% of the RNH nurses had prior nursing experience with 52% as volunteers in hospitals and only 6% in community centers called RHUs.

Generally, the process of recruitment, selection and deployment varied according to region, province, and institution, with biggest variability in the hospitals. DOH gave an option to hospitals to include institutions' standards and criteria like interviews, competency examinations, hospital experiences, trainings, and medical examination for screening RNheals candidates. There was a common perception that final selection was not based on objective criteria.

In terms of the guidelines re the Training Program, there was varying compliance with greatest variability in hospitals. Almost all hospital-assigned RNheals nurses were rotated in general wards. Only a few rotated in the OPD as well as other special areas. Most RHU-assigned nurses were assigned to Barangay Health Stations, supervised by Public Health Midwives. This gave rise to some problems related to supervision, not being allowed to give injections and immunizations, and some interpersonal difficulties for the RNH nurses. A few had opportunity to be assigned in birthing clinics depending on the availability of the facility.

In reviewing changes in the DOH guidelines from batch I to IV, there were major changes that led to some confusion in the implementation of the Project, as well as expectations of the RNH nurses and the implementers.

Problems identified included delay in release of their monthly allowance, confusion re PhilHealth insurance registration causing delay, lack of supervision in the hospitals, supervision by the Midwife in the RHUs limiting their achievement of competencies, clamor for a certificate of employment to increase their employability, difficulty of local government units to provide the additional monetary incentive given their resources and the number of RNH nurses. There was a strong sentiment that the number and distribution of RNH nurses deployed should be reviewed and be based on actual need, and to solicit the inputs more of the LGUs and the DOH Representatives who know their community better. The RNH nurses also resented to some extent being referred to as RNHEALS nurses and trainees as this undermined them and tended to be treated as students rather than RNs.

Despite these concerns, assessment of competencies based on self-report showed significant increase by 3-months into the program. For hospital nurses, there was significant improvement in all 11 domains ( $p < 0.05$ , paired samples t-test) except in two items related to preparing patients for procedures and endorsing patients. For RHU nurses, competencies were based on involvement in public health programs. As such, although there was reported improvement on most competencies, several or most items related to "care during childbirth", "postnatal care", and "essential newborn care" did not. On "emergency services", there was no improvement in terms of the item of "providing basic life support and first aid." This was consistent with reports that the nurses had limited opportunities in these areas, and depended greatly on availability of the facility and services. The domains related to childbirth and newborn care were also mainly performed by midwives at the health centers or community.

Reports from other sources such as their supervising nurses were consistent with this self-report. RNH nurses also reported satisfaction with the project and would apply again given the chance. For the RNH nurses deployed in community centers, there was the added benefit of the nurses viewing public health nursing more positively, and during the FGDs, indicated that some were interested to apply to such positions in the future.

**Conclusion:** At 3 months, clinical and public health competencies of RNH nurses improved. In general, RNH nurses were satisfied with the Project, particularly in providing them nursing work experience with allowance. In terms of program implementation, although there was some variability, in general the Project was implemented according to the set guideline. There were problems related to delayed allowance and other incentives, selection and supervision particularly at RHUs where there is only one Public Health Nurse so most of the supervision was by Midwives. Deployment in both hospitals and RHUs even by 3 months showed significant improvement and enhanced employability. Preliminary recommendations for the improvement of the project include transforming the Project from a training program into regular employment even with a decrease in number who can be employed. This will address issues of employability, certificates and compensation. On the service side, it will provide continuity and better services with improved competency of the nurses. The number and distribution of RNHEALS nurses or additional positions for nurses in the RHUs should be improved and be based on need of the community/hospital or LGU as well as resources. Deployment in the RHUs also increased positive interest in public health nursing.

#### Contact

[jatuazon07@gmail.com](mailto:jatuazon07@gmail.com)

## N 07 - Diverse Implications of Nursing Research

### From CBPR to RCT: Lessons Learned Over 10 years with Interventions in Public Housing

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*Jeannette Andrews, PhD, RN, FAAN, USA*

*Martha S. Tingen, PhD, RN, FAAN, USA*

*Martina Mueller, PhD, USA*

#### Purpose

The purpose of this presentation is to describe the lessons learned after 10 years of community engaged tobacco cessation interventions with women in public housing in the Southeastern US.

#### Target Audience

The target audience of this presentation is clinicians and scientists interested in community health in high-risk populations, community based participatory and behavioral nurse scientists, and nurses interested in social determinants of health in high risk communities.

#### Abstract

**Purpose:** The purpose of this presentation is to describe the lessons learned after 10 years of community engaged tobacco cessation interventions with women in public housing in the Southeastern US. The original academic-community partnership in one Southeastern US metropolitan region identified the health area of interest, assessment of need, and developed an overall plan of action, including a multi-level and ecological based intervention at the neighborhood, peer group, and individual level. Primary outcomes measured were smoking abstinence at 6 and 12 months post intervention.

**Methods:** A community based participatory research (CBPR) approach was used to develop, implement and evaluate a culturally tailored intervention strategy to assist women in public housing to quit smoking . A feasibility study (n=10 women) was conducted in one public housing neighborhood, followed by a pilot study (n=103 women) in two public housing neighborhoods. With promising 6 month tobacco abstinence outcomes (39% treatment condition vs. 11.5% control ) and other behavioral and psychosocial measures, funding was received for a larger randomized controlled trial (RCT) in 16 neighborhoods (n=410 women) across two states. In the RCT, the tobacco abstinence outcomes were less promising, with 12 month abstinence rates of 12% in treatment neighborhoods vs. 5% in control neighborhoods. Additional analyses and discussions ensued to better understand the outcomes and lessons learned.

**Results:** A CBPR approach was used with mutual interest of both the community and academic partners in the initial two neighborhoods. The partnership worked together over 3 years to develop strategies, methods, and materials, which fostered the interest and buy-in of the participating neighborhoods. With the implementation of the RCT in expanded regions in two states, neighborhoods were selected based on inclusion criteria, initial interest, with 2-3 months of time to cultivate relationships and trust. Lessons learned in working with high risk vulnerable populations and implementation of CBPR developed RCT's include: 1) Time to cultivate relationships and interest varies, but the longer positive history, the more likelihood of trust and engagement; 2) Community and organizational readiness vary from neighborhood, residents, and housing authority managers to include goodness of fit, capacity, and operations; 3) Challenges with maintaining intervention fidelity in real world community based interventions with differing readiness levels; and 4) Influence of neighborhood moderators to include social and environmental context and changes in impoverished public housing communities (crime and violence, neighborhood stress, social cohesion) over time.

**Conclusion:** Outcomes in randomized controlled trials in community-based clusters (i.e., neighborhoods, churches, schools, clinics) will likely vary according to stakeholder engagement, readiness, and social/environmental contexts. Further considerations regarding methods, approaches, and funding sources are needed with the implementation of community-engaged interventions based on these and other factors as we attempt to eliminate disparities in these high-risk vulnerable communities.

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## Contact

[j.andrews@sc.edu](mailto:j.andrews@sc.edu)

## N 07 - Diverse Implications of Nursing Research

### An Investigation of the Influence of Fish Oil Supplementation on IL-8: A Possible Protection Against Preeclampsia

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Sara Mitchell Edwards, RN, CNM, MN, MPH, USA

#### Purpose

The purpose of this presentation is to discuss the influence of maternal fish oil supplementation during pregnancy upon the production of IL-8, suggesting a possible protective mechanism against preeclampsia.

#### Target Audience

The target audience of this presentation are nurses and nurse-midwives in clinical practice and in research.

#### Abstract

**Purpose:** Ten million women develop preeclampsia each year around the world. Of those, about 76,000 pregnant women will die from preeclampsia and related hypertensive disorders. Further, the annual infant mortality rate from these disorders is estimated to be approximately 500,000. Land-locked or mountainous regions of the globe, and thus with less oily ocean fish available in the diet, tend to have higher rates of preeclampsia. Poor women are also more vulnerable to the disease. A woman is seven times more likely to develop preeclampsia in a developing country than a woman in an industrialized country.

Preeclampsia is an insidious disease with a long pre-clinical phase followed by a phase when maternal systemic effects of proteinuria and elevated blood pressure appear, mainly due to endothelial dysfunction. The current hypothesis of the etiology of preeclampsia is an exaggerated maternal inflammatory response to fetal antigens which causes a cascade of events culminating in the release of pro-inflammatory cytokines into the maternal circulation. Specifically, Interleukin-8 (IL-8) levels have been found to be higher in women who develop preeclampsia in pregnancy.

Interleukin-8 (IL-8) is a chemokine that regulates pathologic angiogenesis and tumor growth. It also plays a role in endothelial cell proliferation. Abnormal endothelial cells cause the majority of internal organ dysfunction in preeclampsia. IL-8 attracts and activates neutrophils and is elevated in multiple systemic inflammatory diseases. It is plausible that IL-8 either contributes to or could be used as a marker of inflammation and endothelial dysfunction in early preeclampsia due to the abnormal cytokine response involved in the progression of this systemic disease.

There are two main types of bioactive polyunsaturated fatty acids (PUFAs), the omega-6 (n-6) series, and the omega-3 (n-3) series (linolenic acid [ALA], eicosapentaenoic acid [EPA], docosahexaenoic acid [DHA]). They are important constituents of all cell membranes and essential for the survival of all mammals. PUFAs cannot be synthesized in the body and can only be obtained from our diet, thus they are called essential fatty acids. The cardio-protective action of anti-inflammatory eicosanoid levels (derived from omega 3 fatty acids in fish oil) is believed to occur via enhanced endothelial production of a vascular-relaxing factor. This results in vasodilatation which leads to a reduction in blood pressure. Reduced platelet aggregation is another potential benefit of fish oil supplementation in pregnancy and both actions could counteract or limit the preeclampsia-related hypertension and hypercoagulability.

The aim of this analysis was to investigate the reported use of fish oil supplementation during pregnancy, the factors that predict its use, and any association with serum levels of IL-8.

**Methods:** A total of 189 pregnant women in Colorado and Ohio who met inclusion criteria (e.g. general good health, no chronic medications, non-smokers) were enrolled in a longitudinal study during their 3rd trimester and followed through 6 months postpartum. This analysis only examined the single prenatal time point. Fish oil supplementation was determined by self-report with a yes/no. Demographic

information (age, status of government support from the Special Supplemental Nutrition Program for Women, Infants, and Children [WIC], marital status, race/ethnicity) was collected through self-report survey. Plasma levels of pro- and anti-inflammatory cytokines were collected to measure inflammatory response.

**Results:** Logistic regression was performed to assess for possible factors (age, BMI, Caucasian race or other, WIC status) on the likelihood a woman would supplement with fish oil in pregnancy. The full model containing all 4 predictors was statistically significant, Chi-square (6, N=188) =23.43,  $p < .000$ , indicating the model was able to distinguish between respondents who reported they did or did not take fish oil. Women who used fish oil supplements were more likely to be older ( $p < .01$ ), thinner ( $p = .03$ ), Caucasian ( $p = .02$ ) and not on WIC ( $p < .001$ ). While the model as a whole only explained between 11.7 and 17.8 % of the variance in fish oil intake, it correctly classified 76.6% of cases. Only one of the variables, WIC status, made a unique, statistically significant contribution to the model. The odds ratio of .20 for WIC status indicated that subjects on WIC were .20 times less likely to take fish oil than those without WIC. There were only 7 women who were underweight, with a BMI less than 18.5, so they were removed from the analysis to improve the strength of the findings related to the other BMI categories. After controlling for Caucasian or other race, WIC status and normal/overweight/obese status (all but underweight), linear regression analysis revealed IL-8 levels were significantly lower among women taking fish oil supplementation ( $p = .03$ ) compared to those not taking this supplement.

**Conclusion:** Analysis was limited by how fish oil intake was reported. The subjects were merely asked if they were taking a fish oil supplement, and it was recorded as yes/no. No amount or frequency of dose is known. Despite this limitation, there were significant associations with fish oil use: higher age, higher income, lower weight, and Caucasian race. Fish oil supplements are expensive and elective so they are unlikely to be consumed unless it is considered affordable and necessary. There is no current recommendation for fish oil supplementation as there are minimal and conflicting findings of beneficial use in pregnancy. Given the growing global incidence of preeclampsia, closer study of fish oil supplementation in pregnancy may prove to reduce risk or severity of the disease. Prenatal surveillance of IL-8 levels may serve as an early marker or risk factor of the disease. Intervention before maternal and fetal effects have progressed is needed to improve the devastating outcomes of preeclampsia in pregnancy.

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Contact

[sedwar2@emory.edu](mailto:sedwar2@emory.edu)

## N 10 - Considerations in Global Nursing Education

### Breaking Bad News: Confronting Interdisciplinary Bias

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*Rita Ann Dello Stritto, PhD, RN, USA*

*Peggy A. Landrum, PhD, RN, CS, USA*

#### Purpose

To describe an inter-professional education project designed to facilitate collaboration by nursing, medical, and pharmacy students in a simulated medication error scenario; to discuss findings in the processing groups following the simulations; and to generate dialogue that addresses the biases that exist on inter-professional health care teams.

#### Target Audience

Academic, clinical and administrative health care professionals who are interested in inter-professional biases among nursing, medical, and pharmacy students, in the communication strategies used when they work together in a challenging medication error simulation, and in their change perceptions following the simulation exercise.

#### Abstract

**Purpose:** A critical component of safe patient care in today's health care system is effective teamwork. Teams composed of members from various health care disciplines depend upon successful interprofessional collaboration under stressful conditions to achieve desired health outcomes. The purpose of Phase I of this multifaceted project was to bring together healthcare students from multiple disciplines – including nursing, medicine, and pharmacy: a) to collaborate on planning and implementing an approach to managing a challenging patient care situation, and b) to identify their own biases, challenges, and successes with interprofessional communication.

**Methods:** In teams of 3, one from each discipline, students are asked to engage in a two-stage simulated patient family encounter, and then participate in a debriefing discussion with clinical educators from each discipline. Prior to the simulation, team members have ten minutes to learn about each other's discipline and professional culture. The simulated scenario, using Standardized Patient (SP) Model, involves a serious medication error. Educators provide a description of the error and each team member's responsibility for the error. The patient has survived and has been transferred to the medical intensive care unit. The task for the team is to discuss the error with the patient's family member. The team has ten minutes to plan how they will approach the family member. In the next stage, the team has a 15-minute meeting with the family member during which a trained actor (SP) portrays a family member who is emotional, either angry or sad, about the error that has occurred. During the debriefing phase, the clinical educators attempt to elicit perceptions of responsibility for the error, in a safe environment, and encourage students to discuss the challenges of the interdisciplinary experience.

**Results:** During the debriefing, students were able to recognize the expertise each profession brings to patient care delivery, to openly demonstrate respect and trust for the other members of their team, and to clearly identify what they would do differently 'next time'. The students often reported a greater appreciation at the breadth of knowledge held by their colleagues in other professions. Additionally, they reported several points of identification with each other that often resulted in a higher degree of respect and trust for the other disciplines. The students acknowledged that an increase in trust and respect for each other would lead to improved patient outcomes. Finally, students reported greater comfort in communicating with their team members about patient care and potential errors following the simulation when compared to before the collaboration.

**Conclusion:** The simulated experience was useful, in that it gave the students from different disciplines and three different universities an opportunity to identify interdisciplinary biases that each had towards one another. This led to an understanding of how to conquer the biases and provided a pathway towards improved communication strategies, which will indirectly promote patient safety and improved patient outcomes.

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## Contact

[rdellostritto@twu.edu](mailto:rdellostritto@twu.edu)

## N 10 - Considerations in Global Nursing Education

### A Qualitative Study Exploring the Use of Visual Thinking Strategies with Nursing Students

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*Meg Moorman, PhD, RN, WHNP-BC, USA*

#### Purpose

The purpose of this presentation is to present results of a study revealing the meaning of Visual Thinking Strategies (VTS) for nursing students. Information about VTS and how students used it in care of patients will be presented and highlights of how it informed the researcher's teaching will be discussed.

#### Target Audience

The target audience of this presentation is nurse educators interested in innovative teaching techniques using art as a mode for developing communication skills. They will also be interested in VTS as a way to employ interprofessional communications with students who may then transfer these skills to their work as nurses.

#### Abstract

**Purpose:** Nurse educators are called upon to provide creative, innovative experiences for students in order to prepare nurses to work in complex healthcare settings. As part of this preparation, teaching observational and communication skills is critical for nurses and can directly affect patient outcomes. Visual thinking strategies (VTS) are a teaching method that has been studied in primary education to develop communication and observational skills. The purpose of this study was to explore the meaning of Visual Thinking Strategies with nursing students. The students also discussed how they used VTS in caring for their patients.

**Methods:** Students enrolled in a 6<sup>th</sup> semester obstetrics course at a large midwestern university were given an option to experience VTS as a homework option. Those students were then recruited during their 7<sup>th</sup> semester to participate in the research study. Nine students volunteered and informed consent was obtained. These students participated in two 60-minute VTS experiences at a local art museum, facilitated by an art museum educator trained in VTS. Students were then interviewed by the researcher and these interviews were audio taped. These interviews were transcribed and analyzed for common themes. Heideggerian hermeneutics was used as the research method for analysis in this qualitative study. Interviews were conducted based on the following questions: What meaning does VTS have for nursing students? How do students who have experienced VTS use it in their care of patients? Themes were identified during data analysis and verified by a research team experienced in Heideggerian hermeneutics. The researcher also did a literature review following the data analysis to validate and expand findings. Heideggerian hermeneutics was also the philosophical framework for the study.

**Results:** Two themes emerged from data analysis of transcripts from participants: Feeling safe in learning and Seeing differently. Also revealed in the findings were themes from the perspective of the researcher; validation, mutual respect, and reformulation of the VTS process into clinical practice. The term "facilitative teaching" was created from this data.

Participants in VTS were able to link their interactions with the artwork directly to patient care metaphorically. They also used the process of questioning by the facilitator to question both patients and family members in order to develop a more clear understanding. This ability to translate an educational experience into a real-world experience was identified in the theme of reformation of VTS processes to clinical practice. The VTS facilitator asks participants to take a moment and observe a work of art. After that observation, the facilitator asks the group "What is going on in this painting?" A follow-up question of "What are you seeing that makes you say that?" requires the participant to give visual evidence for what they are seeing and back it up. Educators can pose this question to students in a myriad of ways, without casting judgment or criticism. This question and the attentive listening that occurs afterward are important as one attempts to understand what was said and also requires the student to provide evidential reasoning. At the same time, the facilitator/educator is demonstrating a sincere attempt to

understand the response or answer. Students can use this line of questioning in their clinical practice as part of an assessment, or to gain more insight into how patients are thinking. The importance of listening attentively and paraphrasing back cannot be emphasized enough, as these components demonstrate respect from the facilitator/educator. Mutual respect in education can increase the likelihood that students participate and speak up. Finding a voice is an important component of nursing care and communications.

The act of looking at a work of art as a whole picture, then breaking it down into smaller pieces and then stepping back and gaining perspective from viewing the whole is a metaphor for how students can view clinical situations. This act of looking enhances students' abilities to assess and observe in clinical situations. Participants in this study were able to translate the experience of VTS into their clinical practice and "see the big picture". Nurse educators can incorporate this into their teaching by projecting an image of a complicated work of art onto a screen and asking students "What is going on in this picture?" By following the VTS facilitator questions, students can learn the process of the line of questioning. Then the educator might show a picture of a complicated patient and have students practice breaking the components of the scenario into smaller pieces. This process can model for students how to systematically assess and question, increasing the likeliness that they use this same systematic process in caring for patients. Students can learn to look critically and think systematically. The nurse educator can also model for students how to question and seek understanding without judgment or criticism.

The facilitator asked students to take a moment and observe the work of art. The simple act of taking a moment to examine the artwork showed the students that their opinions were going to be considered carefully and that she was going to invite them to participate. She did not call on participants; she simply asked "What is going on in this work of art?" and then allowed students to volunteer. This invitation was important in that it showed a level of mutual respect and recognition that participants were invited to join the discussion, not required to participate. Again, this invitation demonstrates a level of respect for the student, not commonly done by educators. Inviting participation is more respectful than demanding an answer or calling on someone who was not ready to respond. The act of inviting participation is a subtle way for nurse educators to demonstrate respect for students instead of putting them on the spot or making them feel pressured to respond. Mutual respect from nurse educators can be provided by attentive listening, paraphrasing, and seeking further understanding. Nurse educators can provide respect for students by suspending judgment and encouraging expansion of thought. This process can reveal student thinking, at the same time demonstrating mutual respect and collegiality. Again, modeling for students can increase the likelihood that they will use these same techniques in their nursing.

In summary, participant interviews revealed aspects of the role of facilitator that nurse educators can incorporate into the classroom. The facilitative teacher can promote mutual respect and validate students, which increases the likelihood that they will participate and find their voice. The facilitative teacher can also expand student thinking by inviting participation and seeking understanding from students about how they understand a concept. As the facilitative teacher listens attentively and paraphrases, she promotes a mutual respect in the classroom. This mutual respect can enhance learning and encourage participation, which helps students to find their voice and be more likely to speak out. As students translate these skills into their clinical practice, they synthesize these concepts into their nursing care. Students who speak out in class and question may be more likely to incorporate that voice into their work as nurses. Nurses who speak out are more likely to communicate with other healthcare workers, which may enhance patient outcomes. Facilitative teaching strategies are realistic and easy to incorporate in any clinical, classroom, or laboratory setting. Information about basic concepts, rationale for use, and ways to incorporate into learning settings are included in the table below.

Table 3. Facilitative Teaching in Action

Themes that Emerged from Researcher Perspective about VTS	Educational Rationale for Practice	How nurse educator can implement these concepts into practice
Validation	Promotes speaking out	Paraphrase student response Ask "Tell me how you came to that conclusion" and

		paraphrase back to student. Ask "Did I understand you correctly?"
Reformation of VTS Processes in Clinical Practice	Formulation/Reformulation	Display complicated work of art during class and ask "Tell me what's going on in this picture" Ask "What are you seeing that made you say that" Paraphrase back Provide picture of complicated patient scenario and repeat above questioning like VTS
Mutual Respect	Mutual respect in learning and education	Invite participation (don't require it), seek understanding of student's view, ask for rationale and how they came to the conclusion, paraphrase and seek understanding of response, model mutual respect through direct questioning without judgment or criticism.

**Conclusion:** Themes of feeling safe in learning and thinking and seeing differently were identified and the term "Facilitative teaching" came from these results. These themes revealed that students were able to explore their thoughts and question because of the way the facilitator questioned them in a safe environment. They were also able to see their work with art and formulate a method to approach their care with patients in hospital settings. Nurse educators can use this teaching method (VTS) inexpensively and promote interdisciplinary educational work with other medical disciplines, as called for by the NIH. Further studies are suggested that would include nursing students working with other disciplines in art museums. Medical, social work, respiratory therapy, and public health students could all be included to develop interdisciplinary educational studies that promote communication and observational skills.

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### Contact

[mmmoorma@iu.edu](mailto:mmmoorma@iu.edu)

## N 12 - Culturally Diverse Health Behaviors

### Chronic Health Conditions and Behaviors Among Persons Entering Maximum Security Prison

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*Elaine Larson, RN, BSN, MA, PhD, USA*

*Dhritiman Mukherjee, PhD, USA*

*Montina B. Befus, BS, MPH, USA*

*Jennifer Bai, BS, MPH, USA*

*Zoltan L. Apa, BS, USA*

*Franklin D. Lowy, BA, MD, USA*

#### Purpose

The purpose of this presentation is to describe the chronic health conditions and behaviors among persons entering maximum security prison

#### Target Audience

The target audience of this presentation is clinicians and health care providers, particularly those working with vulnerable populations.

#### Abstract

**Purpose:** To describe health conditions and risk behaviors among persons entering maximum security prison in New York State.

**Methods:** Between January 2011 and March 2013 as part of a study to assess the prevalence of methicillin-resistant *Staphylococcus aureus* (MRSA), male (n=426) and female (n=404) inmates at intake to two New York State maximum-security prisons were interviewed regarding demographic, social, and health issues, their medical records were reviewed, and anterior nares and oropharyngeal samples were collected. The majority (>96%) were entering from other jails or prisons.

**Results:** Approximately one-third each were aged <30, between 30-40, or >40 years; 47% were black, 24% white, 20% Hispanic, and 8% other. The largest proportion (44%) had <high school education, 36% completed high school, and 20% had some college education; the majority (80%) rated their health as excellent or good. The estimated prevalence of medical conditions was: asthma (31.4%), hypertension (14.1%), hepatitis C (9.1%), diabetes (6.9%), HIV (5.9%), renal disease (2.7%). For health-related behaviors, prevalence was: cigarette smoking (74.2%), illicit drug use ever (83.8%), marijuana use ever (76.6%), cocaine use ever (41.3), tattoos (59.1%). Antibiotic use within the previous 6 months was reported by 17.7%. All medical conditions and most behavioral risk factors except tattooing were reported with greater frequency among women than men. Overall, >50% of inmates were colonized with *S. aureus*; 5.9% of men and 10.6% of women were colonized with MRSA, a rate approximately 10 times higher than in the general population.

**Conclusion:** Men and women entering prison have high rates of chronic health conditions and behaviors that increase their risk of disease and infection. Adequate provision of health services in prison is important to reduce morbidity and prevent transmission of infectious diseases within the prison and after parole.

#### Contact

[el23@columbia.edu](mailto:el23@columbia.edu)

## N 12 - Culturally Diverse Health Behaviors

### Engaging Chinese-Americans in Advance Care Planning: A Pilot Study

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Mei Ching Lee, PhD, RN, USA

Katherine A. Hinderer, PhD, RN, USA

#### Purpose

Implement a culturally sensitive seminar to engage community-dwelling Chinese Americans in advance care planning (ACP). The aims of the study were to examine the effectiveness of a culturally sensitive ACP seminar on (1) Advance directive (AD) knowledge and (2) engagement of Chinese Americans in ACP and AD completion.

#### Target Audience

nurses and other health professionals

#### Abstract

**Purpose:** Implement a culturally sensitive seminar to engage community-dwelling Chinese Americans in advance care planning (ACP). The aims of the study were to examine the effectiveness of a culturally sensitive ACP seminar on (1) Advance directive (AD) knowledge and (2) engagement of Chinese Americans in ACP and AD completion. Advance care planning is the process through which individuals consider the types of medical treatments and decisions they would want if they were no longer able to speak for themselves.<sup>1</sup> Advance directives, an element of ACP, allow individuals to document their treatment preferences when they are no longer able to speak for themselves.<sup>2</sup> In the United States (US), overall AD completion is approximately 18-36%. This rate is even lower in ethnic minority groups including Asian Americans.<sup>3</sup> Identified barriers to ACP and AD completion are lack of knowledge about ACP and AD<sup>4-5</sup> and cultural values. Minority groups, including the Chinese Americans, were found to have significantly less ACP knowledge and were less engaged in ACP.<sup>3</sup> Chinese culture embraces collectivism and a family-centered approach to decision-making; autonomy, a central principle in the ACP process, is not highly valued in Chinese culture.<sup>6</sup> In the US, the Chinese American population is quickly increasing, thus emphasizing the need for ACP engagement in this population.<sup>7</sup>

**Methods:** This study was a quasi-experimental, repeated-measures, pre-test, post-test design. After institutional review board approval, a convenience sample of community-dwelling Chinese Americans was recruited. A culturally sensitive bilingual (English and Mandarin) educational seminar on ACP and AD was conducted. The nurse-led seminar included an overview of the ACP process, definitions of terms commonly used on ADs, and a step-by-step guide to completing an AD. Participants were asked to complete a background survey, the Advance Directive Knowledge Survey (ADKS), and the Advance Directive Questionnaire (ADQ) before and after the seminar. Data were collected immediately before (time 1), immediately after (time 2) and one month after (time 3) the seminar. Data were analyzed using SPSS version 19.0. Descriptive statistics were used to describe sample characteristics, AD knowledge scores, AD completion rates, and engagement in ACP conversations with family and loved ones. Pearson correlations and Chi-square tests were used to explore the relationship between demographic variables and engagement in ACP. Inferential statistics were used to examine the effectiveness of the seminar on AD knowledge and engagement in ACP.

**Results:** The sample size was 72. We had a 99% ( $n=71$ ) response rate at time 1, a 100% ( $n=72$ ) response rate at time 2, and an 88% ( $n=63$ ) response rate at time 3. Participant age ranged from 32 to 87 with mean age of 61 years ( $SD=12.2$ ). The majority of participants were female (63.9%,  $n=46$ ) and were born in China (65.3%,  $n=47$ ). Many participants (44.44%,  $n=32$ ) were college educated. Prior to the seminar (time 1), mean knowledge scores, as assessed by the ADKS, were 7.11 ( $SD=1.98$ ). Immediately after the seminar (time 2) knowledge scores increased to 9.20 ( $SD=1.07$ ), and at one-month follow-up (time 3), they were about the same at 9.22 ( $SD=1.17$ ). When comparing time 1 and time 2 ADKS scores, there was a significant increase in mean knowledge scores [ $t(70) = -8.380, p < 0.000$ ]. Advance directive completion and ACP discussions were significantly higher one month (time 3) after the seminar as compared to pre-seminar (time 1) [ $t(49) = -3.5, p = 0.01$ ] and [ $t(37) = -5.187, p =$

0.000] respectively. Several variables were significantly related to ACP at time 3. Age was positively related to AD completion and ACP discussions ( $r=.397, p=0.001$ ;  $r=.295, p=0.019$ ). Sex was related to ACP discussion only ( $\chi^2=4.67, p=.031$ ).

**Conclusion:** It is feasible to conduct a nurse-led educational seminar on ACP in a community-dwelling population of Chinese. Chinese in this study were open to the topic and showed a willingness to learn about ACP. This study supported previous research that found age and female gender was positively related to engagement in ACP.<sup>8</sup> Research is needed to examine the reasons for differences in AD completion and ACP discussions. This culturally sensitive educational seminar significantly increased participants' AD knowledge. Knowledge levels remained high 1 month after attending the seminar. Participants' engagement in ACP significantly increased after the seminar as evidenced by reported AD completion rates and ACP discussions on the time 3 follow up survey. Our results have global implications for the importance of developing culturally sensitive nurse-led educational interventions. Future research could incorporate similar models to improve the ACP engagement in different cultural and ethnic groups.

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## Contact

[lee@son.umaryland.edu](mailto:lee@son.umaryland.edu)

# Part V: Evidence-Based Practice Poster Presentations

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## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Improving Neurologic Outcomes of Cardiac Arrest Patients Through Therapeutic Hypothermia

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*Alfie Jay C. Ignacio, DNP, MSN, RN, USA*

#### Purpose

The purpose of this project is to implement and evaluate the effectiveness of a therapeutic hypothermia program on neurological outcomes and survival rate of post cardiac arrest patients.

#### Target Audience

The target audiences of this presentation are Critical Care Nurses, Emergency Department Nurses, Managers, and Directors.

#### Abstract

**Problem/Issue:** Post cardiac arrest patients have a high mortality rate and poor neurologic outcomes in spite of standard post resuscitation care and intensive critical care monitoring. Out of 164,000 cardiac arrests occurring in the United States annually, 65-95 % dies. Those that survive suffer adverse health outcomes including physical disabilities, physiologic instability, and systemic complications.

**Background:** The American Heart Association recommends initiation of therapeutic hypothermia to patients who remain comatose after resuscitation from sudden witnessed out-of-hospital cardiac arrest. Therapeutic hypothermia is an intervention that cools the post arrest patient to a temperature of 32-34°C with iced saline or other surface cooling measures after the return of spontaneous circulation. The temperature is maintained for a period of 18-24 hours. Research has shown that patients who undergo therapeutic hypothermia are more likely to survive to hospital discharge compared to standard post-resuscitation care. Therapeutic hypothermia has been shown to improve neurologic outcomes and decrease mortality following cardiac arrest.

**Purpose:** To implement and evaluate the effectiveness of therapeutic hypothermia on neurological outcomes and survival rate of post cardiac arrest patients.

**Methods:** A policy and protocol was developed by the clinical nurse specialist in collaboration with the ED and ICU nursing staff, ED physicians, respiratory therapy, physical therapy, pharmacy, and clinical informatics which outlined the approach for instituting immediate hypothermia in patients remaining comatose following out-of-hospital cardiac arrest. The goal was to start therapeutic hypothermia within six hours after return of spontaneous circulation and to keep the patient's temperature at 33° C for a period of 18-24 hours. Staff was educated about the protocol and a therapeutic hypothermia kit was provided to the ED and ICU which contain the protocol and supplies to initiate hypothermia.

**Results:** Findings were based on mortality rate and neurologic outcomes. Modified Rankin Scale (MRS) was used to measure neurologic outcomes. An MRS score of two or lower indicates a good functional outcome. There were 43 patients who met the criteria for therapeutic hypothermia since the program started in 2011. Twenty patients survived and twenty-three patients died following hypothermia. Of the 20 patients who survived, seventeen patients survived with good neurologic outcomes (MRS score of 1-2), and 3 were discharged with neurologic deficit (MRS score of 3 and above).

**Implications:** Results suggest therapeutic hypothermia decreases mortality rate and improves neurologic outcomes. However, continuing educational needs exist among staff to master the skills in the provision of therapeutic hypothermia. A well developed policy will guide nurses in instituting hypothermia as indicated.

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Contact

[zulu22373@aol.com](mailto:zulu22373@aol.com)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Assessing Reliability and Validity of the Chinese Version of the Functional Independence Measure on Stroke Patients

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Shu-Chen Hsiao, MSN, RN,, China

#### Purpose

The purpose of this presentation is to be use the scale to measure functional performance in a sample of Stroke participants in southern of Taiwan.then to provide evidence exists that FIM scores can be used as an accurate predictor of outcomes in stroke patients and carrying out their daily activity.

#### Target Audience

The target audience of this presentation is can be an effective means of connecting with health providers used to identify patients with stroke carrying out the daily activity.

#### Abstract

**Background:** Functional Independence Measure (FIM) is one of the most widely used measures of self-care performance. However, this scale has not been used to assess healthcare providers in Taiwan.

**Purpose:** Study purposes were to: (a) translate the FIM into Chinese, (b) examine validity and reliability of the translated scale, and (c) use the scale to measure functional performance in a sample of Stroke participants in southern of Taiwan.

**Methods:** Researchers used a backward translation approach to translate the FIM into Chinese in order to ensure translation accuracy. Researchers then administered the FIM Chinese version to107 participants were enrolled from three hospitals in southern Taiwan. The study analyzed face validity, construct validity, internal consistency, item analysis, and criterion-related validity.

**Results:** 1.The Content Validity Index of the Chinese version of Functional Independence Measure Scale was .81; 2. The criterion related validity of Barthel Index scale were found to be statistically significant. ( $r = .904$ ;  $p < .001$ ); 3. Exploratory factor analysis with principal components analysis indicated the FIM revealed moderate inter correlations between subscales and high factor loadings also helped to clarify the psychometric meaning. 4. Reliability estimates the Cronbach's alpha and correlation coefficients, were 0.95 and 0.80.

**Conclusion:** The reliability and validity data were outlined for the study support using the Chinese version of the FIM as a research instrument in measuring the patients with stroke in the Chinese population. It can be provide evidence exists that FIM scores can be used as an accurate predictor of outcomes in stroke patients and carrying out their daily activity.

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Contact

[shuchen0412@yahoo.com.tw](mailto:shuchen0412@yahoo.com.tw)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### The Efficacy of Care Model of Group Home for Caring the Elderly with Dementia: A Systematic Review

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Meng-Chin Chen, RN, Taiwan  
Li-Wei Lin, PhD, RN, Taiwan  
Li-Yen Yang, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is systematic review will be to critically appraise published clinical trial studies to evaluate the effects of group home to caring for the elderly with dementia.

#### Target Audience

The target audience of this presentation is Long Term Care Nurse and nurse student.

#### Abstract

**Background:** The group home is one of the dementia care model and many studies have been discussed for this issue. However, the effectiveness of group home is different because of different research designed or method limitations (e.g. no measurement of long-term outcomes, and the lack of a control group). Therefore, the effectiveness of group home currently has not complete evaluation in clinical practice.

**Purpose:** The aim of this study was to appraisal critically the effectiveness of group home of group home for caring the elderly with dementia.

**Methods:** Literature search included English and non-English reports in the Medline, PubMed, CINAHL Plus with Full Text, Health Source, Cochrane library, Ageline, Academic Search Complete, ProQuest Health and Medical, MEDLINE Complete, ProQuest Nursing and Allied Health Source, Chinese Electronic Periodical Services (CEPS), Chinese Journal, Thesis Index and so on. Keywords including dementia, Alzheimer's disease and group home were keyed in and the search was limited to articles published before June 2012. Literature search and quality assessment were conducted by two independent reviewers. A total of 608 articles that matched search criteria were extracted. The quality assessment was assessed by using modified Jadad Scale.

**Results:** Eleven articles met study inclusion criteria. The quality score of the 11 studies was between 1 and 3. Patients with dementia living group home in their daily living activity, walking ability and quality of life were better than other long-term care institutions. Residents in group home have more independence autonomy and motility and less use of psychotropic drugs and have a high frequency of interaction with staff. The rates of survival and hospitalization for different care model have not significant difference in cognitive status and problem behaviors for three-year follow-up.

**Conclusions :** Empirical results demonstrated that the care model of group home is effective for dementia patients and offers recommendations of research design for future research so that to improve the quality of care for dementia.

Keywords: group home, dementia, systematic review

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## Contact

[s2881041@gmail.com](mailto:s2881041@gmail.com)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Sepsis Mortality Reduction Project at Contra Costa Regional Medical Center & Health Center

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*Lai Ping Atalanta Wan, MS, RN, CNS, CCRN, USA*

#### Purpose

The purpose of this presentation is to describe our improvement journey of the sepsis mortality reduction project at Contra Costa Regional Medical Center in California, United State, and the outstanding results that we have accomplished using Early Goal Directed Therapy guidelines and an interdisciplinary approach.

#### Target Audience

The target audience of this presentation is nurses, physicians, infection control practitioners, advanced nurse practitioners, health care managers, health care administrators, and other disciplines who have interest in evidence-based practice.

#### Abstract

**Why Is This Important:** Sepsis is a complex syndrome that is difficult to define, diagnose, and treat. It is a range of clinical conditions caused by the body's systemic response to an infection. If it develops into severe sepsis complicated with single or multiple organ dysfunction or failure, sepsis may lead to death. Sepsis is a common leading cause of death in the United States, and the mortality rate of severe sepsis ranges from 28% to 50% (Daniels, 2011).

**Improvement Journey:** The "Stomp Out Sepsis" (SOS) initiative began at Contra Costa Regional Medical Center (CCRMC) in October 2009. Its roll-out began in January 2010 with refinements continuing to this day. A multidisciplinary team involves physicians, nurses, lab personnel, infection control practitioners, pharmacist, and other drawn from throughout the hospital to implement the SOS project. The team utilized classic quality management techniques, such as standardized work (checklists and standard sepsis order sets), inter-departmental collaboration, staff education, team building, frontline nurse champions, and close monitoring to ensure continuous improvement towards our goals.

**What Are We Trying to Accomplish:** By June 30, 2015, we will reduce mortality due to sepsis at CCRMC at least 15% by increasing early sepsis recognition and increased compliance with Early Goal Directed Therapy (EGDT) guidelines (Dellinger et al., 2013). Achieve 95% compliance in the use of the severe sepsis screening tool with all patients, and achieve at least 85% compliance in the use of the EGDT bundle.

**Inclusions:** All patients age 18 years and older presenting to the emergency department (ED) or inpatients on acute care units.

**Exclusions:** Inpatients on the hospital skilled nursing facility(SNF) units, OB patients, patients transferred to ICU with severe sepsis or septic shock, patients who are "Do not Resuscitation" (DNR), "Do not Intubation"(DNI), comfort care or palliative care on admission or ordered within 24 hours, and patients who signed out "Against Medical Advice" (AMA), left the ED without being seen (LWBS), or who refuse care.

**Results:** Up to date, September 2013, we reduce mortality due to sepsis at CCRMC to less than 15%, and achieve above 50% compliance with the EDGT bundle (lactate, blood culture, antibiotic, fluid bolus) within the first hour.

#### **Lessons Learned/Challenges:**

- Development and implementation of sepsis screening tool.
- Implementation of ISTAT lactate for ED patients.
- Institution of nurse stat lactate order protocol.
- Physicians reluctant to give fluid bolus when patients have multiple comorbidities.
- Blood collection supplies not easily accessible for inpatient nurses to draw STAT lactates.

- Confusion regarding which sepsis order set to use.

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#### Contact

[laiping.wan@hsd.cccounty.us](mailto:laiping.wan@hsd.cccounty.us)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Beyond Clickers: Enhancing Students' Engagement with the Use of Online Polling

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*Jennie Chang De Gagne, PhD, DNP, RN-BC, CNE, USA*

*Jina Oh, RN, PhD, South Korea*

#### Purpose

The purpose of this presentation is to examine the main themes derived from the available studies on the use of clickers in health-related disciplines and present available web-based technologies that can be used in online learning beyond clickers.

#### Target Audience

The target audience of this presentation is conference participants who are involved in nursing education as faculty members at various colleges and universities.

#### Abstract

Active engagement can bring deeper understanding of knowledge and greater knowledge retention while stimulating higher cognitive processes and critical thinking skills (Conrad & Donaldson, 2004). Consequently, mastering the art of engaging students in the learning process is essential to successful learning outcomes (Bain, 2004). Clickers, also known as classroom response systems, are widely used across disciplines, and their effectiveness has been demonstrated in higher education (Bruff, 2009). The synthesis of the literature related to clickers in nursing, medicine, and allied health education identified that clickers have the unique capability not only to foster students' satisfaction but also to enhance learner engagement and participation. That is, the main characteristics of clickers include: interactivity, active participation, learner satisfaction, formative assessment, and contingent teaching (De Gagne, 2011). Moving from in-classroom into online teaching technologies, nurse educators can generate equally effective learning outcomes from using clickers when utilizing web-based polling technologies in their online teaching. Although virtual polling is not new to education, it is one of the teaching strategies that can promote active learning and critical thinking in nursing students online. Nurse educators who teach online must understand the scope of available technologies and plan each course and session based on the instructional needs of the intended audience (De Gagne, 2011). In this presentation, various web-based polling technologies will be reviewed and discussed in a way of enhancing nursing students' engagement in an online learning environment.

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#### Contact

[jennie.degagne@duke.edu](mailto:jennie.degagne@duke.edu)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### The Practice of Skill Training for Dialectical Behavior Therapy

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Yasuko Koyano, PhD, RN, PHN, Japan

#### Purpose

The purpose of this presentation is to introduce dialectical behavior therapy.

#### Target Audience

The target audience of this presentation is psychiatric nurses and nursing researchers.

#### Abstract

*Introduction:* The suicide rate in Japan is 24 per 100,000 population, the highest among the seven most developed countries, and Japan even ranks 9th even among the countries of the world as a whole. In 2010, the Ministry of Health, Labour and Welfare organized a “Suicide and depression management project team” as an approach to reducing the more than 30,000 suicides that occur in the country annually, and it has vigorously promoted measures to combat suicide. Cases in which patients take excessive amounts of psychotropic drugs prescribed by their physician for the treatment of depression, etc., have been pointed out, and the government has issued notices calling attention to the matter. Moreover, the existence of a situation in which multiple drugs are prescribed for psychiatric care in Japan in comparison with other countries has also been pointed out. Faced with this situation, there is a need for interventions designed to enhance psychosocial treatment with the goal of preventing suicide and depression without placing a disproportionate emphasis on drug therapy.

Dialectical behavior therapy is one of the psychosocial treatments that has been attracting attention in the US in recent years. This therapy was developed by M. Linehan of the University of Washington as a treatment program for borderline personality disorder (BPD), and clear evidence of the efficacy of this intervention has been presented. The therapy is applicable to a wide range of diseases, from eating disorders to anxiety disorders. Conventional cognitive-behavioral therapy focuses on “changes” in the patients’ cognition, therefore, the dropout rate from this therapy is considerable. Dialectical behavior therapy adopts Hegel’s dialectical philosophy and incorporates elements of “change” and “acceptance,” i.e., behavior therapy to solve problems and avoidance of value judgment focusing attention on the present moment, with *mindfulness* as the core of the therapy. Mindfulness aims at establishing a state of mind not affected by emotions by observing the present distressed thinking and emotions, physical reactions and the feelings arising from such thinking, and acquiring the skills to accept unpleasant events. It is derived from the traditional Japanese teachings of Buddha and is, in particular, influenced by the Zen philosophy. Dialectical behavioral therapy consists of 4 modules, including 3 skills training modules, namely, “distress tolerance,” “emotion regulation” and “interpersonal effectiveness,” and mindfulness.”

The authors have been conducting an Emotional Literacy Program since 2009, held once a week for 90 minutes per session targeting patients of the day treatment center (day/night care) of an outpatient psychiatric unit. The program adopts an open group style with the maximum number of 10 participants per group, and any patient who wishes to participate can do so. At the beginning, the program was based on the Emotional Intelligence theory by Salovey and Mayer, but currently, it also introduces skill training with dialectic approach.

*The structure of the basic sessions:* Ninety-minute basic sessions, each consisting of a warm-up, lecture, exercise and sharing, are held weekly. Mindfulness, bridging from the previous session, checking homework assigned in the previous session, lecture and work on the day’s theme, the day’s homework and looking back are included in each session, referring to the structurization of cognitive therapy.

The first basic session provides an orientation in which the participants are explained about the course, to deepen their understanding of the dialectical approach. Basic sessions consist of 4 DBT skills training units, “distress tolerance skills,” “emotion regulation skills,” “interpersonal relationship skills” and “mindfulness.” Of these, mindfulness is added to the introduction of the other 3 skills training units each time, resulting in a structure made up of 3 modules.

*Conclusion:* The skills training influenced the consciousness of the patient and contributed to the control of feelings, correction of thoughts, and change of actions. As a result, the patient adopted a new role in society and a new outlook of life to lead a healthy and realistic life.

It is hoped that application of the program in psychiatric outpatient clinics and psychiatric day hospitals will serve as a useful intervention method aimed at altering feelings and as a system for enhancing self coping skills that will support living in the community and improve the quality of life of the parties concerned.

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### Contact

[ykoyano@juntendo.ac.jp](mailto:ykoyano@juntendo.ac.jp)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### A Project of Applying PDCA Cycle to Improve New Nurse Medication Error in Surgical Ward

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Li Hua Lee, BS, Taiwan  
Hsiu Hui Lei, MA, Taiwan  
Wei-Ping Cheng, BS, Taiwan

#### Purpose

According to the literature survey that new staff is the majority number of medication mistakes whereas issuing medication is the most important part of nursing work. The purpose of the study was to describe medical error problems and prevent new staff from abnormal medication administration.

#### Target Audience

The target audience of this presentation is clinical nurses and related supervisors.

#### Abstract

**Purpose:** Medical errors are common problems in types of medical negligence. Medicine behavior is the most activating part of nursing work every day.

When accidental events happen, they affect patients' safety, worsen patients' condition, prolong the length of days in hospital and even result in death. The purpose of the study was to describe medical error problems and prevent new staff from abnormal medication administration.

**Method:** The study used actual medication auditing process, abnormal analysis and interview for new staff. The data collection period was from March, 2013 to October, 2013. Our investigation has shown that new nurse's incorrect medication administration revealed as follows □F(1) lack of standard t courses (2) lack of medication auditing process for internal reference (3) lack of knowledge and skills in medication administration (4) similar medicine were placed close to each other.

**Resolution:** The **Plan- Do- Check- Action** (PDCA) cycle was applied and multiple intervention strategies implemented, including **Plan-**(1) Hold continuing medication administration education (2) case studies of abnormal medication administration events (3) make DVDs of proper medication administration (4) redesign the location of similar medicine; **Do-** create a medication auditing process for internal reference only; **Check-** implement new target supervise system; **Action-** revise operating standards of medication administration flowchart

**Results:** New nurses following the PDCA process have made less mistakes from the 24 abnormal medication administration events down to 11 ones. Auditing process rate has reached 100 percent, which represents the new staff could issue medication correctly.

**Conclusions:** By implementation of this project, nurse should be able to amend the accuracy of general medication and elevate the safety of using medication. As a result, patients will receive a better quality of nursing and share this sort of problem with other new staff.

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#### Contact

[n6807032000@gmail.com](mailto:n6807032000@gmail.com)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Effects of Tai Chi Exercises on Adults with Metabolic Syndrome: A Systematic Review

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Yuen Ling Leung, HMS, SD, CIEH, MSc, MBA, BHSc, RN, Hong Kong  
Janita Pak-Chun Chau, RN, BN, MPhil, PhD, Hong Kong

#### Purpose

The purpose of this poster presentation is to describe in detail the methods for conducting a systematic review of effectiveness of Tai Chi exercises on community-dwelling adults with metabolic syndrome.

#### Target Audience

The target audience of this poster presentation is nurses, physicians, and allied health care providers

#### Abstract

**Background:** Metabolic syndrome is a cluster of metabolic disturbances that increases the likelihood of developing cardiovascular diseases, type 2 diabetes mellitus, and mortality. The economic burden of metabolic syndrome in individuals with hypertension is projected to rise by 179% by 2020 (Wille et al., 2011). Although pharmacological and non-pharmacological management options including herbal medicine and lifestyle and dietary modifications appear to be effective, the numerous potential adverse effects may deter its use (Mallappa et al., 2011).

**Aim:** This systematic review aims to present the best available research evidence related to the effectiveness of Tai Chi Exercises on community-dwelling adults with metabolic syndrome. The specific review questions to be addressed include the effectiveness of Tai Chi exercises on physiological and psychosocial outcomes among community-dwelling adults with metabolic syndrome; and the effectiveness of different types, duration, and frequency of Tai Chi exercises on client outcomes.

**Methods:** All published and unpublished studies in both English and Chinese will be searched using a three-stage approach. The English databases to be searched include MEDLINE, CINAHL, Allied and Complementary Medicine, British Nursing Index, EBSCOhost, EMBASE, Health and Medical Complete, Health Sciences, ProQuest, PsycINFO, PsycArticles, Science Citation Index, Science Direct, Scopus, and SPORTDiscus. The Chinese databases to be searched include China Journal Net, Chinese Biomedical Literature Database, MyRead, Taiwan Electronic Periodical Services, and WanFang Data. Two reviewers will independently review the articles and chose those to be included based on the inclusion and exclusion criteria. The methodological quality of included studies will be assessed and details of all included studies will be extracted by two reviewers. If appropriate, quantitative results of comparable studies will be pooled in statistical meta-analysis. Narrative summary will be provided when statistical pooling is not possible.

**Conclusion:** This systematic review protocol describes the methods and steps necessary to conduct a systematic review on the effectiveness of Tai Chi Exercises on client outcomes. The review will provide useful guidance for healthcare providers to choose the most suitable and effective alternative intervention for the community-dwelling adults with metabolic syndrome.

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#### Contact

[pwhnurse1@yahoo.com.hk](mailto:pwhnurse1@yahoo.com.hk)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Psychometric Testing of the Mandarin Chinese Version of the Fatigue Severity Scale (CFSS) in Patients with Major Depressive Disorder

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*Mei-Yeh Wang, PhD, Taiwan*

*Pei-Shan Tsai, PhD, Taiwan*

*I-Chao Liu, MD, DSc, Taiwan*

#### Purpose

The purpose of this presentation is to report the results of the psychometric testing of the Mandarin Chinese version of the Fatigue Severity Scale (CFSS) in MDD patients

#### Target Audience

The target audience of this presentation is healthcare professionals who is interested in issues related to clinical screening for fatigue in patients with major depressive disorder.

#### Abstract

**Background:** Fatigue is a symptom that is highly prevalent in patients with major depressive disorder (MDD) and as one of the most common residual symptoms that occurs in MDD.

**Aim:** The aim of the present study was to examine the psychometric properties of the Mandarin Chinese version of the Fatigue Severity Scale (CFSS) in MDD patients.

**Methods:** A total of 179 participants (101 MDD patients and 78 healthy controls) were included. The MDD patients were recruited from an outpatient department of psychiatry and currently under antidepressant treatment. The psychiatric diagnosis was confirmed by a psychiatrist based on the diagnostic criteria for major depression stipulated in the DSM-IV. The correlations with a visual analogue scale for fatigue (VASF), the Chinese versions of the Beck Depression Inventory (CBDI), the CBDI loss of energy item, CBDI fatigue item, and the vital subscale of the Short Form-36 Health Survey (SF36-vit) were used to assess the concurrent validity of the CFSS. To measure the discriminate validity of CFSS, we examined the differences in CFSS scores between MDD patients and healthy controls. The level of agreement between CFSS and VASF was assessed using Bland-Altman analysis.

**Results:** Reliability analysis revealed that CFSS had satisfactory internal consistency (Cronbach's alpha coefficient = 0.93). The significant item-item correlation ( $r=0.34-0.82$ , all  $p<0.001$ ) and item-scale correlation ( $r=0.41-0.83$ , all  $p<0.001$ ) were observed. The correlation coefficients among the CFSS and VASF, CBDI, and CBDI-loss of energy item, and BDI -fatigue item were 0.66 ( $p <0.001$ ), 0.59 ( $p <0.001$ ), 0.53 ( $p <0.001$ ), and 0.57 ( $p <0.001$ ), respectively. The CFSS also negatively correlated with the SF36-vit ( $r=-0.59$ ,  $p <0.001$ ). The CFSS scores were significantly different between MDD patients and healthy controls ( $p<0.001$ ). Most of the difference between CFSS and VASF lied between the limits of agreement as seen in the Bland-Altman plot. The Bland-Altman plot also revealed that no specific pattern of differences between CFSS and VASF was observed

**Conclusions:** The 9-item scale presented satisfactory internal consistency, concurrent and discriminated validity. The agreement between fatigue severity assessed by CFSS and VASF was acceptable. This preliminary validation study of the CFSS proved that it is a valid and reliable Mandarin-language instrument for measuring fatigue severity in MDD patients.

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#### Contact

[mywang@ctcn.edu.tw](mailto:mywang@ctcn.edu.tw)



## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Effectiveness of the Molloy Bridgeport Observation Scale in Predicting Increased Intraocular Pressure during da Vinci Robotic Procedures

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LaDean J. Livingston, DNP, CRNA, USA

Anne Wojner Alexandrov, PhD, RN, CCRN, FAAN, USA

#### Purpose

Postoperative vision loss has been associated with  $\Delta$  intraocular pressure resulting in decreased ocular perfusion during Trendelenburg positioning for abdominal da Vinci robotic procedures. The Molloy Bridge Observation Scale has been suggested as a method for anesthesia providers to recognize signs of increased IOP without use of tonometry.

#### Target Audience

To provide a tool for anesthesia providers to accurately correlate the critical threshold of 40mmHg. Understanding the correlation between the length of time and position as it relates to increases in IOP.

#### Abstract

**Background and purpose:** Postoperative vision loss (POVL) has been associated with increased intraocular pressure (IOP) resulting in decreased retinal perfusion during 15-30° Trendelenburg positioning for abdominal da Vinci robotic procedures. The Molloy Bridge Observation Scale (MBOS) has been suggested as a method for anesthesia providers to recognize the signs of increased IOP without use of an expensive tonometry unit; however, the generalizability of this method has not been studied in a large number of centers. Therefore, we aim to assess the comparative effectiveness of the MBOS in relation to tonometry readings to determine the presence of increased IOP.

**Methods/Purpose:** Institutional Review Board approval is underway for the conduct of a prospective observational study that will serially compare use of the MBOS to actual tonometry readings in patients undergoing abdominal surgery using the da Vinci robot. Consecutive cases will be enrolled that meet the following inclusion criteria: Age > 19 years, and elective abdominal surgery using the da Vinci robot. Subjects with a history of glaucoma will be excluded. Concurrent measures will be taken by two investigators blinded to each other's findings, with one performing an assessment using the MBOS and the principal investigator measuring actual tonometry pressures every 30 minutes for the duration of Trendelenburg positioning. A surgical "time out" will occur with the patient returned to 0° HOB elevation, if IOP exceeds 40 mm Hg. This is a documented measure at which blood flow to the ocular nerve has ceased, potentially causing ischemic nerve damage. Data will be entered/analyzed in SPSS.

**Results:** This study is awaiting IRB approval with an anticipated start date of Summer2014.

**Conclusion:** While use of the da Vinci robot has revolutionized the approach to a number of surgical procedures, increased IOP is an unfortunate associated finding. This study will allow for comparative assessment of the effectiveness of 2 approaches that aim to reduce the risk of POVL in this patient population.

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#### Contact

[llivingston@umc.edu](mailto:llivingston@umc.edu), [ladeanjohnson@earthlink.net](mailto:ladeanjohnson@earthlink.net)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Development of Fast Track System for Severe Trauma Patients Using Six Sigma Technique

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*Jiin Kim, PhD, RN, RNM, South Korea*

#### Purpose

Today's business requires innovative management in order to obtain excellent results and to fulfill the diverse needs of customers in a highly competitive industry. So, the purpose of this study was to develop of a fast track system for severe trauma patients by using 6 Sigma methodology.

#### Target Audience

The target audience of this presentation is nursing staff in hospital and nursing professor who is interested in quality improvement and patient safety or evidence-based practice in hospitals.

#### Abstract

**Purpose:** Today's business requires innovative management in order to obtain excellent results and to fulfill the diverse needs of customers in a highly competitive industry. So, the goal of this study was to develop of a fast track system for severe trauma patients by using 6 Sigma.

**Methods:** The sample for this study consisted of all trauma patients who visited to emergency medical unit(EMC) of general hospital located in Gyunggi Province. Data were analyzed using frequency, percentage, mean, standard deviation, ANOVA and capability test. For data analysis, the SPSS/PC 12.0 program and Minitab 14+ PC program.

**Results:** The results of this research show as following; First, this study revealed the success factors and the length of stay in EMC have an affirmative impact. Second, there were different success factors from the respective of business performance for 6 Sigma. Third, meaningful factors for reducing the length of stay were call time, admission decision making time and consultation rate.

**Conclusion:** The result of this study indicate that fast track system can help reducing mortality as well as complications in severe trauma patients, therefore, it is intended through this study to present a treatment guideline for severe trauma patients which can be utilized as th fundamental data for ultimate decrease of the mortality.

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#### Contact

[jiin0904@dhc.ac.kr](mailto:jiin0904@dhc.ac.kr)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### A Systematic Review on Problem-Solving Training for Community Schizophrenia Patients

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*Kuen-Tai Lee, MSN, RN, Taiwan*

*Jiin-Ru Rong, PhD, RN, Taiwan*

*Su-Ping Hsu, BS, RN, Taiwan*

#### Purpose

The purpose of this presentation is to analysis the current design and methodology of problem-solving therapy used for community schizophrenia patients. In addition, analysis the results of problem-solving training used for community schizophrenia patients.

#### Target Audience

The target audience of this presentation is those clinical, academic and nursing faculty those interested in developing and evaluating the problem solving training for promoting psychiatric care.

#### Abstract

**Background and purposes:** Problem-solving skill training is an important therapy to promote the psychological functioning for schizophrenia patients, and it affects the ability of the patient to live independently in society as well. In recent years, a number of studies emphasis has been placed on the problem-solving skill of schizophrenia patients. However, inconsistency is still present with regards to the result of using such therapeutic training on schizophrenia patients. Moreover, for fit the cognitive function impairment of schizophrenia patients, the design of these problem-solving interventions comes with various new concepts and features.

Nevertheless, there is limited integrated literature pertaining to the problem-solving intervention's design and methodology used for the treatment of community schizophrenia patients, and needless to say on the results of these interventions. Therefore, this study aims to fill the insufficiency by conducting a systematic review on the following: 1. Analysis current design and methodology of problem-solving therapy used for community schizophrenia patients. 2. Analysis the results of problem-solving training used for community schizophrenia patients.

**Method:** This study adopted CHINAHL, MEDLINE, and PUBMED as the electronic database of foreign literature. In addition, the Index to the Taiwan Periodical Literature System and the National Digital library of theses and dissertations in Taiwan served as the databases for domestic literature. According to the standard literature screening procedures, some articles were selected and analyzed separately by two co-authors. Criteria of inclusion literature: (1) Randomized clinical trials, (2) intervention focus on problem-solving, (3) diagnosis of schizophrenia (section F2 of ICD-10). (4) language English or Chinese. Exclusion Criteria: (1) treatments exclusively pharmacological, (2) interventions carried out in inpatient settings, (3) bipolar affective disorder or substance-induced psychosis (greater than 50% of sample). (4) not intervention study

**Results:** A total of 6 articles were eligible after screening. The patients were mainly from the day hospital and psychological health care centers. The scope of the problem solving training were mainly with regards to social skills training in the early years, and it has been expand to the problems solving with daily lives, symptoms, emotions and etc., in recent years. Virtual scenarios were stimulated in laboratories to mimic real live events for practical training. The training methods involved theoretical lessons; moreover, it has evolved to basic cognitive functional trainings in recent years. The total training time, duration and frequency various drastically according to the complexity of the task, and most sessions lasted 60 or 90 minutes. The major indicators to demonstrate the outcomes of problem solving training were problem-solving skill, social functions, psychological symptoms, and cognitive functions. With regards to the evaluation of the result, the AIPSS chart was used to evaluate the problem-solving skill, and the SFS and PSP were used for the evaluation of social functions. With regards to the psychological symptoms, PANSS measure were used in most cases and computer designed measuring tools were

used for the evaluation of cognitive functions. In general, schizophrenia patients performed more poorly with respect to the execution and application of problem solving skills. Problem-solving trainings were able to ameliorate negative symptoms but a discrepancy was noted with regards to the social function improvement.

**Conclusions/Implications for Practice:** The results of the study can provide evidence-based information to develop the problem solving training for the schizophrenia patients. Enhancing patients' problem solving ability remains as the major focus of the problem-solving training. For patients, by using real-life situation rather than simulated scenarios to practice problem solving skills. In addition, studies result shown that the training can decrease the negative psychiatric symptoms, but the different studies shown that the training effect on social functions in discrepancy.

#### Contact

[kumentai@ntunhs.edu.tw](mailto:kumentai@ntunhs.edu.tw)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Evidence of Culturally-Tailored Diabetes Management Program for Asian-American Immigrant Population: A Systematic Literature Review

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*Jee Young Joo, PhD, RN, USA*

*Hae-Kyung Lee, PhD, RN, South Korea*

#### Purpose

The purpose of this systematic literature review is to examine the effectiveness of culturally-tailored diabetes management programs and outcomes for Asian immigrants in the community.

#### Target Audience

The target audience of this presentation is community-based nursing researcher and community health workers.

#### Abstract

**Background:** In the United States, Asian immigrants' populations are growing rapidly. In addition, Asian immigrants have a higher prevalence of diabetes diagnosis due to change of diet and lifestyle than other ethnicities. Many hospitals and clinics have offered diabetes programs, but care to ethnic minorities still remains inadequate, ineffective, and inaccessible. Language barriers and lack of health care insurance are the main contributing factors for the lack of effective programming. For these populations, a culturally-tailored diabetes intervention is needed.

Cultural tailoring is defined as "employing the native language, integrating cultural dietary preferences, encouraging family participation and support, and holding open discussions of cultural beliefs and treatment practices for diabetes (e.g., home remedies, oriental medicine)."

A culturally-tailored diabetes program is imperative because the increasing numbers in minority populations with diabetes in the United States. In a west-coast state such as California, which has a large population of Asian immigrants, the prevalence of diabetes is growing fast.

To date, several studies have shown that a culturally sensitive diabetes program results in benefits to Hispanics and Asian immigrants. Some studies showed that culturally adapted education programs were associated with increases in Asian immigrants' health behavior and increase use of clinic services. In the local community health centers and churches, a culturally tailored diabetes program has been offered to Korean American, Chinese American, and Hispanic diabetics.

However, the study of culturally-tailored program is still on developing stages especially for Asian immigrants, thus, a critical review of its effectiveness is needed. The effectiveness of these programs needs to be systematically reviewed to ensure the evidence-based nursing practice for those immigrant populations.

**Purpose:** The purpose of this systematic literature review is to examine the effectiveness of culturally-tailored diabetes management programs and outcomes for Asian immigrants in the community. Through this review, the study seeks to assess evidence-based culturally-tailored diabetes practice effectiveness.

**Methods:** To examine effectiveness of culturally-tailored diabetes programs, a literature review was conducted with PubMed, CINAHL, and PsycINFO to retrieve primary studies published from 1999 to 2013. The key words to search the literature included: Asian immigrant, Asian-American, ethnic minority, diabetes mellitus, culturally-tailored, intervention, education, program, and community-based participatory research. The study search was limited to English-language and empirical studies.

**Results:** The initial search strategies retrieved 259 articles. All retrieved articles were reviewed abstract first and then fully examined and reviewed for the purpose of this study. In total 12 Asian immigrant studies were selected for critical review.

Quality of studies was assessed by methodological quality tool. All 12 studies show moderate to low quality. Five studies were randomized controlled trials and the rest of studies were pilot or quasi-experimental studies.

Among twelve studies, nine studies were conducted in the United States with Korean-American, Chinese-American, and South-Asian immigrants. Three studies were conducted with South Asian immigrants in the United Kingdom and Canada. The total sample included in the 12 studies included sample size under 100 ( $n = 7$ ) and over 100 ( $n = 5$ ). All twelve studies' population was adults who are more than 40 year old.

The culturally-tailored programs consisted with culturally sensitive diabetes education, behavioral intervention, diet-specific program, counseling, and self-management education. Most interventions were delivered by bilingual nurses and the duration of interventions varied from 6 weeks to 8 months.

Retrieved studies showed two common benefits from culturally-tailored programs: 1) improvements in objective clinical outcomes and 2) positive psychobehavioral outcomes. Most of studies reported that culturally-tailored interventions were significantly effective in improving glycemic control, HbA1c. Also, there are significant reductions in body mass index and blood pressure in intervention group compared to control group. Retrieved studies reported that patients who engaged the intervention were highly satisfied, emotional support, high quality of life scores, and increased diabetes knowledge.

**Conclusion:** There is an evidence based effectiveness of culturally-tailored diabetes intervention with Asian immigrant population. This systematic review displays that culturally-tailored diabetes program is effective improving patients' objective clinical outcomes and patients; emotional support. Also, patients were satisfied with bilingual health care professions and bilingual education materials.

**Implications:** Asian immigrants are fast increasing in the United States and prevalence of diabetes with those populations is continuously rising. Asian immigrants may underestimate to their health status and risk for chronic illnesses, however, there is increasing burden of health care cost related to diabetes in Asian Americans. Nevertheless, these populations have limited access to health care management services because of financial difficulties and English deficiency,

Culturally-tailored diabetes intervention is a culturally sensitive, efficient, and effective management for immigrant populations, thereby reducing health disparities. This program is imperative to management because the populations of minority diabetes are increasing and those populations have different social, cultural, and behavioral factors.

Under the Affordable Care Act, this culturally-tailored diabetes program is an important initiative for ethnic minority community, but further research is needed with large Asian subgroup with longitudinal analysis.

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### Contact

[jooje@umsl.edu](mailto:jooje@umsl.edu)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Promoting Discharge Planning Satisfaction in the Surgical Ward

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*Mei-Huei You, RN, Taiwan*  
*Ya-Ching Cheng, RN, Taiwan*  
*Yu-Chen Kuo, RN, Taiwan*

#### Purpose

The purpose of this presentation is to promote satisfaction of discharge planning.

#### Target Audience

The target audience of this presentation is to improve self-care issues at home.

#### Abstract

**Purpose:** The aim of the project is to promote satisfaction of discharge planning in a surgical ward and therefore, to improve self-care issues at home that may arise.

**Methods:** Referrals to our discharge planning unit are mostly those who need to go home with catheters in situ post surgery and require extra care for. Yet, the average satisfaction of the service provided in 2012 was only 46.8%. The number of calls received regarding caring for catheters within 24 hours after discharge were 59. Based on the issue, the dedicated project team was formed aiming to improve the care between February 2013 and August 2013. Reasons of low satisfaction on discharge planning were analyzed and found out to be nursing staff not implementing service properly, lacking assessment tools on service demands, inappropriate case management and phone follow-ups and a lack of multidisciplinary inputs. To improve satisfaction on discharge planning service, interventions were established as follows: in-services, developing discharge planning assessment tools, setting up case referral management and implementation protocols, discharge planning meetings and practicing multidisciplinary inputs properly.

**Results:** Satisfaction rate on discharge planning service increased to 84.5% from 46.8% after the intervention of the project was implemented during the interval of January 2013 until November 2013. In addition, the number of calls received concerning care problems within 24 hours after discharge reduced to 12 from 59.

**Conclusion:** Satisfaction rate on discharge planning has an increase of 37.7%. The result of that has not only improved the staff's recognitions on discharge planning but expanded the extent of service provision and improved the quality of service. Therefore, patients and their families can receive a more comprehensive discharge planning service.

#### Contact

[cherubic@mail2000.com.tw](mailto:cherubic@mail2000.com.tw)

## EBP PST 1 - Evidence-Based Practice Posters Session 1

### Development of an Evidence-Based Surgical Decision Making Algorithm for Bladder Exstrophy Related Continence Procedures

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*Marlo Ann Michelle Eldridge, RN, MSN, USA*

*Zeina Khouri-Stevens, RN, PhD, USA*

*John Phillip Gearhart, MD, USA*

#### Purpose

The purpose of this presentation is to disseminate information about the current progress on the development of an evidence-based decision making algorithm for surgical continence procedures in children with bladder exstrophy.

#### Target Audience

The target audience of this presentation is pediatric urologist and pediatric advanced practice nurses who care for children with bladder exstrophy preparing for their pinnacle surgical continence procedure.

#### Abstract

Bladder exstrophy (BE), is a rare congenital malformation that occurs 1:40,000 live births, (Nelson, 2005). Occurring during the tenth week of pregnancy, BE manifests as failure of the abdominal wall to close and results in the protrusion of the anterior bladder through the lower abdominal wall.

In the modern staged repair, the abdominal wall portion of the defect is ideally closed in the first 72 hours of life. The staged approach then requires a continence procedure, typically undertaken in the middle elementary years. There are two main continence procedures, the bladder neck reconstruction (BNR), and the continent urinary diversion, (CUD). The former is designed to achieve continence through urethral voiding while the latter provides continence with urinary emptying occurring via a continent catheterizable channel created through the abdominal wall into the bladder. While CUD is performed by a large number of surgeons throughout the world for a variety of diagnosis, BNR is performed by only a few select individuals due to it's high level of technical difficulty.

The use of functional reconstruction in bladder exstrophy has resulted in dramatic improvement in the success of reconstruction, (Gearhart, Mathews, 2012). However, even in the most experienced and successful hands BNR failure rates are approximately 30%. The procedure requires a high level of technical surgical acumen and it is important to remember that urinary retention is the most common symptom after BNR surgery, (Surer, et al., 2001). Children plagued by post BNR urinary retention typically experience pain and suffering due to bladder spasms, readmissions, increased anesthesia inductions, increased medication requirements, prolonged length of stay, and recalcitrant incontinence. We know that incontinence may have a negative impact on social function and self esteem, (Gearhart, 2001).

It is well documented that two of the most reliable predictors of eventual urinary continence are the size of the bladder template at birth and a successful primary closure, (Gearhart, Mathews, 2012). However, through the appraisal of additional measures that began to be formally evaluated at the author's institution in 2005, there are a number of additional variables significantly affecting continence outcomes post BNR. These include but are not limited to pelvic floor strength, pelvic floor relaxation ability, and post voiding urinary residual. Currently, an evidence-based tool to incorporate all variables in the surgical decision making process does not exist. Lack of such a tool increases the risk of incorrect surgical candidate choice, thus increasing the risk of surgical failure and continued incontinence.

An exhaustive literature search focused on decision-making and algorithm development resulted in a modest but valuable yield of 36 total articles. Further critique of quality and appropriateness further narrowed the findings to 15 readily translatable articles. The final cut included no Level I evidence, and only two Level II articles both describing quasi-experimental studies. The majority of the evidence was Level III, non-experimental, represented by 10 articles, a mix of A and B quality. No Level IV evidence was identified but there were 3 Level V articles that provided evidence on algorithm development.

The evidence discovered through the search process established that there is a means by which to extract and evaluate the data that exists in the patient charts at the author's institution in order to create decision making points to guide and aid providers in an exceedingly difficult decision.

The evidence repeatedly pointed to data mining (DM) as a means to extract patient data in order to ascertain which data points end in failed BNR and which result in a successful BNR outcome. The protection of patients, their privacy and their rights remain the utmost importance. The evidence overwhelmingly favors retrospective chart review, extracting data and utilizing appropriate statistical analysis to evaluate data in order to draw meaningful conclusions. Most commonly cited in the literature was multivariate logistic regression analysis. Also utilized were Fisher's exact test and Wilcoxon rank sum. Some univariate analysis such as Mann-Whitney U test was utilized to compare attributes of survivors vs. non-survivors in one cancer related study. Also in that study, tumor grade and survival was evaluated through Pearson X<sup>2</sup>. However, such studies dealt with concrete outcome measures such as tumor markers. Decision making points in bladder exstrophy patients is less exacting and will include variability from patient to patient. Recursive partitioning was evaluated in several studies, with the most complete description from Shaikh, N., et al., 2012, in which they developed a decision making tree through CART analysis, (one specific tool that utilizes recursive partitioning), of a previous cohort study and then validated the tree by applying it to a different data set.

Evaluation of numerous studies, their statistical analysis, and their application setting clearly indicate that CART analysis is likely the most applicable and effective tool to address the challenge of surgical decision making faced by Johns Hopkins department of pediatric urology. Evaluation of various multivariate regression models illustrates that the goal will be to evaluate multiple variables and analyze each separately but also in simpatico, as they relate to one another. Such analysis will clarify and define the importance and impact of each variable as a stand alone, as well as in conjunction with one another. Traditional statistical methods are poorly suited for this sort of multiple comparison, (Lewis, R., 2000). According to Lewis, CART analysis is superior to many traditional multivariate techniques in that it does not require that predictor variables be evenly distributed and still performs well when different groups of patients have significantly different degrees of variance. In addition, traditional multivariate regression models in the literature concentrate on probabilities, which is not consistently applicable in clinical practice. In addition CART analysis is able to accurately manage a large number of variables in building a model, whereas traditional linear regression has difficulty with large numbers of variables.

The evidence clearly points in the direction of algorithm creation derived out of DM from the only existing set of inclusive data points available, those at the author's institution department of pediatric urology. With data mining complete and statistical analysis firmly underway, the completion of the evidence-based surgical decision making algorithm is on time and on target to be complete and ready for presentation, dissemination and implementation by March 15, 2014.

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## Contact

[meldrid3@jhmi.edu](mailto:meldrid3@jhmi.edu)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Lifelong Physical Activity as a Predictor in Exercise Beliefs Among Community-Dwelling Adult over 55 Years of Age

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*Chiung-Fang Ho, PhD, Taiwan*

#### Purpose

The purpose of this study is to understand perceptions of exercise beliefs, barriers and self-efficacy and to determine their predictors.

#### Target Audience

This study would be of interest to health professionals since this is one of the first studies to investigate lifelong physical activity as a predictor which influences both exercise self-efficacy and exercise benefits, barriers among community-dwelling adults over 55 years of age.

#### Abstract

**Background:** Previous studies appear to have focused mainly on various predictors that affect exercise behavior rather than exploring people's beliefs on exercise and factors that relate to those beliefs. An increased understanding of exercise beliefs and their related factors may increase people's participation in exercise.

**Objective:** We aimed to improve our understanding of the factors that influence exercise beliefs because this knowledge could help explain low levels of exercise and aid the design of more effective interventions. Thus, the purpose of this study is to identify: (1) the perceived exercise benefits, barriers, and efficacy in community dwelling adults over 55 years of age; (2) to examine the relationship between lifelong physical activity and the perceived benefits, barriers, and efficacy of exercise; and (3) to explore the best predictors of perceived exercise benefits, barriers and self-efficacy.

**Method:** A cross sectional prospective study enrolled a total of 86 Taiwanese aged 55 and older. Multiple regressions were utilized to determine predictors of exercise benefits/barriers and self efficacy when considering demographic, and lifelong physical activity. Outcome variables were measured by the Exercise Benefits/Barriers Scale and the Exercise Self-Efficacy Scale.

**Results:** Findings revealed that lifelong physical activity, living arrangements, and gender significantly predicted exercise self-efficacy ( $R^2=26.2$ ). Further, lifelong physical activity was the only significant contributor to perceived exercise benefits and barriers ( $R^2 = 13.2$ ).

**Discussion:** This study is novel in that we found that lifelong physical activity is an important predictor influencing benefits, barriers and self-efficacy of exercise. Living arrangement and gender were also found to be significant contributors to self-efficacy. Health professionals need to assess lifelong physical activity among community-dwelling adults in an effort to improve exercise participation.

#### Contact

[can32957@gmail.com](mailto:can32957@gmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Improving Health Outcomes for Surgical Patient in Nicaragua: Empowering Nurses Participating in a Multidisciplinary Cleft Lip and Palate Team Implementing Evidence-Based Practice Solutions

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*Teresa A. Pfaff, MPH, MSN, RN, USA*  
*Anina Terry, MSN, RN, USA*  
*Maria Julia Perez, RN, Nicaragua*  
*Carmen Maria Urruita Gomez, RN, Nicaragua*

#### Purpose

The purpose of this presentation is discuss nurses roles in a multidisciplinary cleft lip and palate team in Managua, Nicaragua.

#### Target Audience

The target audience of this presentation is public health nurses, surgical nurses and nurse researchers working in developing countries.

#### Abstract

In Nicaragua, the increase in those suffering from the congenital malformation of cleft lip and palate has been seen across a diverse range of socio- economic levels. Although the World Health Organization estimates that cleft lip, with or without palate involvement, affects almost 1 in every 600 newborns worldwide, the Nicaraguan Ministry of Health has not updated statistical data of the percentage of children with this congenital malformation.

These children encounter challenges with maternal and familial acceptance, in addition to multiple surgeries and visits to healthcare providers required in the first few years of life to achieve optimal growth and development.

Aproquen, a Nicaraguan foundation, works with these families, employing a multidisciplinary team model to address the complex needs of the families of cleft lip and palate children in this developing country. Aproquen's team initiates care for these children at birth with a nutritional assessment and continued follow-up. Consultation with the medical doctor introduces the multidisciplinary program and covers the growth and general health of the child. The psychologist addresses parents' social concerns and questions, in addition to extensive surgical preparation. Later when the child begins to develop language skills, a speech therapist will work the family to improve their oral skills and enhance language ability. The role of the nurse transcends this entire process; providing specialized medical care through each stage of treatment and addressing families' psychosocial needs at the intersection of customs, beliefs, values and inherited attitudes. In this unique role, nurses work to educate families on feeding techniques, personal hygiene, and integration into society; optimizing health outcomes for cleft lip and palate children and their families. This presentation explores current practices used to empower and enable Aproquen nurses to provide evidence-based information and education in this unique, influential role.

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#### Contact

[tpfaff@jhu.edu](mailto:tpfaff@jhu.edu)



## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Perceptions of Aging and Interaction Self-Efficacy with Older Adults Among Nursing Students through the Intergeneration Service-Learning Program

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Jiin-Ru Rong, PhD, RN, Taiwan  
Shu-Chen Hsu, RN, MSN, Taiwan

#### Purpose

The purpose of this presentation is to examine the effectiveness of intergenerational service-learning program (IGSLP) to promote positive aging attitude, interaction and communication skills with older adults among nursing students.

#### Target Audience

The target audience of this presentation is those clinical, academic and nursing faculty those interested in developing and evaluating the service-learning nursing education program for promoting gerontological care.

#### Abstract

**Purpose:** In today's society, the young people lack of opportunities interact with community-dwelling older adults. Many young adults, even including nursing students, may have negative attitude toward aging and have no confidence or no interest in interaction with elderly people. The healthy aging attitude and gerontological caring skills are essential competences for nurses in providing humanity gerontology care. In this study, the intergenerational service-learning program (IGSLP) was provided for nursing students to promote positive attitude to aging, interaction and communication skills with older adults.

**Methods:** This was a two-group pre and post-test quasi-experimental study design. The IGSLP group activities were performed in the community at Taipei. Participants were 118 community-dwelling older adults and 133 undergraduate nursing students in this study. The experimental group of Nursing student (N=62, mean 19.77 years old) and community older adults (N=55, mean 71.13years old) participate in eight weeks of IGSLP together. The IGSLP was designed to promote students understanding of aging social issues and the communication and interaction skills with older adults. The IGSLP program was provided for experimental group by using group dynamic to promote the intergenerational collaboration activities, sharing the life stories, conduct daily activities, debate upon social issues, and discuss personal value and belief. The comparison group of nursing student (N=71, mean 20.03 years old) received eight weeks regular service-learning course only, and most students participate service activities at hospital or long term care institutions. And community older adults of the comparison group (N=63, mean70.37 years old) did not participate in any other community's interventional activities.

**Results:** The outcomes of nursing students were to evaluate the attitude to older adults and communication and interaction self-efficacy with elderly adults. Both two groups of nursing students were significant progress in the attitude to aging and elderly people ( $p = .004$ ;  $p = .004$ ), and elderly communication and interaction self-efficacy ( $p < .001$ ;  $p = .001$ ), from pre-test to post-test. And the experimental group was significantly superior than comparison group in the attitude to elderly people ( $t = 3.31$ ,  $p = .01$ ), but the elderly communication self-efficacy not achieve a statistically significant difference. The experimental group of older adults were significantly superior than comparison group in the attitude to elderly ( $t = 3.02$ ,  $p = .003$ ) and happiness level ( $t = 3.82$ ,  $p < .001$ )

**Conclusions:** Through the activities of IGSL and reflection, students can work with older adults, initiative to health care, creative, cooperative, responsible services activities. Moreover, the IGSL activities promote the nursing students' interaction and communication self-efficacy, and positive attitude toward elderly people. In this study, the experimental elderly subjects had positive aging attitude and higher levels of the happiness than their comparison counterparts. Moreover, the elderly subjects reported that the IGSL program provides very meaningful experiences to them, because they can make friends with young people, increase health knowledge and improve emotional adaptation. The IGSLP provide a good

foundation for nursing students in the future of professional services, and also can become a part of geriatric nursing and family nursing course are supported.

Contact

[jiinru@gmail.com](mailto:jiinru@gmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Enhancing the Volume of Psychiatric Home Care Service

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*Yu-Chen Lin, MCN, RN, ICN, PMHCNS, PMHNP, Taiwan*

*Hsiu-Chu Liu, RN, BS, Taiwan*

*Kuei-Ching Lin, RN, BS, Taiwan*

#### Purpose

The purpose of this presentation is to increase the service volume of psychiatric home care through action research.

#### Target Audience

The target audience of this presentation is home care nurses who work in the psychiatric hospital or psychiatric institution.

#### Abstract

The purpose of this presentation is to increase the service volume of psychiatric home care through action research. Our home care service was limited to referral sources and shortage of professionals manpower, the total of service recipients was held at around 600-650 person-times each month over a long period. However, 720 person-times each month of psychiatric home service was applied by our institution. Hence, the action research method was used to explore the factors which may cause low service volume and the way to increase the service volume of psychiatric home care.

According to the analysis of the questionnaires and monthly reports done by nurse staffs experienced in home care, the main causes were the lack of home visit doctors, insufficient knowledge on home care, and the restriction of service due to less referral sources.

The strategies were included the low referral rate was announced to doctors, increase the home visit doctors and holding in-service training for nurses, formulating a standardized list, revising the standard operation procedure and expand service areas into the communities.

Eventually, the numbers of home care recipients rose from 600-650 person-times to 700-706 person-times per month, thus nearly achieving the goal of this study. This study may be used as a reference to other hospitals that are in the process of establishing a psychiatric home care service.

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#### Contact

[linyuchen23@gmail.com](mailto:linyuchen23@gmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### The Effects of an Education Program of Lymphedema for Breast Cancer Patients

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*Eunkyung Hwang, RN, South Korea*

*Min Young Kim, RN, MSN, PhD, OCN, KOAPN, South Korea*

*Young Mee Kim, RN, PhD, South Korea*

#### Purpose

The purpose of this presentation is to evaluate the effectiveness of education program consisting of three kinds of group education and one kind of personal education on lymphedema prevention and coping strategy.

#### Target Audience

The target audience of this presentation is nurses who are in charged of counseling and educating breast cancer patients

#### Abstract

**Objectives:**To evaluate the effectiveness of education program consisting of three kinds of group education and one kind of personal education on lymphedema prevention and coping strategy.

**Methods:**A cross-sectional survey design was utilized. The data were collected by the questionnaires from 125 breast cancer patients about general and medical characteristics, experience of education, anxiety, depression and knowledge for lymphedema management at one university hospital in Seoul, Korea. The data were analyzed using chi-square test, t-test and ANOVA.

**Results:**The mean age of the participants was 52.3 (SD=8.8). 69.6% of them participated in one or more kinds of education programs. Among group education programs, the participants attended education of 'lymphedema' most (50.4%), followed by 'management after breast cancer surgery' (45.6%), and 'Understanding breast cancer' (39.2%). 22.4% of them received the personal education from an education specialized nurse. The participants who had an experience to be educated had higher knowledge about lymphedema ( $p<.001$ ). And according to the education experience, there was a significant difference in knowledge about coping with lymphedema - that is to say, applying decongestive stockings, exercise for lymphedema prevention and skin management. However, there was no significant difference for occurrence of lymphedema according to the education experience. The participants who were educated personally by an education specialized nurse had a significantly lower score of anxiety or depression than those who were not ( $p<.005$ ).

**Conclusion:** The results of this study suggest that both group and personal education programs for breast cancer patients can raise knowledge and coping skills to improve understandings of and to prevent lymphedema. Therefore education about lymphedema for breast cancer patients should be incorporated into breast cancer nursing care. And especially, nurse's personal education can play a pivotal role than group education in psychological aspects.

#### Contact

[musemy2@hanmail.net](mailto:musemy2@hanmail.net)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### The Effect of Pelvic Floor Biofeedback Training for Urinary Incontinence in Prostate Cancer Survivors: A Meta-Analysis of Randomized Controlled Trials

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Lan-Fang Hsu, MSN, Taiwan

Pei-Shan Tsai, PhD, Taiwan

#### Purpose

The purpose of this presentation is to determine the effect of PFBT in prostate cancer survivors with urinary incontinence.

#### Target Audience

The target audience of this presentation is nurse, clinician, and academic.

#### Abstract

**Background:** Urinary incontinence (UI) is a distressing problem after radical prostatectomy (RP) and impairs the quality of life of prostate cancer survivors. Pelvic floor biofeedback training (PFBT) is a treatment intended to improve UI.

**Objective:** To determine the effect of PFBT in prostate cancer survivors with UI.

**Method:** A systematic search of CINAHL, Cochrane Library, BioMed, Pubmed/Medline, and Web of science was carried out. Randomized controlled trials (RCTs) studying the effects of PFBT on UI in comparison to pelvic muscle training (PMT) alone in prostate cancer survivors were included. The *Cochrane Handbook for Systematic Review of Intervention 5.1.0* was used to assess the methodological quality of included RCTs. Self-reported UI was the primary outcome measure. Data were analyzed using the Comprehensive Meta Analysis software 2.0.

**Results:** Seven RCTs involving 460 prostate cancer survivors with UI were included. Overall, the post-treatment and the long-term effects (up to the 3<sup>rd</sup> and 6<sup>th</sup> month) of PFBT on self-reported UI were not statistically significant (mean ES= -0.084, -0.303, and -0.366, respectively) in compared to PMT without biofeedback. Moderator analyses showed that included studies of high quality had larger and significant long-term effects on self-reported UI in the 3<sup>rd</sup> month (mean ES, -0.860; 95% CI, -1.35, -0.37) and 6<sup>th</sup> month (mean ES, -0.764; 95% CI, -1.27, -0.25) in comparison with those of poor quality ( $P=0.002$  and  $0.021$ ). No heterogeneity or publication bias was found across individual studies.

**Conclusion:** Based on available evidence, this review evidence suggests that PFBT did not yield significant effect on improving UI in prostate cancer survivors in comparison with PMT without biofeedback. However, when only studies of high quality were analyzed, PFBT significantly improved self-reported UI in prostate cancer survivors. Additional high quality studies for further investigating the efficacy of PFBT on UI are needed.

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Contact

[eulbange@hotmail.com](mailto:eulbange@hotmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Clinical Nursing Practice Guideline: Oral Care for Patients with an Artificial Airway Intubation

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*Nongnapas Phanjam, RN, MNS, Thailand*  
*Suthathip Kasedluksame, RN, MNS, Thailand*  
*Thanat Rudyung, RN, MNS, Thailand*

#### Purpose

The purpose of this presentation is update guideline to improve the oral assessment and care for patients with an artificial airway intubation.

#### Target Audience

The target audience of this presentation is nurse and critical care nurse.

#### Abstract

**Purpose:** Patients with an artificial airway intubation cannot be cleaned orally manually. Complications with the mouth can be caused easily, especially regarding the high risk of pneumonia. Evidence-based practice (EBP) provides nurses with a method of using critically-appraised and scientifically-proven evidence for delivering quality oral care. The primary purpose of this updated guideline was to improve the oral assessment and care for patients with an artificial airway intubation.

**Methods:** The method of this EBP guideline was as follows: 1) the PICO format for finding specific questions; P (Populations) – adult patients, critical-ill patients, ventiated patients, neurocritical care; I (Interventions) – oral care intervention, tooth brushing; O (Outcomes) – oral health hygiene, ventilator associated pneumonia; 2) evaluating the appropriate evidence using the work of Melnyk & Fineout-Overholt (2013); 3) an oral care guideline from a synthesis of the best practice presented at a public hearing in a hospital; and 4) all steps of this guideline were discussed with experts in the area of nursing.

**Results:** A computerized literature search of the online databases MEDLINE, CINAHL, and the Cochrane Library (2008-2012) was conducted. A total of 36 recommendations were identified, and 24 articles were eligible for inclusion. This oral care guideline has three parts: 1) preparing patients and equipment, especially 0.12 % Chlorhexidine gluconate (C-20) or 0.9% Normal saline; 2) the process of oral care by circular motion; and 3) evaluating oral care using the brushed assessment model.

**Conclusion:** Oral care for patients with an artificial airway intubation must be discussed by nurse that follows the appropriate guidelines because it was specific oral care for patients with an artificial airway intubation. A variance protocol for oral care which was implemented in the clinic also affected the guideline implementation. Thought, the best guideline should be implementing with well plane that put effort vial organization.

#### Contact

[kphanjam@hotmail.com](mailto:kphanjam@hotmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### An Endotracheal Suctioning Guideline for Adults with an Artificial Airway

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*Chanya Thanomlikhit, RN, MNS, Thailand*

*Suthada Kanha, RN, MNS, Thailand*

*Pavadee Likitwong, RN, MS, Thailand*

#### Purpose

The purpose of this presentation is update evidence-based recommendations for endotracheal suctioning and the prevention of atelectasis for adults with an artificial airway .

#### Target Audience

The target audience of this presentation is nurse and critical care nurse.

#### Abstract

**Purpose:** Endotracheal suctioning is particularly important for patients that may not adequately cough out secretions by themselves. The suction procedure is associated with complications and risks of atelectasis. The purpose of this study was to make available the literature regarding endotracheal suctioning for adult intubated patients and to provide evidence-based recommendations for endotracheal suctioning and the prevention of atelectasis.

**Methods:** The process for this guideline consists of 4 stage was as follows: 1) The PICO format was used to find questions; P (Populations) - endotracheal suction in adult ; I (Interventions) - interventions endotracheal suction, suction, endotracheal suction, guideline, close suction, open suction, tracheal suction ; O (Outcomes) - ventilator associated pneumonia (VAP), mucosa damage, hypoxia. ; 2) a computer literature search was conducted for ascertaining the best evidence and syntheses for the guideline. ; 3) the next strategies for an appropriate guideline were public hearings at the hospital.; 4) Last, all processes of this guideline were proved by expert nurses.

**Results:** An electronic literature search for articles published between 2008 – 2012 was conducted using the CINAHL, Cochrane, Proquest, and Pubmed databases. From the 18 citations found, 10 studies were selected. The guideline came from the process of synthesizing 10 studies.

This guideline has three parts: 1) patient preparation, especially close suction, 2) the suction procedure using the shallow suctioning technique, and 3) follow-up care.

**Conclusion:** This study revealed strong evidence to support endotracheal suctioning, which requires further evaluation and needs to keep up with the changes in technology.

#### Contact

[ao\\_chanya@hotmail.com](mailto:ao_chanya@hotmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### The Efficacy of Home-Based Walking Exercise on Sleep in Cancer Survivors: A Meta-Analysis of Randomized Controlled Trials

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Hsiao-Yean Chiu, RN, PhD, Taiwan

Pin-Yuan Chen, MD, PhD, Taiwan

#### Purpose

The purpose of this meta-analysis was to examine the efficacy of home-based walking exercise on sleep in patients with cancer.

#### Target Audience

The target audience of this presentation is health care provider.

#### Abstract

**Background** Disturbed sleep is a common symptom experienced by cancer patients. The effects of home-based walking exercise (HBWE) on sleep among cancer patients are conflicting.

**Purposes** To examine the efficacy of HBWE on sleep in patients with cancer.

**Methods** Electronic databases were searched thoroughly with keywords related to HBWE and sleep. Methodological quality of included randomized controlled trials was assessed according to the *Cochrane Handbook for Systematic Review of Intervention 5.1.0*, and the data were analyzed using the Comprehensive Meta Analysis software 2.0.

**Results** Nine studies involving 606 subjects were included. The weighted mean effect size was -0.49 (95% CI, -0.61 to -0.28,  $P < .001$ ). The sensitivity analysis revealed a significant effect on sleep ( $g = -0.35$ ,  $P < .001$ ). Number of treatment sessions was a significant moderator of the relationship between HBWE and sleep ( $P = .03$ ).

**Conclusions** This meta-analysis confirms that HBWE yielded a medium effect size on sleep and greater number of treatment sessions had a higher effect on improving sleep. HBWE, which is a convenience and low cost approach to the management of sleep quality, should be treated as adjuvant or complementary and alternative therapy among cancer patients.

#### Contact

[happyone680315@hotmail.com](mailto:happyone680315@hotmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Effects of Advance Care Planning on Knowledge, Behavior and Well Being of Older People: A Systematic Review Protocol

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Mi Fun Ng, RN, BN, MN, Hong Kong

Doris Y. P. Leung, BSc, MPhil, PhD, Hong Kong

Helen Y. L. Chan, RN, PhD, Hong Kong

#### Purpose

The purpose of this presentation is to present a systematic review protocol on effects of advance care planning on knowledge, behavior and wellbeing of older people

#### Target Audience

The target audience of this presentation is nurse and health care provider for their reference on advance care planning on older people

#### Abstract

**Background:** Advance Care Planning is a process of discussion about an individual's preferences for care in their anticipation of future deterioration. There are different formats and inconsistent approach in implementing Advance Care Planning to older people. The effectiveness of Advance Care Planning intervention will influence on the knowledge, behavior and well-being in older people.

#### **Method of review: Inclusion Criteria**

Types of participants:

- Older people who are age 60 or over
- With or without chronic illness, no restriction on any disease groups and health status of participants

Types of interventions:

- Advance Care Planning (ACP) refers to a process of discussing on end of life care/ determining/ executing treatment directives/ appointing a proxy decision maker, or a combination of both

Formats: Self-administered computerized program, self-administered form, video, individual or group interview, information sharing sessions, decision making meeting, counseling, single or multiple sessions

Types of studies: Studies designed in randomized control trial (RCT) to evaluate the outcomes of ACP

In absence of RCT, quasi-experimental studies will be included

Types of comparison:

- Comparison between usual care or practice (no ACP program) with the ACP intervention
- Comparison between two or more types of ACP-related interventions
- Comparison between different combinations of format of ACP-related interventions

Types of outcomes:

1. Knowledge: refer to the knowledge, understanding & awareness related to ACP & end of life care

Outcome measures client's knowledge in:

- ACP
- advance directives
- appoint proxy
- knowledge of current & future health state
- associated management

2. Behavior: refers to client's action taken after ACP

Outcome measures:

- identify preference of care or proxy
- documentation on their preferences for CPR, artificial nutrition, intravenous antibiotic etc.

- appointment of proxy
- health services utilization e.g. hospitalization, length of stay, clinic attendance, A & E attendance

3. Well-being: Focus on client's psychological state after the intervention

Outcome measures:

- client's satisfaction
- level of stress/ anxiety
- quality of life
- communication or relationship with others (relatives & health care providers)

Studies published in English and Chinese will be searched by three steps approach. Selected eligible articles will be managed by RevMan. The result will be pooled in statistical meta-analysis. Subgroup analysis will be conduct when there are heterogeneity in terms of study design, participants etc. For findings which are statistically analysis inappropriate, narrative summary will be provided

Contact

[amyng@cuhk.edu.hk](mailto:amyng@cuhk.edu.hk)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Parent's Perception of Recommendation of HPV Vaccination for Adolescent Children

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*Maria Jefferson-Walker, MSN, APN, USA*

#### Purpose

The purpose of this presentation is to examine parents' knowledge regarding HPV, vaccinations against HPV, genital warts and related cancers. The researcher also explored whether parents that chose to vaccinate their adolescent children gave informed consent or agreed to vaccination because their perception is "Doctor knows best."

#### Target Audience

The target audience of this presentation are parents or guardians of children ages 9-16 who live in areas of health disparities and low HPV vaccination rates.

#### Abstract

According to the Centers for Disease Control and Prevention (CDC), there are approximately 40 types of genital HPV. Some types are responsible for most cases of cervical cancer in woman and other forms of cancer in men and women. Other types of HPV are responsible for genital warts in both men and women ("HPV Vaccinations," 2011). In a CDC report (2011), in the United States, 11,000 new cases of cervical cancer occur each year and about 1 in 100 sexually active individuals contract genital warts at some time.

The purpose of this study is to examine parents' knowledge regarding HPV, vaccinations against HPV, genital warts and related cancers. The researcher also explored whether parents that chose to vaccinate their adolescent children gave informed consent or agreed to vaccination because their perception is "Doctor knows best." In this quantitative study, the researcher chose to utilize a descriptive correlational design to describe the relationship between populations with health disparities and low HPV vaccination rates.

A survey was administered in the form of a questionnaire from August 2012 to December 2012. The Cronbach's Alpha for this tool was .80. The data was analyzed with the SPSS program (SPSS Inc, Oak Park, IL). The chosen populations for this study were parents of girls and boys, between the ages of 9-16, attending a low income pediatric clinic on the south side of Chicago. A convenience sample of 25 parents was selected from the physicians' patient appointment schedule between August 2012 and December 2012.

The findings were as follows, people that heard of HPV tended to believe that vaccinations protect people from disease. The one person that heard about HPV from their child's school got their child immunized. Four people mentioned that a barrier to receiving the vaccinations was that vaccinations make their child sick but their children have received other vaccinations. People that answered yes to wanting to get their child vaccinated also believed that the child is at increased risk for precarious sexual behaviors. People that believed the child was at risk did get the child vaccinated. The response to the intent to complete the vaccination series within 6 months of receiving the first dose was promising, 48% answered yes and another 20% answered maybe.

In conclusion, I administered the survey prior to the participants entering the exam room. This method provided education to parents about HPV vaccines and helped them come up with questions to ask the physician during their visit. Had it not been for the education provided in the waiting room the topic may not have been discussed during the visit or the physician might have recommended the vaccine and the parent agreed because of their perception, "Doctor knows best."

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#### Contact

[walkerj118@att.net](mailto:walkerj118@att.net)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Preoperative Skin Traction in Adults with Hip Fracture: Evidence-Based Practice

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*Betul Tosun, MSc, Turkey*  
*Ozlem Aslan, PhD, Turkey*

#### Purpose

The purpose of this presentation that has the target audience as nurses who deliver care to adults with hip fracture in the preoperative period, was to review and analyze the effects and complications of different interventions in preoperative nursing care of adults with hip fracture.

#### Target Audience

The target audience of this presentation is nurses who deliver care to adults with hip fracture in the preoperative period.

#### Abstract

**Introduction:** Mortality rate in the first year of hip fractures ranges from 12% to 37%. Moreover, many patients are not to return to their homes and rather to stay in hospital or nursing homes due to morbidity related to complications that occur in treatment and rehabilitation process of hip fracture. In order to minimize the mortality and morbidity rates and to promote the treatment outcomes, patients should be dealt with a multidisciplinary approach and should be given evidence based nursing care from admission to discharge.

**Aim:** The aim of this study, that has the target audience as nurses who deliver care to adults with hip fracture in the preoperative period, was to review and analyze the effects and complications of different interventions in preoperative nursing care of adults with hip fracture.

**Methods:** We searched by using key words entitled "Hip Fracture Nursing Care, Preoperative Skin Traction" through the The Cochrane Library, Pubmed (MEDLINE), CINAHL, EBSCOhost (from 1993 to 1 December 2013). Our selection criterias were all randomized or quasi-randomized trials comparing either skin traction with no traction or patient care about acute hip fracture prior to surgery.

**Results:** Thirteen randomized or quasi-randomized trials were accessed during the search. Besides, nine reviews on nursing care were found.

In the literature, traction was compared with no traction, where the patient is nursed 'free in bed', often with the injured limb being placed on a pillow. Outcomes of the studies that compare traction to no traction can be classified as primary and secondary outcomes. Primary outcomes are pain (visual analogue scale) or analgesia use prior to surgery and incidence of pressure ulcers while secondary outcomes are ease of fracture reduction (subjective assessment by surgeon) or time taken to reduce fracture, incidence of medical complications (thromboembolic complications and 'other', as specified in trial reports), incidence of adverse events related to treatment, including sciatic nerve palsy, incidence of fracture healing complications (avascular necrosis and 'other' as specified in trial reports) (long term: 6 months or more), mortality (long term: 6 months or more).

In the trials, among the primary outcomes such as pain and analgesics prior to surgery no significant difference was found between traction and no traction groups while grade 1 pressure ulcers were more common in traction groups and there was not enough evidence for grade 2 and deeper pressure ulcers.

As we look at the secondary outcomes such as reduction operation duration, medical complication incidence, adverse event incidence, fracture healing and mortality, no significant difference was found between traction and no traction groups, and considered not to have enough evidence for these outcomes.

Nursing interventions that may minimize the possible complications held in nine reviews on preoperative nursing practice can be categorized as;

- Quick preoperative preparation with detailed assessment of chronic diseases and medication to avoid delayed surgery (within 24-36 hours),
- Assessment of pressure ulcer risk and if required, using supportive surfaces that avoid pressure ulcers,
- Effective pain management,
- Stopping antiaggregant agents and utilizing low molecular weight heparin for thromboprophylaxis,
- Prophylactic antibiotics treatment,
- Close monitoring for complications including bleeding, fluid electrolyte imbalance, insufficient nutrition, atelectasis, constipation, urinary tract infection, delirium, ischemia and nerve injury due to tight strapping.

**Conclusions and Recommendations:** “Bedridden Patient Care” and “Activity and Exercise” are the main fields of concepts, theories, principles and practices of nursing. Given this fact, learning evidence based interventions, preparing and implementing nursing care plans, taking precautions to avoid complications and assessing outcomes are responsibilities of nurses in care of patients with hip fracture.

From the evidence available, the routine use of traction (either skin or skeletal) prior to surgery for a hip fracture does not appear to have any benefit. Given the increasing lack of evidence for the use of pre-operative traction, the responsibility should now be on clinicians who persist in using pre-operative traction to either stop using it or to use it only in the context of a well-designed randomized controlled trial.

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### Contact

[tosunbetul@gata.edu.tr](mailto:tosunbetul@gata.edu.tr)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Enhancing the Effectiveness of Chest Physical Therapy By Patients' Personal Care Assistants in a Respiratory Care Ward

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*Li-Wei Hsieh, MS, RN, Taiwan*  
*Miaofen Yen, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to illustrate a project which was designed to evaluate and enhance the accuracy of chest physical therapy by patients' PCAs in a respiratory care ward.

#### Target Audience

The target audience of this presentation is clinical nurses.

#### Abstract

**Purpose:** In the respiratory care ward, there are many patients with prolonged ventilator dependence. As a consequent, nurses give health care education in chest respiratory care to patients' personal-care assistants (PCAs) and its correct execution to PCAs, and both influence the quality of respiratory care. This project was designed to evaluate and enhance the accuracy of chest physical therapy by patients' PCAs in a respiratory care ward.

**Methods:****Data collection and status analysis** – A Table for Chest Physical Therapy was designed to evaluate the status before and after chest physical therapy by patients' PCAs in a respiratory care ward. In a sample of 52 transactions, only 11.3% accuracy was achieved. Based on the questionnaire results from 30 patients' PCAs, 24 (80%) identified instructions from nursing staff, 10 (33.3%) recognized their regular instructions, and another 10 (33.3%) neither realized the importance of chest physical therapy nor that the lack of this therapy might cause complications. The data also showed that 85% of the patient's PCAs were foreigners who might have had communication problems.

**Setting measurements and improvement** – We established a Team for Standardizing Nursing Instructions in order to conduct a documentary survey and to issue health education pamphlets like “Chest Physical Therapy” and “Chest Physical Therapy Standards” to ensure the consistency of nursing instructions to major PCAs. The CD-ROM “Multi-language Demonstrations of Chest Physical Therapy” was produced to provide a learning model for foreign PCAs.

**Results:** An on-site survey of the execution of chest physical therapy conducted by patient's PCAs in the respiratory care ward was carried out. Twenty-seven (86%) patients' PCAs indicated the importance of chest physical therapy and the possibility of ignorance causing complications. Use of the Table for Chest Physical Therapy increased the accuracy from 11.3% to 77.1%. Based on a paired t-test analysis of the two sets of scores, the recognition increase was statistically significant ( $p < 0.001$ ).

**Conclusion:** This project was designed to provide learning opportunities for patient's personal-care assistants by providing nursing instruction standards and learning aids. Multi-media learning aids are highly recommended for the provision of complete nursing care through clinical demonstrations.

#### Contact

[hliweister@gmail.com](mailto:hliweister@gmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Physical Fitness Exercise vs. Cognitive Behavior Therapy on Reducing the Depressive Symptoms Among Community-Dwelling Elderly Adults

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*Tzu-Ting Huang, PhD, RN, Taiwan*

*Yen-Fan Chin, PhD, Taiwan*

#### Purpose

The purpose of this presentation is share the knowledge and clinical experiences with who interested in this topic.

#### Target Audience

The target audience of this presentation is community health and mental health clinicians and scholars.

#### Abstract

**Aim.** To compare the effectiveness of three interventions (physical fitness exercise, cognitive behavior therapy, and comparison) on primary outcomes (depressive symptoms), and secondary outcomes (physical fitness, quality of life, cognitive function, and social support) of community-dwelling elderly adults with depressive symptoms.

**Background.** Depressive inclination is a major problem among community-dwelling elderly adults. The prevalence of depressive symptoms ranges from 10.4% to 39.3%. This indicates the importance of developing effective strategies to reduce depressive symptoms among elderly adults.

**Methods.** Data was collected from May 2011 to April 2012. A randomized

controlled trial with three groups (N=57) was conducted in a suburban area of northern Taiwan. Participants were assessed at baseline for demographic data, plus depressive symptoms, physical fitness, cognitive function, quality of life, and social support were also collected at once, 3, and 6 months after interventions.

**Results.** The baseline data of depressive symptoms in the three groups were higher than other post-tests (time effect,  $F=49.92$ ,  $p=.000$ ); at posttest 1, participants in the both experimental groups were significantly less depression than those in the comparison group ( $p=.012$ ). Participants in PFE Group were improved their physical fitness than those in the other groups. The baseline data of QOL in the three groups were lower than other post-tests (time effect,  $F=9.288$ ,  $p<.001$ ); at posttest 1, participants in the exercise group were significantly higher QOL than those in the other two groups ( $p=.005$ ). The baseline data of cognitive function among these three groups were lower than other post-tests (time effect,  $F=8.334$ ,  $p=.000$ ). And, participants in the three groups differed significantly in social support (interaction effect,  $F=4.73$ ,  $p<.01$ ) that indicate the increased perceived social support of elderly adults in the two experiment groups was significantly higher at posttests ( $p=.000$ ,  $.011$  &  $.007$ , respectively) than those in the control group.

**Conclusion.** Participants in both experimental groups were significant in improving the depressive symptoms and perceived social support. In addition, physical fitness exercise can improve their physical fitness, and quality of life, as well. However, if considering for improving physical fitness and quality of life among elderly adults with depressive symptoms, exercise may be a better way to be chosen.

#### Contact

[thuang@mail.cgu.edu.tw](mailto:thuang@mail.cgu.edu.tw)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Impact of Different Types of Oral Care on Oral Mucositis and Quality of Life for Head and Neck Cancer Patients during Radiotherapy

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*Yi-Ying Huang, MS, Taiwan*  
*Hsueh-Erh Liu, PhD, RN, Taiwan*  
*Sheng-Po Hao, MD, Taiwan*  
*Pei Kwei Tsay, PhD, Taiwan*  
*Kwan-Hwa Chi, MD, Taiwan*

#### Purpose

The purpose of this longitudinal study is to examine the impact of different types of oral care on radiation-induced oral mucositis and quality of life for head and neck cancer patients under radiotherapy.

#### Target Audience

The target audience of this poster is RT nurse, ENT nurse or oral cancer.

#### Abstract

**Aim:** The purpose of this longitudinal study was to examine the impact of different types of oral care on grades of radiation-induced oral mucositis, body weight, and quality of life for the head and neck cancer patients during radiotherapy.

**Introduction:** Oral cavity is the major location that exhibits the toxic effects of radiotherapy and chemotherapy for head and neck cancer patients. Oral mucositis is one of the most common complications among these patients. Severe oral mucositis can lead to secondary complications (ie. loss of body weight) and delay the planned treatment protocols.

Literature shows that oral care or used honey as agent can reduce the incidence of oral mucositis. What will happen if we combine these two strategies as a protocol for oral care? Therefore, we conducted this clinical trial to find the impact of combination.

**Patients and methods:** Patients were recruited from a medical center, Taiwan. During May 2012 and August 2013, a total of 97 head and neck cancer patients undergoing radiotherapy were contacted and 94 subjects completed the whole study protocol. The reasons of drop out were: side-effect (1), too afraid of treatment(1), and move to other hospital(1). Informed consent was obtained before the study started.

#### Inclusion and exclusion criteria

Those who diagnosed with head and neck cancer, plan to receive radiotherapy with least doses of 6000cGy as part of their treatment protocol, and older than 20 years were recruited. Those who have been diagnosed as DM with HbA1C > 7% within 3 months, Karnofsky Performance Scale < 60, or suffering from grade 4 oral mucositis were all excluded.

**Study design:** They were randomly stratified into three groups, where group I received honey mouthwash, instruction of oral care, and routine care; group II received instruction of oral care and routine care; and group III as control group, received routine care only. The honey mouthwash was to swish 20 cc nature and undiluted honey in mouth for 2 minutes and then swallowed it prior to RT, at 15 minutes and 6 hours after RT respectively.

Prior to radiotherapy, all patients completed Chinese version of EORTC QLQ-C30 and EORTC QLQ-H&N35. An evaluation of their oral mucosa was conducted at the same time by a single researcher. These questionnaires also need to be completed while the cumulative RT dose at 40Gy and at the end of RT course. Their oral mucosa was evaluated when the RT doses were cumulated up to 10, 20, 30, 40, 50, 60 Gy and at the end of RT course respectively. Their body weight was measured at the beginning of the study and weekly during the period of treatment.

Statistical analysis: Data were analyzed by the Statistical package for the Social Sciences 18 (SPSS) program. Descriptive (mean, SD, %) and inferential statistics (chi-square, Survival Analysis, One way ANOVA, Generalized Estimating Equation) were performed.

**Results:** The results showed that these three groups were homogeneous in their demographic variables and disease-related variables prior to radiotherapy.

#### Mucositis (Primary Outcome)

The first onset of grade 1 mucositis was significantly different among these three groups by Log-Rank test survival analysis ( $F= 8.29$ ,  $p<.001$ ) whereas the results of Post Hoc Bonferroni analysis showed that the first onset of grade 1 mucositis in control group was significant quicker than group I and II. Mean value of the first onset of these 3 groups were: 11th day (group I,  $SD= 4.20$ , range= 6~26 day); 10th day (group II,  $SD= 4.47$ , range= 4~30 day); and 9th day (control group,  $SD= 2.63$ , range= 4~14 day) respectively.

In regard to the ratio for occurrence of oral mucositis at each point of assessment, group I and II had a trend of lower ratio than the control group at the 3<sup>th</sup>, 4<sup>th</sup>, and 6<sup>th</sup> assessment.

None of the patients developed grade 4 mucositis. However, when the dose of RT cumulated > 40 Gy, the ratio of grade 3 mucositis was significant lower in group I and II when compared with control group ( $X^2= 19.06\sim 40.98$ ,  $p<.001$ ).

#### Body Weight(Secondary Outcome)

The comparisons of weekly changes in body weight showed that group I and II had less changes than the control group ( $X^2= 15.88\sim 9.00$ ,  $p<.001$ ). The range of changes in body weight were 0.95 to -2.52 kg (group I), 0.75 ~ -1.81 kg (group II), and -0.81 ~ -4.77 kg (control group) respectively.

#### Quality of Life (Secondary Outcome)

The study found that, for all patients, the overall quality of life were significantly decreased along with the cumulated doses of radiation (Wald  $X^2= 44.99$ ,  $p <.001$ ).

After adjusting the group, time and interaction effects, the results of GEE for EORTC QOL-C30 and EORTC QOL-H&N35 found that, at RT 40 Gy, the symptom scales of "appetite(Wald  $X^2= 5.47$ ,  $p=0.02$ )" and "sociability eating(Wald  $X^2= 4.74$ ,  $p=0.03$ )" were significantly less problems in group II when compared with control group. At the end of RT, the functional scales of "physical functioning(Wald  $X^2= 7.23$ ,  $p=0.01$ ; Wald  $X^2= 4.43$ ,  $p=0.04$ )" in group I and group II were significantly better than the control group. In addition, the functional scales of "role functioning(Wald  $X^2= 4.28$ ,  $p=0.04$ )" in group II was significantly better and the symptom scales of "appetite(Wald  $X^2= 6.38$ ,  $p=0.01$ )", "speech problems(Wald  $X^2= 7.13$ ,  $p=0.01$ )", "sociability eating(Wald  $X^2= 4.28$ ,  $p=0.04$ )", and "social contact(Wald  $X^2= 5.68$ ,  $p=0.02$ )" were significantly less problems than the control group.

**Conclusion:** This study showed that, when compared with the control group, patients in both experimental group reported less occurrence and late onset of first mucositis, less severe oral mucositis, less weekly body changes, and even better quality of life during research period. Therefore, the application of "honey mouthwash plus instruction of oral care" or "instruction of oral care alone" were strongly suggested in clinical practice.

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Contact

[yiying0123@hotmail.com](mailto:yiying0123@hotmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### The Grounded Theory Research Study Group for Teaching Qualitative Research Methodology to Postgraduate Psychiatric Nursing Students

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Makiko Mori, PhD, RN, PHN, Japan

#### Purpose

A large number of postgraduate psychiatric nursing students have difficulties in applying and attaining reliable and relevant qualitative research results. Hence, the purpose of this presentation is to provide guidance in regards to teaching methods through a process of data analysis technique sharing at a research study group.

#### Target Audience

Postgraduate psychiatric nursing students often choose to gather data through interviews, or by participant-observation studies. However, a large number of students have difficulties in applying and attaining reliable and relevant research results. Hence, the target audience are professors and students who teach or study qualitative research methodology.

#### Abstract

Postgraduate psychiatric nursing students often choose to gather data through interviews, or by participant-observation studies. However, a large number of students have difficulties in applying and attaining reliable and relevant research results. Hence, we started the grounded theory research study group from October, 2008.

#### **The learner objectives:**

1. The learner will be able to experience a process of data analysis technique sharing at the grounded theory research study group.
2. The learner will be able to obtain high quality data by fundamental education to improve interview, and participant-observation studies.

**Method:** The grounded theory research study group for postgraduate students majoring in psychiatric nursing was conducted once a fortnight for a period of six months, at a university in Tokyo, Japan. Statements and concerns raised by participants in regards to the qualitative research methods was extracted, and analyzed by categorizing based on content.

Table 1 The research study group of grounded theory approach Schedule

(From October to March (once a fortnight 19:00-21:00))

	Content to learn through a lecture / presentation	Contents of the practice
No.1	What is the GTA? The meaning of learning the GTA	
No.2	Fundamental education to improve interview	Method of collecting data from interview
No.3	Concepts Properties and Dimensions	The reading of data for understanding extracting a property and a dimension
No.4	Labeling data	Labeling data

	Summarizing data within a category	
No.5	Connecting categories Constructing the paradigm	Performing the comparison in data and extracting a property and a dimension
No.6	Microanalysis	Summarizing data within a category, Labeling categories
No.7	Theoretical comparisons Theoretical sampling	Theoretical comparisons Theoretical sampling
No.8	Analytic tools	Making a category association map
No.9 -No.12	Fundamental education to improve participant-observation studies	Method of collecting data from participant-observation studies

(Made this schedule based on "Shigeko Saiki-Craighil(2008).Qualitative Research Methodology Seminar Grounded Theory Approach,Enlarged ed, p14,Table 1,Igaku-Shoin, Tokyo." )

□FLearning

(Another reference in this research study group: Strauss , A. Corbin , J. (1998).Basics of Qualitative Research:Techniques and Procedures for Developing Grounded Theory , 2nd ed , SAGE.)

### The procedure of the analysis based on Grounded theory approach

1. The reading of data for understanding
  - ↓ Extracting of properties and a dimensions every piece
2. Labeling data
  - ↓ Comparison of dimensions and properties between labels
3. Labeling categories
  - ↓ Comparison of dimensions and properties between categories
4. Grasping relations between categories
  - ↓ Making a category association map based on a paradigm
5. Theoretical sampling

The comparison is performed through all processes of the analysis

**Result:** 245 statements were yielded, and were then placed in the following 5 categories, "question and comment about interview technique", "question and comment about property and dimension", "question and comment about theoretical comparisons", "question and comment about theoretical sampling", and "question and comment about research process".

#### Question and comment about interview technique

- Methods on requesting interviews
- The grounded theory approach based on Symbolic Interactionism
- Necessity and the significance of theoretical sampling
- Necessity and the significance of using the comparison techniques during the interview

#### Question and comment about property and dimension

- Necessity and the significance of increasing property and dimension
- A stage to extract property and dimension

- Necessity and the significance of microanalysis
- How to extract property
- A stage which use property and dimension

**Question and comment about theoretical comparisons**

- Necessity and the significance of using the comparison
- Necessity and the significance of comparing it based on properties
- Necessity and the significance of the comparison of the data which have common labels
- How to practice theoretical comparisons

**Question and comment about theoretical sampling**

- Necessity and the significance of theoretical sampling
- Concerns regarding diffusion of data with theoretical sampling
- How to receive ethical review

### **Question and comment about research process**

- Clear statement of research process demanded in article evaluation (a doctoral dissertation / a master's thesis) and the description of the scientific grounds
- Necessity and the significance of microanalysis
- Positioning of paradigm and category association map
- Necessity and the significance of category association map
- Necessity and the significance of constructing the paradigm
- Necessity and the significance of experiencing a series of flows of the analysis
- How to write story lines
- How to select a core category

**Conclusion:** It is imperative to obtain high quality data, when conducting qualitative research. Hence, fundamental education to improve interview, and participant-observation skills is necessary.

It is also necessary to provide guidance to ensure that each methodology objective is at the fore front of the students thoughts when analyzing data through "theoretical comparisons" and "theoretical sampling" and when properties and dimensions of the research is being determined.

This will result in motivating students in continuing with the analysis, which often requires a steady continuation of work.

Also it is worth noting that confirming the position of each analysis technique in the whole research process, and linking this to the thesis writing process can reduce student concerns during the research process.

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### Contact

[m.mori@nrs.kitasato-u.ac.jp](mailto:m.mori@nrs.kitasato-u.ac.jp)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Factors Affecting Self-Management Behaviors of Patients with Chronic Obstructive Pulmonary Disease: A Literature Review

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*Ching Ching Li, MPH, BSN, RN, Hong Kong*

*Diana T. F. Lee, PhD, MSc, PRD (HCE), RM, RN, RTN, Hong Kong*

*Doris Y. P. Leung, BSc, MPhil, PhD, China*

#### Purpose

The purpose of this presentation is to review factors affecting self-management behaviors of patients with chronic obstructive pulmonary disease

#### Target Audience

The target audiences of this presentation are healthcare professionals and social workers.

#### Abstract

**Purpose:**To review factors affecting self-management behaviors of patients with chronic obstructive pulmonary disease (COPD).

**Methods:**Ten electronic databases AMED, BNI, CINAHL, EMBASE, MEDLINE, PsycINFO, Cochrane Database of Systematic Review, China Journal Net, Taiwan Electronic Periodical Services and Google Scholar were searched using keywords, including “chronic obstructive pulmonary disease” ; “chronic obstructive airway disease”; “self-management” and “self-care” from inception to March 2013. Original research exploring factors affecting self-management behaviors in COPD patients published English or Chinese with full-text were selected. Studies which recruited subjects with asthma or major psychiatric illnesses were excluded.

**Results:** Twenty-one studies were included in the final review. Seven of them were cross-sectional studies and 14 were qualitative studies. Fourteen factors relating to self-management behaviors in COPD patients were identified and categorized into four domains: 1) cognitive; 2) physical; 3) psychological; and 4) social. Cognitive domain contains one factor which is knowledge. Physical domain includes three factors of dyspnea, fatigue and physical limitation. Psychological domain covers five factors and they are self-efficacy, perceived usefulness, sense of coherence, perceived helplessness and depression. Social domain encompasses three factors which are social support from family, peer and healthcare providers.

**Conclusion:** Upon reviewing the literature, a total number of 14 factors were identified. However, factors found from empirical studies were discrete and isolated reflecting a lack of a comprehensive picture of factors affecting self-management behaviors in COPD patients. Therefore, future study could consider developing a comprehensive evidence-based COPD self-management model for guiding future interventions in promoting self-management behaviors in COPD patients.

#### Contact

[chingchingli@cuhk.edu.hk](mailto:chingchingli@cuhk.edu.hk)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### Physiological and Psychosocial Nursing Approaches to Orthopedic Oncology Patients

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*Nursemin Unal, RN, Turkey*  
*Mustafa Basbozkurt, Turkey*  
*Betul Tosun, MSc, Turkey*

#### Purpose

The purpose of this presentation is to learn physiological and psychosocial nursing approaches to orthopedic oncology patients.

#### Target Audience

Nurses who take care of oncologic orthopedic patients will be able to identify the effects and symptoms of bone cancer and discuss the nurse's role in caring of patients with bone cancer.

#### Abstract

**Introduction:** The effects of bone cancer can be devastating for skeletal homeostasis, resulting in sequelae such as bone pain, pathological fractures, hypercalcaemia, the need for palliative radiotherapy or surgery to bone, spinal cord compression, anxiety, depression, awakening of self-esteem, independence, social skills, and awareness. It is therefore important that nurses caring for patients with advanced cancer are aware of the possible effects of bone cancers to ensure prompt and effective management and help maintain patients' quality of life.

**Aim:** The aim of this study is to identify the effects and symptoms of bone cancer and discuss the nurse's role in caring for patients with bone cancer in order to equip nurses caring patients with primary or metastatic bone cancer.

**Methods:** We searched by using keywords entitled "orthopedic oncology, bone cancer, physiological and psychosocial nursing care" through the The Cochrane Library, Pubmed (MEDLINE), CINAHL, EBSCOhost (from 2003 to 1 December 2013). Selection criterion was full text articles in English on nursing care of patients with primary or metastatic musculoskeletal cancer.

**Results:** In our search totally 13 papers were accessed including two case studies, five reviews and six original researches. All studies we accessed were recommending physiological and psychosocial nursing care for orthopedic oncology patients and their families in a holistic approach.

#### **Nursing Care for Physiological Problems**

**Bone Pain:** Bone pain deteriorates the life quality of orthopedic oncology patients and keeps patients unable to perform daily life activities. In such patients effective pain management is crucial. Nurse should be able to assess pain ( location, character, quality, intensity, associated other symptoms) and a common validated pain scale should be used to assess pain. WHO Cancer Pain Relieve Programme advices using opioids. Further, massage practice or nonpharmacological pain alleviation methods may be alternative treatment options. For documentation, pain score should be kept in a patient diary.

**Pathological Fracture:** In contrast to traumatic fractures, no external force is required to cause a pathological fracture. The bone, which has been weakened substantially by bone metastases, fractures spontaneously. Patients should be avoided from trauma and briefed on pathological fracture at the same time with risk assessment for this possible complication.

**Hypercalcaemia of malignancy:** Hypercalcaemia of malignancy occurs in patients with cancer who have tumors that secrete hormones and cytokines that cause calcium resorption from bone and hypercalcaemia of malignancy. The secretion of parathyroid hormone-related protein by the tumour is thought to have a major role. Hypercalcaemia symptoms include anorexia, nausea and vomiting, loss of appetite, feeling very thirsty, dehydration, constipation, tiredness, muscle spasms or tremors, irregular heartbeat, drowsiness, confusion, lethargy and agitation. Regulation of hypercalcaemia and symptomatic

treatment is vital. In severe hypercalcaemia (calcium >3.5mmol/L) initial management involves intravenous (IV) fluid hydration and anti-emetics. Nurses should be aware that drugs promoting hypercalcaemia such as thiazide diuretics, lithium, ranitidine, cimetidine, vitamins A and D, and preparations containing calcium should be stopped. Hypercalcaemia usually develops as a late complication of cancer. Providing psychological support for the patient and family is important. In addition, the nurse has a key role in educating the patient and family members to report symptoms of hypercalcaemia.

**Malignant Spinal Cord Compression:** Malignant spinal cord compression may be manifested with back pain, motion limitation, motor weakness, paralysis, difficulty in daily life activities. Early diagnosis and expert multidisciplinary care is essential to aid patient rehabilitation and optimize quality of life. Patients, families and carers should be offered information that explains the symptoms of malignant spinal cord compression, and advises on what to do if they develop these symptoms. A thorough patient history is key to the evaluation of malignant spinal cord compression and nurses should consider the following factors: characteristics of pain (location, radiation, duration, severity time of pain) and factors that exacerbate or relieve pain and other symptoms, motor weakness, paresthesia. The nurse should question the patient about the existence, location, and onset of numbness, tingling, or coolness in the arms, hands, fingers, legs, feet, toes and trunk. Patients should also be asked about constipation, urinary retention or continence issues with the bowel or bladder to identify possible signs of injury to the autonomic nerves.

**Nursing Care for Psychosocial Problems:** Quality of life assessment, including psychological, spiritual and social care, is important because patients with distress also report higher levels of bone pain. Ambiguity in diagnosis and prognosis of orthopedic cancer, symptoms of the disease and aggressive treatment causes important psychological implications. Cancer diagnosis and treatment may lead emotional problems in patients and families. It is known that despite the improvements in prognosis and treatment, distress level of patients with cancer is elevated and problems such as anxiety and depression are common. Nurses have an important role in providing emotional support to orthopedic oncology patients. In clinical practice, emotional distress should be assessed for early detection of patient at high risk. Such patients may benefit from support of appreciated individuals, positive and constructive thinking.

Nurses should be aware of characteristics of the period that the individual is trying to cope and how to deal with it. Family caregivers should be included in the nursing care plans and families should be assessed for depression and anxiety. Spirituality and prayer, calmness and peace are two main strategies.

Main role of nurses is to assist the patient in understanding the principles of treatment approaches. Positive factors that enable this main role are behaviors that promote the mood of patient, protection of privacy, sufficient briefing, friendly approach, using humor, assistance in daily life activities, emotional support, recognition of patient's emotions, trust-based communication, time allocation for conversation, relaxing attitudes of nurses. Negative behaviors that harm the interaction are not recognizing the patient's emotions, not listening to patient, being insensitive to patient, nurses being incompetent/hesitant, inappropriate/unprofessional behaviors of nurses.

**Conclusion and Recommendation:** In our search, only a few studies on orthopedic oncology patients were found. We suggest that nurses should get more involved in this area and deal in detail with physiological and psychosocial needs of patients and consecutively develop evidence based practice that promote quality of life.

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#### Contact

[nurse\\_unal@hotmail.com](mailto:nurse_unal@hotmail.com)

## EBP PST 2 - Evidence-Based Practice Posters Session 2

### A Study on Improving Nursing Instruction for Post Total Knee Replacement Patients in Orthopedic Ward in Taiwan

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*Fung-Yu Kang, RN, Taiwan*

*Pei-Jung Yu, RN, Taiwan*

#### Purpose

The purpose of this presentation is designed to promote the nursing instruction rate for post total knee replacement patients in orthopedic ward.

#### Target Audience

The target audience of this presentation is nurse.

#### Abstract

Preparation, education, continuity of care for patients are essential after a total knee replacement, especially they are almost elderly. The patient and family members are most likely to be scared and frustrated because it is difficult for them to get around with home care after a total knee replacement. The purpose of this study was designed to promote the nursing instruction rate for post total knee replacement patients in orthopedic ward. In our work place, we found unsatisfied poor outcomes with the home care of post total knee replacement patients; therefore, we carry on root cause analysis and provide strategies for solving the problem: reinforced education and training programs for nurses in ward; physicians, nurses and therapists co-produced the education video for taking care of total knee replacement patients; established protocols of post total knee replacement care and set up the knee replacement care operational standards and check-up system for nurses. After the project was conducted, the testing score of nurses with knowledge of post knee replacement care rose from 74.5 to 100, and the complete rate of nursing instruction for post total knee replacement patients lifted from 62.5% to 95.7%. This study proved that interdisciplinary teamwork enhances more the good quality care for patient. A complete health education measure not only can improve the expertise of nurses but also let patients and their families have high satisfaction and improvement in function and quality of life for patients and their families.

#### Contact

[kfu0321@gmail.com](mailto:kfu0321@gmail.com)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Development of an Evidence-Based Guideline for Screening and Managing Depression in Older Adults

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*Mann-Chian Wu, MSN, Taiwan*

*Huei-Chuan Sung, PhD, MSN, RN, Taiwan*

*Shin-Yann Tsai, MSN, RN, Taiwan*

*Graeme D. Smith, RN, BA, FEANS, PhD, United Kingdom*

#### Purpose

The purpose of this presentation is to describe the development of an evidence-based guideline for screening and managing depression in older adults.

#### Target Audience

The target audience of this presentation is to highlight the importance of screening and managing depression of older adults and to share our experience for developing an evidence-based guideline for screening and managing depression of older adults.

#### Abstract

**Purpose:** This study aimed to develop an evidence-based guideline for screening and managing depression in older adults.

**Background:** Depression and dementia are common mental problems among aging population. Depression in older adults is often ignored and inadequately diagnosed and managed. Literature indicates that older patients with depression may also have cognitive impairment which has similar symptoms with dementia. Therefore, this makes the assessment of depression more difficult among older adults. There is a lack of guideline which can assist clinicians make better assessment and care plan for older adults with depression in Taiwan. Therefore, a clear guideline for nursing professionals to screen and manage older adults with depression is warranted.

**Methods:** A systematic review method was used and searched published guidelines and systematic reviews from 2000-2012. Relevant guidelines and reviews were appraised by three certified reviewers using appraisal tools and further analyzed. With the results from the systematic reviews and suggestions from expert focus group, we developed the guideline protocol for screening and managing depression suitable for older adults in Taiwan. This guideline protocol was evaluated by 12 psychiatric experts, and further revision was made according to the experts' recommendations. In addition, the guideline protocol was assessed by 357 clinical health care professionals in psychiatric wards and long-term care facilities using a questionnaire survey method for its feasibility and possible obstacles in implementing the guideline in the clinical settings in Taiwan.

**Results:** The final version of guideline has 62 recommendations, including identifying high-risk factors for older adults with depression, assessing cognitive function for older adults, assessing depression level of older adults, screening results and referral requirements, and care interventions.

**Conclusions:** An evidence-based guideline for screening and managing depression of older adults was developed through a systematic review method. This guideline provides nursing professionals a clear guidance and tool to accurately assess depression in order to provide suitable care and interventions in managing depression problems of older adults.

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**Contact**

[sung@tccn.edu.tw](mailto:sung@tccn.edu.tw)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Hot Topics in Nurse Practitioner Clinical Education: An Evidenced-Based Review

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*Julie A. Stanik-Hutt, PhD, CRNP, CNS, FAAN, USA*  
*Benita Walton-Moss, PhD, FNP-BC, USA*

#### Purpose

The purpose of this presentation is to review the evidence for controversial and emerging topics related to clinical preparation of nurse practitioner students in the United States.

#### Target Audience

The target audience of this presentation is nurses considering NP preparation, students enrolled in NP programs and nurse educators.

#### Abstract

Clinical competence is the core of NP practice. High quality clinical education is crucial to the development of NP competence. The purpose of this presentation is to discuss controversial issues related to clinical preparation of NPs. Evidence on the four issues will be presented and discussed, including: registered nurse (RN) experience prior to NP preparation, requirements for a minimum number of hours of student clinical practicum, use of simulation to supplement or replace clinical practica, and incorporation of interprofessional education (IPE) in order to produce graduates who are ready to create interprofessional practice. It is time for NP educators to consider and apply available evidence to improve student outcomes and change outdated requirements.

**RN experience.** The first NPs were experienced nurses who completed additional formal post graduate education and supervised clinical practice before embarking on their advanced practice role. Initially, admission to NP programs required at least 2 years of professional nursing experience. However several years ago, NP programs began offering admission to highly qualified students immediately after graduating from their initial nursing education or offered them admission to both the baccalaureate (BSN) and the master's (MSN) program simultaneously so that students could matriculate directly from the BSN into the MSN. In some schools however, it has become the norm with up to ½ of NP students entering the program directly from their BSN program without practicing a day as a RN. Acute care NP programs are the notable exception to this trend. Advocates for so called 'direct entry' from the BSN to the MSN argue that the requirement for RN experience is an outdated notion and that we need to encourage students to enter graduate school early or they will never pursue same. They also assert that those without RN experience are just as successful in graduate school and on certification examinations after graduating, that they haven't picked up bad habits from practice, and that their previous life experiences also support their preparation for practice as an NP. Opponents argue that those without RN experience are weak clinically, have difficulty internalizing advanced skills, and do not identify themselves as a nurse. They also cite lack the clinical judgment and confidence that is forged in practice. What is the evidence for or against requiring professional nursing experience before matriculation in an NP program?

**Clinical hours.** Accreditors require NP programs in the US to provide students with a specific minimum number of hours of supervised direct patient care during which they can practice clinical skills. Students preparing for practice with a single age group population (e.g. pediatric NPs who care only for children) must complete at least 500 hours of supervised clinical practicum. The 500 hour 'rule' applies to neonatal, pediatric primary care, adult primary care, adult acute care, and women's health NP students. Students preparing to provide care across age groups (e.g. Family NPs who care for adults, pregnant women, and children) are expected to complete more than 500 hours of supervised clinical practicum. The rationale for requiring 500 hours, rather than some other number has been the focus of much discussion at recent meetings of NP faculty. The number of clinical practice hours vary among schools, and can range from 500 to close to 1000 for a single age group population. Some students meet performance expectations at less than 500 hours and others are not able to perform as expected after many more hours. What is the source of the 500 hour 'rule' and should mastery of clinical competencies rather than completion of clock hours measure student readiness for practice.

**Clinical simulation.** Simulation is a commonly used educational strategy in nursing education and practice. It provides learners an opportunity to apply critical thinking and clinical skills to complex situations without exposing real patients to the risk associated with an inexperienced provider. In BSN education, simulation is replacing as well as supplementing student clinical experiences. Medical students spend many hours developing skills by working with highly trained standardized patients and using high fidelity patient simulators in multimillion dollar simulation centers. Acute Care NP students often complete skill and decision making in simulation labs. NP accreditation criteria do not allow simulation to replace required practice time. However, there is growing interest in greater use of simulation to supplement NP preparation. This strategy has been suggested during a time when it is increasingly difficult to secure high quality precepted clinical placements for NP students. Some programs are considering the use of objective structured clinical examinations (OSCE) to assess student competency. What is the evidence regarding the use of educational as well as evaluative simulation in preparation of NPs? What can it offer? And how should it be used and evaluated?

**Interprofessional education.** Interprofessional practice (IPP), characterized by mutual respect, teamwork, communication and collaboration, is widely acknowledged as a key approach to produce patient centered care, reduce medical errors and improve healthcare outcomes. But how can we create IPP when students continue to study and learn in educational silos? Schools that prepare health care professionals are being pushed to develop and increase the use of IPE. IPE requires that students from at least two different health professions learn together during their pre-licensure professional education. NP faculty struggle to form alliances with faculty from other health care professions and to create meaningful opportunities to integrate IPE into sometimes rigid curricula. What can we learn from research on IPE? What are the best practices and strategies for implementing IPE that can help NP faculty successfully prepared graduates for IPP?

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#### Contact

[jstanik1@jhu.edu](mailto:jstanik1@jhu.edu)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Development of Multilingual Educational Materials for Postpartum Health of Immigrant Women in South Korea

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*Kyungwon Kim, PhD, MS, RN, BS, South Korea*

#### Purpose

This study was to develop educational materials for health care during postpartum periods in foreign women who immigrated to South Korea. Then, educational materials were to translate into their native languages.

#### Target Audience

The target audiences are foreign women who immigrated to South Korea through international marriage. Married migrant women experienced a lack of knowledge, understanding, or self-care skills on pregnancy, delivery, and postpartum. Because they got pregnant before they adjusted themselves to a new family, environment, or Korean culture.

#### Abstract

**Purpose:** This study was to develop educational materials for health care during postpartum periods in foreign women who immigrated to South Korea. Then, educational materials were to translate into their native languages. **Method:** This study was composed of three procedures. First, the contents of materials were made up of result from the survey on health care needs of immigrant women and health staffs of the community health centers and group discussion by experts in women's health. Detailed items of contents were based on Roy's adaptation modes. Second, content validity in educational materials was conducted by experts in women's health and immigrant women. Educational materials, which were composed of procedure one and two, have been translated into 4 languages in consultation with relevant foreign language. Third, evaluation of educational materials was accomplished through satisfaction survey. **Result:** Educational materials on postpartum health were developed for immigrant women and translated with multilingual. The title was healthy mother, happy family; "8-step guide to a healthcare after childbirth". These materials were composed of 8-step guides to healthcare after childbirth, self-examination check list, websites for childbirth education and information, and guidelines on educational material in the form of a brochure. The 8-step guides were: "understand changes in your body and manage them after birth", "the mother's nutrition is important", "rest and exercise appropriately", "keep your body clean and warm", "become a good parent", "manage any depression after childbirth", "plan your birth control", "do postnatal exercise" In evaluation of educational materials, the satisfaction scores ranged from 3.53 to 3.73 and the overall level of satisfaction was high(3.61 score). **Conclusion:** Multilingual educational materials will help manage postpartum health and will be utilized in childbirth health education for immigrant women with various nationalities. Evaluation after using educational materials also will be needed to develop more suitable materials for immigrant women in South Korea.

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Contact

[kyungwok@dhu.ac.kr](mailto:kyungwok@dhu.ac.kr)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### The Effectiveness of Music Interventions on Reducing Anxiety, Sedative Requirements, Pain, and Improving Physiological Outcomes and Satisfaction Among Adult Patients Undergoing Colonoscopy: A Systematic Review Protocol

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Shuk Yee Ko, RN, RM, Hong Kong  
Janita Pak-Chun Chau, RN, BN, MPhil, PhD, Hong Kong

#### Purpose

The learner will be able to identify the rationale and significance of conducting a systematic review on effectiveness of music interventions on patients undergoing colonoscopy, and review the methods for conducting a systematic review of evidence generated by quantitative research.

#### Target Audience

The target audience of this presentation includes nurses, health care providers and academia.

#### Abstract

**Background:** Anxiety and pain are common problems in patients undergoing a colonoscopy procedure. High levels of anxiety may result in more difficult and painful procedures, incomplete procedures, greater medication uses, increased likelihood of sedative-related complications, and prevent the patients from undertaking the examination (Stirling et al., 2007). High anxiety levels may also lead to negative physiological outcomes including elevated blood cortisol levels, increased blood pressure, heart rates, and respiratory rates.

Music is well recognized as an important and safe intervention to aid the healing processes (Johnson et al., 2012). Music intervention has been used in different medical fields including cardiology and radiology because music has been found to promote relaxation, induce positive associations, and divert attention from negative experiences (Nilsson, 2008). Music has been hypothesized to act as an anxiolytic and analgesic to alleviate anxiety and pain for patients undergoing stressful and painful endoscopic procedures. Nevertheless, no conclusion has yet been reached about its effectiveness in patients undergoing colonoscopy.

**Objective:** This systematic review will summarize the evidence regarding the effectiveness of music interventions on patient outcomes including levels of anxiety, the needs for sedation, pain, physiological variables, and satisfaction.

**Methods:** The review will include all studies with adult patients  $\geq 18$  years old who underwent colonoscopy procedures in endoscopy suites. Foreseen comparisons include: (1) comparison between music interventions vs. no music intervention; and (2). Comparison between different formats and types of music interventions. All randomised controlled trials comparing the effectiveness of music interventions on patients undergoing colonoscopy will be considered for inclusion in this review. In the absence of randomised controlled trials, other research designs including quasi-experimental, non-randomised controlled trials, and before and after studies will be included. The search strategy is aimed to find all published and unpublished studies in English and Chinese in order to generate a comprehensive list of primary studies that can answer the question posed in this review. Two reviewers will independently assess all identified studies against the inclusion and exclusion criteria, appraise the methodological quality, and perform the data extraction. Quantitative results of comparable studies will be pooled in statistical meta-analysis. If statistical pooling of results of the included studies is not appropriate or possible, the findings will be summarized in narrative form.

**Conclusion:** This systematic review protocol describes in detail the process of conducting a systematic review of evidence generated by quantitative research. The significance of this review is to identify the effectiveness of music interventions on reducing anxiety and sedative medication requirements, improving physiological parameters, relieving pain, and promoting satisfaction among adult patients undergoing colonoscopy. The findings will provide useful information for health care professionals to promote well-being of patients undergoing colonoscopy.

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## Contact

[kolc02@yahoo.com.hk](mailto:kolc02@yahoo.com.hk)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### The Experience of Evidence-Based Nursing Implementation at a North Medical Center in Taiwan

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Yueh-E. Lin, RN, MSN, Taiwan

#### Purpose

The purpose of this presentation is to understand learning clinical EBN skills satisfaction and needs in nurse staffs. From the Evidence-Based Nursing (EBN) Implementation to solve and improving the care skills knowledge, attitudes and motivation of the nurses who attended the training program.

#### Target Audience

The target audience of this presentation is interesting in learning Evidence-Based Nursing (EBN) staffs. Besides, these results are expected to provide a reference and shares the experiences of evidence-based nursing implementation to develop a training program of EBN.

#### Abstract

**Objective:** Evidence-based nursing (EBN) is an essential issue for improving quality of care. Enhancing the competence of EBN is the foundation of implementing evidence-based practice. This project aimed to understand learning clinical EBN skills satisfaction and needs in nurse staffs. From the Evidence-Based Nursing (EBN) Implementation to solve and improving the care skills knowledge, attitudes and motivation of the nurses who attended the training program.

**Methods:** Analysis of the needs in EBN skills and abilities for nurse staffs. Adopt an actual observation method, questionnaire for staff's before working. We collected totally 84 staffs from based on the survey results and literature review on December 2012, Statistical analysis of surveys on nurses' skills that staffs felt the needs in an urgent needs assistance showed 67.47% of accuracy on knowledge of clinical EBN skills. Analysis of the survey that EBN of skills included 5 dimensions: Asking

Acquire. Appraisal. Apply. Audit.(5A). Knowledge of clinical practice experience, and lack of in-service educations and trainings. Therefore, we used the following methods to improve the project. We arranged the clinical EBN training programs for nurse staffs and compared with none any arrangement EBN training.

**Results:** After all the above interventions, nurses had higher accuracy on stress scores in the range of "slightly" to "severe" . Appraisal, Acquire , asking, PICO and apply. The staffs who were "having apply experience", " or " high level of interesting in EBN " were at a higher needs in the EBN training. The completeness of before EBN training in the abilities been promoted from 68.7% to 88.2%(promote28.38%). However, the posttest score of EBN knowledge in nurses at the age of 36-40 years, 10-15years of work experience, bachelor degree, and administrator were significantly higher than the score of pretest.

**Conclusion:** The EBN workshop with adequate scenario practice which included "Formulating a PICO question", "Data searching", "Level of evidence rating" might improve the knowledge, attitudes and skills of EBN attendants. The satisfaction of nurses in the workshop was high. It's not only promotion of quality care, but also prevention of incident. Hope the results benefit the policy making in organizations in the future. In addition, to be a health educator will be the most important responsibility for us, we hope to continue develop this project and follow the effect advanced. In addition, These results are expected to provide a reference and shares the experiences of evidence-based nursing implementation to develop a training program of EBN.

#### Contact

[amy436643@cgmh.org.tw](mailto:amy436643@cgmh.org.tw)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Nurses' Knowledge, Attitude, and Implement Confidence Regarding Evidence-Based Nursing in Taiwan

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*Chou-Ping Chiou, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to report the findings which describe nurses' knowledge, attitude, and implement confidence regarding evidence-based nursing (EBP) and major barriers to EBP in Taiwan.

#### Target Audience

The target audience of this presentation is nurses from clinical practice and nursing researchers.

#### Abstract

**Purpose:** The objectives of this study were to describe nurses' knowledge, attitude, and implement confidence regarding evidence-based nursing (EBP) and major barriers to EBP.

**Methods:** The study was approved by the appropriate ethics committees. A descriptive survey was conducted with a random sample of 300 nurses from a regional teaching hospital in Southern Taiwan.

**Results:** The results showed that nursing staffs had insufficient knowledge about EBP and they moderately believed that research evidence has been used to guide nursing practice and to improve patient outcome. Only 13% indicated their confidence to implement EBP. Significant relationships were found between EBP knowledge, attitude and implement confidence. The identified barriers included: lack of time, lack of financial support, lack of knowledge, and lack of support.

**Conclusions:** Since this study was conducted with a sample of nurses from a regional teaching hospital, it will be important to gather this type of data of nurses who are active in other hospitals, so that findings can be generalized to the greater population of nurses in practice. Nurses in clinical settings need to be able to use research findings and incorporate EBP into their clinical practice to enhance patient outcomes. Nurses must be provided with information that strengthens their attitudes about EBP improving care and patient outcome to accelerate evidence-based nursing practice. Therefore, intervention studies that determine what specifically is accountable for a change to EBP in nurses are urgently needed.

#### Contact

[chouping@isu.edu.tw](mailto:chouping@isu.edu.tw)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### The Knowledge and Expectation about the Content of Pediatric Nursing Course in a Two-Year Nursing College Program and Related Factors in Taiwan

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*I-Chen Lu, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to show audience an evidence-based course design research to develop pediatric nursing course in a two-year nursing college program in Taiwan. The audience will learn Taiwanese students' knowledge and expectation about pediatric nursing course and related factors.

#### Target Audience

The target audience of this presentation is nursing teachers or educators who are interested in evidence-based course design, especially for pediatric nursing course. The audience will learn Taiwanese students' knowledge and expectation about pediatric nursing course in a two-year nursing college program and related factors.

#### Abstract

**Purpose:** The two-year nursing college program was developed in Taiwan, which helps the students graduated from a five-year junior nursing college to get a bachelor degree in nursing in two-year. To avoid repeating learning content, and to learn useful nursing knowledge for clinical pediatric nursing practice, the course design of pediatric nursing is very important. However, there is little evidence-based research about this course design in previous study. The purposes of this study were: 1) to examine the students' knowledge and expectation about the content of pediatric nursing course in a two-year nursing college program in Taiwan; and 2) to explore the factors which influence the students' knowledge and expectation about the content of pediatric nursing course.

**Methods:** A correlational study was conducted. A nonprobability sample of 102 two-year nursing college students was recruited from a technology university located in southern Taiwan. All participants completed the consent forms and the questionnaires. A demographic questionnaire and the Questionnaire of the Knowledge and Expectation about the Content of Pediatric Nursing Course were used to collect data. Data were analyzed by descriptive statistical techniques, ANOVA and Pearson's correlations.

**Results:** The findings showed that student participants got higher scores in the knowledge about body system (mean score = 3.26) than the knowledge about nursing process (mean score = 2.76), and the knowledge about nursing concepts (mean score = 1.81). Moreover, student participants showed higher expectation to learn the knowledge about nursing process (mean score = 3.86) than the knowledge about nursing concepts (mean score = 3.11), and the knowledge about body system (mean score = 2.32). The years after graduation from five-year junior college were negatively and significantly related to the score of knowledge about body system, nursing process, and nursing concepts. The years of students' working experience were positively and significantly related to the score of expectation to learn the knowledge about nursing process.

**Conclusion:** The results showed the students' knowledge level and expectation about the content of pediatric nursing course. The findings can be used in the future to make a better design of pediatric nursing course in a two-year nursing college program to meet students' expectation and to enhance the knowledge of pediatric nursing for clinical practice. The evidence-based research method for course design can be utilized in other countries to develop appropriate course content for a new course.

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Contact

[luichen2006@yahoo.com.tw](mailto:luichen2006@yahoo.com.tw)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### A Diabetes Self-Management Education Program Based on the Information-Motivation-Behavioral Skills Model: Effects on Older Adults with Type 2 Diabetes in Korea

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Suyoung Choi, PhD, GNP, RN, South Korea  
Misoong Song, RN, PhD, South Korea  
Se-an Kim, RN, MSN, South Korea  
Kyoungsan Seo, RN, MSN, South Korea  
Soo Jin Lee, RN, MSN, South Korea

#### Purpose

The purpose of this presentation is to describe the effect of the theory-based and behavioral outcome-focused diabetes self-management program for older adults in Korea.

#### Target Audience

The target audiences of this presentation are nurses, diabetes educators, and health professionals who are interested in evidence-based health practice.

#### Abstract

**Purpose:** The purpose of this study was to evaluate the effect of the Diabetes Self-Management Education for Older Koreans (DSME-OK) program based on the Information-Motivation-Behavioral skills (IMB) model. The unique characteristics of the DSME-OK program are the application of the IMB model and utilization of the intervention mapping (IM) protocol. The IMB model includes three important behavioral change resources: information, motivation, and behavioral skills. The IM protocol includes needs assessment, defining goals and objectives, identifying theory and determinants, developing a matrix to form change objectives, selecting strategies and methods, structuring the program, and planning for evaluation.

**Methods:** A two-group, quasi-experimental study design was used to test the DSME-OK program with community-dwelling older adults in Korea. The DSME-OK program has 14 weekly 90-minute sessions. It has adopted seven behavior objectives developed by the American Association of Diabetes Educators as behavioral outcomes. Thirty older adults between 66 and 90 years old (mean  $76.8 \pm 5.4$ ) completed the entire research protocol and assessments at four time points. Changes in scores (from baseline to 14 weeks and 3- and 6-month follow-up) of outcome variables were compared between the intervention group ( $n = 15$ ) and the control group ( $n = 15$ ).

**Results:** At 14 weeks, diabetes self-management motivation ( $p = 0.042$ ) was higher in the DSME-OK program participants than usual care control subjects. At 3- and 6-month follow ups, diabetes self-management motivation ( $p = 0.022$ ), self-efficacy ( $p = 0.004$ ), and self-management knowledge ( $p = 0.039$ ) were higher in the DSME-OK program participants than the controls. However, the groups did not significantly differ in A1C, lipids (triglycerides, total cholesterol, high-density lipoprotein cholesterol, and low-density lipoprotein cholesterol), and self-management behavior change scores. These variables were relatively similar between groups at baseline.

**Conclusion:** This theory-based self-management program that focused on behavioral outcomes was effective for improving diabetes self-management information, motivation, and behavioral skills for older adults with diabetes. These results provide further evidence of the effectiveness of theory-based interventions for changing self-management behaviors. Further studies should attempt to replicate the current findings by using larger samples and longer time frames.

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DiClemente, R. A. Crosby, & M. Kegler (Eds.), Emerging theories in health promotion practice and research (2 ed., pp. 22–63).: San Francisco, CA: Jossey-Bass.

Contact

[petsera@snu.ac.kr](mailto:petsera@snu.ac.kr)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Allergen Screening and Telephone Coaching Interventions to Prevent School-Age Children at Risk of Developing Asthma

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*Bih-Shya Gau, PhD, Taiwan*

*Yuan-Ju Liao, MSN, Taiwan*

*Yu-Fen Tzeng, MSN, Taiwan*

*Pei-Ching Liu, MSN, RN, Taiwan*

#### Purpose

Asthma is the most common chronic health condition for children globally, and the prevalence is increasing in Taiwan. This project was aimed to have evidence-based asthma intervention program for children at risk of asthma.

#### Target Audience

The target audience of this presentation is nursing scholars and clinical nurse experts in the child health care.

#### Abstract

**Purpose:** Asthma is the most common chronic health condition for children globally, and the prevalence is increasing in Taiwan. According to surveys by the Department of Health, Taipei City Government, the prevalence of asthma among first graders was 20.34% and 20.74% in 2007 and 2009 respectively. This project was aimed to have evidence-based intervention program for children at risk of asthma.

**Methods:** During 2010 to 2012, an action research was conducted to deliver an overall allergen screening for the enrolled first-grade pupils and to provide telephone coaching interventions for the high-risk group in Taipei city, Taiwan. Dimensions of the interventions consisted of providing telephone coaching and parenting group, establishing the document of the coaching process and feedback, disseminating the asthma education materials and website resources. Before the research project, a standard telephone coaching protocol was developed and achieved to consensus. Ten telephone coaches were recruited then trained by a series of asthma in-service education; they had clinical nurse practices at least 5 years and had approval as qualified asthma educators by Taiwan Association of Asthma Education. The high risk first graders were screened by using the asthma symptoms screening questionnaire and confirmed by blood allergen test. Parents of blood test positive children were given telephone coaching asthma education first and then received follow-up care. In addition, they were invited to parenting group for further dynamic asthma care consultation and supports. Outcome evaluation included narrative feedback and structural questionnaire of asthma knowledge, asthma symptom control, adherence to asthma care, level of satisfaction to the interventions.

**Results:** A total of 5,463 were screened out of the 62,497 first-grade schoolchildren as high risk group for asthma. As receiving allergen blood test, 4267 schoolchildren were confirmed to have positive findings; positive rate was 78.11% (4267/5263). Ninety percent positive cases (3878/426=90.8%) were successfully recruited to have the interventions. Among them, house dust mites (*dermatophagoides pteronyssinus* & *dermatophagoides farine*), *blomia tropicalis* and hair of dogs/cats were reported to be the first three leading allergens for children. Mothers are the key recipients having the telephone coaching (68.5%). The major contents of the coaching included allergen prevention (70.8%), facets of allergy and asthma (60.4%), use of controller and rescue medicine (62.7%). Use of peak expiratory flow meter, prevention of exercise induced asthma and skills of using inhaler were insufficient for their self-management. Among the children, 5.3% experienced the ER visit in the past one year and 3.7% had school absences. Prevention of asthma exacerbation during sandstorm and cold wave were also discussed. In addition to adherence to asthma medicine, prevention of triggers, healthy eating and regular exercise were fully shared and reinforced during the process. The final follow-up evaluation showed a high degree of satisfaction of telephone coaching and parenting group among parents, statistical significant reductions in ER rate and days of absence among schoolchildren.

**Conclusions:** The interventions in the research support the “asthma control-oriented asthma care” advocated by the Global Initiative for Asthma (GINA). The findings indicate that developing partnership between parents/children with asthma, identifying the triggers and reducing exposure to risk factors, empowering the asthma self-monitor and self-management efficacy can enhance health outcomes and quality of life for children and their families.

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### Contact

[bsgau@ntu.edu.tw](mailto:bsgau@ntu.edu.tw)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Meta-Analyses of Epigenetics Risk Factors for Prevention of Hypertension: Angiotensinogen Human Gene Variations Across Different Race-Ethnicity Groups

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Guey-Shiun Huang, PhD, RN., Taiwan  
Kideest Babi, MSN, NP, USA  
S. Pamela Shiao, PhD, RN, FAAN., USA

#### Purpose

The purpose of this presentation is to disseminate current evidence on population genome health, through meta-analyses of epigenetic risk factors, for hypertension.

#### Target Audience

The target audiences can include nursing and inter-professional colleagues who are interested in learning about population genome health and epigenetics risk factors for prevention of hypertension.

#### Abstract

**Background:** Hypertension is a major risk factor for heart diseases, stroke, and kidney diseases. Previous research suggests an association between Angiotensinogen (AGT) single nucleotide polymorphisms M235T variations and hypertension. Life style risk factors were associated with increased risk for hypertension. No meta-analysis concluded the association for AGT M235T with hypertension for different population groups.

**Purpose:** The purpose of this study was to identify the association of AGT M235T gene variations and hypertension for various race-ethnicity groups and the associated risk factors for the prevention of hypertension.

**Method/Results:** Preliminary analyses included 7607 cases and 9673 controls associating AGT M235T with hypertension from 30 case-control studies published within the last 18 years. The gene mutation variations (MT and TT subtypes) in Asians (70.8-100%) were higher than Caucasians (62.0-79.0%) in the world, for control and case groups. For validation, pollution indicators were checked and shown worse in Asia than other countries in recent years. For lifestyle related meta-analyses, smoking (11 studies, 2155 cases, 3518 controls, RR=1.14, 95% Confidence Interval =0.93-1.40), alcohol intake (5 studies, 1076 cases, 2280 controls, RR=0.82, 95% CI=0.60-1.13), and physical inactivity (3 studies, 470 cases, 2021 controls, RR=0.97, 95% CI=0.86-1.09) were pooled for meta-analyses. For association of AGT235 gene variations, genotype MM (16.9% cases, 19.1% controls) was protective against hypertension for all populations combined (RR=0.83, 95% CI=0.73-0.94, p=0.0026).

**Conclusion:** Future research is needed to investigate the interactions between epigenetic risk factors and AGT gene variations for the population health across the world in the prevention of hypertension.

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#### Contact

[gueysh@ntu.edu.tw](mailto:gueysh@ntu.edu.tw)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### The Adoption and Implementation of the Columbia-Suicide Severity Rating Scale (C-SSRS) in a Psychiatric Emergency Service: Utilizing Roger's Diffusion of Innovations Model

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*Cheranne Morse, DNP, RN, PMHNP-BC, CASAC, CD, USA*

#### Purpose

The purpose of this presentation is to increase awareness to the scope of suicide and the need for better suicide risk assessments in acute clinical settings through the implementation of the Columbia-Suicide Severity Rating Scale (C-SSRS).

#### Target Audience

The target audience of this presentation are Psychiatric & Emergency Department staff such as Nurses, Nurse Practitioners, Physicians, Social Workers.

#### Abstract

Suicide is a major public health problem and the most dreaded patient outcome. Patient suicides are one of the top five most common sentinel events in health care. Within two months of discharge from an emergency department, one in ten patients will commit suicide. However, the exact number for completed patient suicides following an evaluation in a psychiatric emergency service is unknown. Patients present to the psychiatric emergency department in an acute crisis state often due to suicidal ideation and behaviors. Psychiatric emergency service clinicians are faced with performing a suicide risk assessment in a highly complex environment. Assessment practices vary across institutions and currently there is no universally accepted instrument. The Columbia-Suicide Severity Rating Scale (C-SSRS) is a brief, valid, reliable instrument which makes its application well-suited for psychiatric emergency services. The objective of this quality improvement project is to evaluate the adoption and implementation of the Columbia-Suicide Severity Rating Scale (C-SSRS) to assess suicidal ideation and behaviors of acute psychiatric patients, in a suburban, tertiary care, psychiatric emergency service using Roger's Diffusion of Innovations model as a framework. Results support a 90% uptake of the intervention for at least 6 months following the implementation. Results from this project have the potential to improve comprehensive evaluations of suicide risk which augment clinical judgment and may lead to an increase in effective interventions and decreased suicidal behaviors.

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#### Contact

[Cheranne.Morse@stonybrookmedicine.edu](mailto:Cheranne.Morse@stonybrookmedicine.edu)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Spotlight on Practice: Achieving Excellence in Service, Accountability, and Professional Leadership

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*Rani Hajela Srivastava, RN, MScN, PhD, Canada*

*Jane Paterson, MSW, RSW, Canada*

*Gabriella Golea, RN, BScN, MN, CPMHN (C), Canada*

*Margaret Gehrs, RN, BSc (HK), BScN, MScN, CPMHN (C), Canada*

#### Purpose

to describe how the best practice guideline implementation can be used for strategic practice transformation

#### Target Audience

Senior Administrators, Clinicians, Advanced practice nurses, Educators,

#### Abstract

While much has been written about the implementation of Nursing best practice guidelines within hospitals, there is a dearth of evidence on how to support such implementation within a mental health and addictions environment, and in an integrated interprofessional manner. This presentation will describe how one large mental health and addictions academic teaching hospital endeavored to promote best practice guidelines (BPG's) as part of a new strategic direction and practice plan. It will highlight how the unique aspects of organizational culture were considered during the selection, development, implementation, and evaluation of BPG's in a mental health and addictions health care environment. The implementation was broadly guided by an organizational change framework that consists of six core strategies that the organization had initially used in an organizational initiative focused on the reduction of restraints and seclusion (National Executive Training Institute, 2003). The six core strategies are: (1) leadership, (2) using data to inform practice, (3) workforce development, (4) tools and resources, (5) debriefs and learning from experience, and (6) full inclusion of clients and families. This overarching framework was used as an overall guiding strategy and augmented by additional supporting frameworks from the literature including the PARIHS Framework (see Rycroft-Malone, 2004), Complex Systems Perspective (see Suter et al, 2011), and the Organizational Memory Framework (see Virani et al, 2009). Change management processes addressed the unique skills mix of interprofessional care providers and integration with other initiatives and the strategic priorities of the organization.

Although designed and led by professional practice leadership, the formal initiative was designed as a 3 year journey that focused at all levels the organization with respect to leadership, engagement, and accountability. The engagement included the quality committee of the hospital board, senior management, advanced practice nurses and clinicians, educators, and an interprofessional group of champions in direct care. Six clinical and two healthy work environment best practice guidelines were chosen for implementation. We are two years into the three year journey and have experienced many expected and unexpected challenges and successes. The presentation will highlight the phases of the the journey and critical success factors at each stage. A key factor to the overall success has been the adoption of a continuous learning stance and intentional integration of the BPG implementation to other organizational initiatives and goals.

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#### Contact

[rani.srivastava@camh.ca](mailto:rani.srivastava@camh.ca)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Integrating Genomics into Nursing Education

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*Ann H. Maradiegue, PhD, MSN, BSN, USA*

*Quannetta T. Edwards, PhD, RN, FNP, WHNP, FAANP, USA*

#### Purpose

the purpose of this presentation is to provide a framework, along with resources for nurse educators to be able to integrate genomics into their nursing undergraduate and graduate programs.

#### Target Audience

The target audience is nurse educators who wish to integrate genomics into their curriculum.

#### Abstract

**Purpose:** To provide nursing faculty with strategies and resources to be able to integrate genomic information into their existing curriculum.

**Evidence:** Nurses must be knowledgeable in the current scientific discoveries related to health care in order to practice effectively. Recent genomic advances include novel drug therapies, more nuanced reproductive counselling and reproductive options, enhanced risk assessment, and expanded clinical laboratory testing. Genomic discoveries are expected to transform future health care and nurses are 'key' to this transformation. As the largest healthcare discipline, nurses are in the position to educate, care for and manage individuals and families with genetic/genomic disorders in primary and acute care settings, as well as in the community. Preparing nurses for this future transformation is in the hands of educators. Nurse leaders from around the globe have developed genetic/genomic competencies to enhance the education of nurses. Although many countries require nursing programs to include genetic/genomic content in nursing education, studies have revealed that the level of content in this subject are low or absent in nursing curriculum, even though nurses are open to genetics/genomic education that applies the scientific principles to practice.

Nursing faculty continue to have low comfort and knowledge levels with teaching genetics/genomics content. More training is warranted for nursing faculty so they are knowledgeable and comfortable with genetic/genomic topics to prepare future generations of nurses to address the public's health, and to be comfortable with advanced technologies. The shift to precision health care makes it clear that genomics must be fully integrated into nursing curricula.

**Methods:** Strategies for integration of content into undergraduate and graduate programs will be presented, with examples and case studies. A list of tools, web sites, books and articles will be made available.

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#### Contact

[maradieguea@trinitydc.edu](mailto:maradieguea@trinitydc.edu)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Effects of Instructor Immediacy and Online Course Design in Student Satisfaction and Successful Course Completion

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Nancy J. Slizewski, DNP, RN, USA

#### Purpose

The purpose of this presentation is to discuss the results of a nursing doctoral capstone project investigating the effects of course design and instructor feedback on student success and satisfaction in an online medical terminology course.

#### Target Audience

The target audience is nursing or health care instructors teaching online courses.

#### Abstract

**Background:** The withdrawal and failure rates for online classes and student satisfaction of online courses are identified as problems.

**Aim and Objectives:** The aim was to investigate the effects of course design and instructor feedback on student success and satisfaction in online courses.

**Method:** The literature review supported further investigation of student satisfaction and course completion in online courses and the college approved the project. Student satisfaction with the course and instructor were evaluated utilizing the college's current survey tool. Student course completion was evaluated. Results of the project were compared to the 2010 online Medical Terminology course and all 2011 online courses at the technical college in Wisconsin.

**Analysis and Results:** The data analysis showed no significant differences in the survey results between groups. Differences were noted in the rates of successful course completion in the Medical Terminology courses and all online courses at the college. The course design differed in the two Medical Terminology online courses therefore the increased rates cannot be solely attributed to the capstone interventions.

**Recommendations:** Course design and instructor feedback may have a significant impact on student success and satisfaction in online courses warranting further studies. The results of further studies may improve student outcomes benefitting not only the students but the college as well.

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## Contact

[nslizews@uwsp.edu](mailto:nslizews@uwsp.edu)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### A Faith-Based Concept Analysis for Nursing Education

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*Charlene Niemi, MSN, PHN, BSN, RN, USA*

*Robin Covey, MSN, FNP-C, BSN, RN, USA*

*Carolyn Hanohano, MSN, BSN, PHN, RN, USA*

*Veletta Ogaz, MSN, FNP, BSN, USA*

*Patricia Frohock Hanes, PhD, MSN, MAEd, RN, CNE, USA*

#### Purpose

The purpose of this presentation is to share how faith-based concepts can provide a specific focus or an overarching unity to specific nursing content areas and to assist nursing educators wishing to apply spiritual concepts from a scholarly perspective into their teaching without resorting to the practice of bookending.

#### Target Audience

The target audience for this presentation is nursing educators at secular and faith-based institutions.

#### Abstract

**Background/Purpose:** Doctoral students who are also teaching at secular and faith-based institutions conducted a teaching/research project to integrate faith-based concepts related to specific nursing topics into their teaching plans. The purpose of this presentation is to share how faith-based concepts can provide a specific focus or an overarching unity to specific nursing content areas and to assist nursing educators wishing to apply spiritual concepts from a scholarly perspective into their teaching without resorting to the practice of bookending.

**Conceptual Framework:** This project was based on multiple learning theories including adult learning theories, Walker and Avant's concept analysis, and transformative learning theory as a core value.

**Methods/Results:** Doctoral students used a concept analysis approach where they first chose concepts related to specific teaching topics, and then conducted a concept analysis using dictionaries, scriptural resources such as the Bible, scriptural concordances, Bible commentaries, and scholarly Internet sources. The process involved the eight steps of concept analysis as discussed by Walker and Avant. Ultimately, the doctoral students integrated their findings into specific lesson plans to enhance the depth of their teaching. Students planned how the integration of concepts would be used in secular schools versus faith-based institutions, e.g. incorporating content while teaching about spirituality in relation to the Neuman's systems model. Concept analysis using faith-based concepts can provide educators with a teaching strategy to holistically integrate faith integration and spirituality into their teaching plans.

**Implications/Significance/Recommendations:** This process can be used in both secular and faith-based institutions, both inside and outside of the nursing discipline. The process presents spiritual concepts from a scholarly perspective. It seamlessly integrates a faith-based and spiritual approach into the nursing classroom. Concepts drive nursing practice; therefore, it is important to discover how specific faith related concepts affect how nurses visualize and provide care in a variety of situations.

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#### Contact

[cnieni11@apu.edu](mailto:cnieni11@apu.edu)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Implementation of a Nurse-Driven Foley Catheter Removal Protocol: A Patient Safety and Quality Improvement Project

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*Aimee L. Burch, MS, APRN-CNS, CMSRN, USA*

#### Purpose

The purpose of this presentation is to present knowledge and data obtained from the implementation of a Nurse-Driven Foley Catheter Removal Protocol that was put into practice to decrease device utilization rates (DUR) and catheter-associated urinary tract infections (CAUTIs).

#### Target Audience

The target audience of this presentation is clinical nurses and nurse managers hoping to decrease or discontinue Foley catheter use in an acute care setting.

#### Abstract

Urinary tract infections (UTIs) are the most prevalent healthcare associated infections (HAIs) with incidence rates topping 30%, and can lead to increased hospital cost, length of stay, morbidity and mortality <sup>(1,2)</sup>. Inserting urinary catheters causes most UTIs <sup>(2)</sup>, suggesting that preventing catheter use or removing the catheters as soon as possible would decrease UTI rates. Urinary catheter removal may be overlooked by the medical team when considering all other patient issues. Placing nursing in control of noting inappropriate or unnecessary catheters and then empowering nursing staff to remove those catheters has been recommended to decrease catheter dwell time, leading to reductions in catheter-associated UTIs (CAUTIs).

Noting an increase in CAUTIs, the infection prevention department nurses formed a team to look at CAUTIs and devise a plan of action. As noted in the literature, keeping catheters out or removing them quickly has been proven to decrease catheter-associated problems. A physician champion from the urology service line (utilizing Centers for Disease Control guidelines) assisted the team with an approved list of indications for catheter placement and maintenance. A literature review completed by team members showed several other catheter removal protocols; however, none had all of the components that the team deemed necessary for a complete protocol.

The team utilized part of a protocol designed by Tufts Medical Center (shared via slide) to form a protocol that would meet all of the patient's needs. This included the indications for placing or maintaining a catheter, the removal protocol, and guidelines for bladder ultrasound combined with intermittent catheterization after catheter removal. The protocol was taken to several medical and administrative committees for approval prior to trial initiation.

Baseline data for CAUTI and device utilization rates was obtained from infection prevention prior to initiation of this patient safety and quality improvement trial. The nurse-driven catheter removal protocol was then conducted for 6 months on 2 medical-surgical units with a combined average census of 32 patients. Utilizing the criteria in the protocol, unnecessary catheters were removed by nursing staff per the protocol (without a call to the provider). Protocol instructions include a bladder ultrasound every 6 hours if the patient had not voided, with intermittent catheterization if post-void residuals exceeded 400 milliliters. Perineal care post-removal was also an essential part of the infection prevention process.

Education of nursing staff and practitioners was essential to the success of the trial. Topics included general CAUTI information, proper catheter and perineal care, criteria for catheter insertion and maintenance, as well as protocol use. Education was completed utilizing many methods including on-line computer modules, presentations at staff meetings, hands-on practice at skills fairs and one-on-one coaching with staff and providers alike. Initially there was some pushback from the surgical group, but that was alleviated utilizing more one-on-one sessions with each surgeon to address their concerns. Overall the protocol appears to be a physician satisfier, with fewer calls regarding patients with retention, and issues with catheter care and removal.

Data was collected via daily rounding by infection prevention, nurse managers and clinical nurse specialists to assess catheters present on each unit for necessity and duration. This time was also utilized for coaching and answering questions that may arise regarding the process. A log was kept on the floor and was updated daily as possible. Data collected during the trial included device utilization rate (DUR), catheter reinsertion rate, number of CAUTIs, the CAUTI rate and device days.

Data collected showed that fewer catheters were being placed inappropriately and kept unnecessarily, while the reinsertion rate on both units remained steady throughout the trial, with many patients requiring catheter reinsertion being referred to urology for follow-up. DUR, CAUTIs and device days (approximate) for both units decreased (unit 1 DUR decreased from 35.48 to 34.48, CAUTIs fell from 3 to 2 and device days declined from 2400 to 2200; unit 2 DUR was reduced from 25 to 18.82, the number of CAUTIs decreased from 2 to 1, with the device days being cut from 4050 to 3300). The actual CAUTI rates of both units increased (unit 1 from 1.57 to 1.76 and unit 2 from 0.57 to 0.92). This was primarily attributed to low catheter numbers during the trial period.

The protocol was initiated hospital-wide in September of 2013, with preliminary data from the recently surveyed areas (notably the intensive care and progressive care units) indicating a continued successful process. The DUR for all inpatient units has declined noticeably since hospital-wide protocol initiation, as have the number of CAUTIs and reinsertion rates. There will be considerably more data by the conference, with the hope being that other hospitals and nursing areas can adopt and utilize the protocol to decrease urinary infection rates and device days while increasing patient safety.

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#### Contact

[aburch@sfmc-gi.org](mailto:aburch@sfmc-gi.org)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Best Practice Guidelines for Uncomplicated Urinary Tract Infections Reduce the Rates of Antibiotic Resistance: A CE Module for Clinicians

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Romina Lo-Montano, MSN, USA

#### Purpose

The purpose of this presentation is to provide the most current information about the proper treatment and management of uncomplicated UTI's in women, which will result in a decrease in the incidence and prevalence of antibiotic resistance, through the dissemination of information via a CE module.

#### Target Audience

The target audience of this presentation is all health care providers such as nurse practitioners, physicians, and physician assistants.

#### Abstract

For the past two decades antibiotic resistance has become a global issue stemming from the overuse of antibiotics. The lack of appropriate management of the client with uncomplicated urinary tract infections (UTI's) contributes to antibiotic overuse and an increase in antibiotic resistance. Uncomplicated UTI ranks as one of the most frequently treated diagnosis in primary care settings and urgent care clinics. In fact, approximately one in six women will experience an uncomplicated UTI in her lifetime.

More than eleven percent of women are diagnosed with uncomplicated UTI's annually and many of these women are needlessly treated with antibiotics. The costs associated with the evaluation and treatment of uncomplicated UTI's in women was estimated to be \$3.5 million in 2000. The total cost associated with treatment of UTI's in the emergency department has amounted to \$4 billion dollars (Gregg, 2013). The expense of treating patients with uncomplicated UTI's has continued to rise contributing to the astronomical cost of healthcare affecting insurance companies, individuals, and providers. A vast number of studies have shown that almost 50% of women presenting with symptoms of uncomplicated UTI will recover spontaneously within one week without antibiotics (Knottnerus et al., 2013; Leydon, Turner, Smith, & Little, 2009). However, providers continue to treat patients with uncomplicated UTI's by prescribing antibiotics in spite of the recommendations from the current best practice guidelines.

**Statement of purpose:** A continuing education (CE) module targeting health care providers will provide the most current information about the proper treatment and management of uncomplicated UTI's in women, which will result in a decrease in the incidence and prevalence of antibiotic resistance.

**Literature review.** Research studies have shown an alarming increase in the rates of resistance against antibiotics that are commonly used to treat uncomplicated UTI's in women. Empiric treatment of uncomplicated UTI's has resulted in an increase in antibiotic resistance from 20% to 40% within the past decade in various regions of the United States (Ansbach, Dybus, and Bergeson, 2005). However, healthcare providers continue to prescribe a long-term course of antibiotic therapy for treatment of uncomplicated UTI's instead of adhering to EBP guidelines. A comprehensive literature review has shown that short-term course antibiotic therapy is just as effective as the traditional long-course therapy for treatment of uUTI's, and patients are more likely to complete the short-term course of treatment (Barclay, 2008; Kahan, Chinitz, & Kahan, 2004).

**Theory.** The development of this CE module will be based on concepts from Malcolm Knowles' Adult Learning Theory. Knowles believed that adults are responsible for their own learning and are motivated by their need to know and internal drive (Norrie & Dalby, 2007). The CE module will be a self-directed learning experience at a time and place that is convenient for the participant.

**Education module.** The goal of this CE module is to increase provider awareness regarding the appropriate use of antibiotics and length of therapy for the treatment of uUTI's in women in accordance with the latest EBP guidelines while reducing the risk of antibiotic resistance. The latest guidelines as set forth by the Infectious Disease Society of America (IDSA) in 2011 as well as the earlier 2008 guidelines

developed by the American College of Obstetrics and Gynecologists (Gupta, Hooton, Naber, Wullt, Colgan, Miller, Soper, 2010). A pre-test, post-test method will be used. A multiple choice questionnaire consisting of 10-questions will be used to assess and to evaluate current knowledge, awareness, and practice behaviors regarding the use of antibiotics for the treatment of uUTI's.

**Summary.** It is imperative the providers adhere closely to EBP guidelines for the proper management of uUTI's in women and they have a goal to minimize further development of antibiotic resistance. Increased adherence to EBP guidelines will reduce healthcare costs, decrease adverse reactions, minimize antibiotic use and ultimately impact the global issue of increasing antibiotic resistance.

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## Contact

[arcticfox002@yahoo.com](mailto:arcticfox002@yahoo.com)

## EBP PST 3 - Evidence-Based Practice Poster Session 3

### Multi-Faceted Approach to Increase Type 2 Diabetes Mellitus Screening in Children

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Grace Carla Bacani, RN, BS, USA  
Shelley Hawkins, PhD, DSN, MSN, USA  
Kathleen Helgesen, MSN, USA

#### Purpose

To disseminate effective strategies to increase type 2 diabetes screening in children.

#### Target Audience

Nurse practitioners and other health care providers.

#### Abstract

**Purpose/Aim:** The purpose of this evidence-based practice project is to increase type 2 diabetes mellitus (T2DM) screening in a pediatric primary care clinic.

**Background/Rationale:** The prevalence of pediatric T2DM continues to escalate, increasing from 9% in 1999 to 23% in 2008. Minimal, or absence of, screening leads to insufficient detection of the disease, increased diabetes exposure, and increased risks for long-term complications. Poor screening can be attributed to the lack of provider adherence to clinical practice guidelines (CPG), including diabetes screening guidelines. Computerized protocol sets, provider reminders, and patient cues have been shown to increase provider adherence to CPG. According to the American Diabetes Association (ADA), as many as 62% of children eligible are not screened. In the project facility, there was no screening protocol in use.

**Best Practice:** The purpose of this evidence-based practice project is to increase provider screening for T2DM by 10% at a pediatric primary care clinic in southern California. A multi-faceted approach was implemented, including the incorporation of a computerized T2DM screening protocol based on ADA guidelines into the electronic medical record system. Paper-based provider reminders on ADA screening criteria were also displayed in provider workspaces, while visual patient cues regarding screening eligibility were displayed in the waiting and patient rooms. The screening rates for T2DM based on ADA criteria were determined three months before and after implementation.

**Outcomes:** In progress. Upon completion of the project, it is anticipated there will be at least a 10% increase in provider screening for T2DM patients at the pediatric primary care clinic.

**Conclusions:** A multi-faceted approach should increase provider adherence to ADA guidelines for screening T2DM in children. Increased T2DM screening in children should increase detection of the disease, yielding greater opportunities for early interventions, and decreased morbidity and mortality in this increasingly susceptible population.

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#### Contact

[gbacani@sandiego.edu](mailto:gbacani@sandiego.edu)

# Part VI: Research Poster Presentations

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## RSC PST 1 - Research Posters Session 1

### Using the Job Demands-Resource Model to Decrease Burnout of Perioperative Nurse Managers

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*Theresa M. Criscitelli, RN, CNOR, USA*

#### Purpose

The purpose of this presentation is to improve the human and social conditions of the Perioperative Nurse Managers. Perioperative Nurse Managers lack the available resources to effectively cope with role demands on a daily basis. Lack of resources has led to decreased work engagement, job dissatisfaction, frustration, and ultimately attrition.

#### Target Audience

The target audience of this presentation is registered nurses, nurse managers, and nursing administration.

#### Abstract

**Purpose:** Perioperative Nurse Managers are an integral part of the administration of quality health care, performing an array of clinical, financial, and leadership roles. The focus of this research is to improve the human and social conditions of the Perioperative Nurse Managers. Perioperative Nurse Managers lack the available resources to effectively cope with role demands on a daily basis. Lack of resources has led to decreased work engagement, job dissatisfaction, frustration, and ultimately attrition. The Job Demands-Resource Model provides a conceptual framework to increase work engagement, motivation, and organizational outcomes.

**Methods:** A qualitative case study design was employed to investigate, from the perspective of Perioperative Nurse Managers, how to manage job demands and identify viable resources to increase motivation and prevent burnout. The sample consisted of ten Perioperative Nurse Managers who were interviewed utilizing a pre-established Nurse Manager Engagement Questionnaire (NMEQ) to better understand the experiences of this group of individuals. Data was transcribed and coded, using elements of the conceptual framework and research questions, to determine common themes to help implement new work and social strategies.

**Results:** Eight out of ten of the participants indicated a lack of formal leadership training, which was never provided in either their educational curricula or was limited within the institution. Other themes emerged including a lack of role clarity, being overtasked on a daily basis, and the desire for motivation through positive verbal feedback.

**Conclusion:** In order to prevent burnout of Perioperative Nurse Managers, roles need to clearly be delineated and appropriately delegated to decrease overtasking. Positive feedback from providers, patients, and staff members must be encouraged and embraced by upper administration to assist in motivating the Perioperative Nurse Managers. Formal and informal leadership training is an imperative aspect of professional development that must be fostered to increase motivation and work engagement, and prevent burnout.

#### Contact

[tcricitelli@winthrop.org](mailto:tcricitelli@winthrop.org)

## RSC PST 1 - Research Posters Session 1

### The Effectiveness of the Over 24 Hours Physical Restraint Indicators

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*YiChun Chen, RN, BS, Taiwan*

#### Purpose

To explore physical restraint rates in a hospital and to investigate the effectiveness of the intervention.

#### Target Audience

That different care should be taken to prevent interventions in physical restraints so as to improve quality of patient care.

#### Abstract

**Purpose:** A physical restraint is frequent initiatives in the hospital patients. However, there are a few studies on the indicators of physical restraint. The aim of this retrospective study was to explore physical restraint rates in a hospital and to investigate the effectiveness of the intervention. It is hoped that the over-24-hour physical restraints of patient can be reduced in long term.

**Methods:** We analyze the Physical Restraint Reporting System between January 2013 and July 2013 and extracted data of the prevalence of the over-24-hour physical restraint among inpatients to collect the over-24-hour physical restraint events. Physical restraint rates before and after the interventions were compared. The reasons for the over-24-hour physical restraints were summarized as follows. 1. Systemic problems: After the discharge, the constraint records were not deleted. 2. The clarification defined based on Taiwan Clinical Performance Indicator. 3. Utilization of Team Resource Management to discuss alternative restraint programs. 4. Continuous analysis of data and comparison with restraint rates and compared with the restraint time.

**Results:** The results revealed that the over-24-hour physical restraints rates were reduced from 41.29 percent to 13.73 percent.

**Conclusion:** The over-24-hour physical restraints is an important issue in a hospital setting. The results show that different care should be taken to prevent interventions in physical restraints so as to improve quality of patient care.

#### Contact

[yichun670307@yahoo.com.tw](mailto:yichun670307@yahoo.com.tw)

## RSC PST 1 - Research Posters Session 1

### The Correlations Between Meridian Energy and Nausea/Vomiting in Lung Cancer Patients Receiving Chemotherapy

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*Chi-Hsiang Shen, MSN, Taiwan*

*Li-Yu Yang, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to explore the correlations between meridian energy and nausea/vomiting in lung cancer patients receiving chemotherapy.

#### Target Audience

The target audience of this presentation is the lung cancer patients who had received at least one dose of Cisplatin (50-75mg/m<sup>2</sup>) and had experienced nausea/vomiting during chemotherapy.

#### Abstract

**Purpose:** This study is to explore the correlations between meridian energy and nausea/vomiting in lung cancer patients receiving chemotherapy.

**Methods:** A cross-sectional and correlational design was used. This study was reviewed and approved by the Institutional Review Boards (KMUH-IRB-20120114). The participants were a total of 70 lung cancer patients who had received at least one dose of Cisplatin (50-75mg/m<sup>2</sup>) and had experienced nausea/vomiting during chemotherapy from the chest medicine ward of a medical center located in Southern Taiwan. The research instruments, including a demographic data sheet, the Morrow Assessment of Nausea and Emesis, and the Meridian Energy Analysis Device, were used to collect and monitor participants' level of nausea/vomiting and changes in meridian energy.

**Results:** The Pericardium Meridian of Hand-Jueyin, Spleen Meridian of Foot-Taiyin, and Mean Meridian Energy values in lung cancer patients receiving chemotherapy ranged from 21.1 to 27.5 microamperes, which were relatively low as compared with the normal meridian energy values (20-60 microamperes). As for demographic characteristics, past history was negatively correlated with the energy of Pericardium Meridian of Hand-Jueyin on the left and right sides ( $r = -.28, p = .020$ ;  $r = -.27, p = .023$ , respectively), the energy of Spleen Meridian of Foot-Taiyin on the left and right sides ( $r = -.38, p = .001$ ;  $r = -.29, p = .013$ , respectively), and the Mean Meridian Energy ( $r = -.29, p = .012$ ). Chemotherapy course was negatively correlated with the energy of Pericardium Meridian of Hand-Jueyin on the right side ( $r = -.25, p = .038$ ) but positively correlated with the level of vomiting ( $r = .25, p = .036$ ). Experience of car-sickness or sea-sickness was negatively correlated with the level of nausea ( $r = -.25, p = .036$ ). However, no correlations were found between the level of nausea/vomiting and all meridian energy variables.

**Conclusion:** The results of this study found that, despite being within the normal range, the Pericardium Meridian of Hand-Jueyin, Spleen Meridian of Foot-Taiyin, and Mean Meridian Energy values in patients receiving chemotherapy were only slightly higher than the lower limit of normal range and were far lower than the median value of meridian energy. The low energy indicated that the Qi and blood status of lung cancer patients who received chemotherapy was weaker than that of healthy people. However, this study did not find direct correlations between the level of nausea/vomiting and the Pericardium Meridian of Hand-Jueyin, Spleen Meridian of Foot-Taiyin, and Mean Meridian Energy. The reason might be that these lung cancer patients have not yet experienced nausea/vomiting while having a low Mean Meridian Energy, so the correlations between nausea/vomiting and meridian energy could not be established. Therefore, this study could not directly infer whether chemotherapy-induced nausea/vomiting would affect the changes in the Pericardium Meridian of Hand-Jueyin, Spleen Meridian of Foot-Taiyin, and Mean Meridian Energy. Research on this aspect is scarce, so future research might be needed to address these issues.

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Contact

[850252@ms.kmu.org.tw](mailto:850252@ms.kmu.org.tw)

## RSC PST 1 - Research Posters Session 1

### The Survey for Nursing Management Behavior of Diabetes Liaison Nurses in Guangdong Province

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Peiru Zhou, RN, China

Xueyan Liu, RN, China

#### Purpose

The purpose of this presentation is nursing management behavior in Guangdong province through the questionnaire investigation of diabetes liaison nurses .

#### Target Audience

The target audience of this presentation is nursing managers and clinical nurses

#### Abstract

**Purpose:** To investigate work status quo related to diabetes care management of diabetes liaison nurses; Probe into effects of the related factors for diabetes liaison nurses management.

**Methods:** 426 cases of diabetes link nurses were cross-sectional surveyed by application of the management behavior scale.

**Results:** On average each item score of diabetes link nurse management behavior scales was  $3.63 \pm 0.54$ , the average item score of domain 2 "blood glucose monitoring and insulin injection management" ranked the first ( $3.98 \pm 0.76$ ) during all the dimensions. The item 5 "check the period of validity of blood glucose monitoring test paper in ward" scored the highest ( $4.10 \pm 0.90$ ), the item 4 "calculate hypoglycemic events of patients in ward" scored the lowest ( $3.05 \pm 1.16$ ).

**Conclusion:** the management work status quo of diabetes liaison nurse was not optimistic, fails to reach the management level "frequently" as a whole, the link nurse did blood glucose monitoring and insulin injection management better, they didn't pay much attention to hypoglycemic events of patients in ward relatively.

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#### Contact

[luzhmm@126.com](mailto:luzhmm@126.com)

## RSC PST 1 - Research Posters Session 1

### The Change of Meridian Energy and Symptoms Among the Breast Cancer Patients with Chemotherapy

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*Ping-Ho Chen, MD, MS, Taiwan*  
*Li-Yin Chien, ScD, Taiwan*  
*Chen-Jei Tai, MD, PhD, Taiwan*  
*Sheng-Miauh Huang, PhD, Taiwan*

#### Purpose

The primary purpose of the study was to describe the change of the meridian energy, symptom severity and interference among the patients with breast carcinoma receiving the chemotherapy. Also, the study explored the factors to predict the meridian energy.

#### Target Audience

The target audience of this presentation is the nurse who is interested in integrated and complementary medicine. Oncologic nurses are welcome to join the presentation.

#### Abstract

**Purpose:** There was rare study to evaluate the change of the meridian energy among breast cancer patients during chemotherapy. Therefore, the primary purpose of the study was to describe the change of the meridian energy, symptom severity and interference among the patients with breast carcinoma receiving the chemotherapy. Also, the study explored the factors to predict the meridian energy.

**Methods:** A longitudinal study was carried out with 121 patients at four teaching hospitals in the north of Taiwan. The researcher recruited the subjects from July 1<sup>st</sup>, 2009 to February 28<sup>th</sup>, 2011. The researcher collected data at the pre-treatment, and the 1st and 3rd month after the treatment. The meridian energy was examined by using the Meridian Energy Analysis Device Me-Pro. The symptom severity and interference was assessed by the M. D. Anderson Symptom Inventory-Taiwan version.

**Results:** As time went by, the patients had the worse overall meridian energy and symptom severity. Older women had lower overall meridian energy. The symptom severity is the strong factors to predict the deteriorated overall meridian energy. The patients who used traditional Chinese medicine had higher overall meridian energy and who used mind-body medicine had lower overall meridian energy.

**Conclusion:** The overall meridian energy and symptom severity among the patients still deteriorated during chemotherapy. TCM doctors should observe the change of the symptoms and give some treatments to alleviate the symptoms and even to ameliorate the meridian energy. Whether using traditional Chinese medicine could improve overall health or not is worth doing further studies.

#### Contact

[r910862@yahoo.com.tw](mailto:r910862@yahoo.com.tw)

## RSC PST 1 - Research Posters Session 1

### Factors Involved in Coping with the Dilemma of Using Physical Restraints on Elderly People with Dementia: Perspectives from Nurses Who Live with Elderly Relatives

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Miwa Yamamoto, RN, PhD, Japan  
Noriko Adachi, RN, PhD, Japan  
Naoko Nishimura, RN, PhD, Japan  
Yasuko Maekawa, RN, PhD, Japan  
Yoshimi Noguchi, RN, MS, Japan  
Tomoharu Nakashima, PhD, Japan

#### Purpose

The present study aimed to clarify factors surrounding the dilemma of using physical restraints on elderly patients with dementia. In particular, we surveyed how nurses who live with elderly relatives coped with this issue.

#### Target Audience

The target audience of this presentation is nurse.

#### Abstract

**Purpose:** In Japan, physical restraint of patients has been used in nursing care to ensure patient safety<sup>1-2)</sup>. However, in 2000, when public care insurance was implemented, a ministerial decree, entitled “Regulations prohibiting physical restraint” was enforced. This was passed by the Ministry of Health, Labour and Welfare, and legally prohibits the physical restraint of elderly patients in target institutions. Harmful effects due to physical restraint of patients have been verified by several studies<sup>3-5)</sup>, and the discontinuation of this practice has become a social trend (Ministry of Health, Labour and Welfare 2001). However, alternative measures or systems which might replace the use of physical restraint in nursing care for senile patients with dementia have not been established. As such, physical restraint is still used at institutions that are not covered by the decree, and nurses are left with mixed feelings regarding this dilemma<sup>6-8)</sup>. Specifically, nurses worry about how to provide the best care for their patients without compromising nursing conditions. One major component of this ethical dilemma concerns the often necessary use of physical restraint, and coping with this can be difficult<sup>9-10)</sup>. One study reported that coping with the dilemma of whether or not to use physical restraints on elderly individuals with dementia is influenced by one’s experience of living with an elderly person<sup>11)</sup>. Reflection on and clarification of the root causes of this ethical dilemma are not only important for developing ways to cope with this issue<sup>11)</sup>, but also represent an opportunity to examine how job satisfaction among nurses and quality of care might be improved. The present study aimed to clarify factors surrounding the dilemma of using physical restraints on elderly patients with dementia. In particular, we surveyed how nurses who live with elderly relatives coped with this issue.

**Subjects:** Perspectives on this dilemma differ by individual, and are affected by educational background, experiences both in nursing and in one’s own life, and by each individual’s value system<sup>11)</sup>. Subjects were selected using the purposive selection method<sup>12)</sup> at community hospitals in mid-western Japan. Selection criteria for hospitals required that they 1) contained an independent nursing division or department in the hospital under nursing management, 2) offered a postgraduate study or educational program for nurses, 3) provided similar employment conditions for all nurses who served as subjects for our study, and 4) served as a general hospital. Study objectives and methods were explained to individuals in charge of nursing at the 3 selected hospitals. We enrolled 269 nurses who worked in general wards of the 3 hospitals and who agreed to participate in the present study.

**Data collection and ethical considerations:** The study was performed using an independently prepared questionnaire. Study participants were informed of the study objectives, methods of questionnaire distribution and recovery, and addresses of the investigators in one of the following ways: 1) we distributed request sheets disclosing this information, or 2) investigators explained this information to the

individuals in charge of nursing at the hospital/ward at the time of the interview. Request sheets sent to individuals disclosed the definition of “physical restraint” and “elderly patients,” instructions on completing the questionnaire and the period of response, and the present study objectives. Investigator addresses were enclosed to help nurses better understand the study.

The questionnaire was designed to ensure subject privacy. Specifically, interviewees were allowed to complete the form themselves and remain anonymous. The questionnaire was constructed so that, when completed, it could be inserted in an envelope distributed in advance to the subjects who could seal it themselves. Subjects were asked to return the completed questionnaire in the sealed envelope to a designated place, roughly two weeks after distribution. Head nurses for the wards were asked to collect completed questionnaires in the sealed envelopes and return all of them together to those in charge of the study. This study was approved by the Ethics Committee of the Nursing Department of the Meiji University of Integrative Medicine.

**Extraction of dilemma coping items:** We developed a 16-item survey to assess dilemma coping items (Table 1). Coping with ethical dilemmas can be divided into the following three content areas: (i) positive cognition and actions (Items 1-9); (ii) negative cognition and actions (Items 12-16); and (iii) choosing not to act, or maintaining the status quo (Items 10-11). Each of the survey questions was based on a four-point Likert scale, with higher scores indicating good coping strategies. When faced with the dilemma of physically restraining an older person with dementia, we assumed that nurses used one of the three coping methods. “Positive cognition and actions” would involve a nurse solving a dilemma in a positive manner, with the intent to resolve the problem (e.g., some nurses held conferences to consult with experienced senior nurses about the issue of restraining patients). “Negative cognition and actions” would involve nurses avoiding the dilemma (e.g., some nurses either refused to work with patients with dementia, or reminded themselves that the patient would leave soon and therefore did not give careful thought to the situation). “Choosing not to act, or maintaining the status quo” involved nurses accepting the present situation and doing nothing to resolve the problem (e.g., some nurses who felt inexperienced with regard to dementia care thought it to be best to follow the doctor’s instructions without questioning the situation). A preliminary test was conducted among 10 nurses working in orthopedic surgery wards at community hospitals, and the results from this test were used to improve the questionnaire. Data obtained from the modified questionnaire were analyzed in the present study.

**Validity and reliability of dilemma factors:** Reliability of the constructed items within the dilemma was examined using a Cronbach’s  $\alpha$  coefficient of 0.6 or greater to test for internal consistency. Factor structure was confirmed following factor analysis (maximum likelihood method: promax rotation) for construct validity. Criteria for sample validity for the factor analysis targeted a KMO value of 0.6 or greater and a cumulative contribution ratio of 60% or more. Item exclusion was applied to a factor loading of 0.4 or greater without difficulty in interpretation.

**Adequacy of item selection and dilemma coping factors:** The 16 dilemma coping items were subjected to a factor analysis (maximum likelihood method: promax rotation) to clarify dilemma coping factors among nurses who live with elderly relatives. Items with either a factor loading of 0.4 or less or difficulty in interpretation were deleted, and the final remaining 14 items were used for analysis. We extracted four items with a characteristic value of one or greater, which yielded a significant KMO value of 0.79 and a cumulative contribution ratio of 66.8%. Cronbach’s  $\alpha$  coefficients for composing items of each factor were 0.87, 0.83, 0.60, and 0.68 for factors 1, 2, 3, and 4, respectively.

The same procedure as described above was performed for the 16 dilemma coping items among nurses who did not live with elderly relatives, which resulted in a total of 16 final items used in the analysis. Three items with a characteristic value of one or greater were extracted, revealing a significant KMO value of 0.78 and a cumulative contribution ratio of 56.8%. Cronbach’s  $\alpha$  coefficients for composing items of each factor were 0.84, 0.85 and 0.79 for factors 1, 2, and 3, respectively.

**Conclusion:** We extracted deferent factors with regard to the dilemma faced by nurses concerning the physical restraint of elderly patients. We found that exposure or living with elderly relatives influenced nurses’ coping with this dilemma.

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#### Contact

[tokiwa27@hotmail.com](mailto:tokiwa27@hotmail.com)

## RSC PST 1 - Research Posters Session 1

### Experiences of Nurses Working Night Shift in Regional Australian Hospitals: A Qualitative Case Study

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*Idona N. Powell, RN, RM, MHIthSc (Man), PGDipClinN (Psychiatry), Australia*

#### Purpose

To provide genuine recognition of the critical role of night nurses; to promote understanding by managers and non-nightshift nursing staff of the challenges and burdens endured by night staff nurses; and to identify strategies that have the potential to create positive change, improve worker satisfaction and patient care delivery.

#### Target Audience

nurse managers, non nightshift nurses and nightshift nurses working in acute 24hour care facilities.

#### Abstract

**Purpose:** The study aimed to explore experiences of nightshift nurses working in Australian regional hospitals focusing on their relationships with other nightshift nurses, non-nightshift staff and general work satisfaction issues. Study intention was to act as a catalyst to the development and implementation of strategies to create positive change for the nightshift nurses.

**Methods:** The study was conducted at three Australian regional hospitals. Data were derived from semi-structured interviews and participant diaries over a six month period in 2010. The participants were 14 nurses working nights half or more of their total shifts in medical or surgical wards. Thematic analysis of the data was undertaken.

**Results:** The major findings centered on four themes. **Work Relationships** demonstrated that positive relationships were more common with nurses on the same shift than on opposing shifts. **Work Environment** revealed nightshift nurses endured poorer working conditions in terms of physical and interpersonal interactions than their daytime counterparts. **Work Practices** showed nightshift provided opportunity for professional growth for some nurses but produced a slippage in skills for others. **Impact on lifestyle and perceptions of others** demonstrated nightshift provided nurses with flexibility for family and social activities yet impeded these same activities. The themes were influenced by perceived value and level of control held by the nurses.

**Conclusion:** Nightshift nurses had strong positive relationships with co-workers, but experienced disconnectedness with staff from other shifts and the facility in which they worked. They consider their role was highly critical yet believed they were poorly regarded. While the study took place in regional Australia it has implications for OEC and development member countries. The important areas of interpersonal relationships, effective leadership, work environment, clinical competencies and recognition of the critical role of night nurses must be used to inform future decisions that impact night shift nursing staff.

#### Contact

[dona.powell@ncahs.health.nsw.gov.au](mailto:dona.powell@ncahs.health.nsw.gov.au)

## RSC PST 1 - Research Posters Session 1

### Electronic Monitoring of Hand Hygiene: Challenges and Methods

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*Elaine Larson, RN, BSN, MA, PhD, USA*

*Bevin Cohen, BA, MPH, USA*

*Meghan Murray, BA, MPH, USA*

*Paul Alper, BA, USA*

*Lisa Saiman, BA, MPH, MD, USA*

*Laurie Conway, BSN, MSN, USA*

#### Purpose

The purpose of this presentation is to discuss implementation of an electronic hand hygiene monitoring system, including challenges and strategies.

#### Target Audience

The target audience for this presentation is clinicians, infection prevention and quality assurance staff, and clinical managers.

#### Abstract

**Purpose:** Because hand hygiene (HH) is one of the primary strategies to prevent infection transmission, many facilities are now monitoring staff HH behavior using direct observation. Observation, however, is costly and subject to multiple biases. Therefore, electronic monitoring of HH has been proposed as a feasible and potentially more accurate solution for tracking trends in HH practices and for providing staff with performance feedback. The purpose of this presentation is to discuss implementation of an electronic HH monitoring system, including challenges and strategies.

**Methods:** An electronic group monitoring system which counted number of HH events, but had no individual identifiers, was installed in all soap and alcohol dispensers in patient care areas of three pediatric long term care facilities (284 beds) and one acute care community hospital (140 beds) located in the United States. The system generates graphs and reports using various formats (locations, times). Researchers worked with administrative staff in each facility to develop implementation plans, determine how feedback would be provided to patient care staff, and track changes in HH rates. Reports were generated and sent to individuals selected by each facility. Report formats could also be changed by these individuals at each facility.

**Results:** Challenges during implementation of the system included addressing staff/administrator concerns about the validity and use of data, ensuring that feedback on HH reached patient care staff, and dealing with wide variations in implementation across sites. Administrators were inconsistent in disseminating the information; several months after installation, many staff members in some facilities were still unaware of the monitoring strategy and had received no feedback.

In the community hospital, when compared to HH frequency before staff feedback, frequency of HH for medical-surgical units, coronary care unit, and emergency department was slightly, but statistically significantly higher, after providing staff feedback (mean difference=4.9% compliance, SD 4.3,  $p=0.02$ ). In the pediatric long term care facilities, however, HH frequency 3 month prior to and 3 months following staff receipt of electronic HH feedback was not significantly changed (21,730 and 20,910 HH episodes, respectively).

**Conclusion:** Monitoring HH is performed in many facilities, but feedback alone is not sufficient to improve practice. Even with automated monitoring systems, well planned implementation strategies are essential to improve HH practice.

#### Contact

[ell23@columbia.edu](mailto:ell23@columbia.edu)

## RSC PST 1 - Research Posters Session 1

### A Comparative Study to Assess the Effectiveness of Structured Teaching Programme on Addiction Among Adolescents in Selected Schools of Salem District, Tamil Nadu State

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Umapathi Mariappan, PhD, Malaysia

#### Purpose

The purpose of this presentation is to highlight the adolescents addiction problem and importance of school based health education programmes to enhance the adolescents knowledge on addiction (tobacco) and in turn reduce the incidence of addiction among adolescents.

#### Target Audience

The target audience of this presentation is nurse educator, community health nurses, child health nurses, nurse researchers, nurse leaders and school health nurses.

#### Abstract

**Purpose:** This study aimed to assess the effectiveness of Structured Teaching Programme (STP) on Tobacco abuse among adolescents in selected schools of Salem District, Tamil Nadu State

**Methods:** Quantitative approach with one group pre test, post test quasi experimental design was adopted for this study. Multi stage cluster random sampling technique was used to select the study area and purposive sampling technique was used to select the sample (Rural n =200, Urban n=200). Adolescents between the age group of 15-17 years and who were studying 10<sup>th</sup> class in selected schools in rural and urban area of Salem district, Tamilnadu was selected. Tool used for this study was self administered structured questionnaire on tobacco abuse. On the first day, pre test was administered and the second day STP was intervened to the selected sample. After 10 working days, post test was conducted by using the same structured questionnaire. A formal permission was obtained from school authority and from the sample. Finally, the data obtained was analyzed by the SPSS 17 software using Descriptive & Inferential Statistics like Percentages, Mean, S.D. Mean Percentage, t-test, paired t-test and Chi-square test at a significant level of  $P \leq 0.05$

**Results:** Overall post test knowledge score on Tobacco abuse showed that, the majority of the sample had good knowledge (Urban 90.5% and Rural 88.5%). Results revealed that the urban school adolescents gained more knowledge than rural school adolescents. The STP implementation was effective and enriched the knowledge of adolescents on Tobacco abuse (Paired 't' value = Rural 70.591 and Urban 86.391;  $P < 0.000$ ).

**Conclusion:** Significant difference was identified between rural and urban school of adolescents on their knowledge level on Tobacco abuse. The results indicated the STP intervention was very effective in enhancing the knowledge level of adolescents on Tobacco abuse

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Contact

[umapathi79@yahoo.co.in](mailto:umapathi79@yahoo.co.in)

## RSC PST 1 - Research Posters Session 1

### Validity and Reliability of Thai Version of Self-Efficacy for Appropriate Medication Use Scale Among Thai with Post-Myocardial Infarction

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Rapin Polsook, PhD, Thailand

Yupin Aungsueroch, PhD, Thailand

Sureeporn Thanasilp, PhD, RN, Thailand

Joanne R. Duffy, PhD, USA

#### Purpose

The purpose of this study was to perform psychometric testing of an instrument for assessing self-efficacy for medication adherence among Thai post-myocardial infarction (MI) patients.

#### Target Audience

The Self-Efficacy for Appropriate Medication Use Scale (SEAMS) were collected from 100 Thai post-MI patients. The SEAMS may be used in the clinic to measure self-efficacy for medication adherence among Thai post-MI patients.

#### Abstract

**Purpose:** The purpose of this study was to translate the self-efficacy for appropriate medication use into Thai and then examine the validity and reliability of this version of questionnaire.

**Methods:** Responses to the 13-item Thai version of the Self-Efficacy for Appropriate Medication Use Scale (SEAMS) were collected from 100 Thai post-MI patients. None of the 13 items violated any assumption for factor analysis. Hypothetical exemplifying and factor analysis were performed.

**Results:** Factor analysis revealed three components for determining the self-efficacy for medication adherence: the patient's self-confidence (six items), complexity of medication (four items), and daily life change (three items). The instrument showed acceptable validity and reliability.

**Conclusion:** The SEAMS may be used in the clinic to measure self-efficacy for medication adherence among Thai post-MI patients.

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### Contact

[rapin.p@chula.ac.th](mailto:rapin.p@chula.ac.th)

## RSC PST 1 - Research Posters Session 1

### Outcomes and Medical Utilization for Lung Cancer Patients Undergoing Surgery

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Shu-Ling Phom, NP, Taiwan  
Yao Fong, MD, Taiwan

#### Purpose

The purpose of the study to Investigate the efficacy of lung cancer patients undergoing surgery and medical impact factor.

#### Target Audience

clinicians, pharmacists, nurses, physician assistants, and other allied health professionals, health policy makers, researchers, health educators, and public and community health leaders.

#### Abstract

**Purpose:** Lung cancer belongs to the top ten death causes, ranking the second position. There were few systemic studies focus on the operation and medical resources for the patients. The purpose of the study was to evaluate the impact factors such as in-hospital days and the using of the medical facilities after 6-month discharge from the hospital for the lung cancer patient who underwent the surgical intervention. We also examined the factors which influence the mid-term and long-term follow up for the patients.

**Methods:** This was a retrospective study involving a single medical center in southern Taiwan. Between Jan 2008 to Dec 2012, we collected the primary lung cancer patients receiving the first surgical intervention. Data analysis was divided to two parts, chart review and the data base from our ministry of health. Dichotomous variables were evaluated

with 2 analysis to define various patient groups contributing significantly to in-hospital mortality. Risk factors were determined using univariate analysis. Only those variables that reached  $p < 0.05$  were considered for the model. Once we identified these potential risk factors, a multivariate stepwise logistic regression analysis was done to identify independent predictors. Statistical significance was set at  $p < 0.05$ . SPSS 19.0 (SPSS Inc., Chicago, IL, USA) was used for all statistical analysis Only those variables that reached  $p < 0.05$  were considered for the model.

**Results:** There were 207 patients enrolled in our study with an average of 63.1 years old, male dominant (58.1%), adenocarcinoma dominant (57%), complication rate of 45.4%. Operation methods were thoracoscopy dominant (79.1%) and lung lobectomy dominant (47.8%). Average operation time and in-hospital days were 322 mins and 15.5 days, respectively. Recurrence rate was 26.6%. Different operation methods were highly influenced to different results. The complication rate had statistically significance to operation time, in-hospital days and chest tube time. Different operation methods were related to in-hospital days, blood loss amount, ICU days and chest tube time. Gender, severity of the diseases, lung function, different operation had relationship to in-hospital days. Mortality was influenced by the degree of lung obstruction, recurrence, ICU days, chest tube time, in-hospital days and operation methods.

**Conclusion:** Different operations lead to different results. Gender, the severity of diseases, lung function, operation methods have effects on using the medical resources. We recommended precise evaluation of age, physical status, operation methods for patients in order to reducing the operative complications and the wasting the medical resources. With the developments of medical technology, we believe the results may provide some suggestions to the policy maker and medical service provider.

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## Contact

[r3627388@yahoo.com.tw](mailto:r3627388@yahoo.com.tw)

## RSC PST 1 - Research Posters Session 1

### Application of Propensity Scores to Estimate the Association Between Cardiovascular Disease and Meridian Energy

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*Ping-Ho Chen, MD, MS, Taiwan*

*Chen-Jei Tai, MD, PhD, Taiwan*

*Li-Yin Chien, ScD, Taiwan*

*Sheng-Miauh Huang, PhD, Taiwan*

#### Purpose

This paper reports a study to describe the physiological indicators and the meridian energy among adult people. Also, the study explored the net impact of cardiovascular disease on yin, yang, and overall meridian energy.

#### Target Audience

The target audience of this presentation is the nurse who is interested in traditional Chinese medicine. Nurses at cardiovascular department are welcome to join the presentation.

#### Abstract

**Background:** According to the theories of Traditional Chinese Medicine (TCM), the physiological and pathological changes of the internal organs are presented on the external manifestation through meridian energy. But no documentation is available which shows the actual impact of cardiovascular disease (CVD) on meridian energy.

**Purpose:** This paper reports a study to describe the physiological indicators and the meridian energy among adult people. Also, the study explored the net impact of CVD on yin, yang, and overall meridian energy.

**Methods:** A health examination data at a university hospital in Taipei from 1<sup>st</sup> August 2005 through 31<sup>st</sup> December 2011 was used for the present study. Adult participants who accepted physiological and meridian energy examination at the same day were enrolled. The physiological examination was the blood-test and diagnosis data from the medical charts. Meridian energy was examined using a meridian energy analysis device. Linear regression was calculated to compare the differences of meridian energy between with and without CVD group, giving adjusted the propensity score.

**Results:** The mean meridian energy of 2,875 adult participants was 24.5 (SD =18.1). Eighty six participants (2.99%) had actual cardiovascular disease. The regression model showed current cardiovascular disease was negatively associated yin, yang, and overall meridian energy (overall: adjusted  $\beta = -6.03$ , 95% CI:-9.95 to -0.21; yin: adjusted  $\beta = -6.16$ , 95% CI:-10.35 to -1.97; yang: adjusted  $\beta = -5.89$ , 95% CI:-9.67 to -2.12).

**Conclusion:** The results of this study demonstrated that the cardiovascular disease was related to lower meridian energy. Whether enhancing meridian energy could improve cardiovascular function merits further studies.

#### Contact

[hodazen@gmail.com](mailto:hodazen@gmail.com)

## RSC PST 1 - Research Posters Session 1

### The Discrimination of Screen Pre-Frailty for Community-Dwelling Elderly People

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Shu-Fang Chang, PhD, Taiwan

#### Purpose

The purpose of this presentation is to analyze the risk factors and cut-off point of a short battery of physical performance tests for identifying community-dwelling elderly people with pre-frailty.

#### Target Audience

The target audience of this presentation is suit for all participates.

#### Abstract

**Purpose:** The purpose of this presentation is to analyze the risk factors and cut-off point of a short battery of physical performance tests for identifying community-dwelling elderly people with pre-frailty.

**Methods:** A short battery of physical performance tests was employed at community activity center to assess the following characteristics among elderly people: balance, mobility, and flexibility. Instructions were provided to participants by demonstration.

**Results:** Logistic regression analysis indicated that four indicators were significantly correlated to pre-frailty, that is, pre-frailty included falls in the previous year (OR = 3.05, 95% CI of OR = 1.46 – 6.38), smoking (OR = 3.22, 95% CI of OR = 1.40 – 7.38), hypertension (OR = 2.21, 95% CI of OR = 1.16 – 4.21) and bone and joint disease (OR = 8.96, 95% CI of OR = 3.05 – 26.30) (Tables 3). Furthermore, according to the logistic regression analysis results, three of the mentioned tests could significantly predict pre-frailty, namely, right-hand grip (OR = 0.96, 95% CI of OR = 1.92 – 1.99), left-hand grip (OR = 0.92, 95% CI of OR = 1.87 – 1.97), and the 8-foot up-and-go test (OR = 1.15, 95% CI of OR = 1.04 – 1.27). The results indicate that grip and 8-foot up-and-go are effective independent predictors for

**Conclusion:** To the best of our knowledge, this study is the first academic examination of the cut-off points for objective physiological indicators assessing pre-frailty among elderly Asian people. Although this study focuses on community-dwelling elderly people in East Asian countries, research investigating the diagnosis methods, sensitivity, specificity, NPV, and PPV of screening methods for pre-frailty are scarce. Furthermore, in this study, pre-frailty is determined according to an established and validated index

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#### Contact

[linda@ntunhs.edu.tw](mailto:linda@ntunhs.edu.tw)

## RSC PST 1 - Research Posters Session 1

### The Effects of Psychological Nursing Intervention Program on Psychological Distress and Quality of Life in Women with Breast Cancer Undergoing Chemotherapy

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*Yeon Hee Kim, PhD, RN, South Korea*  
*Kyung Sook Choi, PhD, RN, South Korea*

#### Purpose

The purpose of this study was to develop a psychological nursing intervention program and evaluate the effect on psychological distress and quality of life for women breast cancer patients undergoing chemotherapy.

#### Target Audience

The target audience of this presentation is clinical nurses and academic nursing professor

#### Abstract

**Purpose:** The purpose of this study was to develop a psychological nursing intervention program and evaluate the effect on psychological distress and quality of life for women breast cancer patients undergoing chemotherapy.

**Methods:** The research design was pre and post randomized controlled trials. Development of the psychological nursing intervention program proceeded as follows:

(1) The program was based on the guideline of psychological intervention proposed by Fawzy(1996), focusing on chemotherapy symptom management education, coping skill for negative emotion while treatment process, and emotional support: body image, self concept, stress coping, expressing fear of cancer recurrence, how to overcome difficulty in personal relation, utilization of social resource, sharing experience related to sexual life, and self acceptance etc.

This program was structured to express their feelings and provide emotional support.

The program consisted eight 30~60 minute sessions over the weekly counseling with face to face counsel combined with telephone counsel.

(2) The psychological nursing intervention program was finalized after expert group validation of structure, formation, and content.

To evaluate the effect of the intervention, the high risk group for depression was sampled among women breast cancer patients scheduled chemotherapy at outpatient clinic, a tertiary hospital. A total of 44 participants were recruited and allocated to an experimental group and a control group.

The effect of the program was evaluated by measuring psychological distress such as mood, anxiety, and depression and quality of life.

The data were analyzed using SPSS program for descriptive statistics, independent t-test, x2-test, Fisher's exact test, and RM-ANOVA.

**Results:** The results of this study are as follows:

1. Hypothesis 1: "The experimental group which participated in the program will show lower psychological distress than the control group."

1) Hypothesis 1-1: "The experimental group which participated in the program will show more improved mood than the control group." was supported ( $F=7.290$ ,  $p=0.003$ ).

2) Hypothesis 1-2: "The experimental group which participated in the program will show lower anxiety level than the control group." was supported ( $F=7.770$ ,  $p=0.002$ ).

3) Hypothesis 1-3: "The experimental group which participated in the program will show lower depression level than the control group." was supported ( $F=11.921$ ,  $p=0.000$ ).

2. Hypothesis 2: "The experimental group which participated in the program will show higher quality of life than the control group." was not supported ( $F=1.144$ ,  $p=0.313$ ).

**Conclusion:** this psychological nursing intervention program for women breast cancer undergoing chemotherapy was effective for reducing psychological distress and improving quality of life in some domain. The program will reduce psychological distress for breast cancer patients undergoing one more therapy and enable them to improve long term survival rate as well as to improve their quality of life. More psychological intervention programs will be needed.

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#### Contact

[kimyhee@amc.seoul.kr](mailto:kimyhee@amc.seoul.kr)

## RSC PST 1 - Research Posters Session 1

### A Comparative Analysis of Nursing Students' Knowledge, Attitude, Perception and Self-Efficacy of Child Abuse and Neglect Cases in the Cross-National Research

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Pei-Yu Lee, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is to survey and investigate the knowledge, attitude, perception and self-efficacy for nursing students of universities in different countries and cultures.

#### Target Audience

The target audience of this presentation is university nursing students.

#### Abstract

**Purpose:** To conduct a cross-national research on the current situation of the nursing students' knowledge, attitude, perception and self-efficacy on child abuse and neglect through structured questionnaires and to analyze the similarities and differences in the findings in different countries.

**Methods:** A cross-sectional and convenient sampling was used and recruited 200 participants from Taiwan & Australia's nursing schools. The participants must conform to the following criteria: (1) should be undergraduate nursing students; (2) with clinical practice experiences; (3) understand the purpose and methods of this research and are willing to participate in this research.

**Expected Results:** Tsai & Wang (2009) pointed out that health care professionals should expose themselves to ethnic groups with different cultural backgrounds in order to respect and use a non-judgmental attitude in understanding different culture's ethnic values, beliefs and behaviors to propose cultural appropriate care services. The author hopes to understand the education on child abuse issues for nursing students in Eastern and Western countries through the results of this study to promote different cultural self-awareness of nursing students and to cultivate cultural sensitivity to develop international and global perspectives for nursing education in child abuse issues.

**Conclusion:** ongoing work study.

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#### Contact

[pt363@fy.edu.tw](mailto:pt363@fy.edu.tw)

## RSC PST 1 - Research Posters Session 1

### The Effect of the Burnout on the Negative and Positive Automatic Thought in a Japanese Nurse

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*Takashi Ohue, RN, PhD, Japan*

*Michiko Moriyama, RN, PhD, Japan*

*Takashi Nakaya, PhD, Japan*

#### Purpose

The purpose of this study is to examine the effect on a burnout of the negative automatic thought and positive automatic thought in a nurse, and to consider effective cognitive approach.

#### Target Audience

The purpose of this study is to examine the effect on a burnout of the negative automatic thought and positive automatic thought in a nurse, and to consider effective cognitive approach.

#### Abstract

**Purpose:** The purpose of this study is to examine the effect on a burnout of the negative automatic thought and positive automatic thought in a nurse, and to consider effective cognitive approach.

**Methods:** A total of 336 nurses (27 males and 309 females) who worked at 5 acute-care hospitals were asked to complete a questionnaire that was designed to determine the status of burnout (Maslach Burnout Inventory:MBI) and automatic thoughts (Automatic Thoughts Questionnaire-Revised).

**Ethical considerations:** The protocol of this study was approved by the Hiroshima University Ethics Committee, Japan. The objectives and procedures were explained in writing to the participants.

**Results:** First, in order to examine the effect by the combination of negative automatic thought and positive automatic thought, We considered "negative evaluation of the future" and "self-blame" as negative automatic thought and positive automatic thought, classified into the low group high group using the median about each of subscale, and conducted two-way ANOVA which make these groups a factor every three subscale of a burnout. The results revealed a significant interaction for "emotional exhaustion" ( $p < 0.05$ ). Namely, it was confirmed that the higher the score for negative automatic thoughts, and the lower the score for positive automatic thoughts, the higher the score for emotional exhaustion. In relation to "depersonalization" and "personal accomplishment", although there was no significant interaction, a significant difference was found for the main effect. In order to examine a concrete factor affecting, We conducted multiple regression analysis. As a result, in "emotional exhaustion", and "depersonalization", "negative evaluation of the future" showed positive relationship and showed negative relationship by "positive automatic thought." Moreover, in the "personal accomplishment", "positive automatic thought" showed positive relationship.

**Conclusion:** That is, in decrease in a burnout, while putting power into decreasing "negative automatic thought", it is necessary to increase "positive automatic thought." It was suggested especially that decrease of "negative evaluation of the future" and the intervention in "'positive automatic thought" are important. This was mostly in agreement also with the result of Kendall (1992), and a possibility that this method could reduce "emotional exhaustion" used as the key point of a burnout was suggested.

#### Contact

[ohue@hyogo-dai.ac.jp](mailto:ohue@hyogo-dai.ac.jp)

## RSC PST 1 - Research Posters Session 1

### Too Anxious to Learn?: Should the Ongoing Debriefing Technique be Amongst the Best Practices in Simulation?

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Marc E. Code, CRNA, BS, MSN, USA

#### Purpose

The purpose of this poster presentation is to demonstrate benefit of the Ongoing Simulation Debriefing Technique on lowering anxiety levels amongst those participating in simulation activities.

#### Target Audience

The target audience of this presentation is educators who integrate simulation based learning into courses.

#### Abstract

**Purpose:** The aim of this paper is to demonstrate benefit of the Ongoing Simulation Debriefing Technique on lowering anxiety levels amongst those participating in simulation activities.

**Methods:** After IRB approval, the pre-simulation/post-simulation anxiety levels were evaluated in first year nurse anesthesia students (n=26) in three different scenarios using State Trait Anxiety Inventory (STAI). Students were divided into two groups - Control group (End Debriefing) and Experimental group (Ongoing Simulation Debriefing Technique). Both groups were exposed to identical simulations of increasing scenario complexity with the last scenario being the most difficult and complex (pediatric induction). Students were asked to complete a questionnaire both pre/post simulation. The data were collected from 2012 to 2013.

**Results:** A quasi-experimental design was used to collect research data and analyzed for validity and significance utilizing SPSS and T-test analysis. The anxiety levels were reduced in both control and experimental groups post simulation as compared to their pre simulation values as evident by STAI scores. The overall mean STAI scores were reduced by 15.21 and 21.81 percentage points, respectively, in control and experimental groups. The difference between means was statistically significant ( $P < 0.001$ ). Students' perception of confidence and satisfaction was measured on a 5-point Likert scale. Students demonstrated more confidence and satisfaction in the control group than the experimental group in cardiovascular emergencies while in respiratory and pediatric simulations the experimental group demonstrated more confidence and satisfaction. In the most difficult and complex of the three scenarios, the pediatric emergencies, the experimental group showed the most dramatic increase in confidence and satisfaction while the control group showed a decline.

**Conclusion:** Ongoing Simulation Debriefing Technique reduces stress and anxiety levels generated by simulation more than when using the End-Debriefing Technique. The Ongoing Simulation Debriefing Technique creates a safer learning environment in which students can maximize their learning potential. This technique should be considered as a best practice for Simulation Based Learning with adults. This method has shown to exhibit more confidence in students but more research is needed to determine its implications on performance in the clinical setting.

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## Contact

[mcode@samuelmerritt.edu](mailto:mcode@samuelmerritt.edu)

## RSC PST 1 - Research Posters Session 1

### A Correlational Study in Older Adults with Metabolic Syndrome

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Yi-Lin Su, RN, Taiwan

#### Purpose

The purpose of this presentation is to investigate the correlated factors of elderly people with metabolic syndrome.

#### Target Audience

The target audience of this presentation is Clinical team.

#### Abstract

**Purpose:** To investigate the correlated factors of elderly people with metabolic syndrome.

**Methods:** The method was based on cross-sectional survey and convenient sampling. Data were collected through a structured questionnaire assessing personal information, disease related information, health promotion lifestyle and perceived health status of each respondent. The respondents were selected from elderly people who took a health exam in a regional hospital in Taipei City in 2010 and elderly people who needed to visit the hospital for follow-up assessment or treatment of metabolic syndrome.

**Results:** Two hundred and twenty questionnaires were distributed, and 184 valid responses were returned, resulting in a response rate of 83.6%. In health promotion lifestyle, the group of respondents without metabolic syndrome scored significantly higher than the group of respondents with metabolic syndrome ( $t=-2.06, p=.04$ ). Respondents who were married, on a job, with a senior high or higher education level, and without hospitalization in recent one year scored significantly higher on health promotion lifestyle. Health promotion lifestyle was significantly and negatively correlated with age, total number of metabolic syndrome risk factors, total number of chronic disease, and was significantly and positively correlated with perceived health status. The univariate logistic regression analysis showed education level ( $OR=2.21, 95\% CI=1.24-4.30, p=.00$ ) and health promotion lifestyle ( $OR=.99, 95\% CI=.95-1.02, p=.04$ ) were significant predictors of metabolic syndrome.

**Conclusion:** For elderly people, especially for those who were less educated, more effort should be made to enhance their abilities to maintain their own health and well-being through health promotional lifestyles

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#### Contact

[r97426018@ntu.edu.tw](mailto:r97426018@ntu.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Mental Health Nurses' Attitudes Toward Self-Harm: Curricular Implications of a Qualitative Study

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*Peter Thomas Sandy, RMN, BSc (Hons), PGCertED, PGDipED, MSc, PhD, South Africa*  
*Azwihangwisi Mavhandu-Mudzusi, PhD, RN, RM, South Africa*

#### Purpose

The purpose of this presentation is to: 1) illustrate attitudes of nurses toward service users who self-harm in secure environments. 2) discuss a conceptual model that will inform curriculum innovation at both under- and post-graduate levels

#### Target Audience

The target audience of this presentation includes all mental health practitioners, including mental health nurses and academics of health related subjects

#### Abstract

**Purpose:** The purpose of the study was to examine the attitudes of nurses toward service users who self-harm in secure environments. The educational implications arising from this study form the focus of this paper.

**Methods:** A qualitative multi-method approach was adopted, underpinned by interpretive phenomenology. The setting was a large secure mental health unit to the west of London in the United Kingdom. Data were obtained from mental health nurses using individual interviews and focus groups.

**Results:** Nurses vary in their attitudes towards self-harm but mainly hold negative ones, usually related to limited knowledge and skills in this area. The results of the study, informed by the Theory of Planned Behaviour, led to the development of a model entitled Factors Affecting Self-Harming Behaviours (FASH).

**Conclusion:** The FASH Model, which captures the results of this study, is intended to inform future curriculum innovation at both under- and post-graduate levels. It is argued that only by adopting a holistic approach to education about self-harm can attitudes and skills be developed to make care provision more effective in secure mental health settings.

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#### Contact

[mmudza@unisa.ac.za](mailto:mmudza@unisa.ac.za)

## RSC PST 1 - Research Posters Session 1

### Exploration of the Role of Gastroesophageal Reflux Disease in Chronic Obstructive Pulmonary Disease Patients: A Nationwide Population-Based Cohort Study

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*Yu-Huei Lin, MS, Taiwan*

*Chii Jeng, PhD, Taiwan*

#### Purpose

This study aimed to investigate whether GERD is associated with an increased risk of severe acute exacerbation of COPD (AECOPD) by analyzing a nationwide health care database.

#### Target Audience

The target audience of this presentation are clinical practitioners and academic researchers.

#### Abstract

**Purpose:** To investigate whether GERD is associated with an increased risk of severe acute exacerbation of COPD (AECOPD) by analyzing a nationwide health care database.

**Methods:** This study employed a population-based retrospective cohort design. We conducted propensity score method with 1:2 matching. In this study we analyzed 1,976 COPD subjects with GERD and 3,943 COPD subjects as a comparison group. We individually tracked each subject in this study for 12 months and identified those subjects who experienced episodes of severe AECOPD required hospitalization or emergency department visit. The cumulative incidence of AECOPD was estimated using the Kaplan-Meier method to analyze the difference between two groups. Hazard ratios (HR) were calculated using Cox proportional hazards regression analysis.

**Results:** The incidence of severe AECOPD was 3.40 and 2.34 per 1,000 person-months in individuals with and without GERD, respectively ( $P=0.0137$ ). Following adjustment for sex, age, ischemic heart disease, heart failure, atrial fibrillation, hypertension, osteoporosis, anxiety, diabetes mellitus, angina, stroke, anemia, dementia, occupational category, monthly insurance premium, Cox regression analysis revealed that GERD was associated with severe AECOPD (HR=1.45, 95% CI=1.07 ~ 1.95).

**Conclusion:** This study demonstrated that GERD is an independent risk factor for severe AECOPD. Caution should be exercised in COPD patients when assessing GERD symptoms in clinical practice.

#### Contact

[grace.yuhuei@gmail.com](mailto:grace.yuhuei@gmail.com)

## RSC PST 1 - Research Posters Session 1

### The Influence of Clinical Placements on Final Grades in an Undergraduate Nursing Course: A Comparative Study

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*Kath Peters, RN, BN (Hons), PhD, Australia*

*Judy Mannix, RN, BEd (Nsg), MN (Hons), Australia*

#### Purpose

The purpose of this presentation is to report the effects on nursing student academic performance of deferred clinical placements, outside scheduled teaching sessions. Increasing nursing student enrolments in undergraduate pre-registration courses, clinical workforce pressures, and changes to health service structures have resulted in more students attending clinical placements.

#### Target Audience

The target audience of this presentation is nursing faculty involved in the planning and delivery of undergraduate nursing curricula, clinicians involved in clinical teaching, and health administrators responsible for determining the allocation of clinical placements for nursing students in undergraduate programs.

#### Abstract

**Purpose:** The purpose of this presentation is to report the effects on nursing student academic performance of deferred clinical placements, outside scheduled teaching sessions. Increasing nursing student enrolments in undergraduate pre-registration courses, clinical workforce pressures, and changes to health service structures have resulted in more students attending clinical placements.

**Methods:** Within a Bachelor of Nursing (BN) degree six subjects involving a graded clinical placement component were identified and included in the study. In all subjects, a proportion of enrolled students were routinely allocated a deferred clinical placement. Following ethics approval all student results from the six identified subjects offered in one calendar year were extracted from existing university data bases. These results included overall final grades and associated components, including theoretical grades, Objective Simulated Clinical Assessment (OSCA) results and clinical practicum evaluations. Once collected, all data were de-identified. In all, over 5500 individual student results from across the 3 years of the BN course were included in the data-set. Comparative analysis was undertaken to compare individual academic performance against the timing of clinical practicum.

**Results:** Within the overall data-set more than 40% of all students were allocated a deferred clinical in at least one subject. The overwhelming majority of deferred clinical placements occurred immediately after finalisation of all theoretical and OSCA results. Overall, students who completed their clinical practicum as scheduled during teaching sessions achieved higher academic results than those who were allocated a deferred clinical placement. For those students who experienced a deferred clinical placement for one of their two clinical subjects during a single teaching session, academic performance was indicative of the timing of clinical placement.

**Conclusion:** The results from this study reinforce the importance of clinical placement for undergraduate nursing students. Being able to integrate theoretical knowledge and an actual clinical practice context, within a nursing course, has been reflected in the academic performance of nursing students across a 3 year pre-registration course. Results from this study support the importance of praxis in the practice based discipline of nursing. It is imperative for providers of undergraduate pre-registration nurse education to ensure students undertake clinical placements when planned in a program of study.

#### Contact

[j.mannix@uws.edu.au](mailto:j.mannix@uws.edu.au)

## RSC PST 1 - Research Posters Session 1

### The Experiences of Stigma As Described by Taiwanese People Living with Schizophrenia

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*Yu-Hui Ku, RN, BSN, Taiwan*  
*Rei-Mei Hong, RN, PhD, Taiwan*  
*Ji-An Su, MD, MS, Taiwan*

#### Purpose

The purpose of this presentation is to investigate the experience of stigma as described by Taiwanese people living with schizophrenia and understand the interaction between patient and sociality.

#### Target Audience

The target audience of this presentation is for psychiatric nurses, health professional and public health nurses.

#### Abstract

**Purpose:** People with schizophrenia have chronic and regressive features which make patients remain partial residual symptoms even if patients have received regularly medication treatment. These symptoms not only cause discrimination and stigma but also influence patients' psychology, marriage, interpersonal relationship, and occupation. For Chinese people, stigma may be much more serious and particularly significant than Western people because of social culture and family structure. The purpose of this study is to investigate the experience of stigma as described by Taiwanese people living with schizophrenia and understand the interaction between patient and sociality.

**Methods:** 12 people with schizophrenia at psychiatric day care in south Taiwan were recruited. Each participant investigated with 25-item Psychiatric Stigma Scale and twice in-depth 40-minute interviews.

**Results:** The average score of Psychiatric Stigma Scale was lower in people with schizophrenia. This meant that people with schizophrenia felt they seldomly had experiences of stigma. A narrative qualitative approach to inquiry formed the theoretical framework. Four core categories were explicated from the analysis of data: feeling isolation, caught in a dilemma, seeking religion, family desire.

**Conclusion:** The findings could not only help psychiatric professional understood the experiences of stigma, but also provide timely interventions to reduce the phenomenon of stigma in our society.

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#### Contact

[elevenqu@gmail.com](mailto:elevenqu@gmail.com)

## RSC PST 1 - Research Posters Session 1

### The Development of Cultural-Specific Caregiver Telephone Coaching Program to Improve Heart Failure (HF) Home Care

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*Ubolrat Piamjariyakul, PhD, RN, USA*

*Carol E. Smith, PhD, FAAN, RN, USA*

#### Purpose

to use qualitative data from patients, family caregivers, and professionals experienced in HF care and national clinical guidelines to guide the development of cultural-specific caregiver telephone coaching program (FamHFcare). Coaching and teach-back strategies were used throughout.

#### Target Audience

clinical nurses, nurse researchers who involved in heart failure home care management.

#### Abstract

**Background:** The significance of this study is related to the prevalence of HF in African Americans at younger ages, with earlier severe complications and mortality. In addition, the economic burden of HF affects these populations greatly. Ethnic-specific needs must be identified to help patients and family caregivers. Thus, a program to provide African American caregivers with skills to improve HF home care, reduce patient rehospitalization costs, and prevent caregiver burden is critically needed.

**Purpose:** Qualitative data from patients, family caregivers, and professionals experienced in HF care and national clinical guidelines were used to guide the development of cultural-specific caregiver telephone coaching program (FamHFcare). Coaching and teach-back strategies were used throughout.

**Methods:** The University Medical Center Institutional Review Board approved the study. FamHFcare program was developed from qualitative data, feasibility study, and using national clinical guidelines HF home care management contents as a guide. The project was completed in two interrelated phases: (1) conducted qualitative community based participatory study (n=30) to identify cultural-specific preferences of African American families managing HF at home; and (2) current African American feasibility study funded by Blue Cross Blue Shield (n=10 caregivers).

**Results:** The program was nurse-led and conducted in 5 telephone coaching sessions. Each coaching session includes information about HF management related to specific cultural strengths and challenges. Since African Americans have multiple family caregivers who want to help (but may not know how to), the nurse coach helps the family coordinate arrangement for transportation, chores, and support telephone contacts and easy-to-follow daily home care routines. The materials on dietary sodium management have been modified for cultural preferences in common African American diets. Applications for reduced-cost drug programs are completed. Coaching is given on comorbid symptom recognition, and dietary and physical activity instructions per physicians and national core HF measures guides. Visuals for assessing cyanosis and edema in darker skinned individuals are used. The nurse helps patients and caregivers practice monitoring and timely reporting of HF symptoms to professionals. As a reinforcement for cementing the FamHFcare information each caregiver is asked to "teach back" to the nurse what was learned in each session. The results from the current comparison study (n=10) indicates that there was a 24.5% improvement in the caregivers' HF knowledge, symptom monitoring and reporting in week two following the coaching session. Further, following the second session there was only one caregiver requiring educational reinforcement in week two.

**Conclusion:** This project described critical steps in developing cultural-specific caregiver telephone coaching program. The coaching program was evaluated as helpful in problem-solving HF related home care challenges.

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### Contact

[upiamjariyakul@kumc.edu](mailto:upiamjariyakul@kumc.edu)

## RSC PST 1 - Research Posters Session 1

### Pilot Study to Describe the Substance Use Experiences of HIV-Positive Young Black Men Who Have Sex with Men (MSM) Between the Ages of 18-29 in San Francisco

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Austin Nation, RN, PHN, MSN, USA

#### Purpose

The purpose of this presentation is to offer insight about the range of factors and enhance our understanding about the role that substance use plays in the lives of HIV-positive young Black MSM.

#### Target Audience

The target audience of this presentation is clinicians and researchers in all academic and practice settings who will encounter HIV-positive young Black men with substance use issues.

#### Abstract

**Purpose:** The prevalence of HIV among young Black men who have sex with men (MSM) is three to four times higher than white MSM. Young black MSM are run-aways and homeless, forcing them to survive on the streets by becoming sex workers, engaging in unprotected anal intercourse because either they or their partner is under the influence of drugs or alcohol. Previous studies cite crack cocaine use, sex while high on crack cocaine, marijuana and alcohol, or sharing needles for injection drugs as strongly associated with HIV infection among young black MSM. The purpose of this presentation is to identify contributing risk factors for acquiring HIV/AIDS among young Black MSM as well as describe and explain the significance of substance use among this population

**Methods:** This qualitative study is to offer insight about the range of factors and enhance our understanding about the role that substance use plays in the lives of HIV-positive young Black MSM. Surprisingly, the results of this study do not draw the same conclusions as previously cited studies with HIV-positive young Black MSM in other cities.

**Results:** The themes that emerged from the coding of this qualitative narrative study describe an across-case experiential trajectory with a summary of the significant experiences of this population, contributing to the limited body of knowledge currently available about family, relocation, relationships, methamphetamine prevalence and access, testing positive for HIV and willpower, coping and the sense of hope.

This information will contribute to the development of prevention education strategies specifically tailored to this population that address issues surrounding substance abuse in HIV transmission.

- a. *family* and includes issues with being stigmatized due to their sexual orientation along with rejection, judgment, discrimination, and lack of acceptance and early exposure to drugs and sex in the family.
- b. *relocation* to San Francisco, they talk about HIV, being homeless and the theme of *survival*, needing money for meet their basic needs including food and housing so they can have a place to sleep and shower.
- c. *relationships*, which include feelings of abandonment, alone, lonely, and the need to find a community and have a sense of belonging.
- d. *methamphetamine exposure, prevalence, and access* happening among their newfound community and peer pressure to do the drug, using it for emotional numbing so that they can deal with their circumstances. They discover the *sexual enhancement* benefit and this leads them to engage in high risk behaviors such as URAI.
- e. *testing positive for HIV*, describing as a sense of relief and something they are not surprised about; there is a resignation about eventually being HIV infected.
- f. *willpower, coping, and a sense of hope* for their future

**Conclusion:** Clinicians and researchers in all academic and practice settings will encounter HIV-positive young Black men and need to understand the prevalence of HIV/AIDS among this population as well as the importance of making a thorough sexual health and risk behavior assessment. It appears that the high exposure, prevalence, and access of methamphetamine in San Francisco among the predominantly White MSM population has had an impact on these young Black men.

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### Contact

[austin90621@gmail.com](mailto:austin90621@gmail.com)

## RSC PST 1 - Research Posters Session 1

### The Impact of Parent Reaction to Sexual Orientation on Depressive Symptoms and Sex Risk Among Hispanic Men Who Have Sex with Men

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Victoria B. Mitrani, PhD, USA

Joseph P. De Santis, PhD, ARNP, ACRN, USA

Brian E. McCabe, PhD, USA

Natalie LeBlanc, BA, MPH, BSN, USA

Diego Deleon, MD, USA

#### Purpose

The purpose of this presentation is to share findings from a study examining how Latino men who have sex with men perceived their parent's acceptance of their sexual orientation, and the impact of parental acceptance on depressive symptoms and sexual risk. We also examined acculturation as a moderator.

#### Target Audience

The target audience for this presentation is researchers and clinicians who have an interest in cross-cultural health and health disparities.

#### Abstract

**Purpose:** The study aimed to examine the impact of parents' reaction to their sons' sexual orientation on the son's depressive symptoms and sexual risk behaviors among Hispanic adult men who have sex with men (MSM). We also sought to examine whether the son's level of acculturation would moderate the relationship between parental reaction and the outcome variables. The study tested the following hypotheses:

1. Lower parental acceptance will be related to depressive symptoms
2. Lower parental acceptance will be related to sexual risk behavior behaviors
3. The relationship between lower parental acceptance and depressive symptoms will be stronger for men who are less acculturated
4. The relationship between lower parental acceptance and sexual behaviors will be stronger for men who are less acculturated

**Methods:** This is a secondary analysis from a larger mixed methods study that assessed cultural influences on risk behaviors and mental health among Hispanic MSM. The segment of the study being reported in this presentation used a quantitative cross-sectional design. Participants for the study were recruited from a community-based organization that provides HIV testing and counseling to MSM. After participation in the study, men were provided business cards with study information and were encouraged to refer other potential participants. The study was approved by the University of Miami Institutional Review Board and participants were compensated for their time.

The sample consisted of 125 community-dwelling Hispanic MSM. Most (53%) of the men were born in Cuba, 14% born in the U.S., 10% born in Puerto Rico, and the remainder in other Latin American nations. Participants had a mean of 14.26 (SD = 3.20) years of education, and 58% were currently employed. Most men identified themselves as homosexual (87%). The mean age of the participants was 43.02 years (range 21-65, SD = 10.34). Of 125, 78 (62%) said their mother (or mother-figure) and 55 (44%) said their father (or father-figure) knew about their sexual orientation. Only those men with at least one parent who knew about their sexual orientation contributed data for this analysis, and mother and father reactions were analyzed separately. GZLM in SPSS 19 was used for all analyses.

Parental reaction to their son's sexual orientation was assessed using the Perceived Parent Reaction Scale (Willoughby, Malik, & Lindahl, 2006). This measure includes 32 items that assess an individual's perception of their parent's level of general homophobia, shock, denial, anger, bargaining, depression, and acceptance of their child's sexual orientation. Scores range from 32 to 160 and higher scores indicate more negative perceptions (i.e., lower acceptance). The study asked participants to report separately on

their mother and father's current attitudes. Cronbach's alpha for this sample were .96 for mother, and .96 for father; reactions were standardized when testing interactions.

Acculturation was assessed using the Bidimensional Acculturation Scale (Marin & Gamba, 1996). This measure includes 24 items regarding the respondent's English and Spanish language behaviors in the domains of language use, language proficiency, and language use in media. Two subscales of 12 items each assess Hispanicism and Americanism. Cronbach's alpha for this sample were .94 for Americanism and .83 for Hispanicism. Only acculturation to the U.S., i.e., Americanism, was used in this study; acculturation was standardized when testing interactions.

Depressive symptoms were assessed using the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D includes 20 items that measure the frequency of depressive symptoms. Cronbach's alpha for this sample was .90.

Sexual risk was assessed using the Safer Sex Behavior Questionnaire (Dilorio, Parsons, Lehr, Adame, & Carlone, 1992). The measure includes 27-items addressing condom usage, high risk sexual behaviors, and sexual communication and negotiation. Lower scores indicate higher sexual risk. Cronbach's alpha for this sample was .82.

**Results:** Lower acceptance from mother,  $B = 3.61$ ,  $SE = 1.68$ ,  $p = .032$ , and from father,  $B = 5.35$ ,  $SE = 1.88$ ,  $p = .004$ , were related to higher depressive symptoms. Mother and father reaction were not directly related to sexual risk. There was no significant interaction between mother or father reaction and acculturation to the U.S. with respect to depression. There was a significant interaction between mother reaction and acculturation to the U.S. with safer sex behaviors,  $B = -2.64$ ,  $SE = 1.27$ ,  $p = .037$ . Acculturation to the U.S. was directly linked to lower sexual risk behavior, but lower acceptance from the mother tempered the protective effects of acculturation. There was no significant father reaction x acculturation interaction with safer sex behaviors.

**Conclusion:** This study demonstrates the importance of parental acceptance for the mental health of Latino MSM. Men who perceived that their mother or father currently held a negative attitude towards their sexual orientation experienced more depressive symptoms. Men who were less acculturated and who perceived their mothers as non-accepting of their sexual orientation were also more likely to engage in riskier sexual behaviors. This study suggests the need for family-based interventions to improve relationships among Latino MSM and their parents. It is noteworthy that parental reactions were influential in this sample of grown men, whose average age was in their 40's, suggesting that family acceptance is important well into adulthood.

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## Contact

[vmitrani@miami.edu](mailto:vmitrani@miami.edu)

## RSC PST 1 - Research Posters Session 1

### The Identification of Stimulant Misuse

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Wanda L. Hilliard, MBA, MSN, APRN, PMHNP-BC, USA  
Jayne Perkins, MSN, APRN, CNS, GNP, USA

#### Purpose

to educate healthcare professionals on the prevalence of stimulant misuse. Stimulants play an important role in the treatment of attention deficit hyperactivity disorders, but they are a highly misused class of medications. It is imperative to understand the misuse potential of stimulants, and risk reduction techniques and clinical implications.

#### Target Audience

Healthcare professionals working in a clinical setting, as well as administrators and educators responsible for oversight.

#### Abstract

**Purpose:** Stimulants play an important role in the treatment of attention deficit hyperactivity disorders, as well as other psychiatric conditions. It is well known that stimulants are highly misused due to their mechanism of action in today's society. The pharmacokinetics, biochemical structure and physiological effects all contribute to the misuse of stimulants. It is imperative for prescribers and clinicians to understand the misuse potential of this class of medications.

**Methods:** A literature search and case studies are presented demonstrating the misuse potential, along with a review of the clinical implications and strategies for risk reduction.

**Results:** We conclude stimulants are one of the most abused class of prescription medications worldwide due to the mechanism of action.

**Conclusion:** Healthcare professionals and clinicians must implement strategies to identify and reduce stimulant misuse, as well as understanding the clinical implementatons in these patients.

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#### Contact

[Tuchill@sbcglobal.net](mailto:Tuchill@sbcglobal.net)

## RSC PST 1 - Research Posters Session 1

### A Study of Service Quality Perception for Blood Donors

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*Shu-Chen Yang, MSN, RN, Taiwan*

*Shu-Wen Chen, PhD, RN, Taiwan*

*Chin-Ching Yu, PhD, RN, Taiwan*

#### Purpose

The purpose of this study was to evaluate blood donors' satisfaction of service quality in a blood donation center.

#### Target Audience

The target audience of this presentation is clinical nurses.

#### Abstract

**Purpose:** The purpose of this study was to evaluate blood donors' satisfaction of service quality in a blood donation center.

**Methods:** A total of 423 blood donors were randomly selected from the database of a blood center in Taichung, Taiwan, with a final sample of 407 participated in this cross-sectional study. Data was collected by a 31-item Blood Donor Satisfaction Scale (BDSS), measuring five dimensions: tangible, reliability, convenience, responsiveness and benefit, on a 5-point Likert scale ranging from very dissatisfactory (score= 1) to very satisfactory (score= 5). Participants were aged between 17-61 years old ( $35\pm 12$ ), and 55% of them were male. Descriptive statistics, independent t tests and one-way ANOVA were done to analyse the influence of age groups and gender on satisfaction of service quality.

**Results:** The mean score of BDSS was  $127\pm 14$  (ranged 155-86). Blood donors scored high in the dimensions of tangible, reliability and responsiveness. The dimensions of convenience and benefit gained lower scores compared to other dimensions. Age and gender of blood donors were not related to the satisfaction of service quality.

**Conclusion:** Related policies should be enacted in response to catch up on what blood donors have expected.

#### Contact

[sjyang@ctust.edu.tw](mailto:sjyang@ctust.edu.tw)

## RSC PST 1 - Research Posters Session 1

### The Incidence and Severity of Musculoskeletal Disorders Among Nurses Working in Taiwan Medical Center

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Shu-Hung Lee, RN, MSN, Taiwan

Shu-Yuan Lin, RN, PhD, Taiwan

#### Purpose

The purpose of this study is to investigate the incidence and severity of musculoskeletal disorders (MSDs) among medical center nurses.

#### Target Audience

Nurses whom are interesting to understand about musculoskeletal disorders and nurses' work environment.

#### Abstract

**Purpose:** The purpose of this study is to investigate the incidence and severity of musculoskeletal disorders (MSDs) among medical center nurses.

**Methods:** This study used a cross-sectional descriptive design with the purposive sampling method. Between April 2013 and May 2013, structure questionnaires were used to survey nurses employed in the medical centers of southern Taiwan. A total of 992 questionnaires were distributed to all of the medical center nurses, and 906 questionnaires were returned. A response rate was 91.3.0%. Excluding the incomplete questionnaires, data of 741 valid questionnaires was analyzed. Descriptive and inferential statistics such as t tests, ANOVA and Post hoc Scheffe tests were performed by using SPSS version 17.

**Results:** The incidence of MSDs was 86.5% in the medical centers nurses, and 65.8% reported moderate to severe degree of MSDs. The most frequently reported injuries in body were low back (52.0%), shoulder (41.8%), and neck (38.1%). Significant differences were found between age, years of nursing practice, years of employment, past disease history, designation, department and the severity of MSDs. The most frequently reported protective materials is compression socks(73.9%),backrest(45.6%)and corset belt(36.8%)

**Conclusion:** The MSDs is highly prevalent and the severity has an impact on nurses' work and daily life. The MSDs become more severe as a result of an increase of age, years of nursing practice, and years of employment. We suggest nursing managers to schedule appropriate breaks during the work hours, buy protective devices, arrange continue education about the prevention of MSDs

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Contact

[hone2597@gmail.com](mailto:hone2597@gmail.com)

## RSC PST 1 - Research Posters Session 1

### Development and Evaluation of the Simulation Learning Effectiveness Inventory

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*Shiah-Lian Chen, PhD, RN, Taiwan*

*Tsai-Wei Huang, PhD, RN, Taiwan*

*I-Chen Liao, MSN, RN, Taiwan*

#### Purpose

The purpose of this presentation is to present a reliable and valid instrument to measure simulation learning effectiveness.

#### Target Audience

The target audience of this presentation is those educators or researchers who are interesting in using patient simulation in their practice.

#### Abstract

**Purpose:** High fidelity simulators help nursing students learn complex patient care. Yet, reliable instruments measuring learning outcomes are scant. The purpose of the study was to develop and evaluate psychometric properties of the Simulation Learning Effectiveness Inventory.

**Methods:** A cross-sectional survey was conducted. A purposive sample of 505 nursing students who had taken a simulation course was recruited from department of nursing of a university in central Taiwan. The study was conducted in two phases. In Phase I, question items were developed and the preliminary psychometric properties of the inventory were evaluated using exploratory factor analysis. Phase II was conducted to evaluate the reliability and validity of the finalized inventory using confirmatory factor analysis.

**Results:** The results of both exploratory factor analysis and confirmatory factor analysis showed that the instrument contained seven factors, named course content, resource, clinical ability, debriefing, deep approach, confidence, and collaboration. In the exploratory factor analysis, the seven-factor solution with 34 items explained 71.25% of the total variance. However, two items were deleted because of fitting poorly to the data in confirmatory factor analysis. A further second-order analysis showed comparable fits (preparation, process, and outcome) between a three second-order factor and the seven first-order factors. Internal consistency was adequate with a Cronbach alpha ranging 0.82-0.91 and composite reliability ranging 0.80-0.91. Convergent and discriminant validities were also supported by confirmatory factor analysis.

**Conclusion:** Simulation teaching is more helpful than traditional teaching methods in developing higher level practicing skills. The Simulation Learning Effectiveness Inventory is a reliable and valid instrument. The instrument is helpful in building the evidence-based knowledge of the effect of simulation teaching on students' learning outcomes.

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#### Contact

[shiah90@nutc.edu.tw](mailto:shiah90@nutc.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Relation of Perception of Career Ladder System, Job Satisfaction, Intention to Leave Among Perioperative Nurses

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Sena Chae, BA, South Korea

#### Purpose

This study is the descriptive correlation study to provide the useful data for establishing strategies to improve career ladder system.

#### Target Audience

perioperative nurses, nurse administrator and clinical nurses.

#### Abstract

**Purpose:** This study is the descriptive correlation study to provide the useful data for establishing strategies to improve career ladder system.

**Methods:** The subjects of the study are 154 of perioperative nurses of a general hospital in Seoul. The data were collected from April 16th to April 22th, 2013. The structured questionnaire used for this study included, 'the perception measurement tool of the career ladder system' developed by Park Gwangok and Lee Yoonyoung (2010) 'the job satisfaction measurement tool for perioperative nurses' developed by Yoon Gyesook and Park Seongae (2009) and 'the intention to leave scale developed by Lawler(1983), and modified by Park Hyunsook (2002). The data were analyzed using frequency, average, t-test, one-way ANOVA, Scheffé test, Pearson's correlation Coefficient and stepwise regression analysis with the SPSS WIN 15.0 program.

**Results:** 1. The average mean score for perception of career ladder system is mid-line at 2.69 point out of 4 points. The subject with higher more age ( $r=0.164$ ,  $p<.01$ ), higher personal growth need ( $r=0.164$ ,  $p<.01$ ) had higher scores for perception of career ladder system. And specialist 2 nurse has higher scores for perception of career ladder system than new nurse, general nurse and specialist 1 nurse ( $F=5.04$ ,  $p=0.002$ ).

2. The average mean score for is slightly high at 3.40 point out of 5 points. The subject with higher more age ( $r=.288$ ,  $p<.001$ ) and the longer total employment history of operation room ( $r=.230$ ,  $p<.001$ ) has higher scores for job satisfaction. Also, The subject with the longer total employment history of current surgery department ( $r=.220$ ,  $p<.001$ ) has higher scores for job satisfaction. had higher scores for stronger personal growth need has higher scores for job satisfaction ( $r=.318$ ,  $p<0.001$ ). The married subject has more job satisfaction than the single subject ( $F=4.169$ ,  $p<.05$ ). Furthermore, charge nurse has more job satisfaction than general nurse ( $F=5.569$ ,  $p<0.05$ ). And fixed-worker has more job satisfaction than shift worker ( $F=5.656$ ,  $p<0.05$ ). Specialist 2 nurse has higher job satisfaction than new nurse, general nurse and specialist 1 nurse ( $F=3.443$ ,  $p=0.018$ ).

3. The average mean score for intention to leave is slightly high at 3.78 point out of 5 points has. The subject with higher age ( $r=.194$ ,  $p<.01$ ), the longer total employment history of operation room ( $r=.336$ ,  $p<.001$ ), and the longer total employment history of current surgery department ( $r=.343$ ,  $p<.001$ ) has higher scores for intention to leave. However, the subject with stronger personal growth need has lower scores for intention to leave ( $r=-.308$ ,  $p<.001$ ). The nurses who have no experience of job transfer between different surgical fields in the operating room ( $F=15.26$ ,  $p<.001$ ) has less intention to leave. Also, type 1 that one nurse is in charge of one operating room has lower scores for intention to leave. Specialist 2 nurse has higher scores for intention to leave than the others. On the other hand, new nurse has lower scores for intention to leave than the others ( $F=8.513$ ,  $p=0.000$ ).

4. The subject with higher scores for perception of career ladder system has higher scores for job satisfaction ( $r=0.384$ ,  $p<.01$ ), and lower scores for intention to leave ( $r=-0.875$ ,  $p<.01$ ). Finally, the subject with higher scores for job satisfaction has lower scores for intention to leave ( $r=-0.251$ ,  $p<.01$ ).

5. The factors affecting the job satisfaction of the subjects are the perception of career ladder system, total employment history of operation room and personal growth need, the move-up experience to a higher level which is the subcategory of perception of career ladder system which explained 30.9 % of the variance in job satisfaction. The factors affecting the intention to leave of the subjects are, the expected effect which is also subcategory of perception of career ladder system, the number of overtime work for the last six months, personal growth need and total employment history of operation room which explained 26.1% of the variance in intention to leave.

**Conclusion:** In conclusion, the perception of career ladder system of perioperative nurses is mid-line. The higher perception of career ladder system is related to the higher job satisfactions, the higher expected effect on career ladder system of the subjects is related to the lower intention to leave. Specialist 2 nurse has higher scores for perception of career ladder system than new nurse, general nurse and specialist 1 nurse's perception of career ladder system. Specialist 2 nurse also has higher scores for job satisfaction than the others, however, the intention to leave of specialist 2 nurse is the highest than the others.

Therefore, it is needed to enhance the perception of career ladder system and to establish a plan how to fulfill the expected effect of career ladder system for improving a perioperative nurse's job satisfaction and reducing an intention to leave. Moreover, it is needed to establishing continuous strategies to reduce specialist 2 nurse's intention to leave.

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#### Contact

[yulsena@hanmail.net](mailto:yulsena@hanmail.net)

## RSC PST 1 - Research Posters Session 1

### A Concept Analysis of Self-Management Behavior and its Implications in Research and Policy

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*Amanda Constance Green, MSN, RN, PHCNS-BC, USA*

#### Purpose

The purpose of the poster presentation is to disseminate innovative insights from this analysis of self-management behaviors in acute or chronic disease. Self-management behaviors have specific attributes from the literature that are necessary for improved management of disease, yet are not commonly incorporated into measurement tools or interventions.

#### Target Audience

researchers, clinicians, politicians and leaders in the nursing profession. Disseminating the research gap related to self-management behaviors will assist researchers, clinicians and leaders create policies and interventions that are inclusive of all the essential aspects of self-management that stem from this analysis.

#### Abstract

**Purpose:** The concept of self-management behavior (SMB) has been used extensively by professionals from multiple disciplines. Nursing scholars often use the concept with chronic illness and international health organizations, such as the World Health Organization, use the concept for disease management. The purpose of this concept analysis was to create a clarifying theoretical definition of self-management behavior.

**Methods:** The analysis was conducted conceptually in the context of Orem's Self-care Framework. Walker and Avant's eight-step concept analysis approach guided the analysis. A systematic review of the literature was conducted using seven relevant academic databases, including the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials, the U.S. National Library of Medicine's MEDLINE, American Psychological Association's PsycARTICLES and PsycINFO, and the Sociology Research Database SocINDEX. The search term used was "self-management behavior" and articles were limited to those published between April 2001 and 2013. Inclusion and exclusion criteria were stated. Attributes, antecedents and consequences were extracted to support the creation of theoretical and operational definitions.

**Results:** Eight dictionary definitions and 174 scholarly articles were reviewed. Sixteen percent of studies (n= 28) had a theoretical context and only seven (4.0%) included a definition of SMBs. Attributes, antecedents and consequences were identified. The newly constructed theoretical definition of self-management behaviors is: these behaviors are proactive actions related to lifestyle, a problem, planning, collaborating, and mental support, as well as reactive actions related to a circumstantial change, to achieve a goal. Physical, psychological, socioeconomic and cultural characteristics, specifically responsibility, as well as collaborative and received support, predict the type of SMBs. The results of SMBs are control over a problem and progress toward a goal, as well as individual and societal benefits. A model case will be presented to illustrate the constructed definition.

**Conclusion:** This theoretical definition of self-management behavior has potential to facilitate interprofessional and global collaboration in future research and clinical and public health practice.

#### Contact

[amandacgreen@yahoo.com](mailto:amandacgreen@yahoo.com)

## RSC PST 1 - Research Posters Session 1

### Preoperative Education and Its Associated Factors Among the Patients with Total Knee Arthroplasty

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Yun-Yi Huang, NP, Taiwan

#### Purpose

The purpose of this study for discussion about preoperative education and its associated factors among the patients with total knee arthroplasty.

#### Target Audience

The patients who accept the total knee arthroplasty and lets them understanding that the effect well besides the surgical technique. A suitable preoperative education that can shorten hospital days, increased post-operative physiological functions, reducing patient anxiety, reduce postoperative pain and increase patient satisfaction

#### Abstract

**Purpose:** The purpose of this study for discussion about preoperative education and its associated factors among the patients with total knee arthroplasty.

**Methods:** A descriptive and comparative study, purposive sampling, the sample source from a medical center in the middle area of Taiwan was prepared to accept total knee arthroplasty(N=60) which divided into two groups :the control group(n=30) and experimental group(n=30). The research data collection processes is that in the case of out-patient admission and 24-48 hours before surgery to an interview that to explain the purpose of study and research process and later to obtain the consent of the subjects filled out consent under the case agreed to join the study and at the same time, filled out the basic information on the activities of the functional assessment form, SF - 36 health survey scale. The experimental group receive health education at the same time. Experimental group and control group complete the functional activities of scale on the seventh and the thirtieth day after the operation.

**Results:** Pre-operative education associated with the case get out of bed on the first time, seventh and thirtieth day following the function of functional assessment scales which the average total score on the seventh day and the thirtieth day following knee activity, the experimental and control groups showed significant differences ( t = .00, .022, .012, .042, .00, p <.05). Get out of bed on the first time was that experimental group was shorter than the control group is 1.17. The physical features of the activities of the experimental group than the control group scored was high. The total score of SF-36 and functional scale and self-efficacy was that seventh and thirtieth day following the activity of the knee, showing a positive correlation (  $\gamma = .635, .041, .0514, p < .05$ )

**Conclusion:** The results of this study for pre-operative education and the days in the hospital was no significant difference but the experimental group shorter than control group was 0.2 days. Pre-operative education and functional activity was a positive correlation, which is pre-operative education will help patients in the post-operative function of promotion activities. Self-efficacy and SF-36 showed a positive correlation function.

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Contact

[59603@cch.org.tw](mailto:59603@cch.org.tw)

## RSC PST 1 - Research Posters Session 1

### Factors Contributing to Malnutrition in Patients with Gynecologic Cancer Patients

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*JuHee Nho, PhD, South Korea*

*Sung Reul Kim, PhD, South Korea*

#### Purpose

The purpose of this study was to evaluate the nutritional status and to identify clinical, psychosocial, and nutritional factors contributing to malnutrition in Korean gynecologic cancer patients.

#### Target Audience

The target audience of this presentation is nurses of oncology, gynecology.

#### Abstract

**Purpose:** 40-80% of cancer patients had nutritional disorder. Patients with gynecological cancer who is recognized as a major health problem, but the incidence of malnutrition and related factors about the results are reported to be varied. Malnutrition appears differently depending on the treatment period, psychological factors such as depression affect malnutrition. It is important nursing actions that nurses understand the nutritional status of the subjects and identify the relevant factors. The purpose of this study was to evaluate the nutritional status and to identify clinical, psychosocial, and nutritional factors contributing to malnutrition in Korean gynecologic cancer patients.

**Methods:** There were 129 gynecologic cancer patients in Ulsan in Korea between June and October 2013. These patients completed a PG-SGA (Patient-Generated Subjective Global Assessment), SNAQ (Simplified Nutritional Appetite Questionnaire), BDI (Beck Depression Inventory).

**Results:** 69 (53.5%) of 129 patients were reported malnutrition. Depression of malnutrition patients was higher in non-malnutrition patients ( $t=-3.893$ ,  $p<.001$ ). Nutritional status was correlated depression ( $r=.353$ ,  $p<.01$ ), appetite ( $r=-.530$ ,  $p<.01$ ), BMI ( $r=-.231$ ,  $p<.01$ ). In multiple logistic regression analysis, depression (OR=1.111, 95% CI: 1.047-1.179,  $p=.001$ ), appetite (OR=0.714, 95% CI: 0.600-0.850,  $p<.001$ ) were significant factors predicting malnutrition in patients with gynecologic cancer.

**Conclusion:** Nurses can improve nutritional status of gynecologic cancer patients through reformation of depression, appetite. This allows the subject's quality of life may be improved.

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#### Contact

[jhnho@ulsan.ac.kr](mailto:jhnho@ulsan.ac.kr)

## RSC PST 1 - Research Posters Session 1

### Diet, Encoded Memory, Visual Cues, Obesity, and Neuroimaging: The Role of

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*JoAnn D. Long, RN, PhD, NEA-BC, USA*

*Sara L. Dodd, PhD, USA*

*Martin Binks, PhD, USA*

*Ngozi Anyanwu, RN, USA*

*Toby Rogers, PhD, MPT, USA*

*Carol Boswell, EdD, RN, CNE, ANEF, USA*

#### Purpose

The purpose of this presentation is for nurse educators/researchers to discuss the use of neuroimaging in understanding the role of diet, encoded memory, visual cues and obesity.

#### Target Audience

The target audience for this presentation is for nurse educators/researchers to discuss the use of neuroimaging in understanding the role of diet, encoded memory, visual cues and obesity.

#### Abstract

**Purpose:** According to the World Health Organization, 35.8 million people are obese Worldwide. The obesogenic factors contributing to this global problem are thought to reflect a complex interrelationship between social, physiological, and environmental factors. Behaviorally focused interventions focused on healthy eating, portion size, and public health strategies to increase fruit and vegetable intake have reported modest success in addressing the obesity epidemic. Appreciating how individuals differ in response to environmental eating conditions remains enigmatic. Recent advances in neuroimaging have opened the possibility of a new frontier by understanding the neural responses to food intake, visual cues, and affective response to encoded memory of diet. The purpose of this study is to provide a review of the emerging scientific literature on the use of neuroimaging to shed light on diet, encoded memory, visual cues, and obesity through fMRI studies and the application of these emerging applications to nursing science.

**Methods:** A comprehensive literature search using peer-reviewed research articles. PubMed and CINHALL databases were searched using two sets of search terms “diet,” and “memory,” and “fMRI” and “diet” and “memory,” and “visual cues.” Inclusion criteria include studies using human subjects. Studies focused solely on disease processes were eliminated. The research questions were: 1) what is the state of the science reporting fMRI to illuminate understanding on the role of diet, memory, and visual cues on food choices? 2) How does the neuroimaging literature inform nursing research concerning obesity prevention?

**Results:** Twenty-two articles were located. Eleven met the inclusion criteria and ranged in publication date from 1994 – 2013. Each of the articles were published in a different journal and no articles were published in the nursing research. Only one article referenced obesity in the title; however, neuroimaging use is increasing in obesity research.

**Conclusion:** The body of knowledge being generated through use of fMRI to understand diet, memory, and visual cues on food choices is growing. Advances in fMRI holds promise for greater understanding of how individuals differ in neural response to complex eating behaviors. Nursing scientists working in obesity prevention should consider the emerging findings from neuroimaging studies and further study is merited.

#### Contact

[joann.long@lcu.edu](mailto:joann.long@lcu.edu)

## RSC PST 1 - Research Posters Session 1

### Intention of Regular Exercise Among Pregnant Women: Theory of Planned Behavior

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Ching-Fang Lee, EdD, Taiwan  
I-Chyun Chiang, PhD, Taiwan  
Fan-Hao Chou, RN, PhD, Taiwan  
Fang-Ming Hwang, PhD, Taiwan

#### Purpose

The purpose of this presentation was to explore the regular exercise behavioral intention on Theory of Planned Behavior (TPB) among pregnancy women.

#### Target Audience

The target audience of this presentation is all nurses in attendance.

#### Abstract

**Purpose:** The purpose of this study was to explore the regular exercise behavioral intention on Theory of Planned Behavior (TPB) among pregnancy women and evaluated the model goodness of fit.

**Methods:** Using purposive sampling, the researchers invited pregnant women from the obstetrics outpatient clinics of three medical centers in northern Taiwan to participate. The 621 participants had an average age of 31.76, were in at least their 12<sup>th</sup> week of gestation and were not experiencing any problems with their pregnancy. The self-administered questionnaire asked about participants' age, education, job, family, knowledge pertaining to exercise during pregnancy, and attitude toward regular exercise during their own pregnancy. The data was analyzed using SPSS 14.0 software and LISREL 8.72 software.

#### **Results:**

1. The model of *intention to regularly exercise* (AB) which we derived from our data was found to fit the Theory of Planned Intention (TBI) (GFI=0.90, AGFI=0.88, RMSEA=0.062, SRMR=0.074, NFI=0.96, NNFI=0.97, CFI=0.98, PNFI=0.84,  $(\chi^2/df)=3.4$ ).
2. Participants' perceived behavioral control (PBC) significantly influenced AB and explained 57% of the variance in regular exercise intention among pregnant women. The major influencing factor was PBC ( $\beta=0.68$ ,  $p<0.01$ ).
3. AB had a significant influence on participants' behavioral beliefs multiplied by evaluations of outcomes ( $\gamma=0.58$ ,  $p<0.01$ ). PBC had a significant influence on participants' behavioral beliefs multiplied by their own perceived power ( $\gamma=0.35$ ,  $p<0.01$ ).
4. There was a significantly positive relationship between and among participants' AB and PBC.

**Conclusion:** It was also concluded that doctors and nurses should encourage pregnant women to exercise regularly.

#### Contact

[fk005@mail.oit.edu.tw](mailto:fk005@mail.oit.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Forewarned is Forearmed: Preparing Nursing Students for Workplace Adversity

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*Julie Hanson, RN, BN, GradCertAdvPrac, Australia*

#### Purpose

The purpose of this presentation is to show how stories of adversity, originating in the life-world of nursing students, can be used to teach future generations of nurses not to dwell on ritualistic and exclusionary workplace practices but be empowered by critical thinking skills to forge connections with professional colleagues.

#### Target Audience

The target audience of this presentation is educators and clinical stakeholders worldwide who are concerned with reports of increasing violence within the profession and related attrition rates, particularly of nursing students, which are contributing to ongoing workforce shortages

#### Abstract

**Purpose:** The poster presentation reports on an education-focused research project that is underway to explore contradictions in the way in which adversity is understood and responded to and the contribution the curriculum is (and is not) making in one university in Australia. The project is divided into 3 stages: exploratory interviews with nursing students identifying critical events that have occurred in the workplace; the generation of learning materials that will assist educators, clinicians and students to explore these critical incidents in new ways, so that new insights may emerge, and then designing strategies to advance the prerequisite knowledge and skills that will prepare nursing students to think critically about their practice and remain resilient in the face of adversity. Whilst the academics designing curricula understand the mandate to provide the healthcare industry with 'work-ready' graduates to meet the increasingly complex care needs of clients (Wolff, Pesut, & Regan, 2010), they experience the common challenges of sequencing courses for delivery in nursing programs and of ever having the right level of prerequisite knowledge in the curriculum to develop students' hands-on skills in addition to leadership and team work qualities. The purpose of the research is to address the pressing concern of how nursing students can be prepared for workplace hardships of staff shortages and the emotional exhaustion related to bullying because in the international literature, experiences such as these are reported as having a significant impact on nursing retention and workforce stability worldwide (Laschinger, Wong, & Grau, 2012). For over a decade dissatisfaction, oppression and violence have been prominent themes within the nursing literature affecting nurses and are attributed to a variety of reasons. Dissonance between 'learned' professional values and 'experienced' bureaucratic workplace values has been offered as one explanation (Kramer, 1970), along with marginalisation and lack of professional autonomy (Roberts, 1983), and increasing nurse-nurse workplace bullying (Croft & Cash, 2012), hostility (Hutchinson & Jackson, 2013) and incivility (Leiter, Price, & Laschinger 2010). One argument is that these phenomena are culturally derived because the cycle of interpersonal conflict that occurs within healthcare bureaucracies all over the world is accepted or at least not resisted in part because hegemonic forces convince nurses that working under these conditions is normal in health services (Austin, 2007). It is troubling that nursing students are entering a health care culture characterised by top-down leadership, cliques and increasing violence that is often unquestioned and are in danger of succumbing to the deleterious effects of these cultural norms and this research has been undertaken to search for solutions to a critical workforce issue.

**Methods:** Critical Social Theory underpins the exploration of adversity and the contribution of the curriculum to preparedness. Critical Incident Technique is used in individual guided interviews to elicit descriptions of meaningful events, progressing to individual interviews using original student narratives of adversity to uncover the educative potential of the stories from the student's perspective, and concluding with validation of the findings in a final focus group interview. The value of critical analysis lies in its ability to interrogate critical moments, tensions and turning points in the discourses of the nursing students' life-world. The narratives of the nursing students make their ordeals accessible and memorable to others revealing the subjective realities of the nursing world to learn from and prepare for.

**Results:** Early findings from this project identify discursive practices that support the status quo of hostility, isolation and alienation as part of nursing culture and so it is proposed that, although the stories that nursing students tell are painful to hear, such critically meaningful events that individuals and groups experience can become a trigger for deep learning. A practice framework for the 21<sup>st</sup> Century nurse is offered that extends from the 'doing' and 'being' of nursing to incorporate high level critical thinking in 'realising' what happens in the real-world of nursing, to 'critiquing' the foundations of routinised practices. Thus, it is not the objective for educators to protect students from these experiences, but rather to foster skills in realising the existence of hostile cultural practices in nursing, and critically analysing them to arrive at new understandings of themselves and their discipline. Such an understanding would better equip students to become agents for change in their chosen profession.

**Conclusion:** It is interesting is that nursing students have been identified as particularly vulnerable targets of hostile practices (Jackson, Hutchinson, Everett, Mannix, Peters, & Weaver, 2011), but in the emergent literature internationally there is evidence that they are resisting and challenging the status quo (Curtis, Bowen, & Reid 2007; Pearcey & Draper, 2008; Jackson et al., 2011). Subverting cultural norms in this way is significant because students are potential agents of change, having yet to be socialised to accept the practices and internalise them. This poster discusses early research findings, presenting one story of adversity as an example of the potential benefits of using narrative pedagogy for educators, clinicians and students to critique the culture of nursing. The educative potential of stories originating in the lived experiences of nursing students is to raise awareness of how nurses can unconsciously become a part of a hegemonic force and empower them with skills to notice, resist or negotiate culturally derived injustice and inequality.

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#### Contact

[jhanson@usc.edu.au](mailto:jhanson@usc.edu.au)

## RSC PST 1 - Research Posters Session 1

### Development of a New Growth and Development Sectors for the Family System Unit

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*Junko Honda, PhD, RN, PHN, Japan*  
*Naohiro Hohashi, PhD, RN, PHN, LSN, Japan*

#### Purpose

The purpose of this presentation is to test the effectiveness of the "Growth and Development Sectors for the Family System Unit" in families in a particular environment.

#### Target Audience

The target audiences of this presentation are the nurse theorists and researchers in the area of family health nursing.

#### Abstract

**Purpose:** "Family Development Theory" is a theory utilized when performing family assessment in the area of family nursing. However in modern families diversity has become pronounced, and it has become difficult to apply family development theories that are based on the traditional family model. The authors, based on family members' perception of changes in the structure and function of families, have developed and repeatedly revised the "Growth and Development Sectors for the Family System Unit" which they are proposing as a replacement for family development theory. In this study, in order to further advance the "Growth and Development Sectors for the Family System Unit," surveys of Japanese families residing overseas were conducted, and the effectiveness of the "Growth and Development Sectors for the Family System Unit" was tested in families in a particular environment. After additions and modifications, more diverse families were categorized and comprehended, with the objective of revising a portion of these sectors to enable resolution of family problem phenomena.

**Methods:** We obtained approval from the university's Institutional Review Board (IRB). We searched articles utilizing Ichushi-Web (Japanese database), by key words, e.g., family growth, family development, families assigned overseas, and obtained 60 articles in Japanese matched the purpose of this study. Three experts in family nursing performed content analysis on the articles, and identified categories, that is, growth and development sectors for the family system unit. Hong Kong has two Japanese primary schools, and most Japanese families on overseas work assignments send their school-age children to these schools. The authors visited each of these schools, explained the study particulars verbally and in writing to the directors or principals, and requested their participation. These schools agreed to participate, and cooperation was requested in writing to 718 Japanese families on family-accompanied assignments with children enrolled at the schools. Consequently semi-structured interviews of about two hours in length were conducted with nine families. Interviews were recorded on an IC recorder and a verbatim transcript was prepared later, and categories were identified by using content analysis. Analysis was carried out in the following order: (a) identification of the recording unit (the smallest body of content to be analyzed); (b) identification of the context unit (the largest body of content that may be examined in characterizing a recording unit); and (c) coding and conferring of names for categories, that is, growth and development sectors for the family system unit.

**Results:** First, 60 papers concerning families posted on overseas assignments were reviewed and from this we added three new sectors: "period of plunging into confusion," "period of confusion, and "period of getting out of confusion." Then, as a result of a semi-structured interviews with nine Japanese families posted to Hong Kong, the number of growth and development sectors for the family system unit was modified to the following 14 items: 1) family formation period; 2) family expansion period; 3) family reduction period; 4) family completion period; 5) child nursing period; 6) child education period; 7) child independence period; 8) nursing care period; 9) period of embodiment of hope; 10) initial application process period; 11) stability and fulfillment period; 12) period of plunging into trouble/confusion; 13) period of trouble/confusion; and 14) period of getting out of trouble/confusion. In addition, during interviews we

received opinions concerning the definitions of the various sectors, revising and refining the text accordingly.

**Conclusion:** This resulted in a more refined "Growth and Development Sectors for the Family System Unit" with greater applicability, and we suppose these sectors will make a contribution to family nursing support and address the gaps in the science of family nursing.

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doi:10.1177/1043659611414200

#### Contact

[junko@gold.kobe-u.ac.jp](mailto:junko@gold.kobe-u.ac.jp)

## RSC PST 1 - Research Posters Session 1

### Re-Warming Baby after First Bath: A Non-Randomized Clinical Trial

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Sino S. George, MSN, APRN, RNC-OB, WHNP-BC, USA

#### Purpose

The purpose of this presentation is to increase knowledge by evaluating two methods of re-warming newborns, radiant warming (RW) and skin to skin (S2S). The research question is, "In healthy, full-term newborns, is S2S contact with mother as effective as RW in restoring the newborn's temperature after the first bath?"

#### Target Audience

The target audience of this presentation is clinical nursing staff who provide nursing care at the bedside as well as those in academia. The new evidence obtained by doing research will enable the staff to apply in their practices.

#### Abstract

**Purpose:** To evaluate two methods of re-warming newborns, radiant warming (RW) and skin to skin (S2S). The research question is, "In a population of healthy, full-term newborns, is S2S contact with mother as effective as RW in restoring the newborn's temperature after the first bath?"

**Methods:** Newborn temperatures were taken immediately prior to the bath (T1), and 30 minutes (T2) and 60 minutes (T3) after the bath. Descriptive statistics and *t*-tests were used to determine differences between groups and between time points.

**Results:** Because 96 of the first 100 mothers chose S2S re-warming, we concluded the study early and analyzed the data. Of the 96 mothers who chose S2S, 92 successfully re-warmed and 4 required rescue re-warming under the RW. Careful review of newborns requiring rescuing showed inadequate skin to skin contact or removal of protective covering. Incidental findings: a) African American mothers were significantly younger, had smaller babies and had lower temperature than non-African American babies.

**Conclusion:** Given a choice mothers overwhelmingly preferred S2S re-warming. Newborns can safely re-warm S2S if staff pay special attention to how they are positioning the baby and re-check mother and baby frequently. This study has profound clinical significance for nursing practice. First, we're failing to provide an option for re-warming that many of our mothers would choose. Second, S2S re-warming adds opportunities for mothers to nurse their newborns. Promoting breastfeeding is also in line with the Healthy People 2020 goals for increasing breastfeeding rates. Unexpected finding of racial differences in maternal and newborn characteristics will require further investigation.

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#### Contact

[sino.george@emoryhealthcare.org](mailto:sino.george@emoryhealthcare.org)

## RSC PST 1 - Research Posters Session 1

### Using Evidence Integrated e-Learning to Enhance the Case Management Continuing Education for Taiwanese Psychiatric Nurses

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*Wen-I Liu, PhD, RN, Taiwan*  
*Jiin-Ru Rong, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to describe the development and effectiveness of an evidence-integrated e-learning to enhance the case management continuing education for Taiwanese psychiatric nurses.

#### Target Audience

The target audience of this presentation is those clinical, academic and administrative staff interested in the methods to develop and evaluate an evidence-based continuing education program using a more flexible and cost effective e learning.

#### Abstract

**Purpose:** The purpose of this paper is to describe the development and effectiveness of an evidence-integrated e-learning to enhance the continuing education of case management for Taiwanese psychiatric nurses

**Methods:** The development of the e-learning program was divided into four stages: 1. Identifying current evidence for e learning and case management education through systematic review articles; 2. conducting a national survey and a focus group to confirm the educational needs; 3. developing teaching materials; and 4. performing a preliminary evaluation of the program with 40 nurses to improve the program quality. The e-learning program was integrated current evidence and built through the collaboration of a nurse educator and an informatics professor.

After the completion of the programme development, a randomized controlled trial with 3 times measurement design was employed to evaluate the effectiveness of the e-learning programme. This case management e-learning programme used CDs as the primary teaching material. The digital program consisted of 5 learning modules, self-assessment questions, learning cases, sharing experiences, and learning resources. In-service psychiatric registered nurses were recruited through the website of the Psychiatric Mental Health Nurses Association and randomised allocation into either experiemntal or comparison group. The psychiatric nurses in the experimental group participated in an interactive case management e-learning programme, whereas those in the comparison group were provided no intervention. The case management knowledge index with sufficient reliability and validity and a satisfaction survey were used to determine the learning outcomes. A generalized estimating equation was

used to assess the difference between the 2 groups regarding the case management knowledge before, after, and 3 months following the psychiatric nurses' participation in 2012.

**Results:** A total of 200 participants completed the 3 measurements. The participants in the experimental group exhibited positive learning perceptions. The knowledge scores of the participants in the experimental group significantly exceeded those of the participants in the comparison group both after the e-learning programme and at the 3-month follow-up.

**Conclusion:** The case management e-learning programme could be an evidence-based educational resource for nursing continuing education. The results supported the use of e learning to provide a more flexible and effective presentation method for continuing education programs.

Contact

[wenyi@ntunhs.edu.tw](mailto:wenyi@ntunhs.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Aggression in South Korean Middle School Students

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*Jiheon Choi, RN, CPNP, PhD, South Korea*

#### Purpose

The study was undertaken to assess the levels of aggressiveness among South Korean middle school students, and determine how strongly negative factors (e.g., academic stress and depression) and positive factors (e.g., self-esteem, decision-making competency, and happiness) influence to aggressiveness.

#### Target Audience

The target audience of this presentation is health care providers or health educators who are interested in young adolescent's mental health problem including aggression, depression, self esteem, and decision making competency.

#### Abstract

**Purpose:** Aggressiveness is a behavioral and emotional response made on purpose for the sake of destroying or damaging other persons or things (Kim & Kim, 2007). Currently South Korean society suffers from violent and inhuman juvenile crimes like collective bullying and school violence that are due to aggressiveness (Hwang, 2010). Juvenile violence due to aggressiveness in South Korean society is not just a current issue. Seven out of 10 cases of juvenile violence occurring between 2008 and 2010 were committed by middle school students, and 69% of school violence cases occurred in middle schools (Bae, Kim, Chung, Kang, & Park, 2010). Considering these data, more attention should be dedicated to studying aggressiveness in middle school students who are in early adolescence. Previous studies have attempted to clarify various factors that influence juvenile aggressiveness. Otherwise, concentrated re-investigation is necessary to reveal factors influencing Korean middle school students' aggression. In this study depression and academic stress as negative emotional aspects, and self-esteem, decision-making competency, happiness as positive emotional aspect of middle school students were investigated specifically. In conclusion, the purpose of this study was to assess levels of aggressiveness, and to determine factors affecting aggressiveness among South Korean middle school students.

**Methods:** A descriptive study was conducted using self-report questionnaires. The participants were 340 girls and boys from two middle schools and 302 questionnaires were used for the final data analysis. Aggressiveness was measured with the 'Aggression Questionnaire' developed by Buss & Perry (1992) and used in Shin's study (2000). It consists with 24 questions (5-point Likert scale) including physical aggression, verbal aggression, anger and hostility. Higher average scores correspond to higher levels of aggressiveness. Academic stress was measured with the 'Academic Stress Questionnaire' developed by Lee (2007), and it was developed to assess of middle school students' academic stress reflecting the educational environment of Korea. The measurement consisted with 25 items (5-point Likert scale) assessing perceived pressure from examinations, conflicts between family and friends related to academic performance and burden in relation to scores and class. Higher average scores correspond to higher levels of academic stress. Depression was measured with a 13-question checklist (5-point Likert scale) to evaluate depression, taken from the 'Symptom Checklist-90-Revision' revised by Kim, Kim, & Won (1984). Higher average scores indicate higher levels of depression. Scores above 70 percent of the measured score (above 3.5 out of 5.0) indicate that the person is depressed. Self-esteem was measured with the 'Self-esteem Scale' developed by Rogenberg (1965) and translated to Korean by Jeon (1974). It includes a 4-point Likert scale with a total of 10 questions to measure the levels of self-esteem and emotional aspects of self-approval. Higher average scores indicate higher levels of self-esteem. Decision-making competency was measured with the 'Decision-Making-Competency Inventory' developed by Miller and Byrnes (2001) and translated to Korean by Park et al. (2012). It includes a 5-point Likert scale with a total 18 questions to measure informed decisions, self-appraisal, autonomy, self-confidence. Higher average scores correspond with better decision-making abilities. Happiness was measured by the question "do you think you are living happily now?" with a 5-point Likert scale. Higher scores indicated

higher levels of happiness. Data were analyzed using descriptive statistics including *t*-test, one-way ANOVA, Pearson correlation coefficient and multiple regressions.

**Results:** Mean score for participants' aggressiveness was 2.49 out of 5. Academic stress was 3.38 out of 5, for self-esteem, 2.86 out of 4, for decision-making competency, 3.2 out of 5, and for happiness, 3.82 out of 5. Depression was 2.56 out of 5 that it was lower than 3.5 indicating depression. Significant explanatory variables for aggressiveness were grade, second grader ( $t = 4.39, p < .001$ ), academic stress ( $t = 2.78, p = .006$ ), and depression ( $t = 5.03, p < .001$ ). The explanatory power of these factors was 26.9%, and it was statistically significant ( $F = 16.06, p < .001$ ).

**Conclusion:** Findings indicate that depression, academic stress, and grade (second graders) influence aggressiveness. To decrease aggressive behavior, it is necessary to provide systematic and political programs in schools and local communities that can ameliorate negative emotional factors like depression and academic stress, especially for second grade middle school students. Additionally, development of positive factors such as self-esteem, decision-making skills, and happiness in middle school students is important to reduce aggressiveness.

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## Contact

[jihechoi@yonsei.ac.kr](mailto:jihechoi@yonsei.ac.kr)

## RSC PST 1 - Research Posters Session 1

### Exploration of Dutch Intensive Care Nurses' Experience of Planned or Emergent Change Implementation of an Innovation

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*Marie-Louise Luiking, RGN, MA, Netherlands*

#### Purpose

The purpose of this presentation is to present the experiences of nurses of emergent change implementation and planned change implementation of a nursing innovation, the experienced influence on workplace empowerment and job satisfaction.

#### Target Audience

The target audience of this presentation are nurse leaders and nursing managers who want to implement nursing innovations and also want to retain or improve nurses' workplace empowerment and job satisfaction, both important characteristics of magnet hospitals.

#### Abstract

**Purpose:** Workplace empowerment is considered an important magnet hospital characteristic, which is also related to patient outcomes and job satisfaction (Upenieks 2003, Laschinger & Havens 1997). Armstrong (2006) described workplace empowerment as workplace structural factors related to nurses' ability to function with autonomy and make decisions about their practice, i.e. how to implement their practice.

In implementation science, Burnes (1996), Bamford and Forrester (2003) divide implementation approaches for innovations into two types. They distinguish planned change implementation and emergent change implementation. The crucial difference between these types is staff members' participation in the implementation process and in the construction of the final innovation. In planned change implementation approach, there is no such participation, it is "a pre-planned and centrally-directed process" (Burnes 1996). In emergent change implementation approach, the goal to aim for is put forward by management to the staff members. The staff members are invited to participate in finding ways to achieve the goal. Magnet hospital research seems to indicate that an emergent change implementation would provide more workplace empowerment than planned change implementation and therefore be more attractive for nurses as a working method.

The aim of this study was to describe the intensive care nurses' experience of the introduction of an innovation using either implementation approach and to identify what aspects were positively or negatively valued.

**Methods:** An innovation was implemented in two groups (teams) of nurses using planned change implementation in one team and emergent change implementation in the other team. The two teams were part of one intensive care unit with two spatially separated wings. The patients were admitted to either wing at random. The innovation was an intensive insulin therapy (IIT) for the treatment of high blood glucose values in intensive care unit (ICU) patients. This IIT described how ICU-nurses' treatment can bring about the desired effect for the patient. The IIT was self directing, which entailed that the ICU-nurses made their own decisions to initiate, change and stop the intravenous insulin administration and check the blood glucose values with the help of a treatment protocol. This self directing was a new feature in this ICU.

In one team (planned change team) a planned change implementation approach was used, in the other (emergent change team) an emergent change implementation approach. The members of the emergent change team were invited to propose changes to the protocol while the members of the planned change team were not given the opportunity to change the protocol. The effectiveness of the IIT in both teams on patient blood glucose control and nurse compliance are described elsewhere and show a slightly better patient blood glucose control and better nurse compliance in the ECteam. (Luiking et al 2013) The resulting differences of both implementation approaches in the nurses' professional clinical autonomy and personal values and norms are also described elsewhere, and show an increase in the nurses'

professional clinical autonomy in the emergent change team and a decrease in the planned change team. The personal values and norms in the teams showed changes in line with the implementation approach applied in the team (Article submitted).

Thereafter 8 nurses from either group were interviewed. A qualitative content analysis was done of these semi-structured interviews. The found positive and negative appreciation subcategories were further quantitative analysed using quantizing. Quantizing involves the transformation of qualitative data esp. qualitative themes to numerical form. This quantizing was done using frequency manifest effect sizes. Frequency manifest effect sizes represent the prevalence rates of themes or observations in a qualitative study. They can be used to compare prevalence rates of themes or observations in (sub)groups of participants.

**Results:** The 5 inductive categories emerging from the interviews were: perception of the innovation, of the implementation, of the implementation and innovation as a responsibility for the nurses, of the influence on the profession and of the influence on the team.

The experiences of the innovation and implementation was in line with the character of the implementation approach. A striking example of this is the way the nurses worded the nurses' role in this innovation. In the emergent change team the nurses' role was described as achieving better patient results. It was described that the protocol had to be followed: "The innovation is nice, because you know exactly what is to come and you know what you have to focus upon". But it was also described that getting better patient results was more important than exactly adhering to the written down protocol: "you have to adapt the treatment but not according to the exact protocol", because: "I know that if I adhere to the protocol in that way, the patient will develop hypoglycaemias or hyperglycaemias [complications]". In the planned change team the adherence to the exact wording of the protocol was emphasized: "Look on the list [protocol], this is the glucose value, so that's what you have to do."

Both groups had similar views upon what they considered important in their work, e.g. the feeling of being supported by management was important to the nurses. The quantizing showed a higher ratio of positive than negative appreciation statements in the emergent change group for the subcategories perception of the innovation (Chi square=5.156,  $p=0.023$ ), of the implementation (Chi square=26.381,  $p<0.0001$ ) and of the implementation and innovation as a responsibility of the nurses (Chi square=52.846,  $p<0.0001$ ).

**Conclusion:** In the planned change group innovations and their implementation were seen as the responsibility of the management. In the emergent change group it was seen as a shared responsibility. In the emergent change group it was in line with how Burnes (1996) described the goal for using emergent change: "developing a workforce that will take responsibility for identifying the need for change and implementing it". Thus emergent change implementation provided increased workplace empowerment to the nurses.

The quantizing of the statements in the interviews indicated that the emergent change implementation was more attractive for the nurses.

This seems to corroborate the magnet hospital research which indicated that an emergent change implementation would provide more workplace empowerment than planned change implementation and therefore would be more attractive for the nurses as a working method.

Although support by management in the two implementation approaches was very different. It was considered important irrespective of the specific type of support provided.

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organizational characteristics of magnet hospitals, nursing leadership, and nursing job satisfaction. Health Care Manag 22(2):83-98.

Contact

[Marie-Louise@Luiking.com](mailto:Marie-Louise@Luiking.com)

## RSC PST 1 - Research Posters Session 1

### Effectiveness of Kagayashiki Music Intervention on Depression, Cognition and Basic Activity Daily Living in the Institutionalized Elderly

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*Hsueh-Jen Ho, MSN, RN, Taiwan*  
*Shu-Chuan Chen, MSN, RN, Taiwan*  
*An-Na Chao, MSN, RN, Taiwan*  
*Ching-Len Yu, PhD, Taiwan*  
*Li-Na Chou, PhD, RN, Taiwan*

#### Purpose

The learners will be able to understand (1) the current state of depression, cognition, and basic activities of daily living in the institutionalized elderly in southern Taiwan and (2) to display the effects of Kagayashiki music intervention measures on depression, cognition, and basic activities of daily living.

#### Target Audience

The target audience of this presentation is to understand the effects of Kagayashiki music intervention measures on depression, cognition, and basic activities of daily living and to the music intervention program aimed to lower the percentage of the institutionalized elderly with depression in southern Taiwan.

#### Abstract

**Purpose:** Kagayashiki music intervention has been gradually applied in long term care in Taiwan. Compared to other music therapy, evidence-based researches of Kagayashiki music intervention are fewer. The research objective of this study was to examine the effects of Kagayashiki music intervention measures on depression, cognition, and basic activity daily living in the institutionalized elderly.

**Methods:** With one-group pretest-posttest quasi-experimental design, this study adopted the purposive sampling of selecting the subjects from two elder care institutions in Southern Taiwan, and then random assignment was carried out in the Kagayashiki music intervention group. A total of 36 subjects enrolled in this experimental group. The music intervention group was required to perform 40 minutes once a week for twelve weeks. Demographic sheet, Geriatric Depression Scale, Mini-Mental Status Examination Scale, Basic Activities of Daily Living Scale were evaluated before and after the intervention. The analysis was conducted using SPSS version 18.0, and the significance level  $\alpha$  was set at 0.05.

**Results:** 31(86.1%) participants came to complete the study, most of whom were female ( $n=25$ ; 80.6%). Average age was 82.3 years. The mean score of depression decreased from 7.16 in the pretest to 6.19 in the posttest and cognitive function improved from 17.52 to 19.55. The mean score of BADL in the pretest and posttest was 56.33 and 66.67, separately. The pair  $t$  test results indicated that GDS ( $t=-2.36$ ,  $p<.05$ ), MMSE ( $t=2.13$ ,  $p<.05$ ), and BADL ( $t=2.42$ ,  $p<.05$ ) exhibited significant changes.

**Conclusion:** The results indicate that Kagayashiki music intervention can improve the depression, cognitive function, and basic activities of daily living in the institutionalized elderly. Therefore, Kagayashiki music intervention can be widely implemented among the institutionalized elders. This intervention can be incorporated into day activity program in order to lower the rate of depression, and thus enhance cognitive function and activities of daily living. It is suggested that randomized researches with larger sample sizes be used for appropriate calculation, measurement after multiple sessions, and physiological and psychological measurement.

#### Contact

[hojane@mail.ntin.edu.tw](mailto:hojane@mail.ntin.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Hypertension, Acculturation, Work-Related Stress, and Psychological Distress Among Filipino-American Registered Nurses (RNs) and Domestic and Home Care Workers (DHCWs)

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Emerson Eresmas Ea, DNP, APRN, CNE, USA

#### Purpose

to present the results of a study which aimed to: (a) identify and determine the relationships among the levels of acculturation, work-related stress, psychological distress and hypertension, and (b) identify and explore the perceived personal and cultural factors associated with hypertension among FA RNs and DHCWs in New York.

#### Target Audience

The target audience of this presentation include clinical nurses, nurse educators, nurse administrators, and nurse researchers and scientists.

#### Abstract

Background: Filipino Americans (FAs) have one of the highest rates of hypertension (HTN) among Asian Americans. As one of the largest and fastest growing groups of immigrants in the United States (US), very little is known about them in the literature especially about their cardiovascular health. A significant number of FA professionals are licensed Registered Nurses (RNs) and Domestic and Home Care Workers (DHCWs). Owing to the nature of their work, anecdotal evidence indicates that many of Filipino RNs and DHCWs suffer from hypertension (HTN). Despite the population growth and documentation of HTN among FAs, very little is known about their health status and needs, specifically those that explore FA RNs' and DHCWs' cardiovascular health in the Northeast.

**Purpose:** The purposes of this study are to (a) identify and determine the relationships among the levels of acculturation, work-related stress, psychological distress and prevalence of hypertension, and (b) identify and explore the perceived personal and cultural factors associated with the diagnosis and management of hypertension among FA RNs and DHCWs in New York (NY).

**Methods:** A survey using a demographic questionnaire and A Short Acculturation Scale for Filipino Americans (ASASFA), a modified Daily Hassles Scale, and Mental Health Inventory instruments was conducted including a blood pressure screening among a convenience sample of Filipino RNs and DHCWs in NY. In addition, focus group interviews were conducted to those who have HTN. IRB approval was obtained prior to this study and statistical analyses were conducted using SPSS. Qualitative data were analyzed using the Consensual Qualitative Research (CQR) method.

**Results:** Results revealed that majority of the FA RNs and DHCWS surveyed (N=228) are women, married, work full-time and 50% of those screened were found to be hypertensive. Logistic regression analysis did not reveal significant relationships among acculturation, work-related stress, psychological distress and hypertension. The four domains identified by the participants to be associated with the diagnosis and management of hypertension include: *Awareness of the Intrinsic and Extrinsic Factors that Affect HTN, Managing HTN and Coping Mechanisms, Barriers and Challenges to Managing HTN, and Experiences with Hypertension.*

**Conclusion:** The results of the study provide valuable information about the cardiovascular health of Filipino RNs and DHCWs. Although there was no relationship found between hypertension and the variables measured in the study, the high number of participants found to have hypertensive is a cause for concern. This has significant implications to nursing science and practice. There is a need to further explore hypertension among this understudied group of FA immigrants especially the factors that could contribute to hypertension. The qualitative data results could be used to design culturally tailored nursing interventions that could lead to positive health outcomes among FAs who have HTN.

#### Contact

[Emerson.ea@gmail.com](mailto:Emerson.ea@gmail.com)

## RSC PST 1 - Research Posters Session 1

### Faculty and Organizational Characteristics Associated with Informatics/Health Information Technology Adoption in DNP Programs

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*Cathy R. Fulton, DNP, RN, ANP-BC, FNP-BC, USA*

*Julie Meek, PhD, RN, CNS, USA*

#### Purpose

The purpose of this presentation is to relate the results of a descriptive study, eliciting perceptions of DNP program directors relative to whether and how the AACN's Essential IV standard has been met in their programs and the faculty and organizational characteristics associated with the adoption of AACN's Essential IV.

#### Target Audience

The target audience of this presentation is graduate nursing faculty and nursing students.

#### Abstract

**Purpose:** Nursing informatics/Health information technology are key components of graduate nursing education and an accreditation requirement, yet little is known about the extent to which Doctor of Nursing Practice (DNP) curricula include these content domains. The purpose of this descriptive study was to elicit perceptions of DNP program directors relative to: 1) whether and how the American Association of Colleges of Nursing's (AACN's) Essential IV standard has been met in their DNP programs; 2) whether the Technology Informatics Guiding Educational Reform Initiative Foundation's Phase II competencies have been integrated in their programs; and 3) the faculty and organizational characteristics associated with the adoption of the AACN's Essential IV.

**Methods:** In 2011 an electronic survey was sent to all 138 DNP program directors identified on the AACN website with an 81.2% response rate.

**Results:** Findings include variation in whether and how programs have integrated informatics/health information technology content, a lack of informatics-certified and/or master's prepared faculty, and a perceived lack of faculty awareness of informatics curricular guidelines.

**Conclusion:** DNP program director and dean awareness and support of faculty informatics education, use of informatics competency guidelines, and national policy and stimulus funding support are recommended to promote curricular inclusion and the engagement of nurses in strong informatics practices.

#### Contact

[catrsmit@indiana.edu](mailto:catrsmit@indiana.edu)

## RSC PST 1 - Research Posters Session 1

### Quality of Life and Associated Factors in Pregnant Women during the Third Trimester

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*Fan-Hao Chou, RN, PhD, Taiwan*  
*Hsiang Han Chang, MSN, Taiwan*

#### Purpose

The purpose of this presentation is to share the research findings, especially for prenatal health care.

#### Target Audience

The target audience of this presentation is for all the healthcare professional.

#### Abstract

**Purpose:** The purpose of this study was to explore quality of life and associated factors in pregnant women during the third trimester.

**Methods:** A cross-sectional and correlational research design was conducted using the Demographic Inventory, the Discomfort Symptom Questionnaire of the Third Trimester, and the World Health Organization Quality of Life Assessment (WHOQOL)-Brief Taiwan version. A convenience sample of 207 pregnant women aged 20 years old or above were recruited from a medical center in southern Taiwan after consent forms were obtained. Data were analyzed using SPSS 19.0 software, including descriptive statistics, Pearson's correlation coefficient, and multiple regression.

**Results:** Results found (1) pregnant women an average QOL index score of 70.58 (moderate and above); (2) significant differences in QOL scores for the variables of occupation (yes/no), education level, religion, monthly personal and family income; (3) discomfort symptoms of the third trimester and prenatal stress were significantly associated with QOL; (4) 49.9% of QOL variance was explained by discomfort symptoms of the third trimester, monthly personal income, prenatal stress and planned pregnancy.

**Conclusion:** The results of this study may help healthcare professionals to understand relationships among symptoms of the third trimester, prenatal stress and QOL in pregnant women during the third trimester. It could also be an evidence-based data for assessment and caring of those pregnant women.

#### Contact

[fanhao@kmu.edu.tw](mailto:fanhao@kmu.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Adults with Type 1 Diabetes: Lifetime Support and Management

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*Donna Freeborn, PhD, FNP, CNM, USA*

*Jordan Scanlon, RN, USA*

*Tina Dyches, PhD, USA*

*Susanne Olsen Roper, PhD, USA*

*Barbara Mandleco, RN, PhD, USA*

#### Purpose

The purpose of this presentation is to share the perception of adults with type 1 diabetes about family support and how it influenced their compliance with diabetes management.

#### Target Audience

The target audience of this presentation is nurses, advanced practice nurses, and others who work with children, adolescents, and adults with type 1 diabetes in order to improve family support and patient self-management of type 1 diabetes.

#### Abstract

**Purpose:** To explore family support and its effects on diabetes management of adults with type 1 diabetes

**Methods:** This study consisted of two in-depth interviews of 23 adult females and 12 adult males ranging in age from 19 to 70 years ( $M=36.54$ ,  $SD=16.65$ ). Participants' ages at diagnosis with type 1 diabetes ranged from two to 35 years ( $M=15.06$ ,  $SD=9.84$ ) with one to 54 years since diagnosis ( $M=21.46$ ,  $SD=12.87$ ). This qualitative study, using the biographical method, consisted of two in-depth interviews. The first interview allowed the participant to answer the prompt "tell me about growing up and living with type 1 diabetes." The interviewers used additional prompts such as "tell me more about" or "can you explain that further" but the participant directed the interview. The second interview took place approximately one week later. This interview began by the interviewers soliciting clarification, if needed, from the first interview. Then interviewers asked questions including: a) Tell us about when you were diagnosed with type 1 diabetes; b) How were your family and friends supportive/non-supportive? c) How compliant have you been throughout your lifetime to your health care regime? d) What were the biggest factors in helping you stay compliant?

**Results:** Factors that increased compliance included: positive family involvement both with siblings and parents; increased early independence in managing their diabetes; education about type 1 diabetes for both children and families; involvement of other influential adults in teaching the importance of diabetes management; motivation to live up to their dreams; and, increased knowledge that compliance was possible. Factors that decreased compliance included: children viewing diabetes as a chore; feeling different from other children and family members; over protective parents who did not encourage independent self-management of diabetes; changing routines such as going on vacation or transitioning to college; and, being stressed due to the emphasis on diabetes management and health.

**Conclusion:** Participants described that at the time of their diagnosis with type 1 diabetes they believed that their life was over and they would never be able to do the things they wanted to do. Children with type 1 diabetes need clear education about their disease, how they can still participate in favorite activities and their role in assuming independent self-management skills. Children and their families all need to be taught that they can lead healthy and normal lives and that they should be optimistic about the future. Type 1 diabetes is a life-time condition and those living with the disease, whether they be children or adults, need support to manage the condition and live healthy, active lives.

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Contact

[donnafreeborn@byu.edu](mailto:donnafreeborn@byu.edu)

## RSC PST 1 - Research Posters Session 1

### Diabetes Self-Management Practice of Older Koreans Based on AADE-7 (American Association of Diabetes Educators 7 Behaviors) Domains

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Misoon Song, RN, PhD, South Korea  
Suyoung Choi, PhD, GNP, RN, South Korea  
Sun Ju Chang, PhD, RN, South Korea  
Soo Jin Lee, RN, MSN, South Korea  
Kyoungsan Seo, RN, MSN, South Korea  
Se-an Kim, RN, MSN, South Korea

#### Purpose

The purpose of this presentation is to describe diabetes self-management practice of older Koreans based on AADE-7 criteria.

#### Target Audience

The target audience of this presentation are nurses, diabetes educators, nursing educators, and health professionals who are interested in cultural difference of health practice.

#### Abstract

**Purpose:** American Association of Diabetes Educators identified 7 domains of self-care behaviors essential for effective diabetes-self-management from the extensive review of evidences and expert consensus. But measurement tool for self-management behaviors based on this framework has not been developed in Korea. The purposes of this study were to develop the diabetes self-management behavior scale for older Koreans (DSMS-OK) based on AADE-7 domains and to describe current status of diabetes self-management behaviors of Korean older adults in the community measured by the scale.

**Methods:** The AADE-7 domains were utilized in developing the DSMS-OK items: healthy eating, being active, monitoring, taking medication, problem solving, reducing risks, and healthy coping. The scale was developed with consideration of feasibility and readability for targeting older adults with type 2 diabetes. The preliminary 10 items of 4-point (0-3) Likert type DSMS-OK were evaluated by ten diabetes education experts. The content validity index evaluated by the experts was 1.0 for all items in the scale, and all items were retained. Then the DSMS-OK was applied to 150 older adults (mean age 76.5 ±5.8 years) with diabetes in a senior center. Criterion related validity was evaluated by correlation with alternate form of Diabetes self-care behavior scale (Korean version of Summary of Diabetes Self-care Activities Questionnaire, K-SDSCA) which includes only 5 domains of AADE-7 domains.

**Results:** There was a significant relationship between total scores of the DSMS-OK and the K-SDSCA ( $r=.502, p<.001$ ), thus the criterion validity was supported. The most practicing self-management behavior was domain of taking medication (2.85/3, ±0.51), and the least practicing self-management behavior was domain of healthy coping (1.59/3, ±1.59).

**Conclusion:** The DSMS-OK is a useful tool for measuring diabetes self-management behaviors based on AADE-7 framework for older Koreans. The scale is short and easy to use for older adults, but further validation is required for psychometric properties. It is recommended that behaviors related to healthy coping domain need attention when designing diabetes self-management education program for older Koreans.

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#### Contact

[msong@snu.ac.kr](mailto:msong@snu.ac.kr)

## RSC PST 1 - Research Posters Session 1

### Effects of Balneotherapy on Pulmonary Function and Quality of Life in Chronic Obstructive Pulmonary Disease Patients

Feng Lien Lin, RN, MS, Taiwan

#### Purpose

The purpose of this presentation is sharing the effect of Complementary care in chronic obstructive pulmonary disease patients

#### Target Audience

The target audience of this presentation is interested in Complementary care.

#### Abstract

**Purpose:** The purpose of this study was to evaluate the effect of balneotherapy on pulmonary function and quality of life in patients with chronic obstructive pulmonary disease (COPD).

**Methods:** Subjects managed at a chest medical clinic of a medical center in Taipei city were included voluntarily after signing informed consents. The inclusion criteria were age>40, the mild and moderate COPD by GOLD criteria. The 10 subjects in the experimental group received balneotherapy twice per week for 6weeks with regular medical treatment. The balneotherapy included the diaphragmatic breathing(DB), pursed lips breathing(PLB), and walking in the pool of the hot spring. Subjects in the experimental group had a one-hour instruction by a professional instructor. The 14 subjects in control group received medical treatment without balneotherapy. All subjects received pulmonary function tests and WHOQOL-Bref (Taiwan) questionnaire prior to the operation (pre-test) and 6weeks later (post-test). The experimental group received third measurement at the end of operation for 4weeks (post post-test).The statistical analysis applied in data analysis included percentage, mean, standard deviation, chi-square, Mann-Whitney U test, Wilcoxon signed-rank test, and Friedman analysis of variance by ranks.

**Results:** The results indicated that subjects in the experimental group had improvement in mean of FEV<sub>1</sub>% predicted and QOL (p<.05) after balneotherapy, while subjects in the control group did not.

Differences of pulmonary function and quality of life of COPD patients of experimental and control group

	Pre-test (n=10) mean±SD	post-test (n=10) mean±SD	Wilcoxon signed- rank test	P value
PFT				
FEV <sub>1</sub> (%predicted)	63.66±11.29	73.00±20.04	-1.479	.139
WHOQOL-Bref (Taiwan)				
Physical domain	13.09±1.28	15.66±1.35	-2.703	.007**
Psychological domain	12.47±2.74	15.26±1.67	-2.191	.028*
Social domain	13.60±3.41	15.40±1.58	-2.047	.041*

Environmental domain	13.64±2.34	16.04±1.21	-2.429	.015*
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**Conclusion:** The present study implies that balneotherapy were effective in improving pulmonary function and quality of life of patients with mild and moderate COPD. The results of this study could be used as a reference for health professionals in COPD management.

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## Contact

[lotus@ntuh.gov.tw](mailto:lotus@ntuh.gov.tw)

## RSC PST 1 - Research Posters Session 1

### Experiences of Preceptors in Dedicated Education Units in the Public Hospital Environment

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Jennifer L. Kitchens, MSN, RN, ACNS-BC, CVRN, USA

Joe Burrage, PhD, RN, FAAN, USA

#### Purpose

The purpose of this presentation is to describe experiences of nurse preceptors working with students in Dedicated Education Units (DEU) or Traditional Nursing Units (TNU). The long term objective is to develop a systematic method to evaluate preceptor experiences in order to develop interventions which enhance preceptor satisfaction and retention.

#### Target Audience

The target audience of this presentation is academic and clinical faculty, nursing preceptors, hospital staff and administration, Clinical Nurse Specialists, and nursing students.

#### Abstract

**Purpose:** To provide data on which to develop a method to evaluate experiences of preceptors of nursing students on a Dedicated Education Unit (DEU)/Traditional Nursing Unit (TNU). The specific aim was to describe experiences of nurse preceptors who have worked with at least two rotations of nursing students over the last 12 month in a DEU/TNU setting. Current faculty shortages, increased patient care acuity, advanced technology, greater system complexity, and sophisticated computer systems have resulted in the increased need to use staff nurses preceptors to provide students with clinical instruction and experience. More information is needed about the experiences of preceptors of nursing students. Studies specifically addressing preceptor experiences on DEUs are rare.

**Methods:** Orling's Meaning of Preceptorship Theory guided this cross-sectional qualitative study. A total of eleven full time registered nurses (convenience sample) with experience as preceptors on a DEU or traditional medical-surgical nursing units at a complex county acute care hospital were recruited to participate in digitally recorded individual interviews. Thematic content analysis was conducted to identify patterns and meanings. An iterative process of comparison was used to further analyze the data, moving between individual elements of the text.

**Results:** Ten of the 11 participants were female. Four were between the ages of 31-40 years and 7 were between the ages of 41-60 years. Six held an ASN degree and 5 held a BSN. Seven participants reported employment at the agency for 18 months to 3 years, and 4 reported 10 or more years. Nine of the nurses were assigned to the DEU and 2 were not, with 5 of the 11 receiving formal training to be a preceptor. Three distinct themes emerged: Preceptor Role, Student Role, and Infrastructure (Agency) Role. Subthemes of barriers and facilitators emerged.

**Conclusion:** Findings indicate concepts of preceptor, student, and infrastructure role and related barriers and facilitators should be considered in the development of instruments to assess nurse preceptor satisfaction. Further barriers and facilitators to these roles should be carefully examined when implementing programs to increase nurse preceptor satisfaction and retention.

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Contact

[jenneufer@comcast.net](mailto:jenneufer@comcast.net)

## RSC PST 1 - Research Posters Session 1

### Learning Needs of Hospitalized Heart Failure Patients in Singapore

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*Shu Fen Ong, RN, Singapore*

#### Purpose

The purpose of this presentation is to share our research findings on the learning needs of HF patients in Singapore and to provide practical suggestions about how educational materials can be developed to meet the needs of HF patients.

#### Target Audience

The target audience of this presentation are nurses and clinicians who are involved in the care of Heart Failure patients

#### Abstract

**Purpose:** The purpose of the study is to investigate the learning needs of hospitalized HF patients for the purpose of informing the design of educational material which is tailored for HF patients in Singapore.

The specific objectives of the study are as follows:

- (1) To investigate the learning needs of patient with HF in Singapore;
- (2) To identify the relationship between patients' learning needs and their social-demographic and clinical characteristics.

**Methods:** Study Design: A descriptive correlational study with questionnaire survey is used in this project.

Settings and sample: A convenience sample is recruited from an acute tertiary hospital in Singapore. The inclusion criteria are patients who are as follows: (1) clinically diagnosed with HF, NYHA (New York Heart Association) classification I to IV; (2) are 21 years of age or older; and (3) are able to communicate in English and Chinese. The exclusion criteria covers patients with a known history of major psychiatric illness, terminal illness other than HF and impaired bilateral hearing or vision.

The sample size is determined by the number of participants that are required to maintain the statistical power for the statistical tests involved, including correlation analysis. To achieve a power of 0.80 at the 5% significance level, the minimum of 85 participants is required (Cohen, 1992).

Data collection: A well-developed instrument, named "Heart Failure Patient Learning Needs Inventory" (HFLNI), as well as a Chinese version of it (C-HFLNI) is used to investigate the learning needs of patients with HF. A socio-demographic and clinical data sheet in both English and Chinese was developed to collect information on the socio-demographic profile and clinical data of study subjects.

The HFPLNI is an instrument modified from the Cardiac Patient Learning Needs Inventory by Wehby and Brenner (1999). The HFPLNI is a comprehensive instrument for assessing the learning needs of patients with HF, as recommended by the Agency for Health Care Policy and Research (AHCPR) in the United States (Yu et al., 2010). The reliability and validity of the scale has been established with Cronbach alpha 0.96 for the total scale and greater than 0.87 for all subscales (Wehby & Brenner, 1999). The C-HFLNI has established validity, test-retest reliability and internal consistency with a Cronbach's  $\alpha$  of 0.96 for the total scale and 0.77 and 0.89 for the subscales (Yu et al., 2010).

Data collection procedure: The researchers first identify eligible subjects from the study settings. The purpose of the study is explained and a Participant Information Sheet, in either English or Chinese is provided for written reference. The potential subject are given time to consider his/her participation. Depending on their preferred spoken language, the HFPLNI / C-HFLNI questionnaire are handed to the participant to collect data on their learning needs. No identifiable information is asked or recorded in the questionnaire. The demographic information and clinical data are collected by interviewing patients and reviewing their medical charts upon agreement to participate in the research.

Data analysis: SPSS 20.0 is used for data entry and analysis. Descriptive statistics, including frequency distribution and central tendency, are used to summarize and describe the learning needs of the subjects. Bivariate correlation or association between learning needs and the socio-demographic and clinical variables are estimated by using independent t-test or analysis of variance for nominal variables, Spearman's rho for ordinal variables and Pearson's correlation for continuous variables.

**Results:** Data collection is in progress.

**Conclusion:** The research is in progress. However, the results of this study will provide practical suggestions about how educational material can be developed to meet the needs of HF patients. The development of effective educational resources will further enhance Heart Failure Management Programmes service delivery and contribute to improved health outcomes for HF patients in Singapore.

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### Contact

[ong.shu.fen@alexandrahealth.com.sg](mailto:ong.shu.fen@alexandrahealth.com.sg)

## RSC PST 1 - Research Posters Session 1

### Caring Behaviors, Self-Efficacy, and Their Associations with Job Involvement Among Nurses

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*Hsiang Yen, MA, Taiwan*  
*Li-Na Chou, PhD, Taiwan*  
*Miao-Fung Shih, MA, Taiwan*

#### Purpose

The purpose of this presentation is to: 1. Explore caring behaviors and self-efficacy from clinical nurse. 2. Assess nurse attitudes toward involvement in the job to the employing organization. 3. Examine nurses' caring behaviors, self-efficacy and their association with job involvement.

#### Target Audience

The target audience of this presentation is that people in field of specialization and people in fields closely related to clinical nurse, nurse manager /administrator are worth capturing, because they can have interesting insights and perspectives about this work.

#### Abstract

**Purpose:** Caring behaviors and self-efficacy among nurses may affect the quality of the nursing care they provide and their intention to quit. The job involvement level of nurses in Taiwan has been reported as lower than other countries, with over half of nurses self-identified as having contemplated leaving the nursing profession. Job involvement has great importance and significance in organizational development. Few studies have collected data regarding the relations among nurse caring behaviors, self-efficacy, and job involvement. The model was tested using structural equation modeling (SEM) to evaluate the fit. Four hypotheses were formulated as follows:

H1: The job involvement model has an acceptable goodness-of-fit, confirmed by SEM.

H2: Caring behaviors positively influence self-efficacy.

H3: Caring behaviors positively influence job involvement.

H4: Self-efficacy positively influences job involvement.

**Methods:** A cross-sectional and correlative research design was used in this study. A total of 405 clinical nurses at a hospital in Southern Taiwan were recruited, and 338 participants completed the questionnaire. The response rate was 83.4%.

**Results:** The ages of the participants ranged from 21 to 55 years. Most of them were single (56.8%). They had worked for their organization an average of 4.75 years. 205 (60.9%) participants completed university; 298 (88.4%) participants had N2-level positions; and 218 (64.5%) participants had received continuing education. In their working environments, 36% perceived extremely high work pressure, and 103 (30.5%) perceived high work pressure. The results revealed that the postulated model fit the data collected in this study. Self-efficacy was not significantly correlated with job involvement. Caring behaviors were a significant factor predicting job involvement.

**Conclusion:** Nurses who felt their caring behaviors were recognized and rewarded were likely to be involved in their workplaces. The results of this study are particularly salient for hospital managers, who can foster attractive workplaces by deriving gratification from caring for patients and providing support to nurses, thereby enhancing their involvement in job. It also can play an important role in alleviating the impending nurse shortage by increasing the job involvement currently in Taiwan healthcare system and attracting newcomers to the nursing profession.

#### Contact

[syan@gw.cgust.edu.tw](mailto:syan@gw.cgust.edu.tw)



## RSC PST 1 - Research Posters Session 1

### First-Time Fathers' Experiences during Childbirth in Taiwan

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Wan-Lin Pan, RN, Taiwan

#### Purpose

The purpose of this presentation is to explore first-time fathers' experiences during childbirth in Taiwan. Grounded theory method were used. Six fathers were interviewed after the birth." Willing to participate in the birth and support their partner" was the core category for describing and guiding the process of childbirth.

#### Target Audience

The target audience of this presentation is midwives, nurses and health care professionals. It is important for fathers to be prepared and to feel needed, which relevance for professional support. Fathers need to be knowed, seen and encouraged by healthcare professionals, who have to acknowledge and support their significant position.

#### Abstract

**Purpose:** The purpose of this presentation is to explore first-time fathers' experiences during their wives' childbirth in Taiwan.

**Methods:** This qualitative study was undertaken using a grounded theory approach. We developed a semi-structured questionnaire for in-depth interviews conducted with 6 participants from hospital. Constant comparison, theoretical sampling, literature review, member checking and an expert panel were used to ensure research trust worthiness. A purposive sample of the fathers aged above 21 years who accompanied their wives throughout childbirth were recruited from the postnatal wards between one to seven days after the birth of their children.

**Results:** The theme "Willing to participate in the birth and support their partner" was the core category for describing and guiding the process of childbirth. During this process, "Mixed feelings", "healthcare professional needed", "want to guard and support the couple", " the decision to se *epidural* analgesia during *labor or not*" and "long wait times and feeling helpless." was found to affect the first-time fathers' significantly. This study discovered that a prevalent lack of a standard protocol to prepare and support first-time fathers.

**Conclusion:** Childbirth was experienced as a mutually shared process for the couple. Overall, the fathers were faced their weak but mixed feelings while striving to participate in the childbirth. Fathers also worry about the woman and the baby so they need explanations about normal changes as well as possible complications. It is important for fathers to be prepared and to feel needed, which relevance for professional support. Fathers need to be knowed, seen and encouraged by healthcare professionals, who have to acknowledge and support their significant position.

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## Contact

[wanlimp@knjc.edu.tw](mailto:wanlimp@knjc.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Educating Nursing Students to Recognize and Report Negative Behavior in the Clinical Setting: A Feasibility Study

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*Florence Schaefer, MS, RN, ACNS-BC, USA*

#### Purpose

The purpose of this study is to determine if senior nursing students who witness negative behavior in a video simulating a clinical experience setting are able to recognize the behaviors as negative and to determine if the student would report or ignore the episode of negative behavior.

#### Target Audience

The target audience of this presentation is all nursing faculty, educators and hospital staff who work with nursing students in the clinical setting.

#### Abstract

**Purpose:** While the clinical rotation provides an essential venue for socialization into the role of the professional nurse, socialization into a culture of abuse also begins at this time. The term “eating our young” has terrible connotations. Between 72-100% of students reported witnessing or experiencing negative behavior (NB). Clinical nurses are frequently identified as a major perpetrator of the NB experienced by students. Episodes of NB, verbal and physical, are under reported. Reasons for this is that being a recipient of violence was viewed as being part of the job and the student has a need to fit in.

The research question is: Are senior baccalaureate nursing students who participate in a training program for recognizing and reporting negative behavior better able to identify and more likely to report incidents of negative behavior in a clinical simulation exercise than comparable senior baccalaureate nursing students who participate in a training program that addresses strategies for sleep and shift work? The aim of the study is to determine if senior nursing students who witness NB in a video that simulates a clinical experience are able to recognize the NB and to determine if they would report or ignore the NB.

**Methods:** A mixed method, two groups, randomly assigned, intervention trial will be utilized. The intervention group which will attend a one-hour training program on recognition and reporting of NB while the control group will attend a one-hour session on sleep and shift work. Both groups will then view a simulated NB video and complete the study survey at the conclusion of the video. The independent variable is the NB training program. The dependent variable is the student’s identification of NB in the video.

**Results:** Demographics: No difference found between groups. Nominal and Interval data: Slight statistical difference found between groups in physical abuse. Both groups were able to recognize the verbal and physical negative behaviors however neither group identified the subtle/overt negative behaviors. Emerging themes were developed from the qualitative responses.

**Conclusion:** Education focusing on the subtle forms of negative behavior and continued need to report should be incorporated into nursing education curriculum to help break the cycle of violence identified as “eating our young”.

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## Contact

[fschaefer@StLukesHealth.Org](mailto:fschaefer@StLukesHealth.Org)

## RSC PST 1 - Research Posters Session 1

### Removal of Mechanical Ventilator on a Patient of ALS

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Ying-Chin Lu, RN, Taiwan  
Kuan-Ting Chen, RN, Taiwan

#### Purpose

The removal of ventilation and the palliative hospice care during the final stages of ALS are discussed thoroughly in laws, ethics and emotions in this case report.

#### Target Audience

Physician.Nurse.Medical staff

#### Abstract

**Purpose:** In this case, the patient with ALS in the final stages had a respiratory problem in our hospital. A tracheal intubation is performed for applying ventilation in the intensive care unit to avoid his respiratory failure. Knowing that although mechanical ventilators can prolong survival, it does not provide life quality and dignity, the patient decided to not have a tracheostomy. He requested for removing ventilation and moved into palliative care unit for ventilation removal the next day. The removal of ventilation and the palliative hospice care during the final stages of ALS are discussed thoroughly in laws, ethics and emotions in this case report.

To the principle of medical ethics and hospice care, be discussed in Helping a Patient with Amyotrophic Lateral Sclerosis (ALS) in the Final Stages to Remove Mechanical Ventilation.

**Methods:** This research adopts purposive sampling and qualitative research, including deep interview method, observation method, and literature survey method . In this study, the medical ethical principle of "The Principle of Autonomy," The Principle of Nonmaleficence ", " The Principle of Beneficence", " The principle of justice", be discussed in Helping a Patient with Amyotrophic Lateral Sclerosis (ALS) in the Final Stages to Remove Mechanical Ventilation.

**Results:** Under the principle of the pursuit of patients with active hospice care, the health care workers, chaplains, social workers, family members, etc., according to law, management, emotional level to a comprehensive discussion, also sought order to many related hospice expert advice, and finally based hospice Ordinance removal the patient's respirator, respecting the wishes of the case, so the case can have the dignity of life and fulfill my wish, and Enron's gone, this is the ultimate goal of hospice care.

**Conclusion:** It is getting before a final withdrawal in patients with ventilator. After the end of the process of hospice care in the legal, ethical on all levels have reached emotional finest successful draw the sentence points, hospice medical team also learn from this case to care for a lot of valuable experience.

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Raanan Gillon  
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#### Contact

[bbc5208@gmail.com](mailto:bbc5208@gmail.com)

## RSC PST 1 - Research Posters Session 1

### The Factors Influencing the Self-Care and Quality of Life of Patients with Coronary Artery Disease

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*Suthanithi Kangchanakul, RN, BNS, Thailand*  
*Aem-orn Saengsiri, RN, APN, PhD, Thailand*  
*Duangkamol Wattradul, RN, DNS, Thailand*

#### Purpose

The purpose of this presentation is sharing the selected factors influencing self-care and quality of life of patients with coronary artery disease.

#### Target Audience

The target audience of this presentation is cardiovascular nurses.

#### Abstract

**Purpose:** Coronary artery disease (CAD) is the most common cause of death in Thailand. The patients with CAD need long-term care to enhance their quality of life. This study was aimed at exploring the selected factors influencing self-care and quality of life (QOL) of patients with coronary artery disease.

**Methods:** Purposive sampling of 100 patients with CAD receiving care at King Chulalongkorn Memorial Hospital was enrolled in this study. Data were collected by using the self-care agency questionnaire of cardiovascular disease, and Powers' Quality of Life Index Cardiac Version-IV. Data were analyzed by using descriptive statistics and multiple regression.

**Results:** One hundred patients (30 females, 70 males; Mean age 65.13 years) participated in this project. The self-care agency of patients with CAD was at a moderate level at 70.43% (Mean = 76.07, SD. = 9.84). The QOL of patients with CAD was also at a moderate level at 76.86% (Mean = 23.06, SD. = 4.89). The independent variables influencing the QOL of patients with CAD were educational level, exercise, and self-care agency, with a statistically significant predictor at 46 percent ( $p < .05$ ).

**Conclusion:** Education level, exercise, and self-care agency were more useful predictors in increasing the QOL of patients with CAD. The evidence from this study supports healthcare providers in terms of their ability to improve the self-care capacity of patients with CAD by developing health promotion programs for improving the quality of life of patients with CAD.

#### Contact

[suthanithi.trc@gmail.com](mailto:suthanithi.trc@gmail.com)

## RSC PST 1 - Research Posters Session 1

### Effects of Cinenurducation Based on Kolb's Experiential Learning Theory Model for Understanding Child Growth and Development

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*Jina Oh, RN, PhD, South Korea*  
*Mihae Im, BSN, RN, South Korea*  
*Hyerin Roh, PhD, MD, South Korea*

#### Purpose

to develop and to evaluate effects of a cinenurducation (i.e. nursing education using cinema) based on Kolb's ELT Model for first-year nursing students in a private research university located in Busan, South Korea.

#### Target Audience

nurse educator and nursing students

#### Abstract

**Purpose:** Kolb (1984)'s Experiential Learning Theory Model [Kolb's ELT Model] sets out four distinct learning styles since it offers both a way to understand individual people's different learning styles including diverging, assimilating, converging, and accommodating, and also an explanation of a cycle of experiential learning including concrete experience [CO], reflective observation [RO], abstract conceptualization [AC], and active experiment [AE] that applies to us all. The purpose of this presentation is to develop and to evaluate effects of a cinenurducation (i.e. nursing education using cinema) based on Kolb's ELT Model for first-year nursing students in a private research university located in Busan, South Korea.

**Methods:** Using case study eight-two nursing freshmen participated in human growth and development course in the 2013 spring semester. In each class, participants watched film (CE), participated in think pair share (RO), synthesized from educator's lecture (AC), and wrote a composition (AE) based on Kolb's four learning stages. After class 74 participants (90.2%) filled out a questionnaire to analyze satisfaction of cinenurducation according to students' learning style and learning content, and open-ended survey to find merits and demerits of cinenurducation.

**Results:** This study showed high satisfaction of cinenurducation regardless of learning type ( $F=0.17$ ,  $p=.913$ ) including Diverger, Accomodator, Converger, and Assimilator, and content concerning child growth and development ( $F=1.24$ ,  $p=.302$ ) including Infant, Toddler, Preschooler, Schooler, and Adolescent stage. Advantages of cinenurducation included it being "fun and interesting," "helpful to understand the characteristics of children," and "develop critical thinking through discussions." Disadvantages included "long time needed," and "burdensome."

**Conclusion:** Films are advantageous in that they provide indirect experience for nursing students. Selection of appropriate films and evaluation of learning goal achievements are important to maximize the effectiveness of cinenurducation.

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#### Contact

[ohjina@inje.ac.kr](mailto:ohjina@inje.ac.kr)

# RSC PST 1 - Research Posters Session 1

## Self Governance Increases Staff Morale

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*Ron Billano Ordon, RN, MSN, FNP, USA*

### Purpose

The purpose of this presentation is to highlight how float staff self governance council promoted framework for unit identity and improvement of staff competency resulted in higher than benchmark staff morale and commitment in 2012 Morehead Survey. Peer Advocacy Leadership Support (Pals) program enhanced assimilation of new hires.

### Target Audience

The target audience of this presentation are clinical and administrative groups; both on the nursing personnel and hospital administration roles.

### Abstract

**Purpose:** The University of California, Davis Medical Center (UCDMC) Patient Care Resources (PCR) staff is in a unique position because they float into different specialty units and assume care of patients in diverse settings.

Through a survey, staff identified need for consistent peer support and training to improve competency and proficiency in delivery of patient care.

The goals of the unit based practice council (UBPC), a professional governance unit of the department, included (1) promotion of a framework for unit identity; and (2) improvement of staff level of competency and proficiency in the delivery of patient care.

**Methods:** To promote a framework for unit identity:

- Implement and maintain the Peer Advocacy Leadership Support (Pals) program, promoting peer support of new hires.
  - Match new hires each month with volunteer peers of the department.
  - Manage the Pals program by making personal contact with participants.
  - Provide pre and post surveys to measure effectiveness of the program.
  - Collect, review, and disseminate data findings.
  - Highlight staff accomplishments and achievements on the department website
  - Promote department bonding through:
    - Annual celebration for staff that graduates (i.e., Bachelor's, Master's; NPs, and the like).
    - Annual summer get-together.
    - Annual holiday
- To promote competency and proficiency in the delivery of patient care:
  - Support skills day (in conjunction with unit administration)
  - Promote and expand use of PCR department website as a means of communication among staff
  - Improve communication between leadership and staff by creating a centralized department email
  - Improve divisional information dissemination through unit council participation

**Results:** Staff morale and commitment in the department is high as shown by the 2012 Morehead Survey results. PCR staff excels above benchmark (as compared to the medical center-wide score) in all of the domains measured.

PCR staff demonstrated excellence in three different domains: (from a scale of 1 as lowest to 5 as highest): organizational 4.25 vs. 3.9 benchmark; manager 4.37 vs. 3.98 benchmark; employee 4.33 vs. 4.03 benchmark; and commitment 4.59 vs. benchmark 4.24 indicators.

New hires expressed that peer support enhanced their assimilation into the department. More than 50% of new hires completed the 12-month Pals program. Staff reported an increased sense of unit identity via survey data collected from the PCR Pals program post-survey.

**Conclusion:** Self-governance results in high morale and fosters a stronger commitment among staff of a float pool department. Peer support and communication are effective avenues to achieve a strong sense of unit identity despite the challenges of a unique department such as the float pool.

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2012 Morehead Survey results, UC Davis Medical Center, Sacramento, CA © 2013 Press Ganey Associates, Inc.

#### Contact

[ron.ordona@ucdmc.ucdavis.edu](mailto:ron.ordona@ucdmc.ucdavis.edu)

## RSC PST 1 - Research Posters Session 1

### The Risk Factors of Unplanned Endotracheal Extubation in Adult Intensive Care Unit

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*Pei-Chen Huang, RN, Taiwan*

*Hui-Ting Kuo, RN, Taiwan*

*Yu-Ching Yang, RN, Taiwan*

#### Purpose

To investigate the risk factors of unplanned endotracheal extubation in the intensive care Unit.

#### Target Audience

clinicians, pharmacists, nurses, physician assistants, and other allied health professionals, researchers, health educators

#### Abstract

**Purpose:** Unplanned extubation (UEE) is a frequent problem in the intensive care unit and represents an adverse event. It increases morbidity in the intensive care unit (ICU) resulting in prolonged hospital stays and increased costs. To investigate the risk factors of unplanned endotracheal extubation in the intensive care Unit.

**Methods:** We collected 106 unplanned self-extubation cases for this study from January 2011 to December 2012. in a medical center at southern Taiwan . The contents included patients' characteristics, unplanned tubing removal situation.

**Results:** The results show: (1) 106 patients occurred of unplanned endotracheal extubation in the year of 2011 and 2012. (2) The rate in man was higher than in woman, which mostly was distributed in the patients with the age over 70. The frequency (41.5%) in the nursing of day shift was highest than others.. Unplanned extubation was happened during on duty before and after work one hour(21.6%). Over half of them were been restrained inappropriately .29.4% UEE patients during mouth care . After unplanned endotracheal extubation, 50.9% self-extubation patients needed to be re-intubated..

**Conclusion:** The concluded factors in unplanned endotracheal extubation could be used in improving quality control of medical administration, clinical practice, and nursing education.

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#### Contact

[ginee168@gmail.com](mailto:ginee168@gmail.com)

## RSC PST 1 - Research Posters Session 1

### The Effects of E-Health Management for Weight Control and Metabolic Syndrome Abnormalities in Adolescent Girls

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*Mei-Chen Su, PhD, Taiwan*

*Lee-Ing Tsao, DNSc, Taiwan*

#### Purpose

The purpose of this study investigated the effects of a 6-month health management platform with Internet-based intervention in overweight adolescent girls in Taiwan.

#### Target Audience

The target audience of this presentation is interested about E-health management and adolescent girls health promotion.

#### Abstract

**Purpose:** Obesity is increasing at an alarming rate among adolescents. Previous studies have shown that lifestyle modification and weight control can improve all of the metabolic risk factors associated with obesity. Adolescent girls are more likely than boys to have sedentary lifestyles, low levels of physical activity, unhealthy weight-control behaviours, and disordered eating behaviours. The purpose of this study investigated the effects of a 6-month health management platform with Internet-based intervention in overweight adolescent girls in Taiwan.

**Methods:** After IRB approval, a longitudinal approach and repeated testing using a quasi-experimental design to evaluate the follow-up outcomes of the e-health management platform intervention for 137 overweight adolescent girls at two nursing colleges with 5 years associated program. The intervention group (n=62) which were completed 6-month health management platform with Internet-based intervention, consisting of 150+ minutes of regular exercise per week; increasing fruit and vegetable intake to 5+ servings per day; decreasing total fat to <30% of total calorie consumption, tailored graphical feedback was provided; one-on-one psychobehavioral counseling based on constructs from the Transtheoretical Model, and peer-group support, reminder system also included. Participants in the control group (n=75) received the typical health education provided in schools. All participants completed anthropometric and metabolic measures including BMI, waist circumference, BP, HDL, triglyceride and fasting glucose at both the baseline, 3-month and 6-month stages. SPSS version 18.0 software was used to compile and analyze the research data. Descriptive statistics, the chi-squared test, Student *t* test, and generalized estimating equations were used during analysis.

**Results:** The results showed that 3 months after the intervention began, the experimental group demonstrated significant improvements ( $\beta = -0.436$ ,  $p = .004$ ) compared with the results of the control group. Improvements were exhibited in the following risk factors for metabolic syndrome: the body mass index (BMI), waist circumference measurements, HDL levels, and systolic and diastolic blood pressure results. In addition, these outcomes remained statically significant 6 months after the intervention began. Six months after the intervention began, the following intervention outcomes were observed: a decline in fasting blood glucose levels ( $\beta = -7.174$ ,  $p < .001$ ). On average, the body weight of the experimental group than the control group in the 3-month decreased 2.146 Kilogram, in the 6-month decreased 2.460 Kilogram, the results were statistically significant ( $p < .05$ ). The frequency of using the food and exercise diaries was negatively correlated to changes in the risk factors for metabolic syndrome (i.e., BMI and waist circumference measurements and triglyceride levels), but was positively correlated to changes in HDL levels. The frequency of using the website was negatively correlated to changes in the risk factors for metabolic syndrome (i.e., waist circumference measurements and systolic blood pressure and triglyceride levels).

**Conclusion:** The 6-month health management platform with Internet-based intervention had positive effects on reserve the markers of metabolic syndrome in overweight adolescent girls. By using the Internet, which is not bound by time and space, this model is the most effective self-health management

method for young people. Continued follow up may be required for long-term maintenance in lifestyle behavior change.

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### Contact

[wennysu1@gmail.com](mailto:wennysu1@gmail.com)

## RSC PST 1 - Research Posters Session 1

### Home Visit Nurse's Thoughts for Complementary and Alternative Medicine (CAM) in Japan

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*Atsuko Tokushige, RN, PHN, PhD, Japan*

*Sayuri Tanaka, RN, PHN, MSN, Japan*

#### Purpose

The purpose of this presentation is to verify home visit nurse's thoughts for complementary therapy to get a suggestion for the CAM spread in Japan.

#### Target Audience

The target audience of this presentation is home visit nurses and practitioners of complementary therapies.

#### Abstract

**Purpose:** In Japan, complementary and alternative medicine (CAM) of knowledge and skills of the visiting nurses is required with the spread of palliative care due to an increase in cancer sufferers and complication of the disease structure in aging.

In the report of the group "Research on Complementary and Alternative therapy of cancer in our country" in the Ministry of Health, Labour and Welfare grant-in-aid for cancer research, for the use in the medical field, that 44.6% of cancer patients are using one or more types of CAM has been reported <sup>1)</sup>. This study is a thing of health care facilities, it would likewise be utilized from the hospital is considered to be people who were using the CAM in the medical facility needs of CAM in cancer patients to medical treatment at home is to be higher is presumed.

For CAM use of home care's, it has been reported per 1,000 medical users, 49 people and are using CAM<sup>2)</sup>. Also, in the survey of the general public, utilization of CAM has been reported 65% in 1999, 68% in 2005 <sup>3)</sup>.

From these facts, it is considered that the need for CAM implementation of the visiting nurse is high, but the fact-finding of the CAM practice of the home visit nurse has not been carried out until now. Therefore we randomly selected approximately 30% of stations in Japan (1,700 facilities) and performed the mail investigation into questionnaire. As a result, it was revealed that only approximately 30% of temporary nursing at home stations practiced CAM <sup>4)</sup>.

Therefore, using our findings, it was intended to get a suggestion for the CAM spread in Japan in this study and analyzed it using technique of the text mining about the reason that did not carry out CAM.

**Methods:** 1. The subject and data collection method

#### 1) Study1

We randomly selected approximately 30% of stations in Japan (1,700 facilities) and performed the mail investigation into questionnaire. Among 1,687 facilities which excluded the place where there was the communication such as the facilities closedown, it was collected from 381 facilities (22.6% of recoveries). About 247 facilities that answered them, that it has not been performed CAM, it was the object of analyzing the reason for not implementing the CAM portion of the free described.

#### 2) Study2

We carried out semi-structured interviews for the veteran nurse practitioners about thoughts for CAM. She has 30 years nurse career and nine years experience of visiting nurse.

#### 2.Data analyses

#### 1) Study1

About a free mention about reason which did not practice CAM, we analyzed it using technique of the text mining. We assumed the lower limit of the appearance frequency ten times. The software which we used is SPSS Analytics for Surveys 4.0.

## 2) Study2

"How did you incorporate CAM in nursing care" "How can we do to go spread the CAM" and "CAM needs of the patient and family", we carried out semi-structured interviews. The transcript verbatim record by recording, for talking of nurses, they were analyzed using the technique of text mining interview. We assumed the lower limit of the appearance frequency twenty times. The software which we used is SPSS Analytics for Surveys 4.0.

## 3) Ethical considerations

This research got the approval of the Ethical Review Board of the university where a researcher belonged to. For the interview, we explain in writing and verbally that research aims, methods, research cooperation are arbitrary, that there is no disadvantage of participation refusal, that the withdrawal of study participants is also possible, to protect the privacy. It was performed on with the consent.

### Results: 1) Study1

The extracted category were [Knowledge], [Time], [Skill], [Staff], [CAM], [Understanding], [Patients-], [Practice],[Need].

The <lack of knowledge> and the <there is no way to learn> were included in the [Knowledge]. The < do not have time to study> and the <there is no time to perform the CAM to visit nursing time> were included in the [Time]. The < skill shortages> was includes in the [Skill]. The <lack of staff> and the <knowledge and skill shortage of staff> were included in the [Staff]. The < I do not know the CAM> and the <I first heard the term CAM> were included in the CAM]. The <difficult to obtain an understanding of the staff>, the <difficult to obtain an understanding of the attending physician> and the <it is difficult to obtain an understanding of the family> were included in the [Understanding]. The <it is difficult to obtain an understanding of the patient > and the < It is necessary to have a patient purchase aroma oil > were included in the [Patients-]. The <It is difficult to do > was included in the [Practice]. The < skill > and the < need for permission from a boss> were included in the [Need].

## 2) Study2

The extracted category were [I-Myself], [Doctors], [Patients],[Nursing Care].

The < I also healed> and the <I think that it boost the immune system> were included in the [I-Myself]. The <doctors believe that they can not do anything to the patient> and the <patient rejoice doctor just to home visit > were included in the [Doctors]. The <patient's happiness> and the <be taught from patients> were included in the [Patients]. The < care to make use of natural healing power in to the maximum> and the <our care> were included in the [Nursing Care].

**Conclusion:** In this research, reasons of the home visit nursing station which did not practice CAM included lack of [Knowledge] , [Time], [Skill], getting understanding of the staff of the station and the understanding of the governing body of the station. In addition, from the narrative of visiting nurse veteran, it has been found and that it has implemented care while being healed, that the joy of the patient is in the motivation of practice.

In Japan, we cannot get the knowledge about CAM in the school education. Because knowledge and the technical acquisition are left to nurse oneself, it is thought that the difference of a person with knowledge and a technique and the person who do not have is very large. What is adopted in a curriculum of the school education is desirable to diffuse CAM in a visit nurse, but it is difficult under the present conditions. We thought that it is important to make an opportunity of the learning to the managers of the home visit nursing station at first. But, there is a big issue that who performs it and how to make a opportunity to learning. We think that it is necessary to cooperate with the College of Nursing which can teach CAM and professional organizations such as the Japanese Nursing Association.

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Contact

[atsuko-hanazono@mvf.biglobe.ne.jp](mailto:atsuko-hanazono@mvf.biglobe.ne.jp)

## RSC PST 1 - Research Posters Session 1

### Successful Strategies for Recruiting Low-Income Minority Group Women in a Community-Based Health Promotion Program

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*Adejoke B. Ayoola, PhD, RN, USA*

*Gail Landheer Zandee, MSN, RN, USA*

*Laura Schipper, BSN, RN, USA*

*Kendra Pennings, USA*

#### Purpose

to describe the strategies that were successful in recruiting low-income minority women into a community-based health promotion program.

#### Target Audience

Nurses and other health professionals who are interested in learning about successful strategies that were successful in recruiting low-income minority women into a community-based health promotion program.

#### Abstract

**Purpose:** Low-income and minority groups need to be well represented in health promotion studies so as to identify and address the existing health disparities in the U.S. However, studies have shown that it is challenging to successfully recruit low-income and minority groups into a study. The purpose of this study is to describe the strategies that were successful in recruiting low-income minority women into a community-based health promotion program.

**Methods:** This is a simple descriptive study where women were asked during a pre-intervention screening survey about how they learned about the study. Univariate and bivariate analyses were conducted using STATA 10.

**Results:** Sixty-one (43%) of the 141 women were African American, 38% were Hispanic, and 15% were White. The women were 18 to 55 years of age (mean =31 years), 73% had household income less than \$20,000.00. Most of the recruitment was done through community health workers (28.4%) and flyers distributed from house to house in the neighborhoods (27.7%). Fifteen percent of the women heard about the study through community-based agencies. The most successful means of recruitment among African American was through the community health workers, and through flyers distributed in the neighborhoods for Hispanic and White women

**Conclusions:** Partnership within the neighborhoods through active involvement of resident community health workers and local agencies are successful means of recruiting low-income women from ethnic minority group into a community-based health promotion program.

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#### Contact

[aba3@calvin.edu](mailto:aba3@calvin.edu)

## RSC PST 1 - Research Posters Session 1

### The Effects of an Oral Care Program on Oral Health of Institutionalized Elderly

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*Chia-Chi Chang, PhD, RN, Taiwan*  
*Jih-Hsuan Wu, RN, MS, Taiwan*

#### Purpose

The purpose of this study was to develop an oral care program and to examine the effects of this program among institutionalized elderly

#### Target Audience

The target audience of this presentation is anyone who are interested in oral and nutrition issues.

#### Abstract

**Purpose:** Institutionalized elderly overlooked the oral care because of multiple chronic diseases and decline self-care skills, impact the oral health quality of life, oral health status and nutritional status, resulting in oral-related diseases. There are few oral care program interventions. The purpose of this study was to develop an oral care program and to examine the effects of this program among institutionalized elderly.

**Methods:** This was a quasi-experimental study. Fifty-five convenience subjects were recruited from two northern long-term care facilities, randomly assigned to the experimental group ( $n = 24$ ) and the control group ( $n = 30$ ). The experimental group received four weeks of oral health programs, the control group received routine oral care. Data were collected pre- and post-tests including demographic variables, general health status, subjective oral health status, and objective oral health status. Subjective oral health status was measured by Oral Health Impact Scale -14 (OHIP-14) and objective oral health status were measured by plaque status and oral health assessment tool (OHAT). The data were analyzed by SPSS 19.0 for Windows.

**Results:** The study results showed that the experimental group had improve significantly with OHAT results ( $F = 21.094, p < .01$ ), plaque status ( $F = 4.438, p < .05$ ), and reduce the feeding time ( $F = 5.372, p < .05$ ).

**Conclusion:** Therefore the oral care program should be recommended in the future in long-term care facilities in order to promote the oral health and improve the quality of life.

#### Contact

[cchang@tmu.edu.tw](mailto:cchang@tmu.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Exploration of Factors Influencing Sleeping Quality Among College Nursing Students in Taiwan

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*Rei-Mei Hong, RN, PhD, Taiwan*

*Tz-Ling Fu, BS, Taiwan*

*Wei-Yu Chen, BS, Taiwa*

*Tsai-Tzu Yi, BS, Taiwan*

*Yang-Jing Ru, BS, Taiwan*

*Chi-Yun Cheng, BS, Taiwan*

*Zhang-Ya ,Gan, BS, Taiwan*

#### Purpose

The purpose of this presentation is to explore the factors of leading to poor sleep quality among nursing college students in Taiwan.

#### Target Audience

nursing students, nursing teachers, clinical nurses

#### Abstract

**Purpose:** Sleep is one of the human physiological needs. Sleep can promote personal health and provide the best physical and mental functions for human bodies. Recently we discovered that nursing college students in Taiwan are often lethargic and dozing in the classroom. Therefore, the study explored the factors of leading to poor sleep quality among nursing college students in Taiwan.

**Methods:** In this study, the Pittsburgh Sleep Scale (Pittsburgh Sleep Quality Index, PSQI) was used to investigate the sleep quality among third year nursing students in Taiwan.

**Results:** total of 100 questionnaires were issued. There are 94 valid questionnaires.

There were 86 % of female, and 14% of male participants in this study. The average age was 20 years old.

The studies showed that the main factors of causing poor sleep quality among nursing college were Internet use. Nursing college students used social networking all night in talking to friends which led to emotional dependent and stay up late.

In terms of quality of sleep, there were 67 nursing students (71.3%) indicating poor sleep quality (PSQI score  $\geq 5$ ), and results showed that their sleeping time was between 12am to 2am. There were no significantly between male and female.

**Conclusion:** In order to improve the quality of sleep, we hoped to enhance good lifestyle and good sleep habits among nursing college students. We recommended for proper time arrangements at homework and lifestyle; and taking regular exercise each day.

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#### Contact

[rmhong@mail.cgust.edu.tw](mailto:rmhong@mail.cgust.edu.tw)

## RSC PST 1 - Research Posters Session 1

### Asian-American Midlife Women's Physical Activity and Their Relationships to Sleep-Related Symptoms

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*Youjeong Kang, MPH, CCRN, USA*  
*Ok Kyung Ham, PhD, RN, South Korea*  
*Yaelim Lee, MSN, RN, USA*  
*Wonshik Chee, PhD, USA*  
*Eun-Ok Im, RN, MPH, PhD, CNS, FAAN, USA*  
*Helen Teng, MSN, CRNP, USA*

#### Purpose

The purpose of this presentation is to explain sleep-related symptoms that Asian American midlife women experience during their menopausal transition and the relationships between their physical activity and sleep disturbances.

#### Target Audience

The target audience of this presentation is researchers who are interested in cultural diversity health behaviors.

#### Abstract

**Purpose:** Midlife women are reportedly experiencing a set of symptoms during their menopausal transition as their estrogen declines (Avis et al., 2001). The symptoms include both physical and psychological symptoms, and sleep difficulties are one of the physical symptoms that midlife women are frequently experiencing (Avis et al., 2001). Indeed, the National Library of Medicine (2013) reported that about 16% to 42% of premenopausal women and 35% to 60% of postmenopausal women experience sleep-related symptoms during their menopausal transition. Physical activities reportedly improve the sleep disturbances experienced by midlife women in the menopausal transition (Mansikkamäki et al., 2012). However, the findings on the association between physical activity and sleep disturbances reported in the literature are inconsistent. Some reported that sleep problems were positively correlated with high exercise or leisure time physical activity (Tu et al., 2012). Others reported that physical activity negatively influences sleep problems, subsequently improving sleep quality of midlife women (Tworoger et al., 2003). Occupational physical activity was positively related to increased rates of moderately poor sleep quality, but women with moderate physical activity were less likely to experience sleep problems (Soltani et al., 2012). However, no statistically significant association of physical activity and sleep disturbances was also reported (Casas, Pettee Gabriel, Kriska, Kuller, & Conroy, 2012).

When race/ethnicity is considered in determining the relationship between physical activity and sleep, the relationship gets more complicated. A large number of studies reported racial/ethnic differences in physical activity (Centers for Disease Control and Prevention, 2008; Whitt, DuBose, Ainsworth, & Tudor-Locke, 2004), but few studies reported racial/ethnic differences in sleep-related symptoms that midlife women experience during their menopausal transition (Ramos et al., 2011). Subsequently, very little is still known about the relationships between physical activity and sleep-related problems in ethnic minority midlife women including Asian American midlife women. Thus, the purpose of this study is to explore sleep-related symptoms that Asian American midlife women experience during their menopausal transition and determine the relationships between their physical activity and sleep disturbances while considering other influencing factors.

**Methods:** This was a secondary analysis of the data from a larger study on midlife women's attitudes toward physical activity. Only the data on 123 Asian American midlife women were included for this secondary analysis. The instruments included questions on background characteristics and health and menopausal status, the Sleep Index for Midlife Women (SIMW), and the Kaiser Physical Activity Survey. The SIMW was derived from the Midlife Women's Symptom Index (MSI) (Im, 2006). The SIMW is a 24 item sub-scale of the MSI to measure sleep-related symptoms, and the individual item of the SIMW includes two parts: (a) symptom prevalence part using dichotomous scale (1 = yes; 0 = no) and (b)

symptom severity part using 6-point Likert scale (0 = no symptom; 5 = extremely). The Cronbach's alpha for the SIMW was .89 in this study. The KPAS (Ainsworth, Sternfeld, Richardson, & Jackson, 2000) includes four subscales on household/caring index, occupational index, active living index, and sports/exercise index, and each item is a 5-point Likert scale. The Cronbach's alpha for the KPAS was .84 in this study. The data were analyzed using descriptive statistics and inferential statistics including correlation and hierarchical multiple regression analyses.

**Results:** There were significant correlations between the three subscale scores of physical activity (household activity [ $r=.24, p<.01$ ], occupational activity [ $r=.24, p<.01$ ], and active living activity [ $r=-.18, p<.05$ ]) and the total number and total severity of sleep-related symptoms. When controlling other influencing factors, only household activity ( $\beta=1.94, p<.05$ ) and active living activity ( $\beta=-2.3, p<.01$ ) significantly contributed to the total variances in total number of sleep-related symptoms ( $R^2=.09, p<.01$ ). The only other significant predictor of the total number of sleep-related symptoms among Asian American midlife women was perceived general health ( $\beta=-1.99, p<.01$ ).

While household activity and occupational activity are positively related to the sleep-related symptoms, only active living activity is negatively related to sleep-related symptoms. In other words, some physical activity such as household activity and occupational activity could increase sleep-related symptoms during menopausal transition. This finding agrees with some previous studies that reported negative influences of occupational physical activity on the quality of sleep (Soltani et al., 2012). Health care providers need to consider in their research and practice that increasing active living activity (leisure-time physical activity) would improve Asian American midlife women's sleep-related symptoms, but increased household activity and occupational activity could be detrimental to sleep-related symptoms.

**Conclusion:** Considering the inconsistent findings on the relationships between physical activity and sleep problems in the literature, further studies on sleep problems experienced by midlife women need to be conducted while considering different types and amount of physical activity.

**Acknowledgement:** This analysis was conducted as a part of a larger study funded by NIH/NINR (1R01NR010568-01) entitled "Ethnic-Specific Midlife Women's Attitudes Toward Physical Activity."

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## Contact

[ykan@nursing.upenn.edu](mailto:ykan@nursing.upenn.edu)

## RSC PST 1 - Research Posters Session 1

### Utilization of Fall Preventive Sensors and Moral Sensitivity

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*Miho Matsui, RN, PhD, Japan*

#### Purpose

The purpose of this presentation is to examine relationships between use of fall preventive sensors and staff's moral sensitivity in hospital settings.

#### Target Audience

The target audience of this presentation is staff's among hospital settings.

#### Abstract

**Purpose:** Using fall preventive sensors among hospitalized older adults is a kind of restraint and remains an important issue. Alarm sensors are effective to prevent patient's falls, however, a report revealed that patients felt they are under watch by using these devices. The purpose of this study is to examine relationships between use of fall preventive sensors and staff's moral sensitivity in hospital settings.

**Methods:** A cross-sectional study was conducted using questionnaire. Two Japanese hospital staffs including nurses and care workers received the questionnaire. Survey items included demographics, utilization and perception of using fall preventive sensors, and staff's moral sensitivity. Moral sensitivity was assessed by Japanese version of the revised Moral Sensitivity Questionnaire (J-MSQ). J-MSQ is 9 item questionnaire measures consisting of three sub-categories of Moral Strength (MS), Sense of Moral Burden (SMB), and Moral Responsibility (MR). Each item is ranked on a 6-point Likerttype scale.

**Results:** The questionnaire was distributed to 241 staffs and was returned by 208 (response rate 86.3%), 206 were valid response (85.5%). The sample had a mean age of 34.7 years (SD 9.8, range 20–63 years) and had been nursing for an average of 11.2 years (SD 9.3, range 0.3–35years). The majority of respondents were women (92.6%). Most all subjects (98.1%) used fall preventive sensors in their current ward. Perception of using fall preventive sensors, 69.7% thought patient could be under stress using sensors, 41.5% would respect patient's self-esteem, 19.5% did not want to use sensors because of considering restraint, and 15.9% thought utilization of sensors is an invasion of human rights. These responses were significantly associated with moral sensitivity assessed by SMB and MR of the J-MSQ.

**Conclusion:** Although most staffs used sensors in the current ward, perception of using fall preventive sensors and staff's moral sensitivity were significantly related. These results suggest that staff's moral sensitivity is an important factor to reduce utilization of these devices in clinical settings.

#### Contact

[mihomatsui1002@yahoo.co.jp](mailto:mihomatsui1002@yahoo.co.jp)

## RSC PST 1 - Research Posters Session 1

### Effect of the "SHISEI" Meta-Cognition Educational Program Aiming at the Low Back Pain Improvement of the Female New Face Nurses in Japan

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Keiko Takeda, PhD, RN, Japan  
Yoriko Watanabe, PhD, RN, Japan

#### Purpose

We examine an effect of the improvement of low back pain of the female nurse by the Cognition educational program that we developed.

□"SHISEI" Meta

#### Target Audience

Nurses with the low back pain and nursing teachers.

#### Abstract

**Purpose:** We examine an effect of the improvement of low back pain of the female nurse by the "SHISEI" Meta-Cognition educational program that we developed.

**Methods:** The subjects included were 31 female new face nurses with the low back pain in Japan. The purpose of this education program is to enhance awareness of physical and psychosocial factors affecting posture. The educational program is comprised of two elements. In Part 1, we explained it so that nurses could recognize low back pain as biopsychosocial sharp pain syndrome. Then, in Part 2, we introduced a practical method for improving the symptoms of low back pain and preventing their occurrence. An enforcement period of the programs is two weeks. We examined an effect based on results of the inventory survey about low back pain (VAS: Visual analogue scale) and physical posture, psychological attitude, social attitude before and after enforcement. Ethical Review Board approval No. 12002. The Meta-Cognition is to grasp thought and action itself objectively, and to recognize it. In this program, we assume "SHISEI" Meta-Cognition as the Meta-Cognition for physical posture, psychological attitude and social attitude. We define as the "SHISEI" Meta-Cognition that nurses recognize the low back pain and relations with each one's physical posture, psychological attitude, social attitude and do self-evaluation and adjust it.

**Results:** It was eight nurses (25.8%) who recognized low back pain as biopsychosocial sharp pain syndrome before intervention, but increased to 16 nurses (51.6%) after intervention. Low back pain significantly improved nurses who recognized low back pain as biopsychosocial sharp pain syndrome than nurses who did not recognize it ( $t=-2.2$ ,  $p=.040$ ). After program practice, Use of the body mechanics of nurses significantly increased ( $t=2.4$ ,  $p=.030$ ). And muscular workout ( $t=2.2$ ,  $p=.045$ ), relax the backbone ( $t=4.4$ ,  $p=.000$ ), keep the backbone correctly aligned ( $t=5.4$ ,  $p=.000$ ). In addition, as for nurses, reflected one's opinion in a policy of the work ( $t=2.4$ ,  $p=.029$ ), control of the work ( $t=2.5$ ,  $p=.027$ ), check a cause and solve a problem ( $t=2.2$ ,  $p=.041$ ), talk and solve a problem ( $t=2.5$ ,  $p=.023$ ), to talk about ( $t=2.4$ ,  $p=.029$ ) significantly increased. Furthermore, nurses significantly increased to change ( $t=2.2$ ,  $p=.048$ ).

**Conclusion:** As a result of having intervened in female new face nurses with the low back pain by the "SHISEI" meta-cognition educational program, the low back pain was improved if they were recognizable when low back pain was biopsychosocial sharp pain syndrome.

#### Contact

[takeda@n-fukushi.ac.jp](mailto:takeda@n-fukushi.ac.jp)

## RSC PST 1 - Research Posters Session 1

### Job Demand, Work-Family Conflict and Nurses' Intention to Leave

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*Li-Chung Pien, RN, MSN, Taiwan*

#### Purpose

The purpose of this presentation is to understand the distribution of ward nurses's job demand and work-family conflict. Investigating the factors which affect nurses's intention to leave.

#### Target Audience

The target audience of this presentation is the clinical managers and policy makers.

#### Abstract

**Purpose:** The purpose of this presentation is to understand the distribution of ward nurses's job demand and work-family conflict. And examined their association with intention to leave among ward nurses.

**Methods:** This study used cross-sectional study design. The study used convenience sampling in a teaching hospital, total interviewed 154 subjects. Research instruments including basic demographic questionnaire, Chinese Version of the Job Content Questionnaire (C-JCQ) (Cronbach's alpha=.61-.91), Work-Family Conflict Questionnaire (Cronbach's alpha=.909) and intention to leave Questionnaire (Cronbach's alpha=.93).

**Results:** The results showed that first, subjects mean age was 29.3 years old (SD = 6.1), working years 6.9 years (SD = 5.7). Second, job demand and intention to leave were positive correlation and had statistically significant ( $r = .395, P < .001$ ). Third, work-family conflict and intention to leave were positive correlation and had statistically significant ( $r = .347, P < .001$ ). Fourth, in the multiple linear regression models, after adjusting for age, working years, workplace characteristics, when job demand and work-family conflict increases, intention to leave was significantly increased. Multiple regression model can explain intention to leave .302variance. Job demand and work-family conflict are the best predictors of intention to leave.

**Conclusion:** High job demand and work-family conflict that may make it easier nurses have intention to leave their work. Job demand and work-family conflict were associated with nurses's intention to leave. The results helped hospital managers to understand the underlying factors about nurses's intention to leave. Hospital management class may provide a good working environment and family-friendly policies in the workplace, reduce nurses's turnover intention and the manpower drain.

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#### Contact

[starsky5202001@yahoo.com.tw](mailto:starsky5202001@yahoo.com.tw)

## RSC PST 1 - Research Posters Session 1

### An Effect of Hands-On Training for Female University Students Using the Model of Breast on the Knowledge and Techniques of Breast Self Examination

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*Kwang Ok Lee, PhD, RN, South Korea*

*Ji Young Hwang, BS, South Korea*

#### Purpose

The purpose of this study was to determine the effectiveness of hand-on training using the model of breast on the knowledge and skills of breast self examination and to utilize the nursing interventions for the prevention of breast cancer.

#### Target Audience

To determine the effectiveness of hand-on training using the model of breast on the knowledge and skills of breast self examination and to utilize the nursing interventions for the prevention of breast cancer.

#### Abstract

**Purpose:** According to the National Statistical Office (NSO), there are the number of women breast cancer in 2009 for 177 people in their 20s and 6,848 people in their 30s~40s per 100,000 population in Korea. The purpose of this study was to determine the effectiveness of hand-on training using the model of breast on the knowledge and skills of breast self examination and to utilize the nursing interventions for the prevention of breast cancer.

**Methods:** This study was the non equivalent quasi-experiment, and a total of 75 people participated with 38 for experimental group and 37 for control group. The training of breast self examination using the model of breast was provided for the experimental group and the training of breast self examination with the brochure was provided for the control group. The data collection was carried out from Oct 27 to Dec 12, 2012

**Results:** Checking the change of knowledge about breast self examination after the intervention, the experimental group using the model of breast increased to  $1.92 \pm 1.83$ , the control group using brochure increased to  $0.97 \pm 2.70$ , and there was no significant difference between the two groups ( $p = .079$ ). As a result of the analysis of technical aspects' change about breast self examination after the intervention, the experimental group using the model of breast increased to  $3.65 \pm 2.71$ , the control group providing brochure only increased to  $1.78 \pm 3.32$ , and there was a significant difference between the two groups ( $p = .009$ ).

**Conclusion:** The hand-on training using the model of breast increases the techniques of breast self examination significantly than the training with only a simple brochure, thus, the training of self examination for prevention of breast cancer needs to go hand in hand with the hand-on training using the model.

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#### Contact

[kolee@smu.ac.kr](mailto:kolee@smu.ac.kr)

## RSC PST 2 - Research Posters Session 2

### Child Rearing Support of Nurses who are Mothers of Pre-School Age Children

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*Akiko Maruyama, PhD, Japan*

*Eiko Suzuki, PhD, Japan*

*Tomomi Azuma, PhD, RN, Japan*

*Miyuki Saito, PhD, RN, PHN, Japan*

#### Purpose

The purpose of this presentation is to get the knowledge to manage both job and child rearing in nurses who are mothers of pre-school-age children.

#### Target Audience

The target audience of this presentation is nurses who have pre-school-age children and want to continue work as nurses. In addition, nurse managers and nursing researchers could be target of this presentation to get the knowledge of prevention of turnover.

#### Abstract

**Purpose:** Managing both job and child rearing is a big challenge for women, and it is specifically difficult for nurses to manage both and that many nurses are susceptible to stress. This study aimed to clarify the relationship between burnout and child rearing support of nurses who have pre-school age children.

**Methods:** The subjects were 2,151 nurses who have pre-school age children, working in 70 hospitals with at least 200 beds, established by cities and towns across Japan. The questionnaires were completed by 1,644 nurses (92.3%) in October 2010, and they were divided into two cohorts to observe the incidence of burnout, which was investigated in October 2011. To assess child rearing support, nurses were asked whether there were any persons (parents, sibling, friend, relative, neighbor, babysitter) who support them and with whom (parents, sibling, friend, relative, neighbor, babysitter) they can consult in child rearing, and how often they have occasion to talk with their spouse about their children (Anme 1987). We assessed burnout using the total Maslach Burnout Inventory (MBI) score. In many other studies (Bourbonnais, Comeau, Vezina & Dion, 1998; Inaoka, 1988), the definition of burnout was applied to the subjects with MBI scores in the highest tertile. Therefore, the subjects with total MBI scores in the highest tertile were defined as being burnout.

**Results:** By excluding nurses whose total MBI was in the top one-third or higher (12.14 point or higher), a cohort was set up (n=1,096). In the survey conducted in October 2011, the number of valid responses after excluding the ones that were incomplete or duplicated was 1,008 (82.4%). After matching the responses obtained in the baseline survey with the survey in October 2011, the number of nurses that were eligible for a follow-up survey was 523 (47.3%), and the burnout incidence group had 117 nurses (22.4%). As a result of the chi-square test, child rearing support related to burnout was existence of consulters about child rearing, especially neighbors (0.01<P<0.05).

**Conclusion:** According to the factors affecting burnout of nurses, 'service years at the present workplace', 'will to continue the work', 'assertiveness' and 'overtime work' were already reported in the previous studies. However, there are a few researches for nurses who have pre-school age children. Since 'Child rearing support' is unique to this study, it can be regarded as a newly found factor. In Japan, nuclear family has been increasing. Mother during child care tends to be lonely. Neighbor seems to be a big help than kinsman. We have found that the presence of consulters contributes significantly to the elimination of stress in nurses who have pre-school children.

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Contact

[amaruyama@kyoritsu-wu.ac.jp](mailto:amaruyama@kyoritsu-wu.ac.jp)

## RSC PST 2 - Research Posters Session 2

### The Carers of People with Dementia in the Sub-Acute Facility: A Qualitative Study

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Robin Digby, Australia

Melissa Bloomer, PhD, RN, Australia

Kimberley Crawford, PhD, BSc (Hons), Australia

Allison Fiona Williams, PhD, RN, Australia

#### Purpose

to increase allied health and nursing staff's knowledge of the issues faced by family caregivers of people with dementia, who transitioned through the hospital setting and were waiting for a position in a residential care facility

#### Target Audience

allied health and nursing staff involved in aged care who will come into contact with caregivers of people with dementia

#### Abstract

**Purpose:** When a person with dementia is receiving in-hospital treatment, transitioning through the hospital system and subsequently assessed as requiring residential care, family caregivers may feel overwhelmed and disempowered by the healthcare system (Haesler *et al.* 2010). There is a danger that the caregiver will feel excluded from decision-making and uncertain about their role as key provider of care for their relative (Efraimsson *et al.* 2006). Although there is a growing body of literature exploring family involvement in the care of persons with dementia in Australia and internationally, minimal research has been conducted on the impact that transition from the sub-acute inpatient facility to a residential facility has on family caregivers. The aims of this study were to explore the experiences of caregivers of people with dementia, who transitioned through the sub-acute inpatient facility and were waiting for residential care placement.

**Methods:** Potential participants were identified from patient hospital admission data at The Mornington Centre, an Aged Rehabilitation and Geriatric Evaluation and Management sub-acute inpatient facility on the Mornington Peninsula, Victoria, Australia. The treating clinical team were consulted regarding the suitability of caregivers, for example, in terms of their own health, language spoken and emotional state before being invited to participate. Participants were aged over 18 years old, spoke English, and had been caring for a person with dementia at home prior to that person being admitted to the sub-acute inpatient facility. This study utilized a descriptive qualitative design (Sandelowski 2000); each caregiver was interviewed using a conversational approach through which they were encouraged to speak about their experiences during this transition phase. This approach allowed for the subjectivity of the individual's experience to be captured; the personal experiences and stories unique for that person (Taylor 2006) unlikely to be evident in quantitative surveys. Following consent, the interviews were conducted in a quiet location, at The Mornington Centre; all interviews were taped and then professionally transcribed. The interviews were conducted between April and November 2013. Thematic analysis using Sandelowski's (2000) method of qualitative description was conducted to explore the experience of the caregiver during the transition of a relative with dementia through the sub-acute inpatient facility moving into a residential aged care facility.

**Results:** Participants were aged between 34 and 92 years with equal gender distribution. The majority of the caregivers were in their late 70s or early 80s. Every person that was asked to be interviewed agreed to participate. The caregiver participants consisted of six husbands, seven wives, two daughters, two sons, one daughter-in-law and two friends (both males). The interviews ranged in length from 13.5 mins to 43 mins (average 25.01 mins + 7.39 (SD)). In total, 502 minutes of interview data was collected. Many of the caregivers appreciated the opportunity to talk about their experience, likening it to '*getting things off their chest*'. One woman said that no one had asked her how she felt about the experience with her husband's dementia before. The findings of this study emphasise the wave of emotions the caregiver will experience during this transition phase. Caregivers found it difficult to adjust to their new role as the

visitor. Caregivers were relieved that they were no longer solely responsible for their relative or friend but they felt they were losing control and guilty that they could no longer care for them. Spousal caregivers spoke about the support they received from other family members; however, despite having family around them, they spoke of loneliness.

**Conclusion:** During a hospital stay, the focus is on the patient and not the caregiver; rarely does someone ask how the caregiver is feeling and how they are coping. These interviews gave the caregiver the opportunity to speak to someone about themselves. The results from this study were used to produce a brochure that will be given to caregivers, assuring them that they are not alone and the emotions they are experiencing are natural responses during this transition phase. The brochure will include contact details for support services identified in the interviews to help caregivers overcome their difficulties. The distribution of the brochure is intended to improve the family caregiver's experience within the healthcare system and make this transition phase easier. The findings of this study have also been presented to allied health and nursing staff that have daily contact with the caregivers; increasing the clinicians' understanding of the issues faced by family caregivers.

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### Contact

[allison.williams@monash.edu](mailto:allison.williams@monash.edu)

## RSC PST 2 - Research Posters Session 2

### Effectiveness of Motivational Enhancement Therapy Plus Cognitive Behavior Therapy on Glycerol Control, Depressive Symptoms, and Health Related Quality of Life in Diabetic Patients: A Randomized Controlled Trial

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*Chiung-Yu Huang, PhD, Taiwan*

*Hui-Ling Lai, PhD, RN, Taiwan*

*Wen-Kuei Chen, PhD, Taiwan*

#### Purpose

The purpose of this presentation is sharing the evidence outcomes of Effectiveness of motivational enhancement therapy plus cognitive behavior therapy on glycerol control, depressive symptoms, and health related quality of life in diabetic patients.

#### Target Audience

The target audience of this presentation is adults with type II diabetes mellitus.

#### Abstract

**Purpose:** When patients with diabetes have proper glycerol control, negative emotional responses usually occur and their health related quality of life is consequently under threats. The objective of this study was to determine the effectiveness of motivational enhancement therapy (MET) plus cognitive behavioral therapy (CBT) on depressive symptoms, HbA1C, fasting sugar, BMI, and health related quality of life in type II diabetic patients.

**Methods:** There was an experimental design, a repeated measurement analysis. Data were collected in diabetic outpatient department. In the outpatients department of a general hospital, 241 diabetes patients had been approached in a managed diabetes care system, and 61 of them were recruited for the intervention clinical trial, who were screened by using Radloff CESD for depressive symptoms with score above 16. The MET plus CBT intervention consisted of twelve weekly 80 minute-sessions. At this purpose, six scales were repeated measured before and after the intervention, and there month follow-up.

**Results:** Sixty-one patients completed the study. There were statistically significant improvements for outcome variables in the MET plus CBT experimental group ( $n = 31$ ) ( $p < 0.01$ ). In comparison the outcomes to experiment and control group ( $n = 30$ ), there were statistically significant decreasing in HbA1C and fasting sugar three months after intervention ( $p = 0.0009$ ,  $p = 0.0144$ ), and significant decreasing in depressive symptoms after and three month later of intervention ( $p = 0.0000$ ).

**Conclusion:** Cognitive behavioral therapy improves self control skills and thus strengthens diabetes control skills, which results into the changes in fasting sugar, HbA1C, and depressive symptoms, and enhance health related quality of life. The intervention results 1-month improvement in HbA1C, fasting sugar and post and 3-month decreasing depressive symptoms compared with usual medical care. Nurse and psychiatrist delivered MET plus CBT as feasible for adults with depressive symptoms of type II diabetes. Nursing professional can consider using MET plus CBT besides usual care for improving psychological adjustment to their situation and thus lower the complications and cost of diabetic consequences.

#### References

Motivational enhancement therapy, cognitive behavioral therapy, fasting sugar, depressive symptoms, health related quality of life

#### Contact

[chyh@isu.edu.tw](mailto:chyh@isu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Development of the Japanese Version of the Teaching Style Assessment Scale

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*Fumiko Yoshida, MSN, RN, Japan*

*Toyoaki Yamauchi, MD, ND, PhD, FNP, RN, Japan*

#### Purpose

To develop the Teaching Style Assessment Scale for Japanese nursing educators. To enable nursing educators to analyze their own teaching style. To identify student-centered and/or teacher-centered elements in their individual practice.

#### Target Audience

1. The learner will be able to list and define all the elements of learner-centered teaching 2. The learner will be able to identify cross cultural issues in Japanese education.

#### Abstract

**Purpose:** To develop the Teaching Style Assessment Scale for Japanese nursing educators.

To enable nursing educators to analyze their own teaching style.

To identify student-centered and/or teacher-centered elements in their individual practice.

**Methods:** The original scale on which this research is based was developed as the Principles of Adult Learning Scale (PALS) by Gary J. Conti, EdD, and was itself based on an Adult Learning Model.

There was no scale with which to measure a teacher's teaching style in Japan. Therefore, a Japanese version of PALS was necessary, and Dr. Conti granted permission for the development of such a scale.

A Provisional Japanese Version of the Teaching Style Assessment Scale (P-JVTSAS) was created by the researchers. The translation was accomplished in three steps.

After approval by the Nagoya University Graduate School of Medicine IRB, copies of the P-JVTSAS were sent to a national sample of 2,256 Japanese nursing educators.

Based on a survey of 1,111 participants, using the P-JVTSAS which had been submitted to Japanese nursing teachers throughout Japan, the researchers developed the Japanese Version of the Teaching Style Assessment Scale.

Analyses: compared the scores of nursing teachers from the USA and Japan. Verification: Criterion-related validity, Construct validity, Content validity and Reliability.

**Results:** SPSS software was used for analysis.

The Japanese teachers' average for P-JVTSAS was 121.03 with a standard deviation of 15, which is lower than the scores of the American teachers (146 with SD 20). These scores indicate that Japanese nursing teachers lean toward a teacher-centered rather than student-centered teaching style.

Criterion-related validity and Construct validity were examined using 44 items; 7 factors were found by confirmatory factor analysis. 3 factors were found by exploratory factor analysis except 8 items, which were low loading (< 0.30). Content validity was examined with the testimony of the English experts. Internal consistency: Cronbach's confident alpha was 0.854.

**Conclusion:** The Japanese Version of the Teaching Assessment Scale consists of 3 factors: individualization, student-centered actions by the teacher, and teacher-centered actions.

The validity and reliability of the JVTSAS were examined.

#### Contact

[fy200@nyu.edu](mailto:fy200@nyu.edu)



## RSC PST 2 - Research Posters Session 2

### Efficacy of Mantram Repetition Program on Insomnia in Veterans with Posttraumatic Stress Disorder

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*Lindsay Cosco Holt, RN, USA*

*Jill Bormann, PhD, RN, FAAN, USA*

*Taylor Andrews, BA, USA*

*Lin Liu, RN, USA*

*Joseph F. Burkard, DNSc, CRNA, USA*

#### Purpose

The purpose of this presentation is to disseminate the effects of the Mantram Repetition Program (MRP) on sleep in the veteran population. The results of this research will aim to encourage subsequent studies on the Mantram Repetition Program in various populations.

#### Target Audience

The target audience for this presentation includes those interested in learning more about complementary therapies and those who currently practice mantra-focused and other meditative methods, and clinicians who have not yet integrated these types of therapies into their practice.

#### Abstract

**Purpose:** Posttraumatic Stress Disorder (PTSD) affects over seven million (3.5%) of the US adult population, 36% categorized as a severe diagnosis. In 2011, 476,515 veterans were currently seeking treatment for PTSD (<http://www.va.gov/opa/issues/ptsd.asp>). Statistics show that 87% of veterans with PTSD report sleep disturbances and 52% experience frequent nightmares, making sleep the second most common reason why veterans seek mental health care upon return from deployment (Germain et al., 2006). Poor sleep is related to daytime impairment including greater reaction to stimuli, decreased ability to focus and concentrate, impaired goal achievement, and greater risk of suicide (Nappi et al., 2011). Studies have sought to find a link between PTSD and sleep, and the importance of sleep in the recovery process, but there is a gap in the research on sleep disturbances and interventions for improvement in veterans with PTSD. The Mantram Repetition Program (MRP) teaches a portable method of meditation that has been shown to improve symptoms of PTSD in the Veteran population (Bormann et al., 2012). Qualitative studies have shown that veterans report improvements in sleep by using skills learned in the MRP. However, no quantitative study has been conducted to assess veteran sleep patterns before and after MRP.

This study's aims were to: (1) Evaluate the efficacy of the MRP on sleep habits; (2) Identify the aspects of sleep that are positively influenced by the MRP; and (3) Assess the demographic variables and their relationships to MRP and sleep outcomes.

**Methods:** The study design is a within group pre-post test design. Four primary screening tools were used to evaluate PTSD symptom burden and sleep habits including the Clinical Administered PTSD Scale (CAPS) interview, Insomnia Severity Index (ISI), Glasgow Sleep Effort Scale (GSES), and Pre Sleep Arousal Scale (PSAS).

**Results:** Results for this study are pending.

**Conclusion:** With new cases of PTSD being diagnosed every day, more research is needed for best practices to improve outcomes for current and future veterans. With the present gaps in sleep knowledge and its effect on daytime symptoms, this research will help further identify interventions that are evidence-based with data-grounded results on intervention progression as well as symptom improvement. These studies address the global issues of PTSD, hoping to further expand treatment availability to those coming home from combat, and also looking to discover the best ways to prevent PTSD in the future. Results from this study will lend to the foundation of sleep intervention research on veterans with PTSD, in hopes to aid in symptom relief of veterans who have suffered with the adverse effects of the disorder. Research results will further explore the value of the MRP, aiding in its dissemination for others to learn and practice as a part of their daily routine.

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## Contact

[lindsay.cosco@gmail.com](mailto:lindsay.cosco@gmail.com)

## RSC PST 2 - Research Posters Session 2

### The Historical Research of Japanese Administrative Policy and Outcome of Maternal and Child Health Education

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*Yukari Kawahara, PhD, RN, Japan*  
*Atsuko Yumoto, MA, CNM, Japan*  
*Kazuko Yarimizo, BS, Japan*  
*Sachiko Tanaka, PhD, RN, Japan*  
*Keiko Ogawa, MA, CNM, Japan*

## Purpose

The purpose of this presentation is to examine the administrative policies and outcome to change maternal and infant health in Japan by historical research.

## Target Audience

The target audience of this presentation is academic professional and administrative personnel who intend to improve maternal and child health in cultural diverse situations.

## Abstract

**Purpose:** The purpose of this study is to examine the history of maternal and infant health in Japan by clarifying the administrative policies of the Japanese government from 1917 to present and the effect of these policies on the health of mothers and children education.

**Methods:** The historical research was conducted between August 1, 2012 and March 31, 2013. Sixteen semi-structured interviews were conducted with the past government officials responsible for health policies, related organizations, researchers, and specialists and relevant materials from respective institutions and libraries were examined. The research was approved by the ethics committees of the affiliated organizations.

**Results:** The modernization of Japan's maternal and child health administration began from 1917, when the government cemented a policy based on scientific evidence and statistical research conducted by the Health Hygiene Investigation Committee. The Japanese maternal and child health system, which involved issuing maternity record books, providing health guidance through mass examination and home visits, and forging links with welfare systems, was produced by modeling after those of Germany and later enhanced by administrations in the period of U.S. occupation with the exception of the eugenic thought. Although in 1955 the Japanese government presented a policy that maternal and child health services by prefectural government will be provided by municipal in future, it failed to materialize due to issues related to human resources and technology; therefore, projects continued to be supported by non-government and community organizations. In mid 1970s, Japan was one of the nation which achieved the lowest rate of infant and maternal mortality in the world and were starting to aware of the limitations of a public hygiene approach based on improving these indicators. Then, from 1994, as national focus shifted to the aging population, and power became decentralized, and most of maternal and child health service were provided by municipal governments. Today, the maternal and child health

service requires higher level ability which must also consider psychosocial dimensions of mothers and children. It faces challenges such as enhancing the ability of municipal public health nurses, establishing effective collaboration between prefectural and municipal public health nurses, promoting collaboration between national, local and municipal governments, local residents, and non-government organizations, and cultivating citizenship.

**Conclusion:** The administrative policies, outcomes and factors related to change maternal and child health in Japan are discussed. It contributed to achieve the lowest infant and maternal mortality in the past and is needed to tackle current challenges aging society with child birthrate falling and decentralization.

Contact

[kawahara@redcross.ac.jp](mailto:kawahara@redcross.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Understanding Self-Care Coping Styles in Patients with Chronic Heart Failure

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*Chia-Chien Li, MSN, RN, Taiwan*  
*Shiow-Ching Shun, PhD, Taiwan*

#### Purpose

- 1) To understand the coping of self-care in physical and psychological aspect in chronic HF patients; and
- 2) To understand the associated factors with the coping of self-care.

#### Target Audience

Nursing researchers and clinical health professionals in cardiovascular field, especially in heart failure

#### Abstract

**Background:** Heart failure (HF) is a serious disease with poor prognosis and large numbers of people suffer from heart failure around the world. The physical and psychological self-care coping styles affect the quality of life (QoL) among patients with chronic HF. The decreasing of physical and psychological functioning often contributes to poor QoL. Therefore, it is important to understand the coping styles and the related factors in physical and psychosocial self-care.

**Purpose:** 1) To understand the coping of self-care in physical and psychological aspects in chronic HF patients; and 2) To understand the associated factors with the coping of self-care.

**Methods:** A literature review with the database PubMed (1984-2013), CINAHL (1988-2013) and PsycINFO (1967-2013), and Airtel Library (1984-2013) were searched. The Strengthening the Reporting of Observational Studies in Epidemiology and the Critical Appraisal Skills Program were used to assess the quality of studies.

**Results:** In total, 26 studies were included. Seven studies investigated the impact of coping of physical self-care, eleven studies investigated the association of coping of psychological self-care and eight studies were explored both coping of physical and psychological self-care. Emotion-focused coping (i.e., acceptance and disavowal) and problem-focused coping are positively associated better physical and psychological self-care; whereas, emotional approach with escape-avoidance was negatively related to adaptive self-care. To enhance the use of emotion-focused coping with acceptance could facilitate the use of problem-focused coping to cope with the physical self-care such as medication and dietary adherence and reducing adverse drug effects. The influencing factors in coping styles of physical and psychological self-care included the demographic (age, gender, ethnic, marital status), underlying disease, personality, disease management knowledge level, self-care confidence and social support.

**Conclusion:** This paper presents an integrative review of the literature on understanding self-care coping styles in patients with chronic heart failure. Emotion-focused coping with acceptance and disavowal, and problem-focused coping may positively influence physical and psychological self-care. Health professionals could educate acceptance and disavowal skills, and then it may facilitate the using problem-focused coping skills among HF patients. The influencing factors have important roles on individual's coping styles, but lacking of the study to explore how the influencing factors affect the coping of self-care.

#### Contact

[d00426001@ntu.edu.tw](mailto:d00426001@ntu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Relationship Between the Risk Factor of Latex Allergies and Rubber Products in Daily Use By the Japanese Nursing Students

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*Emi Kajiwara, MSN, RN, Japan*  
*Hidechika Iino, MEco, RN, Japan*  
*Teruko Honda, RN, Japan*  
*Satoko Ono, MSN, RN, Japan*  
*Junko Suemitsu, RN, Japan*  
*Teruyo Iwamoto, PhD, RN, Japan*  
*Hideko Oda, ML, RN, Japan*  
*Yoshinobu Asano, MD, PhD, Japan*

#### Purpose

The purpose of this presentation is to discuss the relationship of such allergies to daily use of rubber products, and the risk factor of LA from results of a survey of nursing students.

#### Target Audience

The target audience of this presentation is nursing educators, The nurse who is interested in medical security.

#### Abstract

**Purpose:** We are researching prevention of latex allergies (LA) in a Japanese undergraduate nursing program. From previous research, we found some nursing students have allergies to rubber products. We discuss the relationship of such allergies to daily use of rubber products, and the risk factor of LA from results of a survey of nursing students.

The purpose is to clarify the relationship of such allergies to everyday rubber products (gloves, rubber bands, headbands, balloons) and risk factor of LA to other allergies, LA-associated foods (e.g., kiwi, banana, celery) ,experience of operation, medical history of allergies in family, and self-prediction when donning latex gloves.

**Methods:** We performed a survey of 572 Japanese nursing university students. The data were analysed by Chi-square test or Fisher's exact test using the statistical software package Stat Flex ver.6.0 for Windows. Ethical approval for this study was obtained from the Ethical Review Committee of Seinan Jo Gakuin University.

**Results:** The response rate was 95.5% (N=546) and all response data was complete for analysis. All respondents were female students (average of age 19.1±1.5). Of these, 4.9% (27/546) had allergic reactions to rubber products (gloves, rubber bands, headbands, balloons). The prevalence of some allergy were 56.0%. Those with atopic disease and contact dermatitis were 14.5% (79/546) and 14.7% (80/546), respectively. This data showed allergic symptoms to rubber products were related to atopic disease ( $p<0.001$ ), contact dermatitis ( $p<0.05$ ), and self-prediction when donning latex gloves ( $p<0.001$ ).

**Conclusion:** In the Japanese guidelines, one of the risk groups of LA had atopic dermatitis. A similar result was shown in these findings. This result suggested we should add atopic dermatitis as one criteria for screening LA.

#### Contact

[kajiwara@seinan-jo.ac.jp](mailto:kajiwara@seinan-jo.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Application of Andersen Model to Verify Utilization of Maternal and Child's Preventive Care Among South-East Asian Immigrant Women in Taiwan: Influence of Acculturation and Associated Factors

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Ching-Min Chen, DNS, Taiwan  
Wen-Yin Chang, RN, PhD, Taiwan  
Shu-Fen Kuo, PhD, Taiwan

#### Purpose

The purpose of this presentation is to examine the predisposing, enabling, need factors among immigrant women in Taiwan, and further to explore acculturation and other predictors of both utilizations.

#### Target Audience

The target audience of this presentation is community nurses and researchers.

#### Abstract

**Purpose:** This is a report of utilization of maternal and child's preventive care based on Andersen health seeking behavior model. The purpose of this study was to examine the predisposing, enabling, need factors among immigrant women in Taiwan, and further to explore acculturation and other predictors of both utilizations.

**Methods:** A cross-sectional survey was conducted. Immigrant women who were living in Taiwan with their Taiwanese husbands and with children under 7 years old were included. Andersen behavior model (1995) was used to identify influencing factors with acculturation and medical access barrier be added in the enabling factors, and health status in need factor. The Structural Equation Modeling (SEM) method was used by SPSS 17.0 and AMOS 18.0 for data analysis.

**Results:** The completed sample included 284 women lived in 2 counties of Taiwan who were in 28.6 years old (SD=4.33) averaged. Results showed that the Chi-square test for the model produced a statistically significant finding ( $\chi^2=568.74$ ,  $df=206$ ,  $p=0.001$ ;  $\chi^2=539.86$ ,  $df=206$ ,  $p=0.001$ ) of maternal and child's preventive care use. Based on the  $\chi^2/df$  ratio (2.76; 2.62), the second-order factor baseline model fits the data quite well (CFI =0.826, RMSEA =0.079; CFI =0.837, RMSEA =0.076). There were four factors significantly predicted utilization of maternal preventive care: length of stay in Taiwan, educational level in original country, perceived support and integration. And three factors significantly predicted utilization of child's preventive care: family income, perceived support and integration.

**Conclusion:** Our findings indicated a significant relationship of predisposing and enabling factors with utilization of maternal and child's preventive care. This study demonstrated that acculturation was a vivid factor to influence the utilization of maternal and child's preventive care use. Clinical interventions based on these results should be developed and further to examine its effects in order to improve health behavior of immigrant women who might be in different acculturation and need more health support.

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## Contact

[sfkuo6@tmu.edu.tw](mailto:sfkuo6@tmu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### The Centers for Medicare and Medicaid Services' Nonpayment Policy and Nursing Sensitive Patient Outcomes in the U.S. Hospitals

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*Sung-Heui Bae, PhD, MPH, RN, USA*

#### Purpose

The purpose of this presentation is to examine the impact of the Centers for Medicare & Medicaid Services nonpayment policy on nursing sensitive patient outcomes.

#### Target Audience

The target audience of this presentation will be registered nurses, nurse managers, regulatory body (CMS) and health policy makers who are interested in the impact of the CMS nonpayment policy on nursing sensitive patient outcome.

#### Abstract

**Purpose:** The Centers for Medicare & Medicaid Services (CMS) implemented a new policy for Medicare in 2008 to reduce preventable adverse outcomes in hospitals. The new CMS reimbursement policy incentivizes the prevention of avoidable adverse patient outcomes by eliminating reimbursement for treatment of those outcomes in hospitals (Department of Health and Human Services, 2009). Intended consequences of the new CMS policy include appropriate changes in care processes to foster better quality of care so that hospitals can prevent adverse outcomes. However, there are also concerns about possible unintended consequences of such a financial program, including avoiding admissions of patients with higher acuity levels and resource shifting to focus only on the targeted adverse outcomes (Hart-Hester et al., 2008; Hartley, 2004). However, researchers have not yet examined the implementation of such policy focusing on nursing sensitive outcomes and factors related to better implementation. Therefore, the current study examined the impact of the new CMS nonpayment policy on nursing sensitive patient outcomes.

**Methods:** The current study used data from the 2010 American Hospital Association Annual Survey data, Hospital Compare data from CMS, and the Rural-Urban Commuting Area code (RUCA) data based on Census commuting data and zip codes. This study focused on 4 nursing sensitive patient outcomes: (1) stages III and IV pressure ulcers, (2) falls and trauma, (3) catheter-associated urinary tract infections (CAUTI), and (4) vascular catheter-associated infections (VCAI). The variation of the implementation of the CMS policy was measured by the proportion of hospital discharges paid by Medicare as a proxy. We also examined factors contributing to better implementation, including region, size, ownership, teaching status, length of stay, RN staffing, and case mix. The final analytic sample consisted of 3,260 U.S. hospitals.

**Results:** In 2010, pressure ulcer stages III and IV occurred 0.106 per 1,000 discharges paid by Medicare. Falls and trauma and CAUTI occurred 0.556 and 0.304 per 1,000 discharges. On average, 0.282 VCAI per 1,000 Medicare discharges were reported. In further analyses, we will test what extent all of these nursing sensitive patient outcomes are related to the implementation of the CMS nonpayment policy and factors related to better implementation.

**Conclusion:** The study finding will provide critical information regarding the implementation of the new CMS nonpayment policy and nursing sensitive adverse outcomes. Especially, it will provide which hospitals are at risk to prevent those adverse outcome and to adjust themselves to this new budget constraint. As the policy of nonpayment for preventable adverse patient outcomes to Medicare will be expanded through the Affordable Care Act, the study findings will provide critical information regarding the effect of this program on nursing sensitive patient outcomes.

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Contact

[sbae@nursing.utexas.edu](mailto:sbae@nursing.utexas.edu)

## RSC PST 2 - Research Posters Session 2

### Impact of Marital Coping on Body Image and Sexual Relationship Among Breast Cancer Survivors

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*Tzu-Chun Chen, RN, BS, Taiwan*

*Wan-Chun Tung, RN, BS, Taiwan*

*Hsiu-Mei Huang, RN, BS, Taiwan*

*Yi-Chen Lin, RN, MSN, Taiwan*

*Su-Ying Fang, RN, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to help audiences to understand breast cancer women's marital coping efforts and their association with body image as well as sexual relationship.

#### Target Audience

The target audience of this presentation is the researchers who interested in studying body image and sexual health issue of women with cancer.

#### Abstract

**Purpose:** Changes in body image and sexual relationships can be problematic for women after breast cancer treatments. Breast cancer is a challenge that may change women's usual roles and that can be stressful for women's relationship with their partners. The use of ineffective coping efforts to deal with marital conflicts could result in a lack of support from the partner, which could have a negative impact on a woman's body image and sexual relationships. Understanding women's particular marital coping efforts to deal with their marital conflict and their association with body image as well as sexual relationship can help healthcare providers develop effective interventions to ameliorate these problems. The purpose of the study were: 1) understand the relationship between women's marital coping efforts and body image and 2) understand the relationship between women's marital coping efforts and the sexual relationship and 3) identify variables that might be used to predict a breast cancer survivor's body image and sexual relationship.

**Methods:** A cross-sectional, correlational design was used. Permission to carry out the study was received from the hospital ethics committee. Women who met the inclusion criteria, which included 1) having been married and 2) completion of required adjuvant therapy, were recruited from the hospital cancer registry. After agreeing to participate and signing the informed consent, women were given questionnaires that measured marital coping, body image, and relationship and sexuality scales.

**Results:** One hundred and twenty-six women were recruited for this study. The results indicated the following: 1) body image and sexual relationship were moderately correlated ( $p < .001$ ); 2) women who used avoidance or introspective self-blame marital coping to deal with marital conflict reported more body image and sexual relationship problems ( $p < .001$ ); women who used avoidance marital coping to deal with marital conflict were vulnerable to sexual problems including a decrease in sexual-esteem and sexual performance; However, if women tended to use positive-approach coping to deal with marital conflict, their sexual performance and sexual intimacy would be enhanced ( $p < .001$ ); 3) marital coping efforts, including avoidance, positive-approach effort and body image, were predictors of women's sexual relationships and explained 36% of the variance in this variable; and 4) self-blame and avoidance marital coping as well as fear of recurrence were predictors of women's body image problems and explained 35% of the variance in this variable.

**Conclusion:** Marital coping efforts could significantly influence women's body image and sexual relationships. Future interventions that address the body image and sexual health of breast cancer survivors should be considered to encourage female breast cancer survivors to use positive-approach marital coping effort and prevent them from using disengaged avoidance or self-blame coping efforts to deal with their marital strain.

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## Contact

[sandra3022@gmail.com](mailto:sandra3022@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Experiences of Vietnamese Marriage Immigrant Women with Pregnancy, Birthing, and Postpartum Care in Korea

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*Sun-Hee Kim, RN, PhD, South Korea*

*Yu-Jin Lee, RN, MSN, South Korea*

#### Purpose

The purpose of this presentation is to describe the birthing experiences of Vietnamese marriage immigrant women in Korea. This presentation will help the audience fully understand Vietnamese immigrant women's experiences during pregnancy and childbirth.

#### Target Audience

The target audience of this presentation is mainly nurses who work in the childbirth centers, postpartum care centers, and community health centers.

#### Abstract

**Purpose:** Korea used to be a nation with homogeneous racial composition has become a multicultural country with foreigners making up 2.8% of total population due to influx of foreigners. Among the foreigners in Korea, marriage immigrants are about 28,000, making up 8.7% of the marriage with the mostly Korean male with foreign national female. Out of all marriages with foreign nationals, marriage with Chinese women (34.1%) and Vietnamese women (31.9%) takes up the majority.

Most marriage immigrant women become pregnant within a year from marriage, making them yet another challenge aside from the new language, culture, and environment. Also, they get prenatal care, birthing, and postpartum care with the language barrier. There has not been a study for the experiences and difficulties of such marriage immigrants who live in a foreign (Korean) culture and foreign (Korean) husband and this study aims to point out the pregnancy, birthing, and postpartum care experience of marriage immigrants in Korea. The objective of this study is to describe a meaning and reality of pregnancy, birthing, and postpartum care for Vietnamese marriage immigrants by questioning "What it means to have a pregnancy and birthing for Vietnamese marriage immigrants in Korea"

**Methods:** A qualitative research design Colaizzi's phenomenological method was chosen in order to obtain rich, in-depth information needed to understand and interpret experiences of Vietnamese marriage immigrants with pregnancy, birthing, and postpartum care. Data were collected through in-depth interviews at the participants' homes.

**Participants :** The study participants were selected among the Vietnamese marriage immigrants who are now pregnant or those who have given a birth within 5 years in order to provide enough study size and relevancy to the study.

**Data Generation and Analysis:** After seeking approval from the university hospital institutional review board, recruitment of participants began in one local hospital and through introductions by an acquaintance followed by snowball technique. The description and consent form about the study was prepared in Vietnamese language and a Vietnamese female fluent in Korean language served as a research assistant during the data collection process. Research assistant presented the study description, consent form, and explained questions about social background and partial translation during the personal interview. In total, fifteen women participated in the study and all of them were in their 20's with the mean age of 23.4 and the length of stay in Korea 2.5 years. Ten participants were with birthing experiences (6 participants with one child, 4 participants with 2 children) and five participants were pregnant at the time of study. The study questions were as follows: (a)What are the experiences during pregnancy, birthing, and postpartum care in Korea? (b)What are the differences in healthcare during pregnancy, birthing, and postpartum care that were different between Korea and Vietnam and how did you deal with those?

Personal in depth-interviews were given during April 5<sup>th</sup>, 2012 thru November 20<sup>th</sup>, 2013. For partial translation, Vietnamese translator (research assistant) accompanied the interviewer. Interviews were audio recorded and each participant was interviewed once or twice, approximately 50-120 minutes per interview. The interview tapes were transcribed. Field notes from the interview, discussion between the researcher and research assistant after an interview, expectation, discrepancy from expectation, and questionnaire were recorded in debriefing note. The transcripts, field note, and debriefing note were analyzed. Data collected has been analyzed in 7 steps given by Colaizzi (1978) currently past 5<sup>th</sup> step out of 7. The research has consciously tried not to form a bias during the interview, analysis and drawing conclusion in order to maintain neutrality.

**Results:** According to the data analysis of this study, nine themes were derived from the data were as following: "Worsening homesick due to being lonely in a foreign environment," "Not-so-wanted pregnancy but received help from the family in Korea for prenatal care", "Suffering hardship due to a lack of information for pregnancy and birthing", "Accepting different healthcare system from Vietnam without fully understanding", "Going through trouble and hurting one's feeling due to Indifferent and careless treatment from the healthcare practitioners", "Being indecisive over different traditional healthcare practice between Korea and Vietnam existed and then negotiating and conforming", "Relying solely on husband as the only passage of communication", "Being disappointed in family owing to lack of proper postpartum care", and "Desiring to do my best for the most precious baby".

Twenty one sub-theme were as following: "Homesick in a place everything is foreign after marriage", "Pregnancy right after marriage and morning sickness worsened for no availability of the food from home", "Unwanted pregnancy welcomed by the Korean family", "Went to the hospital with family", "Learned about pregnancy and birthing from the family in Vietnam before marriage but asked again for lack of detailed information", "Couldn't ask about the sexual life during and after pregnancy and used self-judgment", "Both husband and I were confused and scared because we didn't know the birthing procedure", "Would like to get explanation for different ways of prenatal and postpartum care", "Reluctantly accepted the care without complaining for it was thought to be a way of Korean hospital system works", "Lack of proper explanations with different medical care system caused compliance without full understanding", "Indifferent and careless treatment from the healthcare practitioners cause physical or mental discomfort", "More advanced postpartum care method was foreign at first and learned more about it later", "Husband is the passage of communication with other family members", "Husband supports the birthing and child upbringing", "Difference in prenatal and postpartum care between the self and the family caused second opinion from the others", "Tried to mediate two traditional prenatal and postpartum care method", "Learned and followed the way from the mother-in-law at first even though it was foreign and strange, but gradually switched back to ones own method", "Lack of support for postpartum care from husband and his family was disappointing", "Raising the baby without support from the family", "Would like to do my best for the most precious baby", and "Taking on the challenges to breastfeed the baby like women in home country do".

**Conclusion:** This study provided cultural perception of pregnancy, child birthing, and postpartum care and the adaptation experiences of the immigrants in Korean culture. In order to reduce the hardship that Vietnamese marriage immigrants experience, planned pregnancy should be encouraged so that the pregnancy and birthing can be prepared during the time period preparing the international marriage. Secondly, communications with healthcare practitioners need to incorporate effective means of translation as well as sensitivity training to respect the difference in culture while attending to Vietnamese patients. Lastly, prenatal and postpartum care education and care plan that reflects Vietnamese culture should be established in clinical setting and have the family participate in education, counseling, and plan about pregnancy, birthing, and postpartum care.

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Contact

[sunhee421@cu.ac.kr](mailto:sunhee421@cu.ac.kr)

## RSC PST 2 - Research Posters Session 2

### The Historical Research of Legislative Process of the Eugenic Protection Act and Maternal and Child Health Administration in Japan

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*Sachiko Tanaka, RN, PhD, Japan*  
*Keiko Ogawa, MA, CNM, Japan*  
*Yukari Kawahara, PhD, RN, Japan*  
*Atsuko Yumoto, MA, CNM, Japan*  
*Kazuko Yarimizo, BS, Japan*

#### Purpose

The purpose of this presentation is to clarify the legislative process from the pre-war National Eugenic Act to the post-war Eugenic Protection Act, and to the present Maternal Protection Act □@in Japan.

#### Target Audience

The target audience of this presentation is nurses, researcher of history

#### Abstract

**Purpose:** Selections by individuals concerning pregnancy and childbirth fundamentally depend not only on the individual's will, but also on the country's paradigm and policy of the time. In Japan, after more than 60 years from the Second World War, the broadest ever range of selections has become available concerning pregnancy and childbirth, with the effect of developing medical science. It is considered essential to look back on Japan's historical systems related to pregnancy and childbirth, for the purpose of examining future maternal and child health administration and nursing. This study is aimed at clarifying the legislative process from the pre-war National Eugenic Act to the post-war Eugenic Protection Act, and to the present Maternal Protection Act in Japan.

**Methods:** A historical study based on interviews and literature search was conducted. The study period extended from August 2012 to March 2013. Interviews with Japanese civil organizations concerning maternal and child health were conducted in a semi-structured manner, where questions were asked relating to maternal and child health conditions and challenges in each period, influence on administrative measures in terms of relationship with today's maternal and child health and hygiene. The responses were analyzed in time series, in combination with literature search results. The interviews were recorded with agreement of the respondents. The scope of literature search was set at materials concerning maternal and child health administration, and the search was conducted at the Library of the Ministry of Health, Labour and Welfare, Japan Family Planning Association, and other institutions. Approval was obtained from the Ethics Committee of the researcher's organization, and adequate considerations were taken for the protection of privacy and copyright.

**Results:** The eugenic philosophy as the basis of Japan's National Eugenic Act was imported from Europe into Japan. "An Essay on the Principle of Population", written by T. R. Malthus, was focused on population control measures, and affected the concepts of eugenics and birth control toward a "better race". Since 1900, eugenics was gradually linked to a desirable status of the country. Following the visit to Japan by M. Sanger, birth control activities also emerged in Japan. However, because the English term "birth control" was translated into a Japanese phrase "sanji seigen (birth limitation)", it was misunderstood as including abortion, in contrast to Sanger's true concept for birth control to "protect mothers and children", which was not actually based on the population theory by Malthus. It is possible that Japanese people in those days incorrectly understood the birth control concept proposed by Sanger. As eugenics became increasingly closely tied to nationalism, the National Eugenic Act was enacted in 1940, aimed at improvement of the people's nature. Following Japan's defeat in war, there was a remarkable increase in artificial abortions, because substantial expansion of population was expected. This resulted in a rise in illegal abortions, causing concerns about possible injuries to mother's health. The Eugenic Protection Act was enforced in June 1948, with a very short time period from its promulgation, suggesting the seriousness of maternal and child health problems caused by illegal artificial abortions. In the midst of pros and cons, this act made possible artificial abortions for economic reasons in 1949, triggering intense

arguments concerning abortions and birth control. The Maternal Protection Act was established in 1996, as new problems arose, such as post-divorce abortions, artificial abortions by teenagers, and multiple pregnancies. Concepts for abortions and birth control have become more and more complicated, as science and technology develop while no clear answer to human life has been identified in the historical acts.

**Conclusion:** 1. “An Essay on the Principle of Population”, written by T. R. Malthus, was focused on population control measures, and affected the concepts of eugenics and birth control toward a “better race”. 2. Sanger’s true concept for birth control to “protect mothers and children”, which was not actually based on the population theory by Malthus. It is possible that Japanese people in those days incorrectly understood the birth control concept proposed by Sanger. 3. The Eugenic Protection Act was enforced in June 1948, with a very short time period. This act made possible artificial abortions for economic reasons in 1949 without protection of mother’s health.

Contact

[satanaka@jikei.ac.jp](mailto:satanaka@jikei.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Relationship Between Social Desirability and Preception of Physical Restraint Use Among Japanese Nurses

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*Kyoko Shida, MS, RN, Japan*  
*Makiko Muya, PhD, RN, Japan*

#### Purpose

The purpose of this presentation is to explore the relationship between social desirability and the perception of physical restraint use among nurses work in acute hospitals in Japan.

#### Target Audience

The target audience of this prerentaion is clinical nurses, nurse manageres, and educators.

#### Abstract

**Purpose:** In Japan, the aging society has been growing rapidly. In 2055, it is estimated the aging ratio would be 40.5%. The issues of aging society are proposed from several domains of quality of life. The increase of elderly patients and the shortage of care providers are also big issues. Additionally, ethical consideration for patients has been more and more paid attention under the precarious balance. Many nurses experience ethical dilemma toward elderly care, especially, the use of physical restraint for cognitive impairment. Ethical decision to use of physical restraint is entrusted to nurses owned their profession although the final decision and order is authorized by physicians. It is important to explore the perception of the use and the characteristics. In this study, our purpose is to explore the relationship between perception of physical restraint use and social desirability among Japanese nurses.

**Methods:** By referring PRUQ developed by Evans and Strumpf (1988), a measurement of perception of physical restraint use was developed as Japanese language version for the dependent variable. This scale is constructed of 19 items and each item is ranked on terms of importance on a 5-point Likert scale, with 1 denoting not at all important and 5 signifying most important. As the independent variable, Crowne & Marlow`s social desirability scale (MC-SDS) was selected. This scale contains 33 items divided into 2 dimensions: impression management and self-deception. Each item was chosen with applicable or not in terms of self-tendency. As the demographic data, sex, age, tenure, year of experience, work status, license status, academic status were collected.

**Results:** The convenience sample (N=310) of nursing care staff working in two acute hospitals located in Kanto district, Japan. The demographic characteristics of the study population were 31 male and 279 female. The distribution of age was  $33.7 \pm 10.4$ . 10% of total nurses were graduated from bachelor schools. As the result of factor analysis, PRUQ was divided into 6 categories by the reasons such as (1) falling, (2) elderly, (3) incidents, (4) severe incidents, (5) shortage of staffs, (6) general interests for ethical issues. The consequences of Pearson correlation analysis, 1) there were negatively significant relations between SD-self-deception and PRUQ-falling, incidents and severe incidents ( $p < 0.05$ ), 2) there was negatively significant relation between SD-impression management and general interest for ethical issues ( $p < 0.05$ ), 3) academic status was significantly related to PRUQ-severe incidents ( $p < 0.05$ ), although there was no significant relation between academic status and SD scores. Subsequently, respondents were divided into 3 groups, such as high-scored SD, medium-scored SD and low-scored SD. The result of Pearson correction analysis of each group had different features. At the low-SD group, there were negatively correlated between age and PRUQ-elderly and severe incidents ( $p < 0.05$ ). At the mid-SD group, there were negatively correlated between age and all PRUQ items ( $p < 0.05$  or  $p < 0.01$ ). At the high-SD group, there was negatively correlated between age and PRUQ-severe incidents ( $p < 0.05$ ).

**Conclusion:** It is important to assess the bias of social desirability of participants in the case of that their ethical decision making is studied. This result implies the use of physical restraint is affected by their social culture and age. To establish ethical climate applied to professional code should be demonstrated.

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Contact

[kshida@nursing.osakafu-u.ac.jp](mailto:kshida@nursing.osakafu-u.ac.jp)

## RSC PST 2 - Research Posters Session 2

### The Knowledge of Blood Pressure Measurement Affecting Medication Adherence in Patients with Hypertension

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Yu Fang Lin, BSN, Taiwan

Chia-Chi Chang, PhD, RN, Taiwan

Pei-Shan Tsai, PhD, Taiwan

#### Purpose

The purpose of this presentation is to determine whether a relationship existed between the knowledge of blood pressure measurement and adherence to medications among patients with hypertension.

#### Target Audience

The target audience of this presentation is participants who are interested in hypertension and gerontology.

#### Abstract

**Purpose:** To determine whether a relationship existed between the knowledge of blood pressure measurement and adherence to medications among hypertensive patients.

#### **Methods:**

- Data from a longitudinal study investigating the effect of 16-week self-blood-pressure monitoring intervention program among hypertensive patients.
- Subjects were recruited from outpatient clinics of a medical center and a community health service center.
- All participants completed the Knowledge of Blood Pressure Measurement Scale (KBPM scale) and the Health Behaviors Scale which consists of four subscales (i.e., diet control behavior, exercise behavior, scheduled appointments, and medication adherence).
- Descriptive statistics and multivariate linear regression were used for data analyses.

**Results:** Two hundred and sixty respondents with mean age of 63.7 were enrolled. The average score of KBPM and medication adherence were 9.1 and 17.6, respectively. After adjusting for living area, female gender, age, educational level, and health behaviors, higher knowledge of blood pressure measurement was associated with better medication adherence ( $p < .01$ ).

**Conclusion:** The result of the current study suggests that the knowledge of blood pressure measurement is an independent predictor of adherence to medications in hypertensive patients. Further investigation into this relation is warranted.

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#### Contact

[vichy@tmu.edu.tw](mailto:vichy@tmu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Lifestyle Characteristics Correlated with Daily Life Functions of Patients with Mental Disorders

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*Miyuki Saito, PhD, RN, PHN, Japan*

*Mariko Kato, RN, PHN, Japan*

*Eiko Suzuki, PhD, Japan*

*Tomomi Azuma, PhD, RN, Japan*

*Yukiko Sato, PhD, Japan*

#### Purpose

The purpose of this presentation is this study aims at investigating the lifestyle characteristics of ambulatory patients that correlate with such functions.

#### Target Audience

The target audience of this presentation is nurse.

#### Abstract

**Purpose:** It is important for patients with mental disorders to have stable daily life functions. In order to achieve this, institutions, such as psychiatric daycares and small-scale working places for patients with mental disorders, provide daily life support to ambulatory patients. Ambulatory patients receive training for cooking and cleaning in these institutions. However, despite having received such training, ambulatory patients sometimes face difficulties in their actual daily life. The lifestyle characteristics of ambulatory patients are one of the factors that influence their daily life functions. Thus, this study aims at investigating the lifestyle characteristics of ambulatory patients that correlate with such functions.

**Methods:** The subjects were 2,190 individuals with schizophrenia who regularly visited day-care centers or workshops in Japan. We administered a self-assessment questionnaire survey sent via mail. The contents of the questionnaire included background information such as age, and purposes for making regular visits (multiple answers allowed), and the Rating Scale for Functioning in Individuals with Mental Disorders (from 0 to 126 points). The study was conducted between September and November 2008. We analyzed their answers statistically using a t-test and multiple regression analysis.

**Ethical considerations:** We conducted the study according to the ethical guidelines for clinical studies by the Ministry of Health, Labor and Welfare. We notified the subjects in writing of information such as the purpose and method of the study, privacy protection, and that participation was voluntary; we deemed their consent given if we received their answer to the questionnaire. In addition, we obtained approval from the ethical review board of the institution the researchers belonged to.

**Results:** There were  $78.9 \pm 16.2$  points of life functions of ambulatory patients. A total of 681 patients (69.4%) had a housemate, 588 patients (59.9%) did their own washing, 341 patients (56.4%) did their own cleaning, and 352 patients (35.9%) cooked for themselves. Moreover, 294 patients (30.0%) did their own housework (including washing, cleaning, and cooking). It was understood that the patients had very few opportunities to do their own washing, cleaning, and cooking in their actual daily lives. The reason for such is that schizophrenic patients find it difficult to grasp the overall situation, and their unpredictable behavioral characteristics also affect their lifestyle.

Patients who self-performed washing, cleaning, and cooking had higher daily life functions compared with those who did not self-perform the housework ( $t = 2.11-2.40$ ,  $p = 0.018-0.035$ ). There was no significant statistical difference in daily life functions based on the presence or absence of a housemate. Significant correlation of life function points with washing, cleaning, and cooking was only found in "cleaning on their own" ( $\beta = .15$ ,  $p = .001$ ).

From the above, it has been recognized that patients who self-perform washing, cleaning, and cooking have a high daily life functions, and that that doing self-cleaning can improve such functions.

Furthermore, life functions can be improved by increasing practice opportunities not only during training in the institution but also in their daily life.

**Conclusion:** It has been recognized that patients who self-perform washing, cleaning, and cooking have a high daily life functions, and that that doing self-cleaning can improve such functions.

Contact

[imiyuki@med.id.yamagata-u.ac.jp](mailto:imiyuki@med.id.yamagata-u.ac.jp)

## RSC PST 2 - Research Posters Session 2

### "Try Not to Judge:" Mothers of Infants with Neonatal Abstinence Syndrome

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*Lisa M. Cleveland, PhD, RN, PNP-BC, IBCLC, USA*  
*Rebecca Bonugli, PhD, APRN, PMHCNS, USA*

#### Purpose

The purpose of this presentation is to describe the experiences of mothers of infants with neonatal abstinence syndrome (NAS)?

#### Target Audience

The target audience for this presentation includes: maternal-child, public health, and psychiatric/mental health nurses.

#### Abstract

**Purpose:** To explore the experiences of mothers of infants with neonatal abstinence syndrome (NAS).

**Methods:** Qualitative description

**Results:** Participants were recruited from community-based, out-patient, addiction treatment facilities in a large urban city in the southwestern region of the United States. A convenience sample of 15 Latina, substance addicted mothers of infants with NAS participated although enrollment was open to women of all ethnicities. Semi-structured, individual, interviews were conducted and the data were analyzed using qualitative content analysis. Data were first analyzed independently followed by a discussion of the themes until a consensus was reached. Four themes were identified: a) understanding addiction, b) watching the infant withdraw, c) judging, and d) trusting the nurses. To provide further explanation, the mothers felt there was a lack of understanding concerning addiction which was particularly noted when interacting with the nurses. They shared their feelings of guilt and shame while observing their infant's withdrawal symptoms. Further, the mothers felt judged by the nurses for having used illicit drugs during pregnancy. Feeling judged interfered with the mothers' ability to trust the nurses.

**Conclusion:** These findings provide nurses with a better understanding of the experiences of addicted mothers and may lead to more customized nursing care for this high-risk population of mothers and their infants.

#### Contact

[clevelandl@uthscsa.edu](mailto:clevelandl@uthscsa.edu)

## RSC PST 2 - Research Posters Session 2

### Dyspnea Management Experiences Among Patients with Chronic Obstructive Pulmonary Disease: A Qualitative Study

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Wei-Chun Lin, RN, MS, Taiwan

#### Purpose

The purpose of this presentation is share of research results.

#### Target Audience

The target audience of this presentation is all the clinical nurses or chronic health care providers.

#### Abstract

**Purpose:** Dyspnea is the primary chief complains for patients *with chronic obstructive pulmonary disease* (COPD). Dyspnea refers to the subjective perception of illness used to describe “a subjective experience of breathing discomfort that consists of qualitatively distinct sensations of varying intensity”. This experience is derived from the influences of physiological, psychological, social, and environmental factors and results in physiological and behavioral reactions. For patients with COPD, dyspnea is a subjective body feeling that often creates enormous distress for patients. However, most of dyspnea health examination and measurement are from objective data. There were few studies conducted from the subjective experiences of dyspnea from patients. The aim of this study was to explore the dyspnea management experiences among COPD patients.

**Methods:** A qualitative descriptive study examining 7 purposively sampled outpatients with COPD from the Respiratory Medicine Department of a medical center in Central Taiwan. One-on-one in-depth interviews about life experiences for COPD patients with dyspnea were conducted.

**Results:** Through content analysis of the interview data, six themes regarding the dyspnea experiences are found in this study.

#### **1. An internal emergency signal result from the inability to breathe on the verge of death**

Dyspnea is a subjective perception that often starts with constriction, tightness, and pain in the chest. During an episode of dyspnea, the patient experiences uncomfortable feelings including constriction in the chest and throttled, the inability to inhale that is similar to the stop of breathing, and indescribable pain.

“When gasping, I felt tightness in my chest. It was like being pressed by something and like someone was strangling me. I could not breathe...” (1)

#### **2. Triggering and straining**

After suffering and experiencing acute exacerbation, the patients realized that dyspnea is easily triggered in certain contexts that are likely or inevitable in daily life. These contexts include a rapid or intense physical movement, excessive emotional responses, poor weather or environmental conditions, and respiratory tract infections.

“...Of course when I carry heavy things! I have to use my arm strength, and immediately start gasping.” (3)

“...When I am nervous, I start gasping. If I am irritated, or angered by a conversation, I gasp when I am mad.” (1)

“If I catch a small cold and cough, it is really uncomfortable to cough and gasp with phlegm in my mouth.” (2)

“...Cold weather often triggers my illness.” (4)

“The dust caused by sweeping and the smoke and poor-quality air make me gasp.” (7)

### **3. Constraints in daily life due to dyspnea**

Dyspnea causes numerous inconveniences in daily life, altering the lifestyle of its sufferers and often resulting in the inability to work or manage daily-life activities, a reduction or loss of social and recreational activities, and an inability to sleep on the back which results in insufficient sleep.

"I gasped even though I just made a few movements, and I could not continue if I gasped. In the end, I did not go anymore. My work was laborious, and I had to carry heavy things! I use my arm strength, but I gasped when I did this. I just could not work." (3)

"To sum up, it is very tough! I need my family to take care of my life, even when I want to go to the toilet. I cannot put on clothes and trousers or take a shower by myself! I gasp as soon as I start walking. I need someone to bring my meals. I need someone to be with me all day long." (2)

"Difficulty in breathing requires me to sit up. I cannot fall asleep because I cannot lie down. I sleep for less than three hours every night." (1)

### **4. Immediate Self-Rescue Strategies**

Having suffered from dyspnea over time, patients with COPD accumulate experience and health knowledge in their illness, developing a set of coping strategies for themselves. In other words, they know the first-line treatments to alleviate the discomfort caused by dyspnea. When dyspnea occurs, the coping strategies that patients can adopt include halting the ongoing activity, changing poses or sitting down in a comfortable pose, then taking a bronchodilator or inhaling oxygen, adjusting breathing, and easing the emotion. If these first-line strategies cannot alleviate the discomfort, most patients seek medical assistance at a hospital or clinic.

"I use the sprayer first. I bear the discomfort and tell myself to breathe lightly. Inhale lightly and exhale lightly. Oxygen helps a little, and it makes me gasp less. But, when I gasp really heavily, it does not work; even if I switch it to the highest level 5 and use the sprayer, the symptoms are not eased. In this situation, I have to go to the hospital." (2)

### **5. Self-Care Awareness in Daily Life**

Patients with COPD understand that their lung function can never recover, so they adopt daily-life protection measures, such as altering their lifestyle to reduce the frequency of dyspnea episodes. Regularly visiting a doctor and following medical advice is fundamental for decelerating the speed of exacerbation and reducing the frequency of episodes. Regarding food, COPD patients are aware that irritating and strong tonic foods can harm them and they must avoid eating cold-nature foods. Patients must also change their dietary habits and quit smoking and drinking alcohol. In addition, some patients consider their lungs to be dirty and clean them by using herbal medicines. After facing COPD, the patients identify the causes that make breathing difficult and adopt countermeasures. They know that variable weather is an inevitable trigger, so they focus keeping themselves warm, especially their necks.

"Do not eat spicy, hot, and irritating foods. If you breathe in dirty air, you have to clean your lungs. Lungs are too dirty. You should eat some detoxification matters from time to time. In the mountains where I live, there are detox herbs." (1)

"Do not eat icy or cold-nature foods, such as Chinese radish, Chinese cabbage, and watermelons. These foods should be avoided." (5)

### **6. Coexist with the Disease and Self-Repositioning -- accepting fate and being optimistic**

Because of physical constraints, COPD patients cannot accomplish numerous daily activities; thus, they possess an altered self-concepts. Some patients consider themselves disabled and incompetent or even dead because of loss of physical function. Now, they can only sit like a fool, unable to execute their own will. Having an irreversible pulmonary disease is like heading toward death; the patient can only wait for the end to come. However, some patients believe that the time of death cannot be predicted and attempt to remain optimistic, taking care of their bodies.

"I cannot do what I want to do. I am as useless as a dead person. I can only complain that I am ill-fated and unlucky." (1)

"I am not a person who does not feel upset, I have that feeling, but I still go out and visit my friends. We can spend the day chatting, or feel upset and keep thinking about the annoying things, which makes us feel unhappy and wear a sad face. We can spend a day in either way. To sum up, do not think too much. Be optimistic and do whatever you want to do." (3)

**Conclusion:** When COPD presents, patients experience discomfort, identify the risk factors of deterioration, and devise methods to address their symptoms. Most patients experience a loss of mobility that inconveniences their daily life. These patients begin repositioning themselves. The goal of the medical staff and patients is to maintain existing functions and health of patients. The findings in this study can serve as references for medical teams in developing self-management plans.

Contact

[lin197867@yahoo.com.tw](mailto:lin197867@yahoo.com.tw)

## RSC PST 2 - Research Posters Session 2

### How to Improve the Case Report Writing and Review Pass Rates Among Nurses at One Surgical Ward

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*Wan Yu Chi, RN, Taiwan*  
*Hui-Ju Chugn, RN, Taiwan*

#### Purpose

The goal was to improve their writing skills as well as the review pass rate of their case reports, thereby driving their development in clinical expertise and enhance the integration of clinical practices so that patients can receive high quality nursing and care.

#### Target Audience

Nursing administrators, researchers and clinical educators

#### Abstract

**Purpose:** The “Expertise Advancement System for Primary Care Nurses” is implemented to improve nurses’ clinical expertise and encourage staff development. Studies confirm that the clinical skill rating system can determine nurses’ skills and create a learning climate that increases professional values and capabilities. For years, the percentage of nurses at this unit who won promotion remained unsatisfactory. The main reason for lack of promotion was low case report writing and review pass rates. Clinical nurses often complained about writing difficulties, which led to their reluctance towards advancement. The intention of improving the situation and seeking viable solutions motivated this unit to organize a project team responsible for coaching our nurses in case report writing. The goal was to improve their writing skills as well as the review pass rate of their case reports, thereby driving their development in clinical expertise and enhance the integration of clinical practices so that patients can receive high quality nursing and care.

**Methods:** This study was conducted in three stages, namely, planning, execution and appraisal. **In the first stage:** the project team was created. Through interviews and literature review, the team members uncovered the following reasons for the low case report writing rates among nurses at this unit: 1) inadequate writing composition skills, 2) lack of mentor guidance, 3) lack of educational programs for case report writing at the unit, 4) low motivation for writing reports, and 5) absence of a report writing climate at the unit. **In the second stage:** the project team was engaged in discussions and outlined viable solutions by using a decision matrix and examining their viability, convenience, required manpower and costs, and effectiveness. Based on the results of their analysis, the team decided on and implemented the following solutions: 1) boosting awareness of the significance of the advancement system to promote the climate that encourages case report writing, 2) providing seeded mentors and creating a faculty database, 3) planning case report writing programs, 4) meeting with staff willing to write and setting deadlines for the completion of case reports, and 5) arranging experience sharing by staff whose case reports have passed reviews. **In the third stage:** the team compared the results before and after the project implementation and conducted appraisals based on the list of accepted case reports for November 2013 published by Taiwan Nurses Association.

**Results:** During the project implementation by the unit, 11 case reports were completed and submitted for review in June, 2013. Appraisal results show that 8 of the reports passed the review by Taiwan Nurses Association at the end of November, 2013. Our staff became more aware of the importance of nursing expertise through case mentors provided and programs related to case reports planned and launched by the project team, experience sharing, awareness raising activities regarding the significance of the expertise advancement system, and the creation of a culture that encourages report writing. As a result, staff followed the arrangements by the project team and actively participated in related programs and case report writing. Staff’s case report writing rate increased from 18% to 64% and their review pass rate from 33% to 72.73%, both surpassing the 50% project target. The results proved the significant effectiveness of the project implementation.

**Conclusion:** As the project progressed, it was noted that staff writing case reports were three times more than mentors. To maintain individual coaching and coaching quality, it was sometimes necessary to request mentoring support from external entities. This was in fact one limit of this project. Therefore, training mentors and creating a mentoring faculty database is the next target of the unit. In addition, education and training for nurses, their clinical experiences and a climate that encourages advancement all have an impact on the development of personal capabilities. In this sense, the review pass rate of case reports is directly linked to the improvement of the ability to assess clinical professional nursing. The project implementation successfully reduced the difficulty of writing case reports, boosted confidence in writing reports, and created a culture that encourages report writing at the unit. All of these incorporated into patient-centered holistic nursing in clinical practices can achieve effective nursing and enhance the ability to analyze and deal with patient problems, thereby improving quality of care provided by nursing staff.

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### Contact

[winne890413@yahoo.com.tw](mailto:winne890413@yahoo.com.tw)

## RSC PST 2 - Research Posters Session 2

### Prevalence of Obesity in a National Representative Sample of Taiwan Adolescents

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Chen-Mei Chen, MSN, Taiwan

#### Purpose

To determine the prevalence of obesity in Taiwanese adolescents and important related variables.

#### Target Audience

The target audience of this presentation is health care staffs and policy markers.

#### Abstract

**Purpose:** To determine the prevalence of obesity in Taiwanese adolescents and important related variables.

**Methods:** This analysis was based on the Nutrition and Health Survey in Taiwan (NAHSIT) data during 2010 and 2011. The original study was a cross-sectional and national representative survey. A total of 1842 subjects (920 males and 922 females) aged 11–20 years participated. Research tools consisted of questionnaires and anthropometry parameters, and Taiwanese criteria were used to classify adolescents' weights. The acquired data were analyzed using descriptive and inferential statistics.

**Results:** The prevalence of obesity in Taiwanese adolescents was 16.7%. Logistic regression analysis showed that, obesity in adolescents was significantly associated with male gender, parental obesity, mother's overweight, eating habits, and perceived dietary benefits.

**Conclusion:** Obesity among adolescents in Taiwan is a health concern that requires attention. The prevalence may be reduced by adjusting lifestyles. Prevention strategies should focus on adolescents, particularly adolescents of obese parents. Furthermore, employing integrative, education-based methods can reduce the health risks caused by obesity.

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#### Contact

[sichen@gw.cgust.edu.tw](mailto:sichen@gw.cgust.edu.tw)



## RSC PST 2 - Research Posters Session 2

### The Effect of Characteristics of Medical Market and Institutions on Staff-Mixing Level of Long-Term Care Hospitals

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*Hee Sun Kang, PhD, South Korea*

*D. H. Kim, PhD, South Korea*

*Hanju Lee, PhD, South Korea*

#### Purpose

The purpose of this presentation is to clarify the influences that competition of health care market and the institutional characteristics on the staff-mixing level of elderly hospitals.

#### Target Audience

The target audience of this presentation is nurse administrator, policy maker, scholars.

#### Abstract

**Purpose:** As the number of long-term care hospitals has quickly increased in Korea with a rapidly aging population, it is time to provide appropriate services for patients not only quantitative but also qualitative perspective. Professional nursing services which are provided in long-term care hospitals that performs as an intermediary care-given institution between acute care facilities and nursing homes, is very important to ensure patients safety. It is considered that the level of staff-mixing reflects the quality of nursing service. However, the current system that allows nursing aides to serve as part of registered nurses and the competitive characteristics of medical service market as a whole have influence on the long-term care hospitals' intent to recruit nurses and their actual recruiting practice. This study aims to clarify the influences that competition of health care market and the institutional characteristics on the staff-mixing level of elderly hospitals.

**Methods:** Data were obtained from the health insurance reimbursement records of 377 long-term care hospitals for claims made to the Health Insurance Review and Assessment Service between January 1, 2008, and December 31, 2010. Data were analyzed using one-way fixed panel regression. The dependent variable was the ratio of nurses to nursing resource(including nursing aides). The independent variables were the regional availability of acute and long-term care beds, the annual increase rate of beds. The characteristics of each long-term care hospitals (number of doctors, number of beds and number of inpatients, increase rate of beds, and owner type) and patients(severity, age) were included.

**Results:** The results of the study are as follows. 1) The ratio of nurses showed low in regions with high level of availability of beds of long-term care hospitals. 2) Ratio of nurses showed lower with increasing number of beds for acute care hospitals, while it showed higher with increasing number of beds of long-term care hospital. 3) As for patient's characteristics, the ratio of nurses decreased with increasing number of patients per beds and the ratio of number of aged patients, which increased with increasing severity of patients. 4) As for the characteristics of long-term care hospitals, ratio of nurses increased with increasing numbers of doctors and hospitals, while nurse recruiting rate stayed lower for long-term care hospitals established by individuals or incorporations, as compared to those established by public organizations.

**Conclusion:** In conclusion, as the level of staff-mixing which is essential to ensure adequate nursing service, varies with the type of patients, regions, and long-term care hospitals, a monitoring system and policy-making that assures quality of long-term care hospitals by government are needed.

#### Contact

[dalbich@hanmail.net](mailto:dalbich@hanmail.net)

## RSC PST 2 - Research Posters Session 2

### Situations Among Novice Nurses and Preceptor: They Cannot be Assertive

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*Eiko Suzuki, PhD, Japan*  
*Tomomi Azuma, PhD, RN, Japan*  
*Akiko Maruyama, PhD, Japan*  
*Yukiko Sato, PhD, Japan*  
*Miyuki Saito, PhD, RN, PHN, Japan*  
*Atsuko Kobiyama, RN, Japan*  
*Yuko Takayama, RN, Japan*

#### Purpose

The purpose of this presentation is to clarify the situations among novice nurses and preceptor, they cannot be assertive. Previous studies have indicated that the novice nurses significantly related to burnout. □ assertiveness is

#### Target Audience

The target audience of this presentation is nurse managers.

#### Abstract

**Purpose:** This study describes “the situations where novice nurses and preceptor nurses felt “I wanted to decline, but I could not do so” on the job relatively.

**Methods:** A self-administered questionnaire was distributed to 102 novice nurses and 52 preceptor in each workshop. Having been explained the definition of assertiveness in the questionnaire, participants were asked about the situations and reasons where they have felt: “I wanted to decline but could not do so” as “using an example at the workplace from the past year of when they felt they wanted to be assertive and could not be”. Three situations labeled, “what happened”, “what I wanted to do”, and “what I could not do” and their reasons were extracted from the scenarios described in the questionnaire’. A content analysis based on Krippendorff’s method was carried out on their described messages by focusing on the context. The situations were classified for each participant, and categorized based on the similarity of the situations.

**Results:** Novice nurse’s number of valid responses was 81, and the average age was 23.7 years old. Preceptor’s number valid responses was 42, and the mean age was 33.3 years old. The situations where the participant novice nurses felt “I could not be assertive toward my seniors” yielded the following nine categories: (1) I cannot decline tasks assigned to me; (2) I cannot say anything about my senior’s unfavorable behavior; (3) I cannot say I’m confused by the unstructured instructions; (4) I cannot argue against my senior’s scolding or pointing out grievances regarding my work; (5) I cannot argue about my senior’s behavior toward me and novice nurses; (6) I cannot declare my uneasiness about the work; (7) I cannot argue about a false accusation of errors made by my senior; (8) I cannot decline private requests; and (9) Others. The situations where the preceptor felt the following seven categories: “Nursing practice”, “Dependent behavior”, “Lack of feeling strain”, “Inappropriate language”, “Presentation of the homework”, “Appearance”, “Character of novice nurse”.

**Conclusion:** Novice nurses were in situations where they could not decline to do something or were made to feel uneasiness about fulfilling their duties, or declining overtime work, and not being able to communicate or report necessary messages, all of which were potential situations that could contribute to medical accidents. The preceptors considered relationships with novice nurses to be important. This study made us realize the importance of assertiveness education for novice nurses. As well, it suggested the necessity to ensure the assertiveness of the whole ward by improving the assertiveness of preceptors or bosses.

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University

ar@yam.net | CK

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□ @Hospital □ DJ

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#### Contact

[eikosuzuki@iuhw.ac.jp](mailto:eikosuzuki@iuhw.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Patients' Lived Experience of Chemotherapy after Mastectomy: A Phenomenological Study

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*Yu Chen Liao, RN, Taiwan*

*Li-Fen Wu, PhD, Taiwan*

#### Purpose

The study discovers the chemotherapy patient's life experiences that are breast cancer after mastectomy, and understood patient's demand and the symptom distress, as well as the factor affect their life journey.

#### Target Audience

This study provide understanding of the experience of living in the process of breast cancer chemotherapy. It can be used as the application with reference to provide clinical nursing care .

#### Abstract

**Purpose:** The study discovers the chemotherapy patient's life experiences that are breast cancer after mastectomy, and understood patient's demand and the symptom distress, as well as the factor affect their life journey.

**Methods:** This research used phenomenology research technique and semi-structural interview. The subjects confirmed to participate the study and signed the letter of consent. After the conversation, the record of the material copied out the writing. The case experience was faithful also the integrity presents by the writing, and accept any change or the fluctuation, Study cases were from a medical center in central Taiwan, outpatient chemotherapy room, patient processed the end of chemotherapy. It was 40 cases, the actual size of the sample size data analysis was no new case presented as the standard. The selection criteria were as follows: breast cancer after surgery, chemotherapy, conscious clear, can talk in Mandarin or Taiwanese language, willing to participate in study and share life experience of adult women . The reliability of the data was carefully selected cases, pre-interview skills training, control interview context, to establish interactive data analysis. Validity established by the recording interview and audio transcription quality control, interviews and analysis of information considered "deposit regardless of" principle, in order to reduce errors and to be objective . This study used Giorgi & Giorgi (2003) proposed research procedures for data analysis.

**Results:** Four main concepts through the case described in the context of the experience, they are as follows: Embrace hope, Struggle for life, Reflect on life, and Meet in regret. The added bonus is that patients appreciate the opportunity to express the feeling of suffering. Through the one-on-one talks between nursing staff and patients, the patients re-examine their past life, and re-establish the meaning of life.

**Conclusion:** The results of the study provide an important basis for the nursing staff who take care of this type of patients.

#### Contact

[liao4176@yahoo.com.tw](mailto:liao4176@yahoo.com.tw)

## RSC PST 2 - Research Posters Session 2

### Factors Influencing Emotional Labor of Clinical Nursing Staff in Taiwan

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*Kai Ching Lin, MSc, Taiwan*

*Hui-Yu Liang, RN, Taiwan*

*Chiung Yu Lin, BS, Taiwan*

*Chi Shiu Lai, BS, Taiwan*

#### Purpose

The purpose of this presentation is to identify the factors influencing emotional labor for nursing staff in Taiwan.

#### Target Audience

The target audience of this presentation is a administrator, and policy makers in hospitals.

#### Abstract

**Purpose:** Emotional management and regulation of displays as part of work. However, emotional labor becoming more and more important in nursing workplace. The purpose of the study was to identify the associations between emotional labor and various factors.

**Methods:** A cross-sectional study design was conducted in this study. Subjects were selected by using a purposive sampling method. Emotional labor Questionnaire was used to collect data and completed by 202 subjects. Questionnaire consisted of three dimensions and 26 items: Controlling negative emotions (10 items), expressing positive emotions (5items), handling others negative emotions (11 items), and overall Cronbach  $\alpha$  was 0.97.

**Results:** The finding indicated that nurses perceived the level of emotional labor was moderate (the mean score was 3.49 out of a possible score of 6; SD = 0.95) and 45.2% nurses staff express higher degree of emotional labor, and 55.34% nurses staff experiences higher degree of controlling negative emotions in clinical practice. Independent  $t$  test analysis indicated that different position emotional labor significant different ( $t = -2.42, p = 0.02$ ), head nurse perceived of handling others negative emotions ( $t = -2.143, p = 0.03$ ) and controlling negative emotions ( $t = -2.60, p = 0.01$ ) significant higher than nurses. Hours worked per week was significant different emotional labor, 30-35 hours worked per week significant higher than 36-40hours ( $t = 2.30, p < 0.01$ ). The finding of liner regression analysis indicated that nurses position ( $\beta = 0.17, t = 2.42, p = 0.02, 95\% \text{ CI} = 3.41 \text{ to } 33.48$ ), hours worked per week ( $\beta = -0.16, t = -2.30, p = 0.02, 95\% \text{ CI} = -26.63 \text{ to } -2.02$ ) were significant predictors of emotional labor and explained 5.4% of the total variance.

**Conclusion:** Nurses' administrator perceived higher degree of emotional labor of recognized in this study, which developing health promotion program not only for nurse but also nurses administrator, decrease job related emotional stress skills should be established in nursing workforce.

#### Contact

[g0919450547@msn.com](mailto:g0919450547@msn.com)

## RSC PST 2 - Research Posters Session 2

### Effects of a Cultural Competence Education Program for Nursing Students in Taiwan

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*Chia-Jung Lin, MSN, Taiwan*  
*Mei-Chih Huang, PhD, Taiwan*

#### Purpose

The purpose of this study was to investigate the effectiveness of a selective course on enhancing nursing student's knowledge, attitude, skill and behavior of cultural competence.

#### Target Audience

The target audience of this presentation is faculty, nursing students, and registered Nurse.

#### Abstract

**Background:** Cultural competent care is an essential ability for nursing students in current Taiwanese global context. However, little is known about nursing students' knowledge, attitude, skill and behavior of cultural competence. Moreover, the creative cultural competence courses were designed and aimed to build up the nursing students' abilities on cultural competence care in clinical setting. The effects of educational intervention are eagerly concerned and require to be evaluated.

**Purpose:** The purpose of this study was to investigate the effectiveness of a selective course on enhancing nursing student's knowledge, attitude, skill and behavior of cultural competence.

**Methods:** A quasi-experimental study was conducted using the mixed method for data collection and analysis. A total of 105 nursing students were recruited from 2-year programs offered by two medical technology universities in Southern Taiwan. The students were assigned to the experimental group ( $n = 51$ ) and control group ( $n = 54$ ) according to university. This study was conducted from August 2012 to July 2013. The educational intervention consisted of a 36-hour course entitled Cultural Competence Care that was expected to achieve the five course objectives: 1. Prioritize the social and cultural factors that affect health in designing and delivering care across multiple contexts; 2. Use relevant data sources and best evidence in providing culturally competent care; 3. Promote achievement of safe and quality outcomes of care for diverse populations; 4. Transform systems to address social justice and health disparities; and 5. Participate in continuous cultural competence development. Data were simultaneously collected from both groups pre- and post- the education intervention using structured questionnaires. The questionnaire consists of a demographic profile, the Cultural Competence Assessment Instrument-Chinese version (CCA-CV), the dilemma associated with cultural care, and a self-assessment after complete the course. The CCA-CV included two sub-dimensions which are cultural awareness and sensitivity, and cultural competence behavior.

**Results:** The experimental group was composed of 2 males and 49 females and the control group comprised 54 females, all of whom were grade 2 students. In the experimental and control groups, 96.1% and 94.3% of the students, respectively, had never taken a cultural competence course; 92.2% and 30.2% of the students in experimental group and control group, respectively, believed that offering cultural competence courses is necessary. The percentages of students who were unfamiliar with the word "cultural competence" were 62.5% in the experimental group and 96.2% in the control group; 39.2% and 51.9% of the students in the experimental group and control group, respectively, had experience in caring for people in culturally diverse populations, such as the aborigines or new immigrants. The three major problems encountered when caring for culturally diverse populations are communication difficulties, unfamiliarity with patients' needs, and a lack of health education brochures with their native language. For both groups used in this study, identifying patient requirements is the task that requires the most assistance when caring for people in culturally diverse populations. In comparison of the pre-test scores between the two groups, there are no significant differences in the scores of CCA-CV and the scores of self-assessment of the course. Regarding cultural competence, the students in experimental group produced significantly higher posttest scores on cultural awareness and sensitivity ( $p = .02$ ), and cultural

competence behavior ( $p = .03$ ) than the students in control group. The post-test scores of self-assessment of the course on “basic knowledge” ( $p < .001$ ), “important theme” ( $p < .01$ ), “stereotype of the medical decision-making” ( $p < .01$ ), and “clinical practice skills” ( $p < .01$ ) for experimental group were significantly higher than the post-test results for the same items in the control group. All scores of cultural competence behavior and a self-assessment of the course in the pre- and post- test results for the experimental and control group demonstrated statistical significance (see table 1). Qualitative analysis of collected data is done in terms of cultural knowledge, affection, skill and behavior, all benefiting from course-related activities.

Table 1. The pre- and post scores of cultural competence and a self-assessment for the course

Item	Experimental Group Mean ± SD	Control Group Mean ± SD	Within group pretest - posttest		Between groups $P^b$
			Experimental $P^a$	Control $P^a$	
<b>Pre-test (n =51 in Experimental; n = 54 in Control)</b>					
<b>Cultural Competence(CCA-CV)</b>					
Cultural awareness and sensitivity	58.35±5.81	57.57±5.05			.46
Cultural competence behavior	65.25±17.67	68.33±14.61			.33
<b>Self-assessment of the course</b>					
Basic knowledge	54.37±10.13	55.48±11.61			.60
Important theme	48.16±10.16	48.17±9.64			1.00
Stereotype of medical decision	44.76±10.35	46.49±10.92			.41
Clinical practices skills	42.86±12.14	54.38±8.59			.41
<b>Post-test (n =44 in Experimental; n = 47 in Control)</b>					
<b>Cultural Competence</b>					
Cultural awareness and sensitivity	59.48±4.85	57.12±4.68	.41	.30	.02*
Cultural competence behavior	78.96±9.50	74.10±11.10	.00**	.001**	.03*
<b>Self-assessment of the course</b>					
Basic knowledge	67.04±8.21	61.07±9.80	.00**	.001**	.00*
Important theme	56.21±6.99	52.16±8.10	.00**	.01*	.01*

Stereotype of medical decision	54.51±8.26	50.05±8.17	.00**	.02*	.01*
Clinical practices skills	54.38±8.59	49.16±9.16	.00**	.008**	.01*

\*p<.0.05, \*\*p<0.01; *p*<sup>a</sup> Paired-T test, *p*<sup>b</sup> Independent-T test

**Conclusions:** Applying this cultural competence course in nursing students can improve the cultural knowledge, attitude, skill and behavior of cultural competence. This study suggests that nursing students need to be educated regarding the cultural competence with diversity population. The researchers recommended the results could be used as a reference in incorporating the cultural competence concept into nursing education.

Contact

[ta897105@mail.ncku.edu.tw](mailto:ta897105@mail.ncku.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Three Japanese Expert Nurses' Professional Narrative: Reflections on Their Accumulated Clinical Nursing Experiences Refining Nursing Identity

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*Hiromi Kuroda, RN, MN, Japan*  
*Satomi Yamaguchi, RN, MN, Japan*  
*Sayaka Higajima, RN, BA, Japan*  
*Tomoko Miyashita, RN, BA, Japan*  
*Hideko Urata, RN, PhD, Japan*

#### Purpose

Reflecting on own practices and experiences is a significant key for the expert nurses as it constructs intellectual and practical ability of nurse and would refining their professional identity. The purpose of this study is to describe 3 Japanese expert nurses' perceptions for nursing as the lifework profession.

#### Target Audience

The target audience of this presentation is expert clinical nurses, educators, researchers and young nurses who are interested in understanding how professional nurses' perceive their professional experiences and refining and accumulating their professional identity, cross culturally.

#### Abstract

**Purpose:** Reflection on one's own practices and experiences is a significant key for the expert nurses as it constructs intellectual and clinical competencies of nurse and it would refine their professional identity. The purpose of this study is to describe 3 Japanese expert nurses' perceptions for nursing as their lifework profession.

**Methods:** Three active expert nurses, who have over 30 years of work experiences, working for a University Medical Hospital with 800 beds in Japan, were the informants of the study. The main role of the informants was day to day patient care rather than the administrative aspect of their work. The interview guide with some key questions such as 1)What do you give attention to the most when you interact with the patients? 2) What does nursing mean for you? 3) What do you wish to tell about nursing and for this to be adopted by the next generation of nurses? was distributed to the informants a few days before the semi-structured interview. The IC recorder was used and the interview was taken in each interview, and the transcripts were made after the interviews. Some categories and sub-categories were extracted in inductive manner, and careful analysis was maintained by discussions and triangulation of the research team members.

**Results:** The three female nurses in their 50's agreed with the study. The mean interview hour was 56 minutes, and 12 categories with 45 sub-categories and 118 codes were extracted from the transcripts. Unique categories [ ] were found as [Ideal nursing] [Importance of communication and social skills] [Nursing as the interpersonal relations with the patients] [Caring includes family of the patients] [Supporting patient with team] [Realizing a true attraction of nursing by the accumulated experiences] [Increasing the choices/options of appropriate care for the patients by considering their individuality] [not only quietly cuddling close to the patients but also providing appropriate care] [Determining to carry out care for patients' true benefit] [Accumulations of both personal life and professional life fosters nurses growth] [Recognition of what is a key to maintain nursing career] [Considering own role to educate and guide the next generation nurses into nursing]

**Conclusion:** Professional roles and identity of expert nurses were cultivated within their everyday practices and repetitive reflections of those actions.[Ideal nursing and] [Nursing as the interpersonal relations with the patients] were the principle ideas beyond the age and career of nurses. However, these Japanese expert nurses perceived that their professional growth was underpinned by [Accumulations of both personal life and professional life fosters nurses' professional growth]. With over 30 years of nursing experiences and tuning into in their 50s, these experts refined what and how the nursing professional is like. That was also influenced by their interactions with patients and others. In addition, [Increasing the

choices/options of appropriate care for the patients by considering their individuality] was perceived. The more expert nurses reflect their own practices the more they would have choices of care to be provided, and to be flexible and creative to provide care of which patients individuality is well considered. [Determining to carry out the care for patients' true benefit] and [not only quietly cuddling close to the patients but also provide appropriate care] showed Japanese expert nurses' specific approaches as they believe it fulfilled patients' needs. They accept their patients as they are, but at the same time they provide necessary and beneficial care for their patients with their strong faith as it fosters patients growth. They also perceived themselves as the leaders to lead the next generations as [Considering their own role to educate and guide the next generation nurses into nursing] was shown. !

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### Contact

[hkuroda@nagasaki-u.ac.jp](mailto:hkuroda@nagasaki-u.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Factors That Influence the Amount of Time Spent on Child Care and Housework by Fathers until One Month after Child Birth

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*Sanae Yamaguchi, MSN, Japan*

*Yukiko Sato, PhD, Japan*

*Shiho Sato, MS, Japan*

#### Purpose

the purpose of this presentation is to promote fathers' childcare participation.

#### Target Audience

The target audience of this presentation is clinical nurses and family nursing researchers.

#### Abstract

**Purpose:** This study aimed to identify the factors that influence the amount of spent on child care and housework by fathers.

**Methods:** The subjects were 24 men who were to be first-time fathers. The subjects participated in the fathers' class developed by the researcher. After the class, the questionnaire was sent to the subjects. Multiple regression and path analyses were conducted. This survey was approved by the Ethics Review Committee of the organization with which the researchers belongs.

**Results:** The mean age of the subjects was 33.4 years old. The lecture of 'The response way when a child cries' in the fathers' class correlated with the amount of time spent on child care through development as a father. The lecture of 'the image of feeding schedule' in the fathers' class correlated with the amount of time spent on child care through development as a father and the sense of burden related to child care. In addition, The lecture of 'the image of feeding schedule' in the fathers' class correlated with the amount of time spent on housework through equalitarian sex role attitudes and acceptance of a role in housework. The lecture of 'the importance of the father's participation in housework' in the fathers' class correlated with the amount of time spent on housework through the acceptance of a role in housework.

**Conclusion:** The fathers' class was found to influence the amount of time spent on child care by fathers through the development as a father and the sense of burden related to child care. The fathers' class was found to influence the amount of time spent on housework by fathers through equalitarian sex role attitudes and acceptance of a role in housework.

#### Contact

[sanae-y@med.id.yamagata-u.ac.jp](mailto:sanae-y@med.id.yamagata-u.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Health Status, Healthy Lifestyle, Activity, Perception of Health, and Health Services: Differences Between Baby Boomer Women and Elderly Women in Korea

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Narae Heo, RN, BSN, MS, South Korea  
Jiyoung Kim, RN, BSN, MS, South Korea

#### Purpose

The purpose of this was to investigate the health status, healthy lifestyle, activity, perception of health, and health services between Baby Boomer Women and Elder Women in Korea.

#### Target Audience

The target audience of this presentation is conference participants who are involved in nursing related to "Culturally Diverse Health Behaviors"

#### Abstract

**Purpose:** The purpose of this was to investigate the health status, healthy lifestyle, activity, perception of health, and health services between Baby Boomer Women and Elder Women in Korea.

**Methods:** The data were derived from the 2011 Korea Health Panel annual survey database ( $\beta$ -version 2.0) by National Health Insurance Services [NHIS] and Korea Institute for Health and Social Affairs [KIHSa]. Based on the database on the 170,350 Korean who had ever used Health Services in 2011, data of the number of women aged 50 or older were used for this study (N=3559). They were divided into the 1058 baby boomer women group (50-64) and 2051 elderly women group (65+). The data were statistically analyzed by descriptive statistics with module of the SPSS Statistics V 21.0 program.

**Results: 1:** Health status: 77 percent of the baby boomer women group and 93 percent of Elder Women groups are diagnosed with chronic disease. Nearly 24 percent of the baby boomer group and 37.5 percent of Elder Women groups have eye problems. A fourth of the baby boomer group and less than half of the Elder Women group complained "difficulty chewing due to teeth and mouth" for one year.

Almost 20 percent of the participants presented "little bit feeling of anxiety and depression". Past history of medication related feeling of depression and suicidal thought accounted for 10 percent of the participants. About 30 percent of the baby boomer women group and nearly 20 percent of Elder Women groups reported stress to their task.

**2:** Healthy lifestyle: Over 80 percent of the two groups reported that they have three meals a day regularly. Only 3 percent of both groups were reported to have toothbrushes between meals. More than 88 percent of the two groups reported that they can dress and bath without help. Just 5 percent of both groups were reported to have history of smoking.

**3:** Activity: Less than 10 percent of Baby Boomer Women group and roughly 30 percent of Elder women group reported "walking problems and daily activities of the day". Regarding physical activity, roughly 70 percent of the both groups stated "not engaging in vigorous physical activity and moderating physical activity for the seven days". On the contrary, around 30 percent of the two groups reported walking for seven days.

**4:** Perception of health and health services: About 28 percent of Baby Boomer Women group and 14 percent of Elder Women group reported poor self-perceived health status. Nearly 24 percent of two groups surveyed stated that they could not avoid cancer in their life. Unlike the perception of cancer risk, more than half of the two groups thought that they are less like to have cancer within 10 years. Roughly 50 percent of the both groups visited clinics when they had negative feeling to their health for one year. In addition, more than 80 percent of the groups thought that "routine exams are helpful for overall state of health". However, less than half of the two groups visited dental clinics for three years.

**Conclusion:** These results could be fundamental information to understanding of comprehensive health conditions for baby boomer women and elder women in Korea. Therefore, all of the information will allow the women and nurses to take these strategies into consideration so that the women maintain health.

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#### Contact

[marvelouscare@hanmail.net](mailto:marvelouscare@hanmail.net)

## RSC PST 2 - Research Posters Session 2

### Mediating Effect on the Relationship Between Professional Commitment and Intent-to-Leave Among Hospital Nurses in Taiwan

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Yuan-Ping Chang, PhD, Taiwan

#### Purpose

This study was conducted to determine the mediating effect of work frustration on the relationship between professional commitment and intent-to-leave.

#### Target Audience

The target audience of this presentation is all nurses and managers in the clinical setting.

#### Abstract

**Purpose:** This study was conducted to determine the mediating effect of work frustration on the relationship between professional commitment and intent-to-leave.

**Methods:** A cross-sectional study with a questionnaire survey was performed. The participants in this study were hospital nurses in Taiwan. Three questionnaires covering work frustration, professional commitment and intent-to-leave were used as measuring tools. Data were verified by SEM with AMOS.

**Results:** There was a significant direct and inverse correlation between professional commitment and intent-to-leave as well as a significant and indirect effect of professional commitment on intent to leave through work frustration ( $p < .05$ ).

**Conclusion:** Work frustration may cause turnover among nurses and reduce the quality of nursing care. Managers should thus strive to enhance interpersonal relationships in the workplace, schedule adequate numbers of staff and provide sufficient equipment and supplies to engender a safe and positive work environment and to improve the retention of nurses.

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#### Contact

[cmhcyp@gmail.com](mailto:cmhcyp@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Pilot Survey of Nurses' Attitudes and Practice of Developmentally Supportive Care in NICUs in Taiwan

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Chia-Ling Wu, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is to examine neonatal nurses' attitudes in applying developmentally supportive care (DSC) knowledge and their perceptions of practice of DSC in NICUs in Taiwan.

#### Target Audience

The target audience of this presentation is neonatal care professionals.

#### Abstract

**Purpose:** to examine both neonatal nurses' attitudes in applying developmentally supportive care (DSC) and their perceptions of practice of DSC in NICUs in Taiwan.

**Methods:** The Chinese version of Neonatal Nursing Care Survey (NNCS) was a self-administered paper survey and distributed to NICU nurses from six regional medical institutions (two each located in the northern, central, and southern Taiwan). This tool designed on a five-Likert scale ranging from 1 to 5 assesses nurses' attitudes (including 38 items) toward and perceptions of their practice (including 61 items) of DSC for preterm infants in NICU. The context of NNCS reflects overall DSC strategies classified into five components: individualized care, appropriate sensory input, promote comfort, appropriate positioning, and parental involvement. Higher scores indicate that the nurse has a more positive attitude about applying DSC knowledge, and/or that she provides DSC to preterm infants more frequently.

**Results:** Of 267 questionnaires, 221 were returned, gathering an 82.8 % response rate that varied between 62.5 and 96.8% among hospitals. Neonatal nurses generally showed a positive attitude about applying DSC knowledge ( $M=3.50$ ,  $SD=.38$ ). Their highest attitude score was "promote comfort component", while as the lowest one was "individualized care". The top 5 of 16 practice strategies of DSC provided by nurses in order to frequency were: "nesting", "supportive positioning aids", "covering the incubator", "holding in tucked position", and "midline positioning". The average practice scores (ranging from 3.44-4.08,  $SD=.54-.74$ ) were higher than the score in attitudes. In this study, the correlations of five DSC components between attitudes and practice were weak. "Individual care" attitudes and practice had no significant correlation with any component of other DSC attitudes or practices. Nurses' attitudes towards "appropriate sensory inputs" and "promote comfort" consistently correlated with their practice of these two components, whereas "appropriate positioning" and "parent involvement" show no such consistency.

**Conclusion:** Findings of this study may help nursing educators and administrators at both unit and hospital levels to provide educational programs and supports in order to promote nurses' knowledge and attitudes, and consequently facilitate nurses' DSC practice. Further studies to understand nurses' attitudes and practice experience are recommended, especially for those items with low values.

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#### Contact

[clwu@gw.cgust.edu.tw](mailto:clwu@gw.cgust.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Reliability and Validity of the Chinese Version of the Suicide Caring Competence Scale (SCCS) for Family Caregivers: Scale Development

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*Fan-Ko Sun, PhD, Taiwan*  
*Wang Ruey-Hsia, PhD, Taiwan*  
*Chun-Ying Chiang, RN, PhD, Taiwan*  
*Wei-Jen Chen, MS, Taiwan*

#### Purpose

The purpose of this presentation is to inform an audience of nurses on the findings of a study that developed a Chinese version of the Suicide Caring Competence Scale (SCCS) for family Caregivers and prove its reliability and validity.

#### Target Audience

The target audience of this presentation is nurses who evaluate family caregivers caring ability for their suicidal relatives.

#### Abstract

**Purpose:** To develop a Chinese version of the Suicide Caring Competence Scale (SCCS) for family Caregivers and to examine its reliability and validity.

**Methods:** The study was a cross-sectional questionnaire survey. Participants came from a Suicide Prevention Center and two acute psychiatric hospitals in Taiwan. A convenience sample of 165 caregivers of people who attempted suicide. To be eligible to participate participants had to be a primary caregiver of people who had attempted suicide and be over 18 years of age. The questionnaire consisted of the Chinese version of the 20-item SCCS, developed by the authors and was based on a previous qualitative study. Item analysis was used to delete redundant items. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to examine the construct validity. The association between educational level and SCCS was used to examine the concurrent validity of SCCS. Cronbach's  $\alpha$  and test-retest reliability were examined to understand the reliability of SCCS. The study was conducted in 2008 and 2009.

**Results:** EFA and CFA indicated that a second-order factorial model with five subscales and 19 items best fit the data. The five subscales were proactive prevention, daily living care, seeking assistance from professional resources, seeking assistance from laypersons, and seeking assistance from religious resources. The higher the educational level, the higher the SCCS was. Cronbach's  $\alpha$  and test-retest reliability of total and subscales ranged from 0.67 to 0.90 and from 0.62 to 0.82, respectively. The SCCS had acceptable validity and reliability.

**Conclusion:** The Chinese version of SCCS has satisfactory reliability and validity. Nurses could use the SCCS to assess the family caregivers' competence and provide proper education to improve their caring competence for their suicidal relatives.

#### Contact

[sunfanko@isu.edu.tw](mailto:sunfanko@isu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Current Status and Issues about Nursing Practice Ability of Nursing Faculty in BSN Programs in Japan

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*Wakako Sadahiro, RN, DNSc, Japan*  
*Sachiko Kiguchi, RN, MNsc, Japan*  
*Akiko Hiyama, RN, RPHN, MSc, Japan*

#### Purpose

The purpose of this presentation is to discuss the nursing faculties' ability necessary for nursing practice instructions with faculties in various countries and to identify the international prospect for the realization of the effective practice instructions.

#### Target Audience

The target audiences are the nursing faculties in charge of clinical nursing practicum instructions, the planning directors of the Faculty Development program, and researchers of the transcultural nursing education program.

#### Abstract

**Purpose:** The number of the Japanese BSN programs exceeds 200 today, having increased by 20-fold over the last 20 years. This sudden increase resulted in the qualitative and quantitative deficiency of nursing faculties in universities. As a result, deterioration in the quality of nursing practice ability of nurses graduated from BSN programs is of particular concern and the improvement of their practical ability has become a social problem. It is effective to conduct a high quality nursing practice to improve the students' nursing practice ability, and therefore the nursing practice ability of nursing faculties is being called into question. In addition, the result of our study clearly demonstrates that the instruction ability of nursing faculties is significantly subject to the nursing practice ability (KIGUCHI: 2013). Therefore, this study was conducted under the following purpose. The purpose of this study is to clarify the current status and issues about the nursing practice ability of nursing faculties who belong to Japanese nursing universities and instruction clinical nursing practicum.

**Methods:** A questionnaire survey by mail was conducted for 869 nursing teachers in Japan who belong to nursing university and in charge of clinical nursing practicum. "The Self Evaluation Scale of Oriented Problem Solving Behavior in Nursing Practice (OPSN)", a 5-point Likert-type scale comprising of 25 items with 5 sub-scales, was used as a measuring instrument. SPSS Statistics 20 was used for the data analysis to calculate the descriptive statistics, which was compared with the result of a preceding nationwide study conducted for nurses in Japan (Funashima ; Sadahiro, 2009).

**Results:** A total of 325 questionnaires were returned (response rate: 37.4%) and 312 of which were valid responses. The characteristics of the target nursing faculties showed that the mean age was 47.3 year old, the mean educational experience was 9.2 years (SD: 7.5), and the mean clinical experience was 10.0 years (SD: 6.9). Cronbach's coefficient alpha of OPSN for the entire scale was 0.781. In addition, the coefficient alpha for the sub-scale ranged from 0.685 to 0.697, which showed that the reliability was secured. As a result of factor analysis, 23 out of 25 items converged to the original sub-scale, which showed that OPSN almost secured the construct validity. OPSN score ranged from 25 points to 125 points, with the mean score being 110.2 points (SD: 13.7). This score exceeded the mean score, 95.9 points, of the preceding study that was conducted for nurses by 14.3 points. Furthermore, as a result of matching with the scoring section of the preceding study, 171 (54.8%), 131 (42.0%), and 10 teachers (3.2%) were identified in the high-, middle-, and low-scoring areas, respectively. These results show that the nursing practice ability of the nursing faculties belonging to the Japanese nursing universities is higher than the average practical ability of nurses. In addition, the score in each sub-scale were as follows: "IV. Providing emotional support for patients toward overcoming problems" was highest at 22.8 points on average (SD: 3.0), followed by "III. Making smooth interaction toward problem solving" with 22.6 points on average (SD: 2.9), "I. Search and discovery of problems by organizing and utilizing information" with 22.1 points on average (SD: 2.9), "II. Giving assistance to patients' activities in their daily life and medical

doctors' treatment, alleviating symptoms, and maintaining and promoting life function and their individualization toward solving and avoiding problems" with 21.7 points on average (SD: 3.1), and "V. Self-evaluation toward problem solving" with lowest at 20.9 points on average (SD: 3.9). All these scores of the sub scale were also higher than the result of the nation-wide study for nurses, which confirmed that the practical ability of nursing faculties were high in several aspects. The scores of nurses, on the other hand, were higher in II than in I, whereas those of nursing faculties were found to be higher in I than in II. This fact suggested that nursing faculties would tend to be higher in the assessment ability than in technical ability in the nursing practice. Furthermore, the scores of nurses was also low in V, suggesting a possibility that nursing professions in Japan including nursing faculties were generally poor in conducting self-assessment activity in an appropriate manner. From now on, improvement of nursing practice ability of nursing faculties can be expected by implementing the Faculty Development program with a concept to promote technical skills and self-assessment.

**Conclusion:** It was revealed that the nursing faculty of the Japanese BSN programs has high nursing practice ability. It would become possible to further enhance the practical ability in the future by continuing education for the assessment activity or technical skills. Moreover, a possibility was suggested that enhancing several aspects of teaching activities could provide high quality nursing practice instructions to students based on these high practical abilities.

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### Contact

[w.sadahiro@scu.ac.jp](mailto:w.sadahiro@scu.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Healthcare Needs Among New Immigrate Spouses in Taiwan

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Tzu-Chun Chen, MS, Taiwan  
Su-Hsien Chang, PhD, RN, MSN, Taiwan  
Ching-Len Yu, PhD, Taiwan

#### Purpose

The purpose of this presentation is to present the health care needs of new immigrant spouses in Taiwan.

#### Target Audience

The target audience of this presentation is clinical nurses.

#### Abstract

**Purpose:** To examine health care needs among new immigrant in Taiwan. This is a descriptive research design.

**Methods:** This study used a purposive sampling method to recruit foreign and mainland Chinese spouses in Taiwan. SPSS 16.0 for Windows was used to analyze the data. An alpha of 0.05 was set as the level of significance. The data were analyzed by using descriptive statistics, *independent t test*, and *Pearson correlation*.

**Results:** Three hundred and forty-seven new immigrant spouses were recruited in southern Taiwan. The age of subjects ranged from 21-35 years old (58.5%). The majority subjects' educational level was junior high school (33.1%) and high received (31.4%). The majority of subjects came from southeast countries (62.5%). Results showed that majority of subject perceived good health (71.1%). Subjects also reported that they do not have other health insurance rather than national health insurance (72.3%). When subjects felt un-comfortable, only 47% of them went to visit a doctor. Thirty-three percent of them did was forbearance, and 18.2% used medicine without prescription. The major reason they did not go to visit a doctor immediate when they were sick was lack of time.

**Conclusion:** This study is important for health care workers in Taiwan to understand health care needs among new immigrant spouses in Taiwan. Hence, health care worker in Taiwan should used these information to assist new immigrant spouses to maintain and improve their health.

#### Contact

[sylvie233@gmail.com](mailto:sylvie233@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Regional Maternal and Child Health Efforts By Nurses, Local Residents, and Civic Organizations from 1936 in Japan

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Atsuko Yumoto, MA, CNM, Japan  
Kazuko Yarimizo, BS, Japan  
Sachiko Tanaka, RN, PhD, Japan  
Keiko Ogawa, MA, CNM, Japan  
Yukari Kawahara, PhD, RN, Japan

#### Purpose

The purpose of this presentation is to describe the efforts of regional organizations and civic organizations as well as collaborations with local nursing professionals that have implemented national policies for improving maternal and child health from 1936 in Japan.

#### Target Audience

The target audience of this presentation is academic professional and administrative personnel who intend to improve maternal and child health in cultural diverse situations.

#### Abstract

**Purpose:** The purpose of this study is to describe the efforts of regional organizations and civic organizations as well as collaborations with local nursing professionals that have implemented national policies for improving maternal and child health from 1936 to present in Japan.

**Methods:** Historical study based on interviews and reference materials. Semi-structured interviews with 16 individuals including OB/OG from the Maternal and Child Health Division of the Japanese Ministry of Health, Labor and Welfare, related groups, researchers, and specialists. Review of relevant materials from related institutions and libraries. The research was approved by the ethics committees of the affiliated organizations.

**Results:** Notable regional sources of non-specialist workers in maternal and child health in Japan include “*aiku-han*” from 1936 onward, “health helpers” (*hoken hodouin*) from about 1945 onward, and “Maternal and Child Health Promoters” after the Maternal and Child Health Law was enacted in 1965. The activities of these groups focus on local women and include comprehending the health condition of mothers and children by making home visits, promoting doctor visits, and helping with health classes and checkups. Various civic organizations related to maternal and child health were established in the 1950s. They became responsible for some non-specialist efforts in maternal and child health such as issuing bulletins and statistical data about regional governing bodies and related agencies, spreading knowledge about and advocating for maternal and child health, releasing various educational materials and guides to the general population, and supporting local residents. The number of local public health nurses began to grow rapidly when “Local Health Centers” were established in 1978. Local public health nurses and midwives were responsible for guiding these regional maternal and child health organizations and their staff as professionals and expanded efforts in maternal and child health through collaborations and partnerships.

**Conclusion:** The nurses and medical professionals that directly provide services needed to work together with local residents and civic groups to ensure that the maternal and child health policy of the Japanese government would be utilized by all mothers and children, that it would take root, and that it would work effectively to improve maternal and child health.

#### Contact

[ayumoto@dokkyomed.ac.jp](mailto:ayumoto@dokkyomed.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Healthcare Needs during Pregnancy, Childbirth, and Childrearing of Chinese Immigrant Women in Korea

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*Geum-Hee Jeong, PhD, RN, South Korea*  
*Kyungwon Kim, PhD, MS, RN, BS, South Korea*  
*Sunghee Baik, PhD, RN, BS, South Korea*

#### Purpose

It aims to identify health care needs for the entire process of reproduction, including pregnancy, delivery, postpartum care, and childrearing, among Chinese women who immigrated to Korea through international marriage, for the purpose of providing the baseline data for developing reproductive health promotion programs for married migrant women in Korea.

#### Target Audience

Target audience is health care workers or educators who work for health care of immigrant women.

#### Abstract

**Purpose:** With the increase in international marriage, the number of immigrant women who were married to Korean men has been on the rise to 120,146 in 2010. Major portion of those who immigrated to Korea through interracial marriage was Chinese. Married immigrant women are usually lack of appropriate health intervention and educational services. They were more likely to have problems before and after giving birth than the native Korean women. Therefore, this study was conducted to identify health care needs for the entire process of reproduction, including pregnancy, delivery, postpartum care, and childrearing, among Chinese women who immigrated to Korea through international marriage, for the purpose of providing the baseline data for developing reproductive health promotion programs for married migrant women in Korea.

**Methods:** Subjects in this study included 148 Chinese immigrant women visiting 25 health centers in Korea. Based on Roy's four modes of adaptation, this study used a preliminary tool for childbearing and childrearing process, which included the total of 53 question items. Cronbach's  $\alpha$  of the internal reliability of the data was .96. The data were collected in 2012. Translators working at health centers visited and had an interview with subjects. Data analyzed by SPSS 18.0 Window Program. For the characteristics of subjects' demographic and the entire process of childbearing and childrearing, descriptive statistics were calculated. For the subjects' health care needs for the entire process of pregnancy, childbirth, postpartum care, and childrearing, descriptive statistics were calculated.

**Results:** The average age of the subjects was 32.0. Educational background showed that high school graduates are the largest portion, 48.67%. Average length of time living in Korea after immigration is 3.3 years. Portion of jobless subjects is 85.2%. As much as 66.2% of the subjects reported the past experience of pregnancy prior to this study, 20.3% was pregnant at the time of collecting the data. The majority of the subjects (96.6%) had an experience of getting prenatal care during pregnancy at a hospital (87.1%), and at health center (10.8%). Almost everyone in this study gave birth at a hospital (87.8%). As much as 52.0% of the subjects reported that husband was the most helpful person in taking care of them during pregnancy and childbirth, hospital personnel to 31.1%, health center workers to 25.7%, and husband's family members to 13.5%. As far as the information and educational methods were concerned, attending lectures or educational programs (52.0%) was the most common form of getting information, followed by educational booklets (20.9%), internet data (16.2%) and individual interview (14.2%). The score for general health care was 3.42, after that, postpartum health care (3.39), health care for delivery (3.38), and health care during pregnancy (3.35) in order.

**Conclusion:** When the effect of fertility power of Chinese immigrant women on the future paradigm in fertility rates of Korea is taken into consideration, it would be urgent to develop a more effective health care services and educational programs that lead those ethnic group of women to be adjusted to fit the mainstream of the Korean society in order to give birth to healthy children and successful outcomes of

pregnancy. It is necessary to develop cross-cultural educational programs focused on educating Korean men to have friendly attitude toward gender role exchange.

Contact

[ghjeong@hallym.ac.kr](mailto:ghjeong@hallym.ac.kr)

## RSC PST 2 - Research Posters Session 2

### Relationship of Job Satisfaction and Quality of Life Among Taiwanese Nurses: A Pilot Study

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*Chia-Hsin Cheng, MS, RN, Taiwan*

*Chia-Ju Huang, MS, RN, Taiwan*

#### Purpose

The purpose of this presentation is to allow audiences to know whether there is a relation between job satisfaction and quality of life of nurses in Taiwan. Also, the findings of relationships between demographic characteristics and job satisfaction, and quality of life will be informed.

#### Target Audience

The target audience of this presentation is clinical nurses, nursing administrators, and policy makers.

#### Abstract

**Purpose:** The purpose of this pilot study was to explore the relation between job satisfaction and quality of life of nurses in Taiwan. Another objective was to examine the relationship between the demographic characteristics of nurses and their job satisfaction and quality of life.

**Methods:** The pilot study used a cross-sectional survey design. The purposive sampling method was used to administer questionnaires to informed participants. Thirty-one professional nurses working in medical centers in central and northern Taiwan returned completed questionnaires. Items on the questionnaire fall into three major categories: demographic characteristics, the Chinese version of the Nurses' Job Satisfaction Scale (Chinese version of MMSS) (Tsai, 2001), and World Health Organization Quality Of Life-BREF Taiwan Version (Taiwan version of WHOQOL-BREF) (Yao, 2005). Chinese version of MMSS is a 34-item, with a Likert scale ranging from 5 (very satisfied) to 1 (very dissatisfied). The range is 34-170, with higher scores indicating nurses feel more satisfied with their current job. Five domains were included: satisfaction with interaction, professional participation, extrinsic rewards, control over work environment, and schedule arrangement. Cronbach's alpha for the 34-item has been reported previously as .94. World Health Organization Quality Of Life-BREF comprises 26 items, with the following four domains: physical health, psychological health, social relationships, and environment. Additional two items were added to Taiwanese version of WHOQOL-BREF: "been respected and accepted" under social relationships domain, and "food" under environment domain. Five-point Likert scale ranges from 5 (very satisfied) to 1 (very dissatisfied). Domain-specific items scores were added first, then been averaged, and then been multiplied four to get the scores for each domain. The scores range is 4-20. The total scores of four domains were then been added together with overall quality of life and general health to represent overall quality of life scores. Total scores range from 24-120, with higher scores meaning better quality of life. Cronbach's alpha for the 28-item has been demonstrated previously as .95. In the current pilot study, data analysis was carried out on SPSS 18.0 Chinese version. Besides descriptive analysis, t tests, One-Way ANOVA, and Pearson correlation coefficients were also calculated to examine associations between each of the five job satisfaction domains and each of the six quality of life domains. Furthermore, Pearson product-moment correlation coefficients were used to test demographic variables and quality of life variables. Finally, the significant correlation found between demographic variables and quality of life variables was tested with job satisfaction variables through regression analysis. A significance level of .05 was accepted.

**Results:** The mean age of the participants was 27.6±4.25 years. All were female, with baccalaureate degree. Most were single (87.1%), working in the internal medicine wards (93.5%). Of the five job satisfaction domains, extrinsic rewards (mean score=2.43 /5) and professional participation (mean score=2.45 /5) were found to have the lowest scores. Number of working hours per week and self-perceived health status were shown to be significantly correlated with job satisfaction and quality of life. Self-perceived health status was reported to have a positive relationship with quality of life. Also, working less than forty-hour per week and having a positive self-perceived health status were demonstrated to

have significant positive relationships with job satisfaction and quality of life. However, the study identified no significant relationship between job satisfaction and quality of life.

**Conclusion:** Nurses who work over forty-hour per week tend to feel more dissatisfied with their jobs and have negative perceptions of their health statuses. This in turn affects the quality of life of nurses. It is quite likely that these factors lead to greater nurse turnover. The pilot study has implications for nursing administrators regarding the nursing overtime issue in Taiwan; Taiwanese nurses should continue to push policy makers to introduce nursing overtime regulations. One limitation of the current study is the small sample size. Evaluating whether there is a relation between job satisfaction and quality of life of nurses in Taiwan will necessitate the use of larger sample sizes in future studies.

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#### Contact

[chbelinda.cheng@gmail.com](mailto:chbelinda.cheng@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Clinical Experiences of Standard Precautions Among Nursing Students: Based on the Theory of Planned Behaviour

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Hyunjin Oh, PhD, South Korea

Kyung-mi KIM, RN, PhD, ICAPN, South Korea

#### Purpose

The purpose of study is to explore clinical experiences of Standard Precaution compliance, using the Theory of Planned Behaviour among nursing students in clinical practice settings in South Korea.

#### Target Audience

The target audience of this presentation is clinical nurses, educators, and faculty.

#### Abstract

**Purpose:** Healthcare associated infections (HAIs) are a concern for healthcare workers (HCWs) as well as their patients. In addition, nursing students in long-term clinical placements may find themselves in close contact with patients and providing nursing interventions, which may lead to exposure to harmful pathogens. Even though nursing students should also practice SP compliance to limit infection exposure, they are thought to experience other barriers to this practice. Several studies focused on increasing the compliance rates of infection control practice by applying behavioral science theory have been conducted.<sup>1,2,3</sup> The Theory of Planned Behavior (TPB), developed by Icek Ajzen is widely used as a theoretical framework in behavioral studies and has successfully explained a variety of human behaviors and their determinants.<sup>4</sup> Few studies have used TPB to explore SP compliance as a major concept of infection control for nursing students. The purpose of study is to explore clinical experiences of Standard Precaution compliance, using the Theory of Planned Behaviour among nursing students in clinical practice settings in South Korea.

**Methods:** We conducted interviews with 6 focus groups of nursing students from two South Korean universities. A total of 38 senior nursing students were broken into 6 different focus groups and interviewed. All students had finished one year of clinical experience in tertiary hospitals in South Korea. The focus groups were all homogenous with respect to grade and clinical settings experience. The research team created a structured interview guide for this study and utilized the theoretical frameworks of TPB to guide the focus group interviews. Thematic content analysis was used to code and analyze the data from the focus group interviews.

**Results:** *Attitudes* **Knowledge deficit** Most of the students in the study did not know the exact concept of SP or had confused SP with general infection control practice. Students had heard the term but did not know the specific definition and measures of SP. **Sensitivity** Although participants had a vague understanding about SP concepts, they were aware of the risk of being exposed to specific pathogens during clinical practices. Their experience was limited to a cognitive understanding as opposed to practical demonstration.

*Subjective norm* **Negative role models** Most students shared negative SP experiences from their clinical placements. Participants discussed various situations and events related to noncompliance, including poor hand hygiene, the non-use of personal protective equipment (PPE), and needle recapping situations. **Gap between classrooms and fields** Participants reported that practices they experienced in clinical settings were quite different from what they had learned in classrooms. Students shared the difficulties of SP compliance in daily basic nursing care activities. **Blind spots** Some clinical organizations monitored the nursing students' nursing care activities and gave close attention to the SP compliance. However, most settings did not monitor SP compliance or educate nursing students in SP compliance. *Perceived behavioural control* **Psychological barriers** Study participants experienced a variety of psychological barriers such as worry about patient discomfort, their own immaturity and fear, being emotionally uncomfortable, and feeling overwhelmed by tasks. Most participants shared that their SP compliance training while in clinical rotation was limited to following the lead of their nursing supervisors. Nursing students complained about the difficulties of SP compliance when they were with nurses with

poor compliance behaviours. Busyness was also another barrier that interfered with SP compliance for students. **Physiological barriers** Study participants experienced various physical limitations as well as psychological barriers to SP compliance during their clinical training. They complained of difficulties due to limited availability of PPE and accessibility to the equipment. **Lack of information** Nursing students expressed that a lack of patient information and accessibility to it was another barrier in SP compliance. They had limited information and understanding of patient situations. Participants reported the lack of systematic education and management for students about SP compliance and guidelines in hospitals. Some students shared their experiences with blood and body fluid exposure in practice, but the post-exposure procedures were not performed properly.

**Intention Changes in compliance awareness** Most participants learned and recognized the importance of SP compliance in schools, but they discussed a cognitive change to an understanding of 'do not need to keep' when they observed noncompliance of guidelines by HCWs.

**Conclusion:** This study explored nursing students' experiences with SP compliance as a method to avoid occupational exposure to microorganisms within clinical settings. Using the TPB as its theoretical framework, this study has closely focused on the students' explanations of SP compliance in their clinical rotations. To our knowledge, this is the first study exploring the issues surrounding SP compliance for nursing students at their clinical sites. Interestingly enough, this study found that the general vulnerability of nursing students at their clinical sites and their reliance on mentors for information and guidance led to strikingly different compliance experiences than those reported by HCWs.

Participants reported confusion about the concept of SP and general infection control. Aware that they are at risk for pathogen exposure in clinical practice, students did not have a strong understanding of protection as a core concept of SP. The fact that students are aware of the risk of exposure to pathogens but less familiar with the SP guidelines means that students do not know what to do to protect themselves from the risk of exposure. Nursing students' experiences of SP compliance are quite different from those of nurses due to their relatively lowly status within the information hierarchy. Students are not able to control resources and barriers during their clinical rotations. In particular, they experienced the absence of subjective norms and the presence of various barriers that need to be removed.

Interestingly, most participants witnessed nurses' noncompliance in the general ward. Participants said that some nurses admitted their noncompliance and then explained what they should follow as guidelines to the students. Others were not even aware of their noncompliance behaviours. These situations imply that students are in inappropriate or negative educational situations. Nurses' SP noncompliance models poor practices to students and seriously and directly affects changes in compliance awareness and noncompliance behaviours.

The important cultural characteristic that emerged is that nursing students are aware of 'cues' from their clinical preceptors regarding SP compliance. The students discussed the ambiguous position of a student nurse within the clinical practice hierarchies and how this led to limited access to patient information and standardized nursing practices. This lowly position also discouraged the students from proactively seeking information around SP compliance; instead, they were expected to simply do as their work superiors did, without question. Disturbingly, following supervisors' non-compliance behaviours was given as the main reason students did not comply with SP. Above all, students perceived their positions as socially indefinite, being not nurse nor student, making it difficult to independently comply with SP during their clinical training.

Furthermore, students experienced limited PPE accessibility. For SP compliance, students should have free access to protective devices and no limitation on their usage. While nurses have limited access because of a supply deficiency,<sup>1</sup> nursing students' PPE accessibility is related to a lack of knowledge about PPE location and the perceived indifference nurses have to their charges' education. Participating students were left in the nursing staff's blind spot and did not receive proper care and education during clinical training. Therefore, in order to increase the SP compliance of students, detailed and direct education about SP guidelines should be preceded.

Nursing students are the nurses of the future, so compliance education and an intention to follow compliance in a student are directly related to a nurse's commitment to compliance. This cognitive change could influence their future SP compliance once they become nurses. Therefore, exploring the factors affecting SP compliance for nurses in charge of student education is needed. In addition, faculty

should develop continuing education programs in schools that include discussion on SP compliance, infection control guidelines, and noncompliance cases, then reinforce SP compliance education before clinical placements begin. These focus groups revealed that many nursing student were in vulnerable environments and risked exposure to pathogens. By removing the barriers presented in this study, nursing students would be able to do clinical practice in a safe environment.

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### Contact

[hyunjino@gmail.com](mailto:hyunjino@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Gender Differences in Depression, Life Satisfaction, and Health in Middle-Aged Koreans

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Oksoo Kim, PhD, RN, MSN, BA, South Korea

#### Purpose

The purpose of this study was to investigate gender differences in health, depression, and life satisfaction among the middle aged in Korea. Also the predictors of depression by gender were identified.

#### Target Audience

Nursing scholars, nursing educators, graduate students

#### Abstract

**Purpose:** The purpose of this study was to investigate gender differences in health, depression, and life satisfaction among the middle aged in Korea. Also the predictors of depression by gender were identified.

**Methods:** The data in this cross-sectional descriptive study were derived from the “2010 Survey for Health, Life condition, and Welfare Needs of Middle Aged Koreans” conducted by the Korea Institute for Health and Social Affairs. The health related characteristics included perceived health, alcohol drinking, nutrition, exercise, chronic disease, and climacteric syndrome. The participants were asked “Have you ever experienced sadness or helplessness affecting your life for 2 weeks or longer during the past 12 months?” to identify depression. Those who answered “yes” to the question were designated to the depressed group. Life satisfaction was measured using the 12 item Korean version (Rhee, Suh, Gho & Park, 1994) of Life Satisfaction Index A (Neugarten, Harvighurst, & Tobin, 1961). Statistical analyses were performed using SPSS 21.0 (SPSS, Chicago IL, USA). Chi-square tests were used to identify the differences in health related characteristics, depression, and life satisfaction by gender. T-test was used to compare life satisfaction by gender. The multiple logistic regression model was used to identify the significant predictors for depression in each gender.

**Results:** The proportion of male alcohol drinkers (75.1%) was higher than that of females (46.5%) ( $X^2 = 345.479$ ,  $p = .000$ ). 11.6% of males reported that they had experienced discomfort due to the climacteric syndrome whereas 34.5% of females reported discomfort ( $X^2 = 294.651$ ,  $p = .000$ ). The proportion of females with chronic disease (32.4%) was higher than that of males (28%) ( $X^2 = 9.186$ ,  $p = .002$ ). 9.1% of males reported their health as poor and 14.1% of females reported their health as poor ( $X^2 = 60.559$ ,  $p = .000$ ). 6.8% of males revealed that they experienced depressed mood whereas 13% of females reported depressed mood ( $X^2 = 44.303$ ,  $p = .000$ ). The level of life satisfaction ( $t = 1.968$ ,  $p = 0.049$ ) of males were higher than that of females. There were no significant differences in having a spouse, nutrition, and exercise by gender. Males who had a spouse (OR: 0.510, 95% CI = 0.313-0.830), perceived their health as good (OR: 0.376, 95% CI = 0.200-0.710), or who had higher life satisfaction (OR: 0.922, 95% CI = 0.893-0.952) were less likely to experience depression. Males who had climacteric syndrome (OR: 4.264, 95% CI = 2.779-6.542) were more likely to experience depression. Females who had higher life satisfaction (OR: 0.900, 95% CI = 0.880-0.921), perceived their health as good (OR: 0.429, 95% CI = 0.288-0.641) or fair (OR: 0.469, 95% CI = 0.326-0.675) were less likely to experience depression. Females who had chronic disease (OR: 1.660, 95% CI = 1.218-2.261) and climacteric syndrome (OR: 1.793, 95% CI = 1.349-2.383) were more likely to experience depression.

**Conclusion:** There were gender differences in depression, life satisfaction, and health in middle aged Koreans. Females had lower levels of life satisfaction than that of males. The proportions of females with depression and poor health was higher than that of males. There were differences in predictors of depression according to gender.

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#### Contact

[ohong@ewha.ac.kr](mailto:ohong@ewha.ac.kr)

## RSC PST 2 - Research Posters Session 2

### The Association Between Laryngectomized Patients' Quality of Life and Their Medical Treatment

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*Kazuyo Iwanaga, RN, MSN, Japan*  
*Kumiko Kotake, PhD, RN, Japan*  
*Yoshimi Suzukamo, PhD, Japan*  
*Ichiro Kai, MD, MPH, Japan*  
*Kaori Haba, RN, PHN, MSN, Japan*  
*Yuki Nagamatsu, RN, MSN, Japan*  
*Aya Takahashi, RN, PHN, MSN, Japan*  
*Rieko Kawamoto, Japan*

#### Purpose

The purpose of this study is to clarify the association between the QOL and treatment by comparing the QOL of patients who underwent laryngectomy with that of patients who underwent both laryngectomy and radiation therapy from the period of time before discharge from a hospital to 12 months after it.

#### Target Audience

The target audience of this presentation is the nurse who practices a cancer nursing.

#### Abstract

**Purpose:** The purpose of this study is to clarify the association between the quality of life (QOL) and medical treatment by comparing the QOL of patients who underwent total laryngectomy with that of patients who underwent both total laryngectomy and radiation therapy from the period of time before discharge from a hospital to 12 months after it.

**Methods:** Subjects were 58 patients who underwent total laryngectomy in three hospitals located in Prefecture A, Japan, agreed to participate in the research, and returned questionnaires before discharge from hospitals and 3, 6, 12 months after discharge from hospitals. Main study subjects were age, sex, and the QOL, and the data of diagnosis, staging, and medical treatment were collected from medical records. SF-36v2 and mail survey were used in the analysis of the QOL data. SF-36v2 is a comprehensive QOL scale composed of 8 domains: physical function (PF), role physical (RP), body pain (BP), general health perception (GH), vitality (VT), social functioning (SF), role emotional (RE), and mental health (MH). As an analytical method we calculated descriptive statistics of basic attributes and QOL scale scores. Norm-based scoring (NBS) was used in the calculation of the latter.

We confirmed that there is no statistical difference on QOL scale scores in age and staging. Then subjects were classified into two groups: patients who underwent only total laryngectomy and patients who underwent both total laryngectomy and radiation therapy for conducting t-tests to examine their associations with the QOL ( $p < 0.05$ ). This study was approved by ethical review committees of an affiliated university and medical facilities.

**Results:** Subjects' basic attributes were as follows:

average age: 67.4 years old (ranging from 48 to 83) at the time of total laryngectomy

sex: 52 males (89.7%) and 6 females (10.3%)

diagnosis: cancers of larynx 19 (32.8%), of hypopharynx 29 (50.0%), of oropharynx 1 (1.7%), of thyroid 1 (1.7%), of tongue 1 (1.7%) and of cervical esophagus 7 (12.3%).

staging: stage I – 2 (3.5%), stage II – 6 (10.3%), stage III – 13 (22.4%), and stage IV – 37 (63.8%).

treatment: only total laryngectomy 23 (39.6%), and both total laryngectomy and radiation therapy 35 (60.4%).

The basic attributes of patients who underwent only total laryngectomy were as follows:

average age: 68.8 years old (ranging from 49 to 83)

sex: 22 males (95.7%) and 1 females (4.3%)

diagnosis: larynx cancer 9 (39.1%), hypopharynx cancer 9 (39.1%), and other types of cancers such as neck cancer and esophagus cancer 5 (21.8%).

staging: stage II – 5 (21.7%), stage III – 8 (34.8%), and stage IV – 10 (43.5%).

The basic attributes of patients who underwent both total laryngectomy and radiation therapy were as follows:

average age: 66.3 years old (ranging from 48 to 82)

sex: 30 males (85.7%) and 5 females (14.3%)

diagnosis: larynx cancer 10 (28.6%), hypopharynx cancer 20 (57.1%), other types of cancers such as neck cancer and esophagus cancer 5 (14.3%).

staging: stage I – 2 (5.7%), stage II – 1 (2.9%), stage III – 5 (14.3%), and stage IV – 27 (77.1%).

types of radiotherapy: preoperative 18 (31.0%), postoperative 11 (19.0%), and preoperative and postoperative 6 (10.3%).

There were 43 responses from those who took treatment before discharge from hospital. Among them PF\_N of those who underwent only total laryngectomy was  $25.0 \pm 3.8$  (mean and standard deviation) and PF\_N of those who underwent both total laryngectomy and radiation therapy was  $39.5 \pm 3.6$ , showing that there was statistical difference between them ( $p = .009$ ). Yet, there was no statistical difference between them on BP\_N, GH\_N, VT\_N, and MH\_N. (There was no investigation on RP\_N, SF\_N, and RE\_N). There were 38 responses from those who took treatment 3 month after discharge from hospital. GH\_N of patients who underwent only total laryngectomy and of patients who underwent both total laryngectomy and radiation therapy were  $38.2 \pm 2.3$  and  $45.6 \pm 2.3$ , respectively, showing statistical difference between them ( $p = .03$ ). Yet, there was no statistical difference between them on PF\_N, RP\_N, BP\_N, VT\_N, SF\_N, RE\_N, and MH\_N. There were 34 responses from those who took treatment 6 month after discharge from hospital. Yet, there was no statistical difference in every item. There were 33 responses from those who took treatment 12 month after discharge from hospital. PF\_N of patients who underwent only total laryngectomy and of patients who underwent both total laryngectomy and radiation therapy were  $35.0 \pm 3.4$  and  $44.5 \pm 3.1$ , respectively, showing statistical difference between them ( $p = .047$ ). Yet, there was no statistical difference between them on PF\_N, RP\_N, BP\_N, VT\_N, SF\_N, RE\_N, and MH\_N.

**Conclusion:** Laryngectomy is done for advanced cancers of the head and neck and of cervical esophageal. Radiation therapy is also used as adjuvant therapy before and after surgery. Total laryngectomy causes several physical problems such as a loss of voice functions, the change of breathing route, the increase of cough and phlegm, and the change of swallowing function and appearance (Armstrong et al., 2001). These physical problems bring about socio-economic problems such as a loss of jobs and fall in income (Kotake, et al. 2005) and other problems such as the loss of human relationship and of social contribution and negative effects on family members. There is also a research which shows that the disruption of social life brings about social trauma and other mental disorders (Bussian et al. 2010). Such physical, psychological, and social problems impair the QOL of laryngectomees severely. This research also revealed that the QOL of patients who underwent total laryngectomy was consistently below the national standard value. Previous studies gained the results that the QOL of patients who underwent only total laryngectomy had no significant difference with the QOL of patients who underwent only chemoradiation therapy (Hanna et al., 2004). Yet, there is no study which compares between the QOL of patients who underwent only total laryngectomy and the QOL of patients who underwent both total laryngectomy and radiation therapy. This research showed that the QOL of patients who underwent total laryngectomy 12 month after discharge from a hospital was lower than the QOL of patients who underwent both total laryngectomy and radiation therapy. This shows that the latter improved their physical functions, compared with the former. PF\_N of those who underwent only total laryngectomy was  $25.0 \pm 3.8$  before discharge from a hospital and  $35.0 \pm 3.4$  twelve month after discharge from a hospital. PF\_N of those who underwent both total laryngectomy and radiation therapy was  $39.5 \pm$

3.6 before discharge from a hospital and  $44.5 \pm 3.1$  twelve month after discharge from a hospital. These results show that in both treatment patients' physical functions improved with time. In this study we examined patients who underwent preoperative, postoperative, and preoperative and postoperative radiotherapy but we could not examine irradiation period due to the size of sample number. This is a future subject. We also need to examine the reasons why physical functions of patients who underwent only total laryngectomy are more likely to improve than those of patients who underwent both total laryngectomy and radiation therapy by focusing on patients' awareness of functional disorder.

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#### Contact

[kazuyons@adm.fukuoka-u.ac.jp](mailto:kazuyons@adm.fukuoka-u.ac.jp)

## RSC PST 2 - Research Posters Session 2

### The Effect of Multimedia Education of PCA on Patients' Cognition, Interference of Life, and Satisfaction

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*Chiu-Hua Li, BS, Taiwan*

*Chou-Ping Chiou, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to report the finding which examined the effect of interactive multimedia education program of patient-controlled analgesia on cognition, interference of life, and satisfaction of patients who was going to receive osteological surgery

#### Target Audience

The target audience of this presentation is nurses from clinical practice and nursing researchers.

#### Abstract

**Purpose:** To examine the effect of interactive multimedia education program (MEP) of patient-controlled analgesia (PCA) on cognition, interference of life, and satisfaction of patients who was going to receive osteological surgery.

**Methods:** A quasi-experimental design was used with intervention and control groups. Eligible subjects recruited from one teaching hospital in Kaohsiung. Inclusion criteria were the patients aged 20 and above who was going to receive osteological surgery and agreed to use PCA. Totally, 60 subjects were non-randomly assigned into either the intervention group (n=30) or the control group (n=30). Before surgery the intervention group received MEP, and the control group only received regular routine care (pamphlet education). The research instruments included pain cognition questionnaire, life interference scale, and satisfaction scale. SPSS 18.0 version software was used for coding and data analysis. Statistical methods included t-test and pair t-test.

#### **Results:**

1. Participants in the MEP group have higher cognition ( $p < .001$ ) and satisfaction ( $p < .001$ ) with PCA than the pamphlet group.
2. There is significant difference ( $p < .001$ ) in life interference before and after surgery for each group, but there is no significant difference between these two group.

**Conclusion:** This research shows that using MEP in per-operative education for patients who was going to receive osteological surgery can increase their cognition, and satisfaction for PCA. Results demonstrate the potential benefits of using MEP for surgery patients with PCA.

#### Contact

[fen6006@yahoo.com.tw](mailto:fen6006@yahoo.com.tw)

## RSC PST 2 - Research Posters Session 2

### The Impact of Personality Traits on Early Job Resignation of Newly Graduated Nurses

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*Sachiko Teraoka, RN, MN, PhD, Japan*

*Miyuki Takase, RN, BN, MN, MBIostat, PhD, Japan*

#### Purpose

The purpose of this presentation is to examine a quitting a intention to resign of the newly graduated nurses.

#### Target Audience

The target audiences of this presentation is clinical nurses and nurse managers.

#### Abstract

**Purpose:** Psychological anxiety has been identified as a factor in early job resignation of newly graduated nurses. Despite support for skill acquisition and workplace adaptation, the lack of which is known source of psychological anxiety, the issue of early job resignation has not been resolved. The influence of personality traits relating to how people react to events is suspected to be a potential factor in job resignation. Based on personality traits, it may be possible to develop advanced measures to prevent job resignation by interfering with the chain of events leading to intention to resign. The present study clarifies a relation of personality traits, nursing skill competence, and psychological anxiety to intention to resign.

**Methods:** A total of 199 newly graduated nurses were surveyed 6 months after obtaining employment. Questionnaires elicited the following: their intention to resign, the self-rated nursing skill competence, state and trait anxiety (i.e., the degree of anxiety experienced at present, and the stability of anxious state, which were assessed by State-Trait Anxiety Inventory [STAI]), and personality profile using Tokyo University Egogram-II [TEG-II]. The TEG-II identifies the following personality traits: Critical Parent (CP), Nurturing Parent (NP), Rational Adult (A), Free Child (FC), and Adapted Child (AC). Subjects were classified as AC-dominant or non-AC-dominant based on the TEG-II results. The relationships between the above variables were assessed by regression analysis. Prior to data collection, ethical approval was obtained from the participating hospital.

**Results:** A total of 126 newly graduated nurses returned the usable questionnaires (a response rate of 63.1%). The average age of the participants was  $22.1 \pm 2.1$ . The participants consisted of 11 males (8.7%) and 115 females (91.3%). The major personality traits of the graduates were as follows: AC-dominant (42.1%), FC-dominant (7.9%), and NP-dominant (7.2%). These traits were further classified into the following AC pattern: AC-dominant (42.3% of the graduate falling in this category) and non-AC-dominant (57.7% of the graduates were identified as fitting in this category). The results of regression analysis investigating the relationship between the self-rated nursing skill competence and state anxiety according to the AC pattern were as follows. Nursing skill competence and state anxiety were negatively correlated in AC-dominant subjects ( $B = -0.236$ ,  $p = 0.034$ ), while no correlation was observed for non-AC-dominant subjects ( $B = 0.001$ ,  $p = 0.987$ ). Similar results were also obtained for trait anxiety. In the AC-dominant group, the high self-rated nursing skill competence was associated with low trait anxiety ( $B = 0.269$ ,  $p = 0.013$ ). However, non-significant correlation was observed in non-AC-dominant graduates ( $B = 0.014$ ,  $p = 0.859$ ). While the negative correlation observed between nursing skill competence and intention to resign was not statistically significant, a stronger tendency was present in AC-dominant subjects ( $B = -4.817$ ,  $p = 0.117$ ) compared with non-AC-dominant subjects ( $B = 2.442$ ,  $p = 0.180$ ). The present findings demonstrated that the relationship between nursing skill competence and intention to resign differed slightly based on novice nurses' personality traits.

**Conclusion:** An AC-dominant personality trait moderated the relationship between nursing skill competence and psychological anxiety of newly graduated nurses, while a non-AC-dominant personality did not exhibit such an effect. Minor moderation was also observed in the relationship between nursing

skill competence and intention to resign in the AC-dominant graduates. An AC-dominant person tends to possess such characteristics as prioritizing others, being reserved, and caring for the evaluation by others. These types of the characteristics allow the graduates to maintain a good relationship with others despite the fact that they experience anxiety due to a lack of competence. Because of the good relationship with others, their intention to resign was considered low. On the other hand, non-AC-dominant graduates might not experience anxiety due to their lack of competence. However, their difficulty establishing a good relationship with others might have led to a greater intention to leave their jobs. Considering that AC-dominant graduate nurses comprised 42.1% of our study population, helping them to establish a good collegial relationship is an effective way to reduce their early exit from nursing.

Contact

[sateraoka@mw.kawasaki-m.ac.jp](mailto:sateraoka@mw.kawasaki-m.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Risk Factors of Thromboembolic Events and the Impact on Survival in Newly Diagnosed Breast Cancer Patients: An Experience from Taiwan

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Pi-Ching Hsieh, PhD, RN, Taiwan

Hui-Fang Su, RN, PhD, Taiwan

Kuan-Chia Lin, PhD, Taiwan

#### Purpose

The purposes of this study are to evaluate the incidence and risk factors for developing a new TEEs in a large population-based study of breast cancer patients and also to examine the effect of TEEs on 2-year survival.

#### Target Audience

The target audiences of this presentation are the registered nurses who are working on the Oncology care area and the researchers who are interesting in the quality of care for cancer patients.

#### Abstract

**Purpose:** Thromboembolic events (TEEs) are one of the major complications of breast cancer patients and associate with increased mortality. These events have been included as the Core Measure Set by Joint Commission International for the international hospital evaluation in 2013. However, few evidence-based data are available on the development of TEEs in breast cancer patients in Taiwan.

**Methods:** Using the National Health Insurance Research Database between 1997- 2010 in Taiwan, we conducted a retrospective cohort study to evaluate 2-year incidence of TEEs and risk factors on 2000-2008 breast cancer cohorts. Matching based on the propensity of age and co-morbidity was used to identify the patients with and without TEEs groups. An accelerated failure time model was applied to analyze the effect of TEEs on death within 2 years after breast cancer diagnosis.

**Results:** A total of 80598 patients with breast cancer between 2000 and 2008, the 2-year cumulative TEEs incidence was 1.78% (95% *CI* = 1.74-1.82), with a rate of 1.38 and 0.43 events/100 patient-years during the first and second half year, respectively. In multivariate model, significant predictors of developing TEEs within 2 years were: age (adjusted incidence rate ratio [adj. *IRR*] = 3.87 if  $\geq 65$  year v < 45; 95% *CI* = 3.80-3.93), co-morbidity (adj. *IRR* = 1.96 if  $\geq 3$  v 0, 95% *CI* = 1.93-2.00), hypertension history (adj. *IRR* = 1.43 if yes v no, 95% *CI* = 1.41-1.45), breast surgery (adj. *IRR* = 1.47 if yes v no, 95% *CI* = 1.45-1.49), radiotherapy (adj. *IRR* = 1.29 if yes v no, 95% *CI* = 1.28-1.31), chemotherapy (adj. *IRR* = 1.40 if yes v no, 95% *CI* = 1.38-1.42), hormone therapy (adj. *IRR* = 0.92 if yes v no, 95% *CI* = 0.91-0.94), and type of hospital (adj. *IRR* = 1.13 if district v medical center 95% *CI* = 1.11-1.15). In *AFT model* analysis, after controlling the characteristics of patient, treatment, hospital, TEE was a significant predictor of decrease 2-year survival (adjusted rate ratio [adj. *RR*] = 2.55, 95% *CI* = 2.24-2.91).

**Conclusion:** Approximate 1.78% of breast cancer patients developed TEEs within 2 years, with the highest incidence in the first 6 months after diagnosis. Age, co-morbidity, hypertension history, breast surgery, radiotherapy, chemotherapy, and type of hospital level were the significant predictors. Breast cancer patients with TEEs were associated with a higher risk of death within 2 years.

#### Contact

[hpc@ntunhs.edu.tw](mailto:hpc@ntunhs.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Using Failure Mode and Effects Analysis (FMEA) to Improve Patient Safety in u-Health Nursing Service

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Hanna Choi, MA, South Korea

#### Purpose

The aim of this study is to identify and assess the management of risk in relation to the use of a tele-nursing service to promote service quality and assure patient safety. This study utilizes failure mode and effect analysis, a proactive technique.

#### Target Audience

The target audience of this presentation is care givers who deliver care with information technology.

#### Abstract

**Purpose:** The aim of this study is to identify and assess the management of risk in relation to the use of a tele-nursing service to promote service quality and assure patient safety. This study utilizes failure mode and effect analysis, a proactive technique. Low-income older adults generally have higher requirements for a u-health service as they suffer from more diseases and thus have more of a need for health management than the general adult population. However, there are difficulties and possible risk factors given their low health literacy rates and inability to use new u-Health devices. The FMEA method is utilized to implement the new service in an effort to prevent avoid errors before they occur.

**Methods:** First, the context was established, after which four multidisciplinary teams of four persons each, including a tele-nurse, an internet company staff member, a representative from the equipment manufacturer, and a person serving as a manager of the participant resident, were assembled to analyze the possible causes of issues that can arise during the tele-nursing service process. Second, analyses of identification risk areas were conducted to examine the risk factors associated with the process, looking forward at component failure rather than backward. Failure modes were scored with a risk priority number (RPN) for each step and change, by multiplying the Occurrence, Severity, and Detection scores according to the JCAHO classification.

**Results:** Twenty three clinical error and failure modes were analyzed in relation to the u-Health nursing service. As a result, accidents could be sorted into two types: care service (43.5%) and system (56.5%) accidents. A flow diagram indicating the four points of preparation for bio-signal measurements, measurement followed by device instructions, the checking of the result by the participant and tele-nurse, and an assessment outcome, was devised . A hazard analysis according to the RPN risk priority number was conducted to analyze elements leading to the following areas: a lack of preparation for bio-signal check-ups(24 score), forgetting the measurement method(15 score), emergencies which could arise(15 score), situations related to the internet connection network(12 score) and power(12 score), not following the instructions of the u-Health measurement device(12 score), and assessments of older people by telephone(12 score).

**Conclusion:** We understood where and when risk tasks are undertaken during a participants check their bio-signal. FMEA to Tele-nursing services for patient safety enhance and reduce from significant risks. Identified many clinical risk assessment management can be preventable usage in service using aged population.

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#### Contact

[vision229@hanmail.net](mailto:vision229@hanmail.net)

## RSC PST 2 - Research Posters Session 2

### Development of Assessment Sheet of Older Adults Who Relocate to a Recovery Phase Rehabilitation Ward

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*Misa Komatsu, PhD, Japan*  
*Akiko Hamahata, PhD, Japan*  
*Megumi Nakamura, MSN, Japan*  
*Shizuka Otsuka, MSN, Japan*

#### Purpose

The purpose of this presentation is to develop an assessment sheet for use during relocation to a recovery phase rehabilitation ward in Japan, based on a conceptual model that views relocation from the perspective of older adults.

#### Target Audience

The target audience of this presentation is nurses working in a recovery phase rehabilitation ward.

#### Abstract

**Purpose:** In current healthcare in Japan, hospitalized patients have more serious conditions and hospital stays are becoming shorter. Older adults with health problems who cannot live independently at home usually decide to relocate to a recovery phase rehabilitation ward. For older adults relocation to a recovery phase rehabilitation ward is a life event that requires adaptation to new living circumstances.

The purpose of this study was to develop an assessment sheet for use during relocation to a recovery phase rehabilitation ward in Japan, based on a conceptual model that views relocation from the perspective of older adults (Komatsu, Hamahata, & Magilvy, 2007).

**Methods:** A Relocation Assessment Sheet (Assessment Sheet) was developed with reference to this model and included questions on constipation and insomnia, which readily appear after relocation, especially among Japanese older patients. Five of the 43 questions on the Assessment Sheet were on background and personal factors. The other 38 questions were set up as a scale to understand whether or not an older adult had adapted during relocation. This scale consisted of 10 subscales. The subscales and number of questions were Relocation-Related Factors, such as intention to relocate, three questions; Physical Environmental Factors, such as constipation, four questions; Social Environmental Factors, such as conversations with others, five questions; Cognitive Appraisal, such as statements on life in the hospital, three questions; Adaptive Tasks such as worsening of disease state, five questions; Coping Skills, such as asking for help from others, five questions; Tasks for Life Integration, such as anxiety toward the future, three questions; Resolution of Unrecognized Problems, such as loss of appetite or troubles with others, three questions; Support of staff and other persons depended on, four questions; and Outcome of Relocation, such as becoming accustomed to the hospital, three questions. Nurses responded to the questions in about the second week from the date of relocation of the older adult.

The subjects for analysis were 336 people for whom there was no missing data among the 371 Assessment Sheets. In the analysis, Cronbach's alpha coefficient was calculated for the 38 questions that affect adaptation. In addition, using descriptive statistics, the characteristics of the older adults who had relocated to the recovery phase rehabilitation wards were clarified.

This study was approved by the research ethics committee of the participating university. For the consent of study participants, first approval was obtained from the manager of each hospital and then the study was explained to the nurses, and their consent was obtained. Finally, the study was explained in writing to the older adults, their families, and nurses, and their consent was obtained. No direct burden was placed on the older adults from this study. Personal information was protected in the implementation of the study, and privacy was ensured.

**Results:** Thirty-eight questions on the Assessment Sheet used in this study constituted a scale to understand whether or not the older adult had adapted at the time of relocation. This scale consists of 10

subscales corresponding to items in the conceptual model. With regard to the reliability of the scale, the overall Cronbach's alpha coefficient was 0.87. The coefficients for the 10 subscales were 0.42, 0.58, 0.72, 0.70, 0.62, 0.65, 0.79, 0.80, 0.50 and 0.82, respectively.

The mean age of the older adults who had relocated was  $81.2 \pm 6.4$  years, and many were women (67.3%). About half of the subjects had dementia (46.5%), which was mild (27.4%), moderate (14.6%), or severe (4.5%). Among Relocation-Related Factors, A large number were the first relocation to a recovery phase rehabilitation ward (85.1%). Nurses made referrals and explained the hospital before relocation (64.3%), and guided subjects around the hospital after relocation (92.8%).

Physical Environmental Factors included that some of the older adults were independent at the time of relocation (32.7%), and some of them also had language impairments (23.5%). After relocation, constipation (48.2%) and depression (18.8%) appeared in some patients.

Social Environmental Factors included that a little under half of the older adults brought personal items, placing familiar items in their rooms (36.0%) and bringing treasured items with them when they relocated to the hospital (13.7%). However, the rate of participation in recreation and other events held in the hospital was high (46.2%), and many of the older adults communicated with others, having conversations with nurses (65.2%) and other patients (50.0%).

With regard to the older adults' Cognitive Appraisal of the recovery phase rehabilitation ward, some had not accepted to be hospitalized, saying "I have nowhere else to go," (2.7%), and "I don't like it here" (6.0%). Nurses felt that some of the elderly were just "putting up with life in the hospital" (25.9%). On the Adaptive Tasks subscale, complaints of "I want to go home" (22.6%) and "I don't feel well" (14.3%), and worsening disease state (4.8%) were seen in some of the older adults. Older adults who caused trouble with other patients were also seen (5.1%). Nurses also responded that providing care for some of the older adults was difficult (25.0%). These things show that older adults present different kinds of adaptation issues immediately after relocating to a recovery phase rehabilitation ward. In Coping Skills, the older adults often used problem-focused coping for adaptation issues, such as "seeking help from the nurse" (60.4%), "expressing one's wishes" (58.0%), and "seeking help from other patients" (14.2%). Emotion-focused coping of "getting angry, crying, becoming agitated" was also used (10.7%).

Under Tasks for Life Integration there were older adults who expressed worries or anxiety (12.5%) and made negative statements about themselves (9.2%). Under Support, the persons providing support for the older adults were nurses (38.1%) and family members (48.8%). Resolution of Unrecognized Problems included nurses resolving physical issues such as constipation and loss of appetite that were not recognized by the older adults themselves (35.4%). Similarly, nurses resolved mental issues such as a gloomy countenance or not smiling (21.5%) and social issues such as trouble with other patients and dissatisfaction with the hospital (14.3%).

**Conclusion:** The older adults who were the subjects of this study had a high mean age, and many had dementia. For many it was also their first time to relocate to a recovery phase rehabilitation ward and thus for these older adults relocation was a large environmental change. In addition, the level of independence in daily life was low. Older adults with speech disorders were also seen, and it was probably difficult for them to control their environment themselves after the relocation. For many of these older adults the nurse had made a referral and explained the ward before relocation and guided them around the ward at the time of relocation. This is thought to have had an effect in terms of adaptation to the recovery phase rehabilitation ward by the older adults.

Constipation and depressive symptoms appeared in some subjects after the relocation, and attention should be paid to these symptoms as signs of maladaptation in older adults. In the responses to questions in the Cognitive Appraisal subsection, language and behavior indicating resignation with regard to relocation and non-acceptance of life in the hospital were seen. Focusing on words showing such cognition in older adults and understanding the feelings of the individual is thought to be important. Under Adaptive Tasks in hospital life, worsening of disease or worsening of physical symptoms, such as complaining "I don't feel well," was seen. Nurses need to focus on these physical symptoms and deal with them through early interventions.

The Coping Skills of the older adults were not limited to emotion-focused coping only. Many of the older adults used problem-focused coping. In cases when coping skills were not seen, resolution of mental

issues by the nurse on behalf of the individual was related to the individual's adaptation. Nurses need to recognize anew that they are persons these older adults rely on, and fulfill the role of resolving issues on behalf of these older adults.

The Assessment Sheet used in this study has reliability as a tool that shows adaptation in older adults. It also showed the characteristics of relocating older adults, suggesting that it can be a useful tool in understanding relocating older adults.

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□C& Magilvy, J.K. (2

#### Contact

[komatsu@y-nm.ac.jp](mailto:komatsu@y-nm.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Promotion of End-of-Life Care at Home for the Elderly in a Community Setting in Japan: Results of Qualitative Research

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*Yae Takeshita, RN, BSN, MSN, Japan*

*Michiko Moriyama, RN, PhD, Japan*

#### Purpose

The purpose of this study was to extract the obstacles from the healthcare staff and caretakers in terms of actualizing and supporting the elderly's wishes regarding end-of-life stage.

#### Target Audience

The target audience of this presentation is the medical professionals, the health caretakers and the researchers.

#### Abstract

**Background:** In Japan, according to the national statistics, only 33.1% of the elderly people died at home, even though 89.1% of them wish to die at home. This discrepancy indicates obstacles existing in many areas in this society. One major reason is that advance directive is not legislated, and only a few people write their end-of-life wishes as a legal document in Japan. Without legal protection, healthcare professionals want to escape from legal trouble even if the elderly show their wishes at the end stage.

In order to protect the elderly wishes of dying without any life-prolong medical actions in this country, it is necessary to educate the elderly to write a advance directive documentation and make it legally active.

On the other hand, environment should be prepared to make the documentation active. First, we need to educate the elderly how they spend their end stage, and to support them to make their decisions. Secondly, we need to enhance discussion with the elderly and the families regarding the end-of-life wishes and advance directives. Thirdly, we need to support medical professionals to accept and follow the document that the elderly make. To achieve our goal, we conducted the action research.

Moreover, during taking this action research, we found that healthcare professionals working in community including medical doctors and professional caretakers were insecure and less confidence in providing end-of-life care which allows the elderly dying at home.

In this presentation, therefore, we will report the qualitative research results of obstacles recognized by medical professionals in community settings regarding actualizing the elderly dying at home.

**Action research goal:** The final goal of this action research is to actualize the elderly people's wishes.

**Action research procedure to actualize the goal:** 1st step: Developed a committee to achieve this goal. Recruited committee members from the community and from medical facilities and healthcare agencies of the town.

2nd step: Conducted an attitude survey to the elderly living in the town regarding end-of-life wishes and the obstacles achieving them.

3rd step: Provided educational lectures by lawyers to the elderly how to spend their end-of-life stage and to make decisions and advance directives.

4th step: Conducted a qualitative research study to healthcare and caretaker agencies about their recognition and attitude to end-of-life care and advance directives.

5th step: Developed the system actualizing the elderly dying at home. Conducted meetings and conferences to promote the action with personnel of the clinics, home-visiting nursing agencies, care manager offices, and home help agencies regularly. All of them support the elderly's daily life.

**Purpose of this study:** The purpose of this study was to extract the obstacles from the healthcare staff and caretakers in terms of actualizing and supporting the elderly's wishes regarding end-of-life stage. This is a report of 4th step result.

**Methods: Participants of the 4th step research study** Participants were personnel from clinics, home-visiting nursing agencies, care management offices, and home help agencies in K town in Hiroshima city, Japan. Primary physicians, nurses, care managers, home helpers and home-visiting nurses were participated. K town is a highly aged community. **Method of this research** The semi-structured questionnaire was administered to the participants. The participants were asked to write and describe obstacles to actualize the elderly's wishes dying at home. The data were analyzed qualitatively and categorized. To assure the validity of the analysis, categorized data were returned to the participants and checked by them (member's checking). The ethical consideration was taken.

**Results:** Five categories were extracted from the qualitative analysis. Those are shown in below.

1. Difficulty in cooperating multidisciplinary between agencies (home-visiting nursing agencies, care management offices, and home help agencies) and clinics (physicians).
2. Lack of knowledge and skills about the end-of-life home medical care due to the little experience of the home medical care at the end stage.
3. An underdeveloped system of care at the end stage such as shortage of manpower or difficulty of treatment in emergencies
4. Preoccupied recognition by medical professionals, health caretaker, the elderly and their family that it is natural to die at a hospital, and they believe it is impossible to die at home without enough social background (family living with them, enough budget to ask enough social resources).
5. Patients' and families' lack of knowledge on the end-of-life care.

Discussion: These findings show that there is a shortage of health care workers in a community, and collaboration system between multidisciplinary is underdeveloped in practice of the home medical care at the end period. While the promotion of the home medical care needs to be hurried because of the rapid aging progress and increase in hospital death in Japan, community supporters feel that it is difficult to care at home at the end stage. It is necessary to take it from feasible measures. Furthermore, it is supposed that a cultural background is related about the problems. Japanese sometimes entrust decision to their families even if it is personal decision and they leave medical care to an expert. However, we can help to make it possible to support a patient at the end period if we make their hope clear. Actually, supporters feel that it is difficult to care at-home without declaration of their hope. It is required education and support that Japanese people are enabled to make an advance directive.

**Discussion:** Recognized obstacles by healthcare professionals occur in two areas; One is healthcare professionals' factor and the other is elderly's factor. In the healthcare professionals area, communication gaps existed between medical professionals and caretakers, care managers, who mostly do not have medical knowledge. This lack of medical knowledge makes caretakers and care managers withdraw taking necessary communication with medical professionals. Most of caretakers often feel fear of communicating with physicians, which, as a result, make a multidisciplinary team discussion regarding end-of-life care difficult. The fact that most of the elderly dying in hospitals make healthcare professionals and caretakers lack of experience in taking care of the elderly dying at home. Therefore, they are insecure and anxiety taking care of the elderly. So when elderly's conditions get worsen, healthcare workers and caretakers feels anxiety and send them to hospitals. Lack of manpower of home-health professionals is crucial. Taking care of end stage takes a lot of time from the professionals. This situation makes the professionals reluctant to take care of the elderly dying at home. Therefore, Japanese government seriously need to take an action to increase healthcare professional in community settings. Without manpower, it is impossible to actualize at-home-death. Patients and families also need to be educated more about end-of-life care and decision-making. It is obvious that they are not provided understandable information about healthcare resources which actualize dying at home. The most important thing is that we need to accumulate successful cases one by one. When we have a case who want to die at home, it is important to have a case conference with a patient, the family, medical

professionals, a care manager, and caretakers together, which will actualize at-home-death. To resolve these obstacles, we will continue this action research project.

**Summary:** This study showed that health care workers who provide end-of-life care at home feel difficulty in various dimensions. It seems to be related to the underdeveloped system of the end-of-life care and lack of community education. In order to promote at-home death, we need to accumulate successful cases one by one with multidisciplinary discussion.

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#### Contact

[d126851@hiroshima-u.ac.jp](mailto:d126851@hiroshima-u.ac.jp)

## RSC PST 2 - Research Posters Session 2

### Readmission and Risk Factors Among Community Rehabilitation Users with Psychiatric Disease in Taiwan

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*Hui-Fang Su, RN, PhD, Taiwan*  
*Pi-Ching Hsieh, PhD, RN, Taiwan*

#### Purpose

The aims of this study were first to investigate the characteristics of community rehabilitation care users and then to analyze the frequency of readmission and its risk factors within one year after discharge from a hospital for the treatment of mental illness.

#### Target Audience

The target audiences of this presentation are the registered nurses who are working in community for psychiatric disease care and the researchers who are interesting in the quality of care for patients with psychiatric disease.

#### Abstract

**Purpose:** With reference to phase I and phase II of Andersen's behavioral model of health service utilization, the aims of this study were first to investigate the characteristics of community rehabilitation care users and then to analyze the frequency of readmission and its risk factors within one year after discharge from a hospital for the treatment of mental illness.

**Methods:** A retrospective cohort study design was used. Data analyzed in this study were retrieved from the 'home care specific files' of the National Health Insurance Research Database issued by the National Institutes of Health between 1999 and 2009. A total of 25,218 people were new cases of community rehabilitation care between 2000 and 2007. In order to forecast these community rehabilitation care users' risk of readmission within one year after discharge, the Cox proportional hazard model was utilized.

**Results:** We found that the adjusted hazard ratio was significantly lower for groups of 8-14 times users and 15 or more-times users of community rehabilitation care than for 1-7 times users (0.73 & 0.72 respectively) in the Cox regression model. Furthermore, the risk of readmission was lower for females, clients who were insured by sub-bureau in the middle part of Taiwan, a diagnosis of schizophrenia, and a length of hospital stay less than 55 days.

**Conclusion:** The lower the frequency of psychiatric patients' using community rehabilitation care, the higher the risk of readmission.

#### Contact

[suhf@ntunhs.edu.tw](mailto:suhf@ntunhs.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Variables Affecting the Reporting of the Patient Safety Events

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*Shu-Chen Chang, MSN, RN, Taiwan*

*Mei-Yu Kang, RN, Taiwan*

*Ya-Hui Hsieh, PhD, Taiwan*

*Tsui-Fen Chung, MS, Taiwan*

#### Purpose

to share nurses' reporting intention of medical incidents on the basis of Theory of Planned Behaviour (TPB)

#### Target Audience

the nursing leaders of hospitals.

#### Abstract

**Purpose:** This study aims to investigate nurses' reporting intention of medical incidents on the basis of Theory of Planned Behaviour (TPB).

**Methods:** The design of questionnaire was based on TPB and the literature of patient safety. The researchers adopt the purposeful sampling approach. Three hospital systems in Taiwan were selected. Totally, 2,565 questionnaires were distributed and 2,151 were collected. The response rate was 81.2%.

**Results:** 53.8% participants had incidents reporting experiences. The average time of completing reporting by entering data was 21.67 minutes. Then, learning how to use the reporting system averagely took 17.9 minutes. There was no significance among three hospital systems in terms of incidents reporting intention by using ANOVA test. However, there were significantly different between variables ( $p < .01$ ). The study found that the nurses' reporting intention of medical incidents was affected by the attitude and behaviour beliefs, self control, and the main reference groups.

**Conclusions:** The internalization of value of medical incidents reporting and the formulation of its culture would contribute to the reporting of medical incidents. The willpower control of reporters played a pivotal role of reporting incidents. Especially, the unit supervisor, colleagues in the same unit, colleagues having reporting experiences, and the same event another party were important reference groups of reporting behaviour norm.

#### Contact

[53098@cch.org.tw](mailto:53098@cch.org.tw)

## RSC PST 2 - Research Posters Session 2

### Mental Health Trajectories and Related Factors Among Perinatal Taiwanese Women

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*Pei-Chao Lin, RN, Taiwan*

*Chich-Hsiu Hung, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to present mental health trajectories from the third trimester of pregnancy through four weeks postpartum in Taiwanese women and the correlations of these trajectories with perceived social support and demographic characteristics.

#### Target Audience

The target audience of this presentation is health care providers who concern women's perinatal health.

#### Abstract

**Purpose:** To investigate mental health trajectories from the third trimester of pregnancy through four weeks postpartum in Taiwanese women and the correlations of these trajectories with perceived social support and demographic characteristics.

**Methods:** This study is a repeated measures design. 194 Taiwanese women completed the Chinese Health Questionnaire and Social Support Scale at the 36<sup>th</sup> gestational week and 1<sup>st</sup> and 4<sup>th</sup> weeks postpartum. Latent class growth analysis was used to identify the change tendency and major classes of mental health status among perinatal women. Multinomial logistic regression was then used to determine if demographic characteristics and social support were associated with the classes of mental health trajectories among perinatal women.

**Results:** Three linear mental health trajectories for perinatal women were identified. The three classes of mental health trajectories among perinatal women were identified as Class 1 ("consistently good perinatal mental health," 12.4%); Class 2 ("improved perinatal mental health after childbirth," 71.6%); and Class 3 ("consistently poor perinatal mental health," 16.0%). Multinomial logistic regression was used to examine correlations of the three classes of mental health trajectories with demographic characteristics and social support. Class 1 served as the control group. Social support was significantly related to the three classes of perinatal mental health trajectories. Less social support was associated with lower prenatal mental health scores. Younger age was a risk factor for consistently poor perinatal health. Vaginal delivery was associated with improved mental health after childbirth.

**Conclusion:** Mental health was worse in the third trimester of pregnancy than postpartum. Less social support was associated with lower prenatal mental health scores, and similarly distributed between women with consistently poor and improved mental health after birth. Health care providers should assess women's mental health status and provide timely interventions during the perinatal period. Social support intervention should be carried out for pregnant women, especially for those with younger age or lower perceived social support.

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Contact

[payjau@gmail.com](mailto:payjau@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Narrative Study in Young Adult Offspring of Parents with Bipolar Disorder

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*Sara Hsin-Yi Liu, RN, Taiwan*

*Fei-Hsiu Hsiao, PhD, RN, Taiwan*

*Shing-Chia, Chen, PhD, RN, Taiwan*

*Shu-jen Shiau, PhD, MPH, RN, Taiwan*

*Ming-Hsien Hsieh, PhD, Taiwan*

#### Purpose

It will explore young adult offspring of parents with bipolar disorder about how ill patient impact their offspring, including their feeling, growing experience, difficulties and challenge to care the ill parent, and their adjustment strategy to cope the suffering in different stage.

#### Target Audience

It will provide a fresh view to care the offspring of parental mental illness for practitioner of mental health and family nursing.

#### Abstract

**Background:** Bipolar disorder is a chronic mental illness which often results in family's burden. More attentions have been paid to the psychosocial adjustment of patients' offspring because symptoms often deteriorate the family function and patients' parenting practice. However, we know little about the offspring's experiences of how they perceived and adjust with their parent's illness.

**Purpose:** This study aimed to explore young adult offspring of parents with bipolar disorder about how their lives are influenced by their parents' mental illness, how they perceived their parent's illness, how they healed their suffering, how they learnt about the positive experiences of living with their parent's illness.

**Methods:** This study adopted qualitative method with interviewing 20 young adult (20-40 years old) offspring of bipolar patient. Through the narrative analysis method, the interviewed verbatim text are organized by the themes of offspring's experience.

**Results:** It is an ongoing study. This preliminary result has shown some themes including: I should keep quiet when father or mother got mad, no one tell me the reason why father or mother get hospitalized, suffering from the childhood, struggle to leave parent's home, having more perseverance to face stressed situation in adulthood.

**Conclusion:** This preliminary result helps us to develop the nursing intervention program for offspring of patients with bipolar disorder based on understanding their experience of suffering and healing among young adult offspring of bipolar patient.

#### Contact

[d98426003@ntu.edu.tw](mailto:d98426003@ntu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### The Experiences of Families to Care the Children with Asthma during the Developmental Transition: A Mixed Method

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Li-Chi Chiang, RN, PhD, Taiwan

#### Purpose

1. To realize the phenomena that the over-protection, interdependent of parent/child dyad in managing the children's asthma. 2. To understand the context of the family management style influence on the change of asthma sign and symptom.

#### Target Audience

All of the nurses interesting on the family life transition and wish to understanding the process of developing and tailoring an appropriate developmental care for children with chronic illness.

#### Abstract

**Purpose:** To explore the experience of families having children with asthma to transfer the responsibilities of asthma self-management during the development transition period.

**Design:** A mixed method study was used to explore the experiences of families to care the children with asthma during the developmental transition stage.

**Methods:** Twenty parents and children with asthma dyad were interviewed and followed by structure questionnaire from preschool to school-age transition stage. The qualitative data was transcribed and analyzed by the content analysis. The structure questionnaires including the self-management of children and parents, family function and children's ARQOL, asthma signs/symptoms, lung function were repeat measured for six months after the child entering the elementary school accordingly. The quantitative data was analyzed by the General Lineal Model (GLM).

**Results:** The qualitative data revealed that parents perceived *hesitate let go or not, indecision to shift responsibilities and coexist of Happy and Hazard to unclear school situation*. The quantitative results revealed that assessing behavior of self-management and mastery of stress of parents were significantly improved through the transition respectively. The ARQOL and Family function without significantly change. The family management style was significantly impact on the changes of parents' self-management and children's asthma sign and symptoms.

**Conclusion:** Most of the parents without preparedness for their child transition independent for the asthma management into school. The developing care for children with asthma was recommended, including three components: 1) Reinforcing the illness perception of parents and children about asthma; 2) Encouraging shifting the responsibilities; 3) Commence the self-management behaviors for children. Empowering the parents to rear the child with asthma gradually relief the responsibilities to children in each transitional condition. Further examination of the comprehensive and applicability of developing care model is necessary.

#### Contact

[lichi514@seed.net.tw](mailto:lichi514@seed.net.tw)

## RSC PST 2 - Research Posters Session 2

### Health and Social Service Utilization and Postpartum Depression Among Childbearing Chinese New Immigrants in Canada

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*Tsornng-Yeh Lee, PhD, Canada*

#### Purpose

The purpose of this presentation is to explore how Chinese women who immigrated to Canada in the last 5 years access and use maternity care services, their support system and postpartum emotional wellbeing.

#### Target Audience

The target audience of this presentation is healthcare providers who work in Maternity field and health care policy makers.

#### Abstract

**Purpose:** To explore how Chinese women who immigrated to Canada in the last 5 years access and use maternity care services, their support system and postpartum emotional wellbeing.

**Background:** Culturally and linguistically appropriate health care is suggested by many researchers as a necessity for all immigrants in Canada. Relatively little research examines the access and use of maternity care services by immigrant women in Canada, especially Chinese immigrants. Chinese women practice special culture-based behaviours and eat a special diet during pregnancy and postpartum. Exploring these cultural practices and preferences will contribute to the body of knowledge related to immigrant women's maternity care and will help inform culturally sensitive care for Chinese women who live in Canada.

**Methods:** A cross-sectional survey was used. Thirty participants were recruited from the Chinese community in Toronto, Canada after obtaining ethical approval. Eligible participants were Chinese new immigrant women (< five years) who resided in Toronto, fluent in English or Mandarin, within two to six months after delivering their baby. The Edinburgh Postnatal Depression Scale (Cox, Holden, & Sagovsky, 1987) and the Ontario Mother and Infant Survey II: Part H-Satisfaction with services were used to assess risk of postpartum depression, health and social service needs and utilization patterns. A demographic data questionnaire was also filled out by the participants. Data analysis was conducted by SPSS 21.0.

**Results :** Chinese immigrant women preferred to receive care from Chinese healthcare providers, with an obstetrician over a midwife. They received appropriate pregnant information, such as physical changes, nutrition, and exercise, through oral or written form. The information was provided in both English and Chinese, while preferred Chinese. Half of the Chinese immigrant women manifested possible postpartum depression. Women with own mother as a key helper had lower depression than women with husband as a key helper. Women demonstrated lower postpartum depression when they were more satisfied with the health service in the community.

**Conclusion:** Although the sample size was small, the result of this preliminary study enhanced our knowledge and understanding of Chinese women's utilization of maternity health services. Improving access to postpartum health service in the community was emphasized and recommended. Health care professionals should acknowledge that a linguistically and culturally sensitive maternity service played an important role in Chinese women's searching information and emotional wellbeing during pregnant and postpartum period.

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Contact

[tsylee@yorku.ca](mailto:tsylee@yorku.ca)

## RSC PST 2 - Research Posters Session 2

### The Effectiveness of Analytical Music Videos Appreciation in Elderly People with Depressive Mood

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Hui-Ling Lai, PhD, RN, Taiwan  
Chiung-Yu Huang, PhD, Taiwan

#### Purpose

The purpose of this presentation is to compare the effects of meaningful fast music videos (MV) and soothing music MV on HRV (heart rate variability), SC (skin conductance), and EMG (electromyography) and depression in elderly people with depressive mood.

#### Target Audience

The target audience of this presentation is clinical nurses.

#### Abstract

**Purpose:** To compare the effects of meaningful fast music videos (MV) and soothing music MV on HRV (heart rate variability), SC (skin conductance), and EMG (electromyography) and depression in elderly people with depressive mood.

**Methods:** Thirty participants were randomly assigned to a meaningful fast music/soothing music MV sequence or soothing music/ fast music MV sequence. The MV music was played on an iPad. Each intervention lasted 30 minutes, and was held at the participant's home. Continuous measurements of HRV, SC and EMG were taken throughout the procedure. Depression was measured before and after each intervention.

**Results:** Both interventions had beneficial effects on HRV, SC and EMG and depression. Significant differences between the two interventions were also observed for depression, and HRV. Fast music was more effective in lessening depression ( $p < 0.05$ ). All participants rated that both MV were meaningful to them.

**Conclusion:** Both MV interventions were beneficial, as measured on psycho-physiological indices. The beneficial effects of fast MV were more powerful than those of soothing MV in reducing depression and improving the low/high frequency (LF/HF) ratio component of heart rate variability.

#### Contact

[snowjade@mail.tcu.edu.tw](mailto:snowjade@mail.tcu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### The Effectiveness of an Educational Intervention of Evidence-Based Nursing on Nurses' Knowledge, Attitude, and Implement Confidence

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*Chou-Ping Chiou, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to report the findings which develop EBP curricular components and explore the effectiveness of the EBP course on RN-BSN students.

#### Target Audience

The target audience of this presentation is nurses from clinical practice and nursing researchers.

#### Abstract

**Purpose:** Although Evidence-based practice (EBP) has been recognized by the healthcare community as the gold standard for the provision of safe healthcare, its implementation can be challenging. Dealing with innumerable crucial clinical decisions, nurses require to grasp the ways to locate, critically appraise, and apply the best evidence to assure optimal care for patients. One way nurse educators can assist students encounter these challenges is to educate them in evidence-based practice. The objectives of this study were to develop EBP curricular components and explore the effectiveness of the EBP course on RN-BSN students.

**Methods:** The study was approved by the appropriate ethics committees. A quasi-experimental, repeated measures design, with intervention and control groups was used. The EBN knowledge, attitude, and implement confidence were measured with a questionnaire before and after implementing the EBP course. The repeated measure ANOVA was used for analyzing the effectiveness of the EBP course.

**Results:** Participants in the intervention group had higher scores on knowledge ( $p < .01$ ), attitude ( $p < .01$ ), and implement confidence ( $p < .05$ ) of EBP than those in the control group.

**Conclusion:** The course effectively enhanced EBP knowledge, attitude and implement confidence of RN-BSN students. This illustrates the positive effects of this EBP course. The results can be used by nursing leaders in health care organizations to educate and engage nurses in EBP initiatives and research utilization.

#### Contact

[chouping@isu.edu.tw](mailto:chouping@isu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Health Status of Postpartum Women: Bladder Symptoms, Postpartum Depression, and Physical Activity

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Jeung-Im Kim, PhD, South Korea  
Young-Mi Yang, MSN, South Korea

#### Purpose

To report postpartum health outcomes and to know the professional members those who are interested in health status after woman delivery babies.

#### Target Audience

People who are interested in changes of women's health status before and after delivery babies.

#### Abstract

**Purpose:** The overall purpose of this study was to determine the levels and the associations among postpartum health outcomes. The specific research objectives were as follows; first, to describe general and obstetric characteristics, secondly to describe the levels of the bladder syndrome, postpartum depression, physical activities and postpartum fatigue, thirdly to explain the differences of health outcomes at time-points. Lastly it was aimed to show the associations of the health outcomes.

**Methods:** Study design was a cross-sectional research at time-points of 4-, 8-, and 12 weeks to know the changes over the time. Ethical approval was obtained from IRB of SoonChunHyang University Chonan Hospital. Recruitment of subjects was done by two ways. Main approach was done by using professional online survey organization, and another approach was one to one contact at the waiting area of the hospital and health center. After subjects answered, we gave the small first-aid kit to them. Total subject was 303 women, but we excluded twin mother and preterm labor, and finally we analyzed 290 subjects. Measurements we used in this research were the Interstitial Cystitis Symptom Index/ Interstitial Cystitis Problem Index (ICSI/ICPI), International Physical Activity Questionnaire (IPAQ) short form, and Piper's revised Fatigue Scale, etc. Cronbach's alphas were .825 for ICSI/ICPI, .613 for IBS, .86 for the Edinbergh Postnatal Depression Scale, .778 for women's health problem and .954 for postpartum fatigue.

**Results:** The mean age of subjects was 32.9 (SD 3.53) and the mean BMI (body mass index) was 20.97 (SD 3.23). They got the prenatal care with the mean of 8.37 times. As shown table 1, health outcomes were all significantly different by the inter-subjects as shown table 1. the better physical health status, the lower the EPDS score. The higher physical health symptom scores, the higher bladder symptom scores ( $r=.317$ ,  $p<.001$ ). Also health outcomes had positively / negatively associated among themselves.

**Conclusion:** After women had a baby, their physical health symptom was decreased over the time, and postpartum depression and fatigue were increased. So we have to aware of physical and psychological problems.

Table1. Subject's Health outcomes

Item	Mean	SD	F	p
Health problems	20.74	5.89	59.92	.000
Postpartum Fatigue	87.89	18.21	82.21	.000
ICSI/ICPI	13.07	4.76	46.79	.000
ICSI	6.87	2.45	47.79	.000
ICPI	6.20	2.86	36.98	.000

Irritable Bowel Syndrome	17.82	4.38	69.36	.000
Postpartum depression	9.34	5.78	27.53	.000

### References

Jeung-Im, Kim RN., PhD, Professor in SoonChunHyang University Young-Mi, Yang RN., MSN, Chief of Nursing Department in Saerona Hospital

### Contact

[jeungim@sch.ac.kr](mailto:jeungim@sch.ac.kr)

## RSC PST 2 - Research Posters Session 2

### Changing Southern African Nurses' Roles in Antibiotic Stewardship: An Innovative Pedagogical Approach

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*Christine Amalia Varga, RN, MSN, MA, PhD, South Africa*

#### Purpose

The purpose of this presentation is to describe the roles nurses can play in antimicrobial stewardship, lessons learned in the creation of health-related e-learning efforts in a developing country context. It will also illustrate means of encouraging inter-disciplinary strategies to antimicrobial steward through innovative pedagogical approaches.

#### Target Audience

The target audience of this presentation is those interested in international health issues, strengthening nursing's role in interdisciplinary approaches to healthcare, and cross-cultural and innovative approaches to nursing research and education. It will appeal to nursing researchers, educators and practitioners.

#### Abstract

**Purpose:** The purpose of this presentation is to describe the roles nurses can play in antimicrobial stewardship, lessons learned in the creation of health-related e-learning efforts in a developing country context. It will also illustrate means of encouraging inter-disciplinary strategies to antimicrobial steward through innovative pedagogical approaches. Antimicrobial resistance (AMR) is an international health concern and major threat to global stability (Laxminarayan et al., 2007). While drug resistance is increasing worldwide, evidence suggests that AMR is disproportionately high in developing countries (Nweneka et al., 2009). This is certainly true for (southern) African countries, where factors such as high rates of HIV/AIDS and tuberculosis exacerbate complex political, health systems, economic and socio-cultural elements that influence antimicrobial access, use, surveillance, and ultimately rates of resistance (Gelband & Duse, 2011; Kimanga 2012). Antibiotic/antimicrobial stewardship (AS) efforts, defined here as a suite of interventions aimed at measurement, conservation, and optimal use of antimicrobials for favorable patient outcomes and reduction of resistance, are one response in attempting to reduce AMR. There is a small but growing literature on nurses' role in antibiotic stewardship in developed country settings (Edwards et al. 2010, Ladenheim et al. 2013), especially in in-patient settings (Edwards et al. 2011). However, in the developing world the relationship between nursing and AS seems to have been largely overlooked. Such a gap stands in stark contrast to the fact that in many such environments including South Africa, Malawi and Mozambique, where this work is situated, nurses play a frontline role in antimicrobial management. This is especially true in primary health care settings, where the majority of health care provision - including medication prescription and education - takes place. Further, nurses' ability to effect change within healthcare is often curtailed by cultural, institutional, and systems-level factors. Against this background, we present an update on the formative stages of a multi-country interdisciplinary pilot project aimed at strengthening AS efforts among nurses and other allied health care professionals through the use of e-learning approaches. The project described aims to develop a 2-year e-learning Masters-level curriculum in Malawi and Mozambique that will provide learners with appropriate critical analytical, research, communication and practical skills relevant to antibiotic stewardship, infection prevention and control. The curriculum is based on an existing e-learning program in South Africa housed within the University of KwaZulu-Natal School of Health Sciences. One portion of the formative research stage of the project addresses the role of nursing in antibiotic stewardship efforts and infection prevention and control. In each of the three country settings (Mozambique, Malawi, and South Africa) the research describes 1) nurses' current roles in antibiotic prescription, administration, management, and patient education; 2) socio-cultural, educational, institutional and systems-level factors that affect nurses' ability to meaningfully engage in antibiotic stewardship efforts; 3) nurses' knowledge related to antimicrobials in general and AS in particular; and 4) factors involved in developing an inter-disciplinary approach to antibiotic stewardship that includes nursing professionals and nursing approaches.

**Methods:** Data collection takes place through qualitative (focus groups, in-depth interviews, narrative research and role mapping activities) and quantitative (questionnaires) data collection among potential learners (i.e. nurse applicants), policymakers and government officials, individuals involved in healthcare management on institutional and community levels, actively practicing nurses in a variety of healthcare environments, individuals involved in (undergraduate and post-graduate) nursing education, and nursing students.

**Results:** The presentation will: 1) illustrate the role nurses in South Africa, Malawi and Mozambique currently play in antimicrobial prescription, management, administration, monitoring and patient education; 2) discuss existing barriers in nurses' ability to engage in antibiotic stewardship efforts; 3) describe nurses' knowledge of antimicrobials and AS, highlighting strengths and gaps; 4) suggest means to more meaningfully and actively involve nurses in stewardship efforts in developing country contexts; 5) discuss means of encouraging inter-disciplinary strategies to AS via innovative pedagogical approaches; and 6) highlight lessons learned concerning health-related e-learning and the curriculum development process in developing country contexts.

**Conclusion:** The target audience of this presentation is those interested in international health issues, strengthening nursing's role in interdisciplinary approaches to healthcare, and cross-cultural and innovative approaches to nursing research and education. It will appeal to nursing researchers, educators and practitioners.

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#### Contact

[varga@ukzn.ac.za](mailto:varga@ukzn.ac.za)

## RSC PST 2 - Research Posters Session 2

### A Study of the Relationship Between Compassion Fatigue, Somatization, and Silencing Response Among Hospital Nurses: Focusing on the Mediating Effects of Silencing Response

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Sunhwa Kim, RN, South Korea

#### Purpose

The purpose of this study was to identify compassion fatigue(CF), somatization, and silencing response(SR) among nurses and understand intermediate effects between variables.

#### Target Audience

clinical nurse, head nurse, team manager

#### Abstract

**Purpose:** The purpose of this study was to identify compassion fatigue(CF), somatization, and silencing response(SR) among nurses and understand intermediate effects between variables.

**Methods:** The sample of 240 nurses who were working in medical, surgical wards and emergency room had shift-work in 3 hospitals with over 700 beds. A structured questionnaire was used and included CF, Somatization and SR scale. The data were analyzed using descriptive statistics, ANOVA, Pearson's correlation coefficients and stepwise multiple regression.

**Results:** There were statistically significant differences in CF, somatization and SR depending on perceived personal health condition, experience of turnover, co-worker support. There were significant correlations among those study variables. The result also indicated that burnout ( $\beta = .810, p < .001$ ) which is a part of secondary traumatic stress and somatization ( $\beta = .786, p < .001$ ) have the role of partial mediator in the relationship between secondary traumatic stress and silencing response

**Conclusion:** The result of study that intermediary role by burnout and somatization in silencing response of nurses is important for effective human resource management in hospital nursing. Effective human resource management which includes mentoring and social support system can enhance the professional quality of life of nurses, which will eventually contribute quality of care as a care provider and counselor.

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#### Contact

[79ssunhwa@hanmil.net](mailto:79ssunhwa@hanmil.net)

## RSC PST 2 - Research Posters Session 2

### Mentoring and the Early Career Nurse: A Critical Relationship

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Tracey L. Moroney, PhD, BN (Hons), Australia  
Levina Saad, BN, Australia

#### Purpose

The purpose of this presentation is to inform clinicians and educators about the important of assisting early career nurses in identifying mentors that can support their personal and professional growth.

#### Target Audience

The target audience of this presentation is clinicians, academics, educators and early career nurses.

#### Abstract

**Purpose:** There has been significant attention to the role of mentoring in nursing with discussion focusing on defining the concept, the nature of the mentoring role and the characteristics of the mentor. There is however some tension in the literature around the role and functions of a mentor (Andrews and Wallis 1999) with conflicting opinions. This is compounded by the use of interchangeable terms, including preceptor and supervisor and a variety of definitions, which has created misinterpretation and confusion on the nature of mentoring.

Despite the variety of definitions to describe mentoring, mentoring in essence is the relationship between two individuals designed to achieve personal and professional growth. In the early career stage for new graduate nurses, this supportive relationship can be critical to assisting new graduates to consolidate knowledge and practice required of a registered nurse. It is evident however that many early career nurses struggle with the beginning years of practice and it is this difficult adjustment that may be linked to increasing numbers of early career nurses who leave the profession.

**Methods:** This research study, using a Grounded Theory methodology, explored the concept of mentoring in early career nurses. In particular the research explored the way in which early career nurses identified potential mentors and used these mentors to support their practice. This project has global significance, as the support of early career nurses is important to the development of a knowledgeable and effective nursing workforce (Ferguson 2011).

**Results:** Mentoring was seen by early career nurses as important to surviving the new graduate transition however formal mentoring was found to be less successful than the informal mentoring structures that early career nurses adopted.

**Conclusion:** This poster presentation will explore the role of mentoring and in particular the way in which early career nurses identified and used mentors. Finally this poster presentation will recommend strategies for improving mentoring programs for early career nurses.

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#### Contact

[tracey.moroney@nd.edu.au](mailto:tracey.moroney@nd.edu.au)

## RSC PST 2 - Research Posters Session 2

### Nurses' Needs to Competently Care for Transitioning Pediatric-Sized Adult Patients

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*Lauren Hyatt, MSN, RN, USA*

#### Purpose

The purpose of this presentation is to present an education plan for nurses caring for transitioning pediatric-sized adult patients. Due to advanced healthcare practices, children with chronic illnesses are beginning to survive into adulthood. As a result, nurses in the adult setting must be prepared to competently care for them.

#### Target Audience

The target audience of this presentation is nurses caring for patients in the adult healthcare setting.

#### Abstract

**Purpose:** The purpose of this presentation is to present an education plan for nurses caring for transitioning pediatric-sized adult patients in the adult health care setting. In today's world of advanced healthcare practices, children with chronic childhood illnesses are beginning to survive into adulthood (McDonnell, Kocolas, Roosevelt, & Yetman, 2010). As a result, nurses, physicians, and other members of the healthcare team are faced with the challenge of how to properly care for them. In placing them in the adult hospital setting, the nurse must encompass the knowledge and skill set to safely care for them. The nurse must also understand how to retrieve the resources that are available to him or her. This presentation will identify the common needs expressed by nurses' in the adult ICU setting of a large teaching hospital in the Southeast.

**Methods:** A mixed methods study will be conducted to identify nurses' needs to competently care for pediatric-sized adult patients in the adult ICU setting of a large teaching hospital in the Southeast. Approximately 80 nurses from the medical ICU, 80 nurses from the surgical-trauma ICU, and 80 nurses from the neurosurgical ICU will be asked to participate in a survey composed of 14 closed-ended and open-ended questions. To achieve more statistically accurate data, the student investigator hopes to incorporate at least 100 participants in the study. All nurses in the adult ICU setting, regardless of employment status (full time, part time, prn), will be given a survey via their work email to complete within a two-week time period from the date of sending the original email. The survey will be accessible to the participant during this entire two-week time period. To avoid duplication of results, only the participants work email will be used. Prior to the administration of the survey, a discussion between the nurse manager and the staff of each nursing unit involved will take place to encourage nurses to participate. Nurses will be informed that the feedback they provide through the survey can better assist the hospital in developing an education plan that will better equip them to care for transitioning pediatric-sized adult patients.

The literature has yet to define "pediatric-size," therefore, the definitions of chronic illness with the inclusion of common chronic childhood diseases will be used for the purpose of this study. Mosby's Dictionary of Medicine, Nursing, and Health Professions (2006), defines chronic illness as "any disorder that persists over a long period and affects physical, emotional, intellectual, vocational, social, or spiritual functioning" (p.383). Common chronic childhood diseases may include, but are not limited to, cystic fibrosis, diabetes, asthma, obesity, malnutrition, developmental disabilities, cerebral palsy, hemophilia, spina bifida, congenital heart disorders, juvenile rheumatoid arthritis, and mental illness (Staa, Jedeloo, Meeteren, & Latour, 2011; Torpy, Campbell, & Glass, 2010).

**Results:** Results will be retrieved and analyzed in February, 2014.

**Conclusion:** The lack of research on caring for pediatric-sized adult patients represents the need for this nursing research. It is already concluded that there is a need for an education plan on how to provide competent, safe care to a transitioning pediatric-sized adult patient. The conclusion will be drawn from the results of the research study in February, 2014.

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## Contact

[lauren.hyatt@carolinashealthcare.org](mailto:lauren.hyatt@carolinashealthcare.org)

## RSC PST 2 - Research Posters Session 2

### Exploration of Undocumented Antenatal Domestic Violence

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*Kaye I. Bultemeier, PhD, MSN, APRN/BC, USA*

*Amy Jelley, MSN, BS, USA*

*Robin Wilson, EdD, USA*

*Rebecca Raymond, MSN, BS, USA*

#### Purpose

to explore the incidence and type of undocumented domestic violence among pregnant women in rural Tennessee

#### Target Audience

Health care providers and educators

#### Abstract

Studies indicate that 22% of women in the US admit partner abuse during pregnancy. An additional 6.5% indicate they have never informed their health care provider of the abuse. Abuse is noted to increase with psychosocial stress. Whitley County Kentucky is noted for the fact that 26% of the residents live below the poverty level and unemployment rates are above 10%. Infant death rates are 11.4/1000 live births versus the state average of 7.8/1000. This study therefore will explore undocumented domestic violence against women during pregnancy among pregnant women in rural Kentucky.

**Purpose:** To explore the incidence and types of undocumented domestic violence in rural Kentucky in the United States.

**Methods:** Setting: Corbin, Kentucky postnatal wards at the hospitals. Letter requesting permission to collect data at postnatal ward attached. This is a cohort study and replication of study completed Chazweka (2012). Letter of permission to use questionnaire is attached.

Data Collection: The pilot study will be completed in 2013

- The researcher or co researcher will visit the postnatal wards daily and ask staff to identify postnatal women who have delivered within the previous 48 hours and meet the criteria for the study. The postnatal nurse will ask the patient if they are willing to talk to the research nurse.
- If they agree the researcher will distribute to the potential participant the information sheet and an envelope which contains a blank questionnaire.
- No identifying information will be on the questionnaires but only a subject number.
- Participants are asked to complete the questionnaire, place it inside the envelope and deposit it in the locked box. The locked box will be located in the postnatal ward.
- Consent is assumed by the participant completing the questionnaire and placing it in the locked box.

Inclusion criteria:

1. Women who have delivered a live infant within the past two days and are patients on the postnatal ward
2. Women who can read and comprehend English
3. Women who delivered healthy infants

Exclusion Criteria:

1. Women who cannot read or speak English
2. Women who are not postnatal within the past three days
3. Women who are seriously ill or have a seriously ill infant
4. Women who delivered a stillbirth

Data Collection Instrument: A self-administered questionnaire-copy attached. There are four parts to the questionnaire.

- Part 1-Biographical data
- Part 2-Women's safety  
Psychological maltreatment of Women Inventory (PMWI)-short form-Tolman 1999. Internal consistency Dominance/isolation .88, emotional/verbal .92. Evidence of construct, convergent and discriminant validity noted. None copywrite material but request for online registration. Permission given by registering at site-completed 2/5/2013
- Part 3-Severity of Violence Against Women Scale

**Results:** Data is entered in SPSS version 19. Descriptive Statistics are run on all variable. Initial results of the first 62 participants reveal >10% with undocumented domestic violence during their recent pregnancy. The majority was psychological with threats of harm.

**Conclusion:** Preliminary results indicate violence is occurring during pregnancy that is primarily psychological in nature. Further research is needed to determine if this is occurring worldwide or is an isolated finding.

Contact

[kayebultemeier@gmail.com](mailto:kayebultemeier@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Depression, Balance, and Cognitive Function in the Elderly That Practice and Do Not Practice Yoga: A Comparative Study

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Hermes González, BSN, Mexico

Wendy Molina, BSN, Mexico

Ana María Arredondo, BSN, Mexico

María de los Angeles Villarreal Reyna, PhD, Mexico

#### Purpose

The purpose of this presentation is to show the progress of a research project to identify the relationship between the levels of depression, balance problems, and cognitive impairment in elderly Mexican population that practice and do not practice yoga.

#### Target Audience

Nurses interested in the use of alternative interventions based on the scientific evidence.

#### Abstract

**Purpose:** To identify the relationship between the levels of depression, balance problems, and cognitive impairment in Mexican elderly that practice and do not practice yoga

**Methods:** This study will be evaluated using a descriptive comparative correlational design with two different groups: the yoga group ( $n_1=65$ ) and the non-yoga group ( $n_2=65$ ). The sample size will be estimated using the nQuery Advisor 7.0 software; level of confidence 90%, margin of error 5%, and a correlation of .35. The following variables will be observed using standardized assessments: depression, balance, and cognitive impairment. The outcomes will be processed on the SPSS 21.0 database. The study will be conducted in the elderly population of Saltillo Coahuila city, between the months of January and December 2014.

**Results:** The results of the two groups will be compared. Descriptive statistics, comparison of means and correlation analysis will be used.

**Conclusion:** We will discuss the use of standardized assessments based on the scientific evidence available in the advanced nursing practice and their implications in positive health outcomes in Mexican older adults.

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Contact

[hermysteries@hotmail.com](mailto:hermysteries@hotmail.com)

## RSC PST 2 - Research Posters Session 2

### Perception of Healthy Aging Among Elderly with Chronic Disease in Taiwan: A Qualitative Study

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*Yu-Rung Wang, MSN, RN, Taiwan*

*Ching-Min Chen, DNS, Taiwan*

#### Purpose

This study investigated the living experience of health aging from the perspectives of the elderly with chronic disease, including physical, psychological and social aging experience of life.

#### Target Audience

The target audience of this presentation is understand living experience of health aging from the perspectives of the elderly with chronic disease.

#### Abstract

**Purpose:** The aging population in Taiwan is gradually increasing. The elderly population reached 11.2% in 2012, and it is estimated that by 2060, the percentage will reach 39.4%. There are up to 88% of Taiwan's elderly reporting with at least one kind of chronic diseases. How to enhance the belief of healthy ageing for elderly with chronic conditions has become an important concern for the elders, policymakers and researchers worldwide. Taiwan's government has adopted and implemented healthy aging policy since 2008. The policy includes improved integration in the economic security and social participation, better lifestyles, adapting health systems to the needs of the elderly, attacking underlying social and environmental factors affecting healthy ageing. However, very little research evidence is given for the perspectives on healthy aging among the elderly with chronic disease after the policy implementation. This study investigated the living experience of health aging from the perspectives of the elderly with chronic disease, including physical, psychological and social aging experience of life.

**Methods:** Qualitative approach was conducted. Participants were recruited from outpatient department of a medical center in southern Taiwan. Subjects were chronic disease patients 65 years old and above with clear conscious, being able to communicate in Mandarin or Taiwanese. Ten in-depth interviews were conducted through purposeful sampling. Following these interviews, verbatim transcription of the recorded data was used for content analysis. Lincoln and Guba's trustworthiness criteria was applied to evaluate rigor of this study. Participants were asked to share their living experience regarding aging process and aging perspectives, definition of healthy aging, as well as factors that influence healthy aging.

**Results:** Pilot analysis of two verbatim transcriptions indicated that healthy aging can be viewed from physical, psychological and social contexts. Elderly adapt their aging process from referential and clinical situations. Recommendations for approaching healthy aging were collected. Further eight transcriptions will be analyzed using content analysis in the near future.

**Conclusion:** From this pilot result, exploration of life experience of the elderly with chronic disease is made possible for better understanding of their health aging perspectives and aging process, which can serve as a reference for planning of community health promotion activities and related health policy making and promotion.

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Contact

[daisy025@gmail.com](mailto:daisy025@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Exploring Nurses' Barriers, Attitudes and Related Factors in Reporting Medication Administration Errors

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*Fu-In Tang, PhD, Taiwan*

*Yung Hai-Peng, RN, MSN, Taiwan*

#### Purpose

The purpose of this presentation is to explore nurses' perceptions of reporting barriers and attitudes in reporting medication administration errors and to examine the relationship between the barriers and attitudes in medication administration errors reporting.

#### Target Audience

The target audience of this presentation is nursing clinical staffs, nursing school teachers and academic researchers.

#### Abstract

**Purpose:** Medication safety is a major concern worldwide that directly relates to patient care quality and patient safety. Reducing medication administration error incidents is a critical medication safety issue. Research indicated that most of medication errors happened during the administration stage. However, nurses estimated that only 25% to 63% of medication administration errors (MAEs) were actually reported. Understanding of nurses' barriers in reporting MAEs, their attitudes and related factors is the initial step to strengthen medication safety. The purposes of this study were to explore nurses' perceptions of reporting barriers and attitudes in reporting MAEs and to examine the relationship between the barriers and attitudes in MAEs reporting.

**Methods:** A cross-sectional, descriptive correlational design with self-administered questionnaire filled out by the nurses of a medical center hospital in northern Taiwan was conducted. The measurement tools included the Barriers to MAEs Reporting Questionnaire and Attitudes to MAEs reporting Questionnaire. These questionnaires were developed from literature and expert input and validated by subject experts (content validity) and a pilot study. 340 nurses responded to the survey, with 306 valid questionnaires used in the data analysis of this study.

**Results:** The major perceived barrier was fear of the consequences of reporting ( $3.18 \pm 0.48$ ), followed by lack of perceptions in reporting ( $2.72 \pm 0.75$ ) and the negative impact by the administrator's attitudes ( $2.36 \pm 0.54$ ). The staff nurses' perceptions of reporting barriers was higher than nurse administrators with a significant difference ( $2.75 \pm 0.34$  vs.  $2.61 \pm 0.35$ ;  $t=2.71$ ;  $p=.007$ ). Nurses' perceptions of reporting attitudes was neutral yet slightly positive ( $2.47 \pm 0.40$ ); but the nurse administrators had a more positive attitudes than staff nurses ( $2.91 \pm 0.42$  vs.  $2.38 \pm 0.33$ ;  $t=-8.43$ ;  $p=.001$ ). The study also reveals that the more barriers nurses perceived, the more negative attitudes to MAEs reporting. The barriers to MAEs reporting and attitudes to MAEs reporting were negative association ( $r = -.41$ ;  $p=.001$ ). Among a total of 306 administration errors were collected, most errors had occurred during the day shift (45.8%; 140/306). The most common errors involved wrong dose (50.7%; 155/306) and wrong drug (35.9%; 110/306). Among 306 actual errors, 85.6% (262/306) of patients showed no adverse effects. Oral reporting rates to the nursing department 93.8% (255/272), nurses most common reported to head nurse 76.1% (207/272) and coworkers 62.5% (170/272); only 28.0% (58/207) of the errors had been reported through the hospital internet reporting system.

**Conclusion:** This study shows that the nurses still have fear and feel insecure even when the administration encourages reporting without blaming; the attitudes of reporting MAEs is also not very positive. Thus, it is advisable to strengthen the perceptions of reporting and improve the nurses' attitudes in reporting MAEs for the overall improvement in MAEs reporting culture.

#### Contact

[fitang@ym.edu.tw](mailto:fitang@ym.edu.tw)



## RSC PST 2 - Research Posters Session 2

### Life Experiences of Donors in Living Donor Liver Transplantation

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Mei-Yun Wu, RN, Taiwan

#### Purpose

The purpose of this presentation is the results of this study could provide insight of caring for donors' physical safety and their psychological comforts. Furthermore, this study could improve the quality of nursing care and provide holistic care of liver transplantation donor.

#### Target Audience

The target audience of this presentation is nursing care and provide holistic care of liver transplantation donor.

#### Abstract

**Purpose:** This study aimed to investigate the lived experiences of living liver transplant donors (LLTD). A total of 8 donors, who had been in an intensive care unit post-op from donating partial livers and transferred to a step down unit, participated in this study in a medical center located in Southern Taiwan.

**Methods:** This study was conducted with the phenomenological method. Data were collected through observations and interviews. The in-depth interview was used to collect data, with recording, was performed with purposive sampling and using. The researcher then transcribed the recorded contents verbatim and utilized the Colaizzi (1978) phenomenological analytical method.

**Results:** The information collected was then inducted and systematically sorted of the life experiences of LLTD. Which is manifested in five themes: self constructed meanings of liver transplant behaviors, conflicts of their beliefs and choices, the adaptive processes of the operation, physical sensations after surgery, and the gains and losses of the physical donor body.

**Conclusion:** Through this study, the researchers discovered the lived experiences and the process of the LLTDs. Not only does this study show the donors' personal in-depth and close experiences towards the processes of liver transplantation, the results of this study could provide insight of caring for donors' physical safety and their psychological comforts. Furthermore, this study could improve the quality of nursing care and provide holistic care of liver transplantation donor

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Contact

[t3708589@yahoo.com.tw](mailto:t3708589@yahoo.com.tw)

## RSC PST 2 - Research Posters Session 2

### The Challenge of Caring for Incontinence: The Experience of Family Caregivers of Stroke Survivors

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*Meei-Fang Lou, RN, PhD, Taiwan*

*Chien-Ning Tseng, RN, Taiwan*

#### Purpose

to describe the experience of caring for incontinence of family caregivers of stroke survivors.

#### Target Audience

clinical nurses who work with stroke patients and those who are interested in continence care.

#### Abstract

**Purpose:** Family caregivers' experiences of caring for the older stroke relatives with urinary/fecal incontinence were explored.

**Methods:** A qualitative study was designed to elicit a rich understanding of the experience of family caregivers of older stroke survivors with incontinence. Grounded theory method was used to collect and analysis data from deep interviews with ten family caregivers of older stroke relatives with incontinence, aged 21-78 years, during 2011.

**Results:** Four major themes that emerged from these data were "being in chaos", "being in vigilance", "being in exhaustion" and "being in creating a new life on track". Subthemes that arose within "the chaos" included "fluster" and "fuss" and "dirtiness"; in terms of "vigilance" shared subthemes "urgency" as well as "health-hazard"; the "exhaustion" were extracted "physical-consuming labor", "mental-consuming labor" and "money/time-consuming labor" subthemes; the "creating a new life on track" constructed two subthemes "learning from professionals and accumulating experience by doing" and "attitude adjustment and forward looking".

**Conclusion:** The research highlighted unique caring experiences of family caregivers of older stroke relatives focused on the 'incontinence issue' alone. To recognizing the progress of mental reactions of family caregivers in caring for older stroke relatives with incontinence may help nurses provide better supports and resources to meet their needs.

#### Contact

[mfalou@ntu.edu.tw](mailto:mfalou@ntu.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Postpartum Depression in Women in a Postpartum Nursing Center

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Mei-Ling Chen, RN, Taiwan

#### Purpose

The purpose of this presentation is to quantify the status and change in postpartum depression (PPD) of women in a postpartum nursing center.

#### Target Audience

The target audience of this presentation is healthcare workers. It can be seen that this study results could provide healthcare workers to realize the needs of postpartum care and the changes of postpartum emotion.

#### Abstract

**Purpose:** The study aims to quantify the status and change in postpartum depression (PPD) of women in a postpartum nursing center.

**Methods:** The Chinese version of the Edinburgh Postnatal Depression Scale (EPDS) and semi-structured interviews with purposive sampling were utilized in data collection. The total sample size was 50 women, consistent with the selection criteria in the postpartum nursing center from eastern Taiwan. Quantitative data was collected at day 3-5 (EPDS-1) and week 3 (EPDS-2) postpartum and qualitative data was collected at week 2 and week 4 postpartum. Paired-sample t test was used to identify the differences in mean scores between EPDS-1 and EPDS-2. To compare the difference in rates of PPD between EPDS-1 and EPDS-2, a McNemar test was conducted. All p values were two-sided. The level of significance was  $p < .05$ .

**Results:** The difference in mean scores of EPDS-1 and EPDS-2 showed statistical significance (mean 7.36 vs. 5.84;  $t = 4.42$ ;  $p = .00$ ). It was found that 28.0% of women experienced depressive symptoms at day 3-5 (scores of EPDS above 9). At week 3, the rate fell to 12.0% and had a statistical significance ( $\chi^2 = 4.42$ ;  $p = .02$ ). Women staying in the postpartum nursing center, received professional care, learned parenting skills, and were able to get adequate rest. These factors strongly affected women's levels of postpartum depression.

**Conclusion:** The effect of appropriate professional postpartum care cannot be underestimated. Effective postpartum nursing center care, suggests alleviation of the symptoms of PPD. This has significant impact on family life and potential early return to work. The psychological implications of PPD are well documented in the literature. Therefore, the management of PPD via carefully designed postpartum programs offers the potential for minimizing the damaging effects of PPD.

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Contact

[melodychen726@gmail.com](mailto:melodychen726@gmail.com)

## RSC PST 2 - Research Posters Session 2

### Beyond the Braden Scale: Effectiveness of a Small Group Educational Program on Neuro-Nurses' Braden Risk Assessment Scores and Number of Preventative Nursing Interventions

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Shakira Henderson, MS, MPH, RNC-NIC, IBCLC, USA

#### Purpose

to present a descriptive, quasi-experimental study that attempts to bridge the gap between pressure ulcer risk assessment and application of nursing interventions.

#### Target Audience

nurses, physicians, nursing students, nurse hospital administrators, nurse educators, nurse clinicians

#### Abstract

**Purpose:** Hospital-acquired pressure ulcers remain an utmost healthcare concern because of the significant emotional and physical toll on the patient and the large financial impact on hospitals. With an incidence rate of 38% and a total annual cost of approximately \$11 billion dollars in the United States, the Center for Medicare and Medicaid Service will not reimburse for these injuries. Neurological patients are even more susceptible to pressure ulcer formation than most patients. Consequently, neuro-nurses are charged with being implementation experts of preventative nursing interventions in response to their risk assessments. Yet research shows that there is a gap between risk assessment and application of nursing interventions. Nurses tend to either not apply preventative measures or are inconsistent despite having an "at risk" patient. Research is needed to address this problem. The proposed study attempts to assist in bridging that gap by assessing the neuro-nurse's understanding of "at risk" and evaluating the impact of an educational intervention on improving the neuro-nurse's knowledge of pressure ulcer risk assessment and subsequent preventative nursing interventions.

**Methods:** A descriptive, quasi-experimental design with a one-group, pre-intervention survey, educational intervention, and post-intervention survey method will be used.

**Results:** A paired t-test was conducted to evaluate the impact of the educational intervention on both Braden score choices and number of nursing interventions chosen by the nurse participants. There was no statistically significant difference in Braden scores post-education ( $M = 13.41$ ,  $SD = 5.38$ ) vs. pre-education ( $M = 13.67$ ,  $SD = 4.49$ ),  $t(23) =$ ,  $p < .465$  (two-tailed). However, there was a statistically significant increase in number of nursing interventions post-education ( $M = 10.69$ ,  $SD = 2.38$ ) vs. pre-education ( $M = 10.11$ ,  $SD = 4.83$ ),  $t(23) =$ ,  $p < .001$  (two-tailed).

**Conclusion:** Neuro-nurses are competent on assessing "risk" of pressure ulcers for neuro patients using the Braden Scale. However, there is variation on how to manage risk based on the Braden score assessed. Further research is needed to bridge the gap between risk assessment and nursing application of interventions. This gap may be a contributing factor to the incidence of pressure ulcers in the clinical setting.

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#### Contact

[ShakiraLH@baptisthealth.net](mailto:ShakiraLH@baptisthealth.net)

## RSC PST 2 - Research Posters Session 2

### The Effects on Caring Behavior of Nursing Students with Different Phases of Clinical Practice in a 5-Year Junior College in Southern Taiwan

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*An-Na Chao, MSN, RN, Taiwan*  
*Hsueh-Jen Ho, MSN, RN, Taiwan*  
*Shu-Chuan Chen, MSN, RN, Taiwan*  
*Ching-Len Yu, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to understand the caring behavior of nursing students in the first and the final phase during clinical practice and to compare the caring behaviors and related factors among nursing students with the initial and final phase of clinical practice in a 5-year Junior College.

#### Target Audience

The target audience of this presentation is clinical instructor and nurse and every audience who are interesting in the -caring behavior of nursing students.

#### Abstract

**Purpose:** The aim of this study was to compare the caring behaviors and related factors among nursing students with the initial and final phase of clinical practice in a 5-year Junior College.

**Methods:** Methodologically, a cross-sectional survey with a self-administered structured questionnaire in the first and the final phase of clinical practice during practicum was implemented for this purpose. Subjects of this survey were recruited from students of one 5-year Junior College located in Southern Taiwan. A total of 194 subjects were recruited. Cronbach's Alpha and content validity were conducted to assess the reliability and validity of scales. Collecting questionnaire data was anonymous. The data was analyzed by descriptive and inferential statistics.

**Results:** Results of the study showed that the mean score of caring behavior in the first and final phase was 51.56 and 54.72 separately. Results also showed that there were differences between both phases of clinical practicum were found in caring behavior, support from the clinical workplace, and clinical teaching strategies. Hence, the significant predictors of the caring behavior score among subjects in the final phase included interest in nursing practicum, clinical teaching strategies, students' characteristics, and hospital class. The total amount of variance could be explained 21.6%.

**Conclusion:** However, the findings demonstrate that the caring behavior of nursing students has been promoted through continuous clinical practicum program. Nursing faculty should inspire the students to learn the caring behaviors with diverse teaching strategies and be set up as an example of a role model.

#### Contact

[chao@mail.ntin.edu.tw](mailto:chao@mail.ntin.edu.tw)

## RSC PST 2 - Research Posters Session 2

### Biobehavioral Consequences of Chronic Social Defeat: A Model of Extreme Stress in Male and Female Rats

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Gayle G. Page, RN, DNSc, USA

Sharon Kozachik, RN, MSN, PhD, USA

#### Purpose

The purpose of this presentation is to provide findings from an investigation of the impact of chronic social defeat on sleep architecture and on neuroimmune function in rats; and to examine the etiological consistency of this model with human responses to extreme stress.

#### Target Audience

The target audience for this presentation is individuals interested in the biobehavioral impact of stress on the organism, the importance of animal models in symptom science.

#### Abstract

**Purpose:** Thirty-three million individuals in the United States are projected to suffer from major depressive disorder (MDD) in their lifetime (Kessler et al. 2007). Genetic antecedents and environmental influences are well acknowledged contributors to the precipitation and perpetuation of major depression, and stress is a unifying concept such that the first depressive episode is more likely to be preceded by a severe stressful life event than are recurrent episodes (Foster and MacQueen 2008; Miller et al. 2009; Stroud et al. 2008). Biological markers associated with MDD are largely related to the assessment of HPA axis function (Vreeburg et al. 2009) and inflammatory immune indicators, two interdependent pathways also prominently affected by severe psychological stress (Irwin and Miller 2007; Miller et al. 2009; Miller et al. 2005), as well as glucocorticoid receptor sensitivity (Miller et al. 2005).

A social defeat paradigm, repeated exposures to a dominant resident distributed over 4 weeks, induces depression in the rat in order to causally evaluate the impact of depression on sleep. There is etiological consistency regarding the prominence of extreme stress, particularly of a social nature, as a depression triggering event in humans (Huhman 2006; Stroud et al. 2008). The effects of social defeat that correspond to criteria for MDD in humans including, anhedonia and reduced food consumption and activity, are improved with antidepressant administration (Becker et al. 2008; Rygula et al. 2006a; Rygula et al. 2006b), supporting our contention that chronic social defeat in the rat can be a useful model of first onset depression. To our knowledge, sleep and neuroimmune function have been minimally studied (e.g., Kieran et al. 2010; Razzoli et al. 2007), and immune function has not been studied in this promising preclinical model.

This study is intended to causally evaluate the impact of repeated exposures to social defeat on sleep architecture using electroencephalogram (EEG) / electromyogram (EMG) recordings, as well as neuroendocrine and immune function in Fischer 344 female and male rats. A simple 2'2 experimental design was used: female versus male by repeated exposures to either social defeat or remaining in the home cage. Our goal is to determine the impact of repeated exposures to social defeat on sleep architecture and on neuroimmune function.

**Methods:** Mature female and male Fischer 344 and Long Evans rats were maintained on a 12:12 hour dark/light cycle and ambient temperature at 22±1 °C. Given that the active period for rats is during the dark phase and evidence of greater sleep disruption with light phase manipulations (Chang and Opp 2002), all perturbations were undertaken during the dark phase.

Fischer 344 rats either underwent 12 exposures to social defeat or remained in their home cage. The social defeat paradigm consists of 12 60-minute intrusions over a 4-week period into a resident cage populated by a Long Evans male ex-breeder and a long-term cohabiting ligatured female who continues to cycle, but cannot become pregnant. Female F344 rats are introduced into the resident cage immediately following the removal of the Long Evans male; male F344 rats are introduced into the resident cage with both the female and male Long Evans rats (Becker et al. 2008; Rygula et al. 2005).

Immediately following defeat of the intruder, 5 submissive postures or the intruder is pinned for 5 seconds; a protective mesh barrier is placed over the intruder within the resident cage for the remainder of the intrusion period. This barrier allows the stressful nature of the encounter to continue without the threat of physical defeat (Becker et al. 2008; Rygula et al. 2005; Sloman et al. 2003), reflective of entrapment (Gilbert et al. 2002; Sloman et al. 2003). A rotation of residents was used such that intruders were exposed to a minimum of six different residents over the 4 week course.

Telemetric transmitters for EEG/EMG recording were implanted under isoflurane anesthesia and animals were allowed 4 weeks recovery. EEG/EMG recordings were continuous, allowing us to preserve all data, and selectively sample. Arousal state was classified as wakefulness, non-rapid eye movement sleep (NREMS), or REMS as detailed in (Opp 1998). Determination of arousal state was undertaken for a 24-hour period prior to the first social defeat exposure, baseline, and following the final social defeat. Arousal state determination is in progress for the midpoint of the defeat paradigm.

Four biobehavioral outcomes comprise parallels to human MDD criteria. (1) Anhedonia was assessed as sucrose preference, a choice between plain water and a 0.5% sucrose-water solution, reported as % sucrose intake; (2) Changes in body weight reflect decreased food consumption; (3) plasma levels of pro-inflammatory cytokines parallel a pro-inflammatory immune balance evident in humans with MDD; and (4) reduced glucocorticoid receptor sensitivity is reflected by in vitro dexamethasone (DEX) suppression of pro-inflammatory cytokine production. Briefly, diluted whole blood is co-incubated with lipopolysaccharide (LPS) to stimulate pro-inflammatory cytokine production, plus varying concentrations of DEX (0, 1, 10, 50, 100 and 1000 nM) for 48 hours at 37° C. The harvested supernate is then assayed for TNF-alpha levels to determine the 50% inhibition concentration (IC<sub>50</sub>) of DEX for each individual animal based upon the individual dose response curve generated (Miller et al. 2005).

**Results:** Data collection has been completed and analyses are in progress. First, there are changes in light phase sleep architecture from baseline to the final social defeat. Specifically, both %REMS per hour and the total number of REMS bouts in the light phase decreased from baseline to the final social defeat [t(12)=2.350 and 2.522, respectively, p<0.05]. The average duration of wakefulness also decreased from baseline to the final social defeat [t(12)=2.541, p<0.05]. The total light phase NREMS bouts increased from baseline to the final social defeat [t(12)=2.390, p<0.05]. T-tests yielded trends for increasing sleep state transitions, p=0.052. Given that the dark phase is the more active phase of the rat, that we detected no sleep architecture changes from baseline to the final social defeat is not a surprise. Second, over the 4-week paradigm, the social defeat animals exhibited a marked reduction in sucrose intake compared to home animals [F(1,28)=104.783, p<0.001], and among the social defeat animals, females exhibited significantly less sucrose intake compared to the males [F(1,13)=9.807, p<0.01]. Changes in body weight over the 4-week period of social defeat, and terminal plasma pro-inflammatory cytokine levels and DEX suppression are currently under analysis.

**Conclusion:** The problems of insufficient sleep and depression are substantial in the U.S. (Kessler et al. 2007; Krueger and Friedman 2009); both are associated with substantial consequences to health (Roth 2009; Rush 2007); and the comorbidity of sleep problems and depression are well known (e.g., Lam 2006; Staner 2010). Sleep disturbance is a common symptom of MDD, affecting 80% or more of individuals with MDD. 15-35% endorse hypersomnia and difficulty with morning arising. Others endorse difficulty falling asleep, staying asleep, and early morning awakenings (Armitage 2007; Germain and Kupfer 2008), consistent with findings of studies using EEG for arousal state determination (Armitage 2007). This study in rats offers a means by which to examine the relevance of this preclinical model with which to study the biobehavioral consequences of an etiologically consistent and profoundly stressful phenomenon, chronic social defeat.

To our knowledge, females have not been included in previous studies of chronic social defeat. (Becker et al. 2008; Razzoli et al. 2007; Rygula et al. 2005; Rygula et al. 2006a; Rygula et al. 2006b; Sgoifo et al. 2002), and although there are a number of reports of sex and estrous phase related sleep differences in rats (e.g., Del Río-Portilla et al. 1997; Fang and Fishbein 1996; Schwierin et al. 1998), the literature focusing on sex differences in stress-induced changes in sleep is scarce; and no reports of sleep in female rats exposed to social defeat are evident.

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## Contact

[gpage1@jhu.edu](mailto:gpage1@jhu.edu)

## RSC PST 2 - Research Posters Session 2

### Factors Related Obesity Among Korean Workers By Occupational Type

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*Eun Joo Ji, PhD, South Korea*  
*Eunyoung Lee, PhD, South Korea*

#### Purpose

OECD report that Korean's working hours are the longest among OECD countries. So, heavy work related stress, frequent drinking, dining together could be increased the risk of being exposed to obesity. It is needed to be explored factor related obesity among korean workers by occupational type.

#### Target Audience

Nurse and nursing educator, the person who work with government institution

#### Abstract

**Purpose:** Korean government has established a comprehensive national health plan, known as Health 2020, for nation-wide health promotion and, under the plan, set up goals to deal with smoking, drinking, exercise, nutrition issues and acted upon them. However, the rate of prevalence of obesity among adults, 31.9% in 2011, haven't declined significantly. Obesity is caused by chronic energy imbalance and it gives rise to changes in the physiological level of insulin resistance, blood sugar, triglycerides, and blood pressure. And it is classified as cardiovascular risk factors. Therefore, obesity becomes a cause of premature death and also various diseases not fatal but affecting on the quality of life. Factors affecting on obesity have been reported to be associated with life style, such as smoking, drinking alcohol, sleep, exercise, physical activity level. Smoking and drinking alcohol are strongly related to job stress and, therefore, these are health risk factors among Korean workers. OECD reports, in 2013, that Koreans' working hours are the longest among OECD countries. Therefore, there is a high risk of having obesity, among Korean workers, due to excess level of work related stress, which frequently results in workers drinking heavily with fellow workers, after long-hours of work. But, there may be differences in working style between blue-collar and white collar workers, so factors related obesity by the occupational type needed to be examined. So, the aim of the present study was to investigate the factors related to obesity risks between blue collar and white collar workers.

**Methods:** This study was based on data obtained in the Fifth Korea National Health and Nutrition Examination survey (KNHANES V). These surveys have been conducted periodically since 1998 to assess the health and nutritional status of the non-institutionalized civilian population of Korea, a cross-sectional and nationally representative survey by the Korea Centers for Disease Control and Prevention. Total 10,589 individuals (3,289 families) were included in KNHANES V; among them, 76.1% subjects participated in health surveillance and blood sampling and 82.4% subjects participated in nutrition survey. Among the subjects aged  $\geq 20$  years, 1,292 employees over the BMI of 18.5 blue or white collars were finally included in this study. All subject measurements were performed by trained examiners. The blood pressure and serum glucose and cholesterol were taken by skilled nurses in mobile vehicle. Nutrition surveys were conducted by nutritionists in a home visit.

**Predictor variables:** Predictor variables included age, gender, education, marital status, individual income, physical activity level, exercise, amount of drinking, body weight control, sleeping time, BP, serum glucose, serum cholesterol and dietary factors. Hypertension was defined as an average SBP $\geq 140$ mmHg or DBP $\geq 90$ mmHg (The Korean Society of Hypertension, 2007). According to such standards, estimated energy requirement (EER) for man is 2,600 kcal for man (2,100 kcal for woman) aged 19-29 years, 2,400 kcal for man (1,900 kcal for woman) aged 30-49 years, and 2,200 kcal for man (1,800 kcal for woman) aged 50-64 years. The standards suggest that appropriate ratio of carbohydrate intake is 55-70% of the total calories and that appropriate ratio of fat intake is 15-25% of the total calories. It is suggested that target intake of sodium is 2,000mg. Based on the suggested standards, the adequate group was defined when calorie intake was 100% or less of the EER, carbohydrate intake was 70% or less of the calorie, fat intake was 25% or less of the calorie, and sodium intake was 2,000 mg.

Outcome variables: BMI was calculated as the subject's weight in kilograms divided by the square of the subject's height in meters. As per current recommendations, obesity was defined as BMI 25.0 or higher and normal as a BMI of less than 18.5.

All data were analyzed, using IBM SPSS 19.0, to generate population weighted estimate accounting for the complex sample design of the KNHANES. A multiple logistic regression analysis was used to assess the factors related to obesity among blue collars and white collars. A P-value <0.05 was considered statistically significant

**Results:** There were differences in sex, age, individual income, marital status, body weight control, stress level, smoking status, physical activity, hypertension, obesity, diabetic mellitus, carbohydrate, and fat intake between blue collar and white collar workers. Blue collar workers, subjective health status, body weight control, sleep duration, hypertension, diabetic mellitus, and sodium intake. White collar workers, sex, age, body weight control, hypertension, hypertriglycemia, and sodium intake (Table 2).

**Conclusion:** Depending on the occupational type, there were differences in the factors related to obesity.

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### Contact

[leeek@cu.ac.kr](mailto:leeek@cu.ac.kr)

## RSC PST 3 - Research Posters Session 3

### Implementation of the Prevention of Mother to Child Transmission (PMTCT) of HIV Program: An Integrative Literature Review

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Chifundo Colleta Zimba, BSCHN, RN, RM, USA

#### Purpose

Disseminate the findings from an integrative literature review (ILR) of studies that either described or evaluated the implementation of the Prevention-of- mother-child-transmission (PMTCT) of HIV programs across the globe

#### Target Audience

The target audience of this presentation is the nurse scientist and implementers in the field of health promotion and prevention programs. Program managers and nurses working at policy level are highly targeted.

#### Abstract

**Purpose:** The burden of HIV/AIDS on women and children is very high. Worldwide, 60% of HIV infections occurred in women and children in 2007. In 2009, 370,000 children were born with HIV. With effective interventions, the rate of mother to child transmission of HIV can be reduced from 45% to 5%. Evidence on effectiveness is not sufficient, however, evidence on implementation also is needed to ensure that programs reach and retain women over time. The purpose of this review was to provide an integrative information on how PMTCT is being implemented across different health care settings globally.

**Methods:** We searched the following databases: PubMed, CINAHL and Family & Society Studies Worldwide. The search was limited to studies published in English between 2007 and 2012. Studies that evaluated PMTCT programs were included in the review. A standardized template was applied to extract data on study design, study quality, sample, setting, and validity and reliability of the data collection measures. To identify factors associated with PMTCT program implementation, we extracted data on the profession of PMTCT service providers, program components, program congruence with World Health Organization guidelines for PMTCT, fidelity of implementation, and program reach to and retention of women at labor and delivery, 6 weeks, 6 months and ≥15 months post-delivery periods.

**Results:** Twenty studies were included: 18 in Africa and 2 in Asia. Nurses were the major PMTCT service providers. The primary interventions they provided were HIV testing and counseling and providing Antiretroviral Therapy to pregnant women. Most programs were congruent with the WHO's PMTCT guidelines. Retention of women was low across all settings (Range: 23.5%- 99% at delivery, 9.6%-68% at 6 weeks, and 44% at 6 months [one study] and 10.5%-85% at ≥15 months ). Active involvement of community members in intervention design and implementation was the program component most strongly associated with higher retention rates.

**Conclusion:** The best approach to implementing PMTCT programs is still unknown. Exploring factors responsible for high attrition rates is an urgent need because women, who are retained in the program, will have access to HIV-related care and support which could help improve their health and reduce pediatric HIV infection

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#### Contact

[czimba@email.unc.edu](mailto:czimba@email.unc.edu)

## RSC PST 3 - Research Posters Session 3

### Nursing Model for Japanese Oriental Medicine in Japan

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*Toshie Yamamoto, PhD, RN, PHN, Japan*

*Fusako Kawabe, PhD, RN, PHN, Japan*

*Shu Chun Chien, RN, PhD, Japan*

*Akiko Nagata, MN, RN, Japan*

*Shinobu Saito, PhD, RN, Japan*

*Yoshiko Wazumi, PhD, RN, Japan*

#### Purpose

The purpose of this presentation is to create a nursing model for Japanese Oriental "Kampo" Medicine Outpatient of University Hospital.

#### Target Audience

The target audience of this presentation is nursing researchers who interest the nursing in Oriental and Asian Traditional Medicine.

#### Abstract

**Purpose:** Purpose of this study was to create a nursing model for nursing of Japanese Oriental Medicine.

**Methods:** Method of this study took Literature Review and Qualitative Research.

1. Search papers about nursing and outpatient nursing of Oriental medicine from the Japan Medical Abstracts Society which is the web reference site for medical science
2. Clarify characters of nursing articles of Oriental medicine
3. Focus group interview participants were nurses and doctors who practice at the Japanese Oriental "Kampo" Medicine of university hospital
4. Analyze and abstract interview data to create categories
5. Create a nursing model I for nursing of Japanese Oriental Medicine

**Results:** Results were as follows,

1. 142 papers from the Japan Medical Abstracts Society which is web reference site for medical and nursing were searched. From article titles and content summaries, these papers were classified into four types.
2. Characters of articles that were nursing of Oriental medicine were as follows.
  - 1) According to symptomatic treatments such as medication, finger pressure therapy and acupuncture, and its effect.
  - 2) Introduction of nursing education in Oriental medicine.
  - 3) Introduced as a paradigm of health based on Oriental medicine.
  - 4) The flow of various Asian traditional medicine. That were Kampo medicine, Chinese medicine, Korea style medicine, Indian traditional medicine, Tibetan traditional medicine and Comprehensive medicine.
3. These papers showed there was no model of nursing for nursing of Oriental medicine. Although the new trend of nursing science was introduced as a paradigm of health based on Oriental medicine. Nurses are used to holistic nursing, who are easy to accept the paradigm change from Western medicine.
4. Participants were 3 nurses and 2 physicians who practice at the Japanese Oriental "Kampo" Medicine of university hospital. In the group focus interview they were asked about the nursing, instructions and communications remains in the impression in their practices, difficulties in practice and suggestions to nursing in Oriental medicine.

The patient type remains in the impression were as follows. Patients undergoing chemotherapy or radiation therapy for cancer treatment, symptom control becomes difficult, take in Oriental medicine. Gynecological diseases with complaints unidentified. Physical symptoms control is difficult in psychiatric disorders. Difficult experiences were as follows.

Physicians had spent hours roughly doubled than doctors of Western medicine. Such patients had not at ease all instead visiting time is prolonged. Reasons are physical problems over the self-affirmation of family support or financial hardship, their self-esteem are low. Devise countermeasures were as follows. Against such difficulties, physicians of Oriental medicine, Western medicine treatment approximately twice as much practice time to listen, were addressed. While nurses and information exchange and other clinic nurses had to respond to patient needs.

5. The purpose of this study is to create a nursing model. Therefore, when analyzing data, we had the premise to clarify the mean for patients and implications for nursing process.
  - 1 ) Categories are extracted from the viewpoint of meaning for the patient.
    - Patients are divided to 2 types. Patients of are to receive treatments depend on Oriental medicine in Oriental medicine. Patients of another type who undergoing treatment depend on Western medicine are to receive treatment because of symptoms controls in Oriental medicine.
    - Patients receive Oriental medicine treatment secondary while undergoing treatment. It means that is often confusing to medicine because by paradigm of Western medicine and Oriental medicine. These paradigms are different from each other.
    - Effectiveness of symptom controls are different from each other that paradigms of Western medicine and Oriental medicine. Oriental medical treatment often takes a lot of time to effect to symptom controls.
    - There are drugs and acupuncture treatments other than the needed changes in lifestyle, such as diet and continue to control symptoms in Oriental medicine. Patients expects that could not be controlled by Western medicine medical symptoms improve in Oriental medicine. However, to take time to symptom improvement in Oriental medicine, does not go as expected.
    - It is easy for patients to accept symptom control of secondary treatment instead of Western medicine treatment, although difficult to accept Oriental medicine as a new paradigm, and avert that.
    - Patients often accept Oriental medicine as physician was told. They are difficult to make a decision of whether or not accept the understanding of Oriental medicine and Oriental medicine treatment with Oriental medicine paradigm. They are uncertain to their conditions and future.
  - 2 ) Categories are extracted from the viewpoint that mean for patients and implications for nursing process
    - The role of nurses in Oriental medicine nursing implement kampo treatment as physician told.
    - Although nurses sympathize with the treatment and idea of Oriental medicine, they don't think about concepts relevancies between Oriental medicine and nursing concepts.
    - Nurses are busy to implement instructions of their physicians. Nurses don't think to implement nursing method utilizing Oriental medicine.
    - Nurses think patients who don't listen to descriptions and ignore orders from their physicians have problems.
    - Nurses trust physicians with settlements of patients' problems that symptom control takes time and patients' acceptance paradigm of Oriental medicine.
    - However nurses gather informations for sharing that with nurses, do not think the nursing process utilizing that informations.
6. Create a nursing model for Nursing of Japanese Oriental Medicine  
In the beginning, we made to identify obviously necessary and sufficient condition of nursing models. A necessary and sufficient condition, is configured in the necessary condition and sufficient condition. Therefore, we considered separately for each of the conditions. That are the necessary conditions for requirements should be met through a qualitative analysis and literature review of nursing in Oriental medicine discovered. Then consider sufficient conditions of nursing models. Fundamentally, the nurse provide nursing process through patient nursing. Oriental medicine nursing is no exception. Therefore, sufficient conditions of nursing model is in Oriental

Medicine patients in nursing nurses can be. We made the nursing model for Nursing of Japanese Oriental Medicine.

**Conclusion:** In Japan, it already started nursing of Oriental Medicine as symptomatic treatments. Now a day, the new trend of nursing science is the introduction as a paradigm of health based on Oriental medicine. Nurses are used to holistic nursing, who are easy to accept the paradigm change from Western medicine. Nursing education may have some nursing classes about nursing of Oriental medicine.

Contact

[ytoshie@faculty.chiba-u.jp](mailto:ytoshie@faculty.chiba-u.jp)

## RSC PST 3 - Research Posters Session 3

### Experiences of Patients and Nurses Regarding the Use of Electronic Informed Consent

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*Sun Hee Kim, MS, South Korea*  
*Hee Sun Kang, PhD, South Korea*

#### Purpose

The purpose of this presentation is to explore the experiences of patients and nurses regarding their use of electronic informed consent.

#### Target Audience

The target audience of this presentation is nurses or educators who are interested in using electronic informed consent.

#### Abstract

**Purpose:** The purpose of this study was to explore the experiences of patients and nurses regarding their use of electronic informed consent.

**Methods:** Participants were 30 Korean nurses and 27 patients. Data were collected from October to November 2013 in one university hospital. After obtaining permission from the participants, each focus group and in-depth interview was audio-taped and transcribed. The responses were analyzed using qualitative content analysis.

**Results:** Most participants perceived the use of electronic informed consent as simple and convenient to use, saving space and time, and associated with a quality, high-tech hospital. However, participants stated that the system was not satisfactory in part because of the occasional unexpected machinery error or malfunction, and because they were at first unaccustomed to its use. Some patients wished for function improvements related to the e-signature, making it more similar to a handwritten signature; to improve the system's adjustability to allow a larger font size when needed; and for the use of multimedia to assist in better understanding the informed consent material. In contrast, nurses wanted a wider implementation of electronic informed consent because it was not being used for all informed consent cases, resulting in confusion and an additional workload.

**Conclusion:** User satisfaction could be increased by improving the functions of the electronic informed consent system. This includes offering education regarding how to use it, incorporating multimedia, and expanding the use of electronic informed consent in more cases.

#### Contact

[goodcare@cau.ac.kr](mailto:goodcare@cau.ac.kr)

## RSC PST 3 - Research Posters Session 3

### Characteristics and Quality of Gait in Older Adults living in Saltillo, Coahuila, Mexico and Lima, Peru

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María de los Angeles Villarreal-Reyna, PhD, Mexico

Ana Laura Carrillo-Cervantes, RN, Mexico

María Magdalena Delabra-Salinas, RN, Mexico

Wendy Garcia-Meza, BS, Mexico

Mistral Carhuapoma-Acosta, RN, Peru

Elena Zuñiga-Chura, RN, Peru

Jack Roberto Silva-Fhon, RN, Brazil

#### Purpose

The purpose of this presentation is to compare the characteristics and quality of gait in older adults living in the metropolitan area of Saltillo, Coahuila, Mexico and Lima, Peru.

#### Target Audience

The target audience of this presentation are nurse researchers and clinical nursing interested in the functionality of the older adult and the global attention in nursing.

#### Abstract

**Purpose:** To compare the characteristics and quality of gait in older adults living in the metropolitan area of Saltillo, Coahuila, Mexico and Lima, Peru.

**Methods:** Descriptive-comparative design. Population integrated by older adults with 60 or more years, users of Daycare Centers for Older Adults. The calculated sample was of 210 older adults from Saltillo, Mexico ( $n_{1=105}$ ) and Lima, Peru ( $n_{2=105}$ ) selected by convenience. Spatial-temporal characteristics and quality of gait were evaluated.

**Results:** The averages of the spatial-time parameters of gait show that it was characterized for being regular (speed ( $n_1$ ) = 1.42 m/s; speed ( $n_2$ ) = 1.55 m/s;  $U = 5233$ ;  $p = .526$  and rhythm ( $n_1$ ) = 1.52 steps/s; rhythm ( $n_2$ ) = 1.55;  $U = 4888$ ;  $p = .156$ ); of short steps (length ( $n_1$ ) = 49.5 cm; length ( $n_2$ ) = 50.3 cm;  $t_{(208)} = -.589$ ;  $p = .073$ ) and large (width ( $n_1$ ) = 7.70 cm, width ( $n_2$ ) = 10.20 cm;  $t_{(208)} = -5.47$ ;  $p = .467$ ). When classifying the scores for quality of gait by risk of falling, the 23.8% of the older adults from Saltillo, Mexico and the 20.0% from Lima, Peru resulted in the high risk category ( $\chi^2 = 2.09$ ;  $p = .350$ ). It was found that older adults with the highest age, and that reported a longer time diagnosed with Diabetes, reached the gait with the highest speed and number of steps, but with steps and a shorter cycle and with a lower quality when walking ( $p < .01$ ).

**Conclusion:** It is necessary to continue exploring the characteristics and the quality of gait through the use of a more advanced and precise technology, and also to consider variables such as gender, age segments, chronicity and polypharmacy; and with that, to continue generating relevant knowledge about the phenomenon of functionality in the Latin-American context and for the attention of global gerontology.

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#### Contact

[mced\\_us@yahoo.com](mailto:mced_us@yahoo.com)

## RSC PST 3 - Research Posters Session 3

### Factors Related to Social Support and Communication Methods for Psychological and Social Adjustment in Japanese Laryngectomized Individuals: A Study of a Self-Help Group

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*Kumiko Kotake, PhD, RN, Japan*  
*Yoshimi Suzukamo, PhD, Japan*  
*Kazuyo Iwanaga, RN, MSN, Japan*  
*Ichiro Kai, MD, MPH, Japan*  
*Kaori Haba, RN, PHN, MSN, Japan*  
*Aya Takahashi, RN, PHN, MSN, Japan*  
*Yuki Nagamatsu, RN, MSN, Japan*  
*Rieko Kawamoto, Japan*

#### Purpose

The purpose of this study is to clarify factors related to social support and communication methods that are associated with psychological and social adjustment and to evaluate the nursing support plan for the promotion of social adjustment in laryngectomized patients.

#### Target Audience

The target audience of this presentation is oncology and home nursing.

#### Abstract

**Purpose:** The purpose of this study is to clarify factors related to social support and communication methods that are associated with psychological and social adjustment and to evaluate the nursing support plan for the promotion of social adjustment in laryngectomized patients.

**Methods:** We contacted, through a mail survey, perilyngeal cancer patients who were enrolled in a patient association. This group included 893 of the 1828 patients who agreed to participate in the study. They were registered members of a laryngectomized patient association, "A," which is a public interest incorporated self-help group. Its objective is to provide training on enunciation techniques and support the rehabilitation of those who have lost their vocal function due to a total laryngectomy. They achieve this by publishing and selling relevant books and wellness equipment nationwide. The survey items included age, gender, occupation, length of time post-surgery, communication methods, psychological adjustment (the Nottingham Adjustment Scale Japanese Laryngectomy version [NAS-J-L], translated by Yaguchi et al. [2004]), the Health-Related Quality of Life ([HRQOL]; the SF-36v2 Japanese version), informal support (the Medical Outcomes Study Social Support Questionnaire [MOS-SS]) and formal support (the Hospital Patient Satisfaction Questionnaire-25 [HPSQ-25]). Social support, communication methods, and HRQOL were added to the three-tier structural model of psychological adjustment for laryngectomized patients as shown in the previous study, and covariance structure analysis was conducted. These variables were measured by administering the NAS-J-L, which consists of the following seven subscales and 26 items: (i) six items that assessed the anxiety-depression of patients who had lost their voices (e.g., "have you

recently been finding everything getting on top of you?”), hereafter abridged as “anxiety-depression”; (ii) two items that measured the self-esteem of patients (e.g., “I feel totally useless from time to time”), hereafter abridged as “self-esteem”; (iii) three items that measured their self-knowledge regarding the acceptance of their disability (e.g., “I do not need to be anxious about losing my voice”), hereafter abridged as “self-knowledge”; (iv) six items that assessed their positive affirmation regarding the acceptance of their disability (e.g., “I feel that my life is very significant even after losing my voice”), hereafter abridged as “positive affirmation”; (v) four items that measured the attitude toward laryngectomized patients (e.g., “many people with vocal impairments generally consider losing their voices as the worst incident to have happened”), hereafter abridged as “attitude”; (vi) three items that measured patients’ self-efficacy (e.g., “I tend to give up easily”), hereafter abridged as “self-efficacy”; and (vii) two items that measured patients’ locus of control (e.g., “I will make only very little progress in rehabilitation”), hereafter abridged as “locus of control.” The higher the points in each subscale were, the higher the psychological adjustment was. This scale has established reliability ( $\alpha = .91$ ), validity of the structural concept, and criterion-related validity (Yaguchi et al., 2004). Self-knowledge regarding the acceptance of their disability, which was part of the original scale, had a poor relationship with the structure of psychological adjustment (Yaguchi et al., 2004). Consequently, this was excluded from the NAS-J-L for this study. In the Social Adjustment Scale, we used three subscales from the SF-36v2 (Japanese version), which uses norm-based scoring: Role-Physical (RP), Role-Emotional (RE), and Social Functioning (SF). We defined the three subscales as “social unification” in this study. In the Social Support Scale, for informal social support, 20 items from the MOS-SS were used for measurement (four subscales: emotional/informational, tangible, affectionate, and positive social interaction) (Cathy et al., 1991). For formal social support, 10 items from the Hospital Patient Satisfaction Questionnaire-25 (HPSQ-25) were used (two subscales: technical evaluation and human aspects) (Bitto et al., 2005). Age, gender, and the duration of the post-surgery period were surveyed. Communication methods (esophageal speech, electrolarynx, tracheoesophageal speech, writing, and gesturing) and the number of syllables they were able to produce were also investigated. The communication methods were classified into two groups (“esophageal/tracheoesophageal group” and “others group”) for analyzing. In order to understand the characteristics of the study population, descriptive data were calculated. We then used a psychological adjustment model for laryngectomized patients (Kotake et al., 2008). The model had a three-tier structure: the “Recognition of oneself as voluntary agent” (the latent value for self-efficacy and locus of control) promotes “Acceptance of disability” (the latent value for acceptance of disability and attitude toward laryngectomy), which further promotes “Internal value as human being” (the latent value for anxiety/depression and self-esteem). We analyzed the model by adding two types of support (formal and informal), communication methods, and social unification by covariance structure analysis. Patients who signed the consent form or returned a completed survey were deemed to have agreed to participate in the survey. The study was reviewed and approved by the A Ethics Committee of University.

**Results:** Participants’ mean age was 70.8 years (range: 39-95 years), and 90.7% were male. Regarding the amount of time post-surgery, 562 people (65.8%) indicated that they had undergone the operation 5-20 years ago. The esophageal/tracheoesophageal group comprised 570 people (63.8%), and the others group included 280 people (31.4%). The structural model was a good fit for the data as demonstrated by the goodness of fit (GFI = .948), adjusted goodness of fit (AGFI = .927), and root mean square error of approximation (RMSEA = .05) values. The model showed that informal/formal support and communication methods had positive influences on the “recognition of oneself as voluntary agent” (path coefficients: .28/.26 and .24 respectively). We demonstrated the possibility that formal/informal support and communication methods enhance the “recognition of oneself as voluntary agent,” promoting psychological adjustment. The “Internal value as human being” component of psychological adjustment promotes social unification. If Japanese laryngectomized individuals receive informal/formal support and esophageal/tracheoesophageal speech, their psychological adjustment improves, promoting better social rehabilitation.

**Conclusion:** In this study, we clarified that improved psychological adjustment through social support and communication methods can help enhance Japanese laryngectomized individuals’ social rehabilitation. We suggest that the self-help group activity is important for these individuals, because they need to obtain an alternative voice and informal/formal support. Furthermore, we found that professional support, provided by, for example, nurses and physicians, is important; in particular, human and technical support as provided by the medical team is highly necessary. Formal support identified in this study included (1)

relate to the patients with interest and empathy, (2) demonstrate sufficient understanding and be considerate to patients, (3) communicate to soothe their minds, and (4) give appropriate responses (e.g., nursing, treatment, and respect for patients' opinions). This study has some limitations. Since the participants have been enrolled as members of "A" patient association for more than 1 year, patients in the acute period were not included. As acute-period patients tend to need much more social support, the association between psychological adjustment and social support for acute-period patients may be different from that for chronic-period patients. However, we believe that social rehabilitation is possible if the medical team provides the two forms of support adequately for those who have suddenly lost their voice and experienced a changed body image.

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### Contact

[kkotake@juntendo.ac.jp](mailto:kkotake@juntendo.ac.jp)

## RSC PST 3 - Research Posters Session 3

### Pelvic Inclination Angle and Autonomic Nervous Activity While Seated in a Wheelchair: Using the Seated Posture Measurement Method

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*Etsuko Yokoyama, MSN, RN, Japan*

*Yoko Tsuji, ME, RN, Japan*

*Yuka Saeki, PhD, RN, Japan*

#### Purpose

The purpose of this presentation is to report of the sympathetic and parasympathetic activities while subjects were seated in a wheelchair. The postures changed in increments of 5° from an intermediate pelvic backward inclination in the sagittal plane from 0° to 30°.

#### Target Audience

The target audience of this presentation is wheelchair users and nurses.

#### Abstract

**Purpose:** Nursing homes and welfare facilities for the elderly use wheelchairs to improve their level of activity and prevent them from becoming bedridden. Although wheelchairs are a useful aid, most elderly individuals who regularly use wheelchairs not only have walking problems but also have functional problems, such as muscle weakness due to age and paralysis due to cranial nerve disease. Because 80%–90% of the time that elderly people spend in wheelchairs is spent using the wheelchairs as chairs to sit in, this long usage time causes a problem.

The sitting posture also worsens over time, resulting in either “sacral sitting” with the pelvis tilted backwards or “slanted sitting” with the trunk inclined to the side. The loss of muscle strength leads to difficulties in maintaining a sitting posture in the wheelchair. These poor sitting postures can severely restrict movements of the upper limb and interfere with day-to-day activities. In addition to pressure ulcers, poor sitting postures can cause eating, swallowing, and digestive difficulties. Furthermore, respiratory movement and hemodynamics are also affected adversely.

Previously, studies have investigated the effects of different sitting postures qualitatively, assessing upright sitting, slouching, and forward tilting. Using radiographic imaging, Lin et al. (2006) compared the angles between individual sacral and lumbar vertebrae in different sitting postures in a portion of their subjects; however, they did not quantitatively show the pelvic inclination angle in other subjects.

In 2006, an international standard defining clinical guidelines for measuring sitting postures, the ISO16840-1:2006, was adopted. Following this, quantitative measurements of sitting postures in clinical settings gained momentum. ISO16840-1:2006 describes in detail, the method to measure a sitting posture by projecting two-dimensional planes of the sagittal, frontal, and horizontal planes. Measuring instruments that comply with ISO16840-1:2006 have been developed and are expected to come into use for various assessments and studies. Kemmoku et al. (2013) used sitting posture measurements to define bearing surface pressure and displacement force. Bearing surface pressure was divided into two phases: before and after, with the peak angle being a backward pelvic inclination angle of 15°. Displacement force increased gradually from 15° to 20°. However, from 20° onwards, displacement force increased appreciably. Few studies using sitting posture measurements, such as this one, have been published so far.

This study aims to elucidate and compare changes in autonomic nervous activity as a result of different wheelchair sitting postures in healthy individuals using postural measurement methods and to convert the results into normative data. The study also aims to assess assistive technology for wheelchair sitting postures for preventing secondary disorders in wheelchair-bound elderly individuals due to long periods of sitting and devise interventions for improving their functional activities.

**Methods:** Participants of the study comprised 13 healthy adults (without any spinal disorders) who could maintain a sitting posture throughout the duration of the measurements. All participants were female. The mean age was  $23 \pm 6$  years.

Changes in autonomic nervous activity were measured for seven different wheelchair sitting postures. The postures changed in increments of  $5^\circ$  from an intermediate pelvic backward inclination in the sagittal plane from  $0^\circ$  to  $30^\circ$ .

Pelvic backward inclination angle was noninvasively measured using Horizon (Society for Research on Sitting Posture Measurement). This instrument measures sitting posture in accordance with ISO16840-1:2006. We adjusted the sitting position on the bearing surface by having subjects shift back and forth by small degrees. This was done to attain specific pelvic backward inclination angles as indicated by pointers on the anterior superior iliac spine (ASIS) and the posterior superior iliac spine (PSIS). Once the sitting posture was achieved, it was recorded using digital photographs in the sagittal plane (from the right side). Sitting posture measurement software, Rysis (Handa et al., 2010), was then used to analyze the participants' posture and angles of body segment lines (Head line, Neck line, Sternum line, Trunk line, Abdominal line, Pelvic line) from the images taken.

Between sitting posture measurements, a 5-minute rest period was scheduled. During this time, electrocardiographic readings were recorded with a BioLog DL-2000 device and DL-320 ECG and respiration sensor (S&ME, Tokyo, Japan). Using these readings, autonomic nervous activity was analyzed at a low frequency (LF) of 0.04–0.15 Hz and a high frequency (HF) of 1.15–0.40 Hz using the frequency analysis program MemCalc (GMS, Tokyo, Japan). Measurement values for each pelvic backward inclination angle were comparatively analyzed using the statistical software SPSS 18.0 with the significance level set at 5%.

This study was approved by the research ethics committee of the Japanese Red Cross College of Nursing. On the test day, the subjects were provided with written and verbal explanations that it was their right to choose to collaborate in this study, they were free to refuse to participate, and their privacy would be protected. After they provided their consent, the test was initiated.

**Results:** A significant difference was seen in the LF/HF ratio, a sympathetic nervous activity index, between the intermediate pelvic inclination angle of  $0^\circ$  and the angles of  $15^\circ$  and  $30^\circ$ . A significant difference was also seen between pelvic backward inclination angles of  $5^\circ$  and  $25^\circ$ .

At pelvic backward inclination angles of  $30^\circ$ ,  $25^\circ$ , and  $20^\circ$ , the HF ratio, a parasympathetic nervous activity index, was significantly higher than that with  $0^\circ$ ,  $5^\circ$ , and  $10^\circ$ . At a pelvic backward inclination angle of  $\geq 20^\circ$ , parasympathetic nervous activity increased compared with that from  $0^\circ$  to  $10^\circ$ . Significant differences were also seen between  $30^\circ$  and the angles of  $15^\circ$  and  $20^\circ$ , between  $25^\circ$  and the angles of  $20^\circ$ ,  $15^\circ$ , and  $0^\circ$ , and between  $5^\circ$ ,  $10^\circ$  and the angle of  $0^\circ$ .

**Conclusion:** It has been reported that parasympathetic nervous activity becomes dominant while resting in the supine position. In contrast, sympathetic nervous activity dominates when the head is lifted up. In this study, we found that sympathetic nervous activity was significant in an upright posture with a pelvic inclination angle of  $0^\circ$  or  $5^\circ$  and parasympathetic nervous activity became dominant during a “slanted sitting” posture with pelvic inclination angles of  $\geq 20^\circ$  when compared with those of  $0^\circ$ – $10^\circ$ .

We also found that displacement force in the sacral region increased more at a pelvic inclination angle of  $20^\circ$ . Parasympathetic nervous activity was dominant at  $20^\circ$ , and it appears that the “slanted sitting” posture along with dominant parasympathetic nervous activity led to subjects being in a prolonged relaxed state, which made it easy for sitting posture to collapse. This relaxed state was brought about by a predominant parasympathetic nervous activity while in a slanted position. Furthermore, because pelvic and trunk inclinations differed between participants, we hope to proceed with further basic research. This future research should elucidate the postural characteristics of wheelchair-bound elderly individuals and clarify the assessment viewpoints of elderly individuals requiring assistance for sitting posture.

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Contact

[yokoyae@ndmc.ac.jp](mailto:yokoyae@ndmc.ac.jp)

## RSC PST 3 - Research Posters Session 3

### The Influence of Participation in Self-Help Groups on Laryngectomized Patients

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*Kaori Haba, RN, PHN, MSN, Japan*  
*Kumiko Kotake, PhD, RN, Japan*  
*Yoshimi Suzukamo, PhD, Japan*  
*Ichiro Kai, MD, MPH, Japan*  
*Kazuyo Iwanaga, RN, MSN, Japan*  
*Aya Takahashi, RN, PHN, MSN, Japan*  
*Yuki Nagamatsu, RN, MSN, Japan*  
*Rieko Kawamoto, Japan*

#### Purpose

The purpose of this study is to clarify factors affecting laryngectomized patients' participation in self-help groups and to examine the support for laryngectomized patients' participation in self-help groups and for the promotion of their social participation.

#### Target Audience

The target audience of this presentation is Oncology and Home Nursing.

#### Abstract

**Purpose:** The purpose of this study is to clarify factors affecting laryngectomized patients' participation in self-help groups and to examine the support for laryngectomized patients' participation in self-help groups and for the promotion of their social participation.

**Methods:** Subjects were 893 laryngectomized patients who agreed to participate in this research among 1,828 laryngectomized patients registered in self-help groups in Tokyo and Kyushu-Okinawa region in Japan. Survey content was basic attributes (age, sex, the number of years after undergoing laryngectomy, occupation at the time of investigation, family structure, and the main method of conversation) and the experience of participation in self-help groups. We mailed questionnaires to every subject. We conducted mail questionnaire survey in this study.

We calculated descriptive statistics about basic attributes. For conducting a significance test the types of communication methods of laryngectomized patients and family structure were separated into two groups: patients who mainly used either esophageal speech or tracheoesophageal shunt speech and patients who used other methods for communication, and those who live alone and those who live with other family members, respectively. A t-test was conducted on the experience of participation in self-help groups and age ( $p < 0.05$ ). A  $\chi^2$  test was conducted on the experience of participation in self-help groups, communication methods, occupation, and family structure ( $p < 0.05$ ).

This research was approved by Ethical Review Committee of a university authors belonged to. We explained to subjects the purpose of this research, voluntary participation in this research, and the policy that the signing of the letter of consent or the returning of questionnaires was treated as an agreement to participate in the research.

**Results:** The average age of subjects was 70.8 years (ranging from 39 to 95 years, the lower quartile is 65 years old). 90.7% of subjects were male. Those who underwent laryngectomy more than 5 years ago were 562 (65.8%). The subjects who had occupation were 263 (31.4%) and who lived alone were 75 (8.6%). The main methods of communication (multiple answer) were as follows: those who used esophageal speech, tracheoesophageal shunt speech, electrolarynx, conversation by writing, and gesture were 565 (63.3%), 20 (2.2%), 244 (27.3%), 189 (21.1%), and 99 (11.1%), respectively. There were also a few people who used PCs, cellphone's email, fax machines, and the movement of lips as medium of communication.

On participation in self-help groups, participation was 274 (33.4%) and non-participation was 547 (66.6%). The average age of participation and non-participation was 69.7 years old and 71.2 years old, respectively. 568 subjects (69.2%) used esophageal or shunt speech and 253 subjects (30.8 %) used

other communication methods. Those who had occupation were 250 (31.2%) and those who live alone were only 69 (8.3%).

A t-test showed that the average age of those who participated in self-help groups was younger than those who did not ( $p = .02$ ). A  $\chi^2$  test showed that the former were more likely to use esophageal speech or tracheoesophageal shunt speech than the latter at a statistically significant level ( $p = .0006$ ). There was no statistically significant relationship between the participation in self-help groups and occupation. On family structure those who lived alone were less likely to participate in self-help groups than those who lived with family members at a statistically significant level ( $p = .033$ ).

**Conclusion:** Laryngectomy which is considered to be radical treatment of larynx cancers and cervical esophageal cancers causes a loss of voice to patients. Therefore, laryngectomized patients were forced to acquire a new communication method after surgery. Self-help groups of laryngectomized patients in Japan are the places for exchange on the training of communicative methods such as esophageal speech and electrolarynx as well as the places for sharing one another's experience and talking to each other about one's problems such as the life after surgery. In this study we found that patients who use esophageal speech or tracheoesophageal shunt speech were more likely to participate in self-help groups. It is considered that this is due to their current activities.

Participants in self-help groups tended to be younger than non-participants. About 25 percent of subjects in this research were below 65 years. Japanese people at this age usually have jobs and assume a vital role in social activities. This suggests that participants in self-help groups include those who try to be reemployed by acquiring esophageal speech. Yet, in this research there was no association between occupation at the time of investigation and participation in self-help groups at a statistically significant level. This suggests that although patients are likely to participate in self-help groups for gaining communication skills with others by esophageal speech for rehabilitation in society, participation in self-help groups does not necessarily promote their extensive social participation such as their reemployment or the recovery of their previous vocational status. Previous studies show that about 20 percent of laryngectomized patients lost their job by the loss of a voice after surgery in Japan (Kotake, et al. 2005). Therefore, we need to examine factors which promote their social participation in future research.

This research also found out that patients who lived alone were less likely to participate in self-help groups than patients who lived with family members, implying that the level of daily exchange with family members might promote their social participation. It also suggested that laryngectomized patients who lived alone were less likely to gain support not only from their family but also peers. It is reported that laryngectomized patients suffer not only from physical problems such as the increase of cough and phlegm due to the change of breathing route and the change of swallowing function and appearance (Armstrong et al. 2001) and problems of daily life but also from the increase of mental disorder (Bussian et al. 2010), showing the necessity to examine the support system for laryngectomized patients who live alone.

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#### Contact

[khaba@juntendo.ac.jp](mailto:khaba@juntendo.ac.jp)

## RSC PST 3 - Research Posters Session 3

### Dietary Environment Assessed Using Visual Measurements of Different Seated Wheelchair Postures

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*Yoko Tsuji, ME, RN, Japan*

*Etsuko Yokoyama, MSN, RN, Japan*

#### Purpose

The purpose of this presentation is to report of the visual information obtained from different postural angles to elucidate the amount of information obtained through the line-of-sight from a wheelchair in a dietary environment.

#### Target Audience

The target audience of this presentation is wheelchair users and nurses.

#### Abstract

**Purpose:** Elderly individuals experience lower back muscle weakness that limits the upper limb range of motion while seated in a wheelchair and interferes with their activities of daily living. Furthermore, those who cannot self-adjust their seated posture are unable to freely move their trunk and head; thus, reducing their field of vision and further restricting the activities that they can perform. When adjusting one's lifestyle to accommodate age-related changes, meals play a crucial role not only in sustaining life, but in providing taste and happiness.

Important points in nursing intervention for the provision of delicious meals involves choosing cutlery suited to physical function, providing tableware that allows meals to be easily consumed and dietary contents to be easily ascertained, arranging seating that allows individuals to concentrate on meal consumption, and preparing dietary environments in which individuals can interact with others. Meals for elderly individuals who live in facilities are not provided in their private rooms, but rather in dining rooms at large tables surrounded by chairs, although majority of the individuals consume their meals while remaining seated in wheelchairs. The height at which the meal is consumed is identical for everyone because the meals are served at the same table. However, individuals sit in wheelchairs that are suitable to their physiques, and differences in the perceptions of meals can also be expected according to the state of each individual's visual function. Therefore, it appears important to analyze visual information to assess the dietary content and gain an understanding of how individuals perceive meals.

To date, previous studies have examined the effects of visual information changes on posture, and according to measurements collected for subjects who walk, the effect on posture has been reported as greater in elderly individuals than in young individuals. Further, studies of wheelchairs have analyzed the wheelchairs while in motion but few studies have focused on "seated wheelchair postures" and the "line-of-sight." Therefore, the present study aimed to examine the visual information obtained from different postural angles to elucidate the amount of information obtained through the line-of-sight from a wheelchair in a dietary environment.

**Methods:** The line-of-sight was measured using the Eye Tracking System EMR-8B (NAC Image Technology, Tokyo, Japan; hereinafter, EMR). This device uses detectors that are attached to a baseball cap, and thus can visualize the line-of-sight positions of images in the user's visual field from a relative distance between the position of near-infrared illumination corneal reflection and the central pupil position. The EMR is a non-invasive device weighing 250 g. In the present study, we used a visual field camera at a horizontal angle of 92°, with a data sampling rate of 29.96 Hz and data resolution at a viewing angle of 0.1°. The temperature, humidity, and illumination in the test room were adjusted to be constant.

The test, which was conducted in a private room, aimed to represent an environment in which meals are consumed while being seated in a wheelchair. Rice, miso soup, egg, and stir-fried vegetables were placed on a table as dietary models, and 7 pelvic inclination angle patterns (0°, 5°, 10°, 15°, 20°, 25°, and 30°) were examined while subjects were seated in a wheelchair. The line-of-sight and postural angles were each measured for 3 min. Subjects were instructed to "look at the meals for 3 min" while seated in a

wheelchair, at which time the measurements were initiated. After adjusting the seated posture, recordings of the posture were made from the right side.

For the analysis, visual information from 1 min in the middle of the 3-min measurement period was used to analyze the line-of-sight. Time spent gazing at something other than the meal and time spent gazing at the meal were compared. The height of line-of-sight was examined from the following 2 points taken from the recorded images: the distance from the corner of the eye to the meal and the vertical height of the table. Using an angle of 0° as a basic value, we used the Friedman test and Wilcoxon signed-rank test to examine the values between each postural angle. The SPSS 18.0 statistical software package (SSPS, Inc., Chicago, IL, USA) was used, and the level of significance was set at 5%.

This study was approved by the ethics committee of the Japanese Red Cross College of Nursing. On the test day, the subjects were provided with written and verbal explanations that it was their right to choose to collaborate in this study, they were free to refuse to participate, and their privacy would be protected. After they provided their consent, the test was initiated.

**Results:** Subjects comprised 13 healthy adult women with no lower back pain and no visual function abnormalities. The mean age was  $23 \pm 6$  years, the mean height was  $159.8 \pm 4.8$  cm, and the mean weight was  $51.05 \pm 7.27$  kg. During the test, almost no head movement or lowering of the jaw position was observed. During the line-of-sight measurements, no significant differences between the postural angles were observed with regard to the time spent gazing at things other than the meal. Analysis of the images revealed significant differences between the angles with respect to the height of the line-of-sight ( $p < 0.000$ ). When a pelvic inclination angle of 0° was compared with the other angles, significant differences were seen at angles of 10°, 20°, 25°, and 30°, and the line-of-sight increased with each increase in angle ( $p < 0.05$ ). Significant differences were also noted between each postural angle with respect to the distance from the corner of the eye to the meal (front of the tray;  $p < 0.000$ ). Furthermore, significant differences were observed at angles of 20°, 25°, and 30°, compared with the inclination angle of 0° ( $p < 0.05$ ). A comparison of the height from the posture and corner of the eye to the table also revealed significant differences ( $p < 0.001$ ), with differences noted at inclination angles of 10–30° when compared with an inclination angle of 0° ( $p < 0.05$ ).

**Conclusion:** No significant differences in the quantity of eye gaze were noted with respect to changes in posture. However, compared with an angle of 0°, changes in the pelvic inclination angle resulted in an increase in the height of the line-of-sight, with a shorter distance to the meal, and a shorter distance from the corner of the eye to the table. This shows that while changes in posture did not result in statistically significant differences in the meal-related information obtained, there were changes in the information obtained regarding the meal contents. The visual field images obtained from the EMR showed that the distances from which the side dishes (egg, stir-fried vegetables) on the far side of the meal tray were perceived lengthened with the increased pelvic backward inclination angle, suggesting that meal contents that are placed at a greater distance are not perceived 3-dimensionally, but as a planar image.

Dietary intake is a basic criterion for maintaining quality of life. Therefore, the dietary environment should be examined in terms of the table height and the meal placement at which the colors and shapes of foods can be visually perceived to enhance appetite while considering an individuals' posture. The subjects in the present study were young, and therefore no significant head movement was noted during the short measurement time. In the case of elderly individuals without the provision of a dietary environment, the range of motion will be restricted, starting with the neck; this will result in an increased amount of time required to consume the meal, thereby making meal consumption a distressful rather than an enjoyable experience.

An ideal dietary environment for wheelchair-bound individuals would involve the arrangement of a seated wheelchair posture suited to the individuals' physical condition, thereby increasing their appetite. To achieve this, we must consider nursing dietary environment interventions such as adjustments to table heights and meal placements to accommodate seated wheelchair postures based on the physical status obtained during the daily health assessments conducted by nurses.

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Contact

[tsuji-asb@kuhs.ac.jp](mailto:tsuji-asb@kuhs.ac.jp)

## RSC PST 3 - Research Posters Session 3

### The Relationships Between Patients' Physical, Psychological Distress and the Family Caregiver Burden in Hospitalized Gastrointestinal Cancer Patients

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*In Fun Li, MSN, RN, Taiwan*

#### Purpose

The purpose of this presentation is sharing the results of this research, and for my doctoral program requirements.

#### Target Audience

The target audience of this presentation is clinical nurses and researchers.

#### Abstract

**Purpose:** A cancer diagnosis impacts not only the patient but also the family. In Taiwan, the majority of caregivers report taking on the role of caring of the family responsibility. When family caregiver care patients of cancer, they experienced both physical and mental health due to patients multiple symptoms and treatments, than might decrease the quality of patient care and the patient's emotional state can increase distress in the caregiver. For this reason, the caregiver burden for a cancer patient's family is an important issue today.

The purpose of this was to explore the relationship of patient' physical and psychological distress to family caregiving burden in hospitalized gastrointestinal cancer patients.

**Methods:** This was a cross-sectional study involving 136 dyads of patients and families were approached and completed questionnaires during hospitalization. The data collection instruments including : demographics of patient and family, disease characteristics of patients, the modified Symptom Distress Scale for patient's symptom distress, The Hospital Anxiety and Depression for patient's psychological distress, and the caregiver's burden (measured with the Caregiver Reaction Assessment, CRA). Descriptive statistics for each variable were examined, and multivariate canonical correlation analysis was used to explore.

**Results:** The following results were revealed: 1) The severity of care burden on the primary caregiver was in the order: disrupted schedule, financial problem, health problem, and lack of family support. 2) The severity of patients' symptom distress was between non to mild . 3) 31.3% patients demonstrated clinical relevant level of anxiety and 58.2% with depression. 4) Depression of patients was the major factor to effect family caregiving burden. 5) The first and second canonical correlation coefficients between "patient's depression", "patient's anxiety", and "patient's symptom distress" and family caregiving burden are .748 and .358(  $p < .001$ ). The canonical variables  $x_1$  and  $x_2$  were able to explain up to 36.01% of total variables of family caregiving burden.

**Conclusion:** These finding showed caregiver might experience caregiving burden, and they also felt positive emotion, such as elevated self-esteem and self-worth about their role. Patient's depression and symptom distress were significantly to the caregiving burden. This study suggest healthcare professionals should systematically assess patients' and caregivers' problems and provide timely supportive care clinically. This is not only for patients , may also assist caregiver provide better quality care and reduce to the caregiving burden.

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#### Contact

[lif1129@gmail.com](mailto:lif1129@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Effects of Activity Program in Prevention of Functional Decline Among Hospitalized Elderly: A Pilot Study

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*Kai-Wen Hung, MS, Taiwan*  
*Chun-Yin Yeh, BS, Taiwan*  
*ChingHuey Chen, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to explore the effect of intervention to prevent functional decline in hospitalized elderly, and it is a pilot study.

#### Target Audience

The target audience of this presentation is the health promoters and experts.

#### Abstract

**Purpose:** This pilot study was aimed to explore the effect of intervention to prevent functional decline in hospitalized elderly.

**Methods:** A total of 15 elderly who were enrolled and randomized allocated into the control group (n=7) and the experimental group (n=8). Admitted in one of the medical center at southern Taiwan. Patients in the experimental group were intervened by accumulated 10~60 minutes walking daily from admission to one month after discharge. The walking plan was designed according to individual physical tolerance and personal preference. The outcome measures included activities of daily function measured by Modified Barthel index, hand grip strength, time up and go test, quality of life, discharge destination, hospital length of stay, 28-day readmission rate.

**Results:** The improvement in Modified Barthel index at one month after discharge was greater than 2 weeks before admittance in experimental group. The hand grip strength at discharge was greater in experimental group than in control group. The improvement in respect to time up and go test in experimental group was better than in control group (-4 8.0second vs -1.3 second).

**Conclusion:** In conclusion, the walking intervention is shown to be feasible and effective in preventing functional decline in elderly. We suggested that the walking intervention may implant into in clinical nursing care in the future.

#### Contact

[annayadunk@gmail.com](mailto:annayadunk@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Logistic Regression for Predicting Early Postpartum Depressive Symptoms in Japanese First-Time Mothers Aged 35 and Over

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*Emi Mori, RN, RM, MNSc, DMSc, Japan*

*Hiroko Iwata, RN, RM, PhD, Japan*

*Miyako Tsuchiya, PhD, Japan*

*Akiko Sakajo, RN, RM, DNSc, Japan*

*Tomoko Maekawa, RN, RM, MNSc, Japan*

*Kunie Maehara, RN, RM, DNSc, Japan*

*Akiko Morita, RN, RM, MNSc, Japan*

*Harumi Ozawa, RN, RM, PhD, Japan*

*Yoshimi Mochizuki, RN, RM, MA, Japan*

*Akiko Saeki, RN, RM, MNSc, Japan*

*Kyoko Aoki, RN, RM, MNSc, Japan*

*Miyuki Makaya, RN, PhD, Japan*

*Koji Tamakoshi, MD, PhD, Japan*

#### Purpose

The purpose of this presentation is to identify factors for predicting postpartum depressive symptoms during hospital stay after childbirth in Japanese first-time mothers aged 35 and over.

#### Target Audience

The target audience of this presentation is health care professionals such as nurses, physicians and psychologists who are responsible for postpartum women's mental health.

#### Abstract

**Purpose:** Currently, Japan is showing a trend towards later childbearing. In 2006, 5.6% of women giving birth were first-time mothers at age 35 and over (1); this increased to 8.4% in 2011 (2). Older first-time mothers have been shown to be at increased risk for pregnancy complications compared with younger women (3, 4). These women also possess several psychosocial characteristics such as increased autonomy, limited social support and limited prior experiences with children (5), which may potentially cause poorer maternal adaptation after childbirth. Older first-time mothers may therefore demand more careful consideration from health care professionals not only during pregnancy but also after childbirth.

Previous studies suggest that women with advanced maternal age, particularly primiparae, are more vulnerable to postpartum depression (PPD) (6, 7). PPD is a common complication of childbirth. Prevalence of PPD in Japan is estimated to be between 8.6% and 17.0% (8). It is a significant health problem that impacts not only women, but also their children and families. Studies suggest that mother-infant interactions are compromised by PPD, which negatively impacts infant behaviors and development. The detrimental effects of PPD in more extreme cases include greater risks for child abuse, self-harm and suicidal ideation. Thus, preventing PPD is an important health issue in Japan.

In the present study, we report some of the findings of a prospective cohort study that we conducted to examine physical and psychosocial well-being during the first 6 months postpartum in Japanese mothers, one of three studies from a research project begun in 2011 for this purpose with older Japanese first-time mothers. The project is still in progress with a goal of developing a nursing guideline to support childrearing for older Japanese first-time mothers.

The purpose of this study was to identify factors for predicting postpartum depressive symptoms during hospitalization after childbirth in Japanese first-time mothers aged 35 and over.

**Methods:** The sample of this study came from the prospective cohort study that we conducted to examine physical and psychosocial well-being during the first 6 months postpartum in Japanese mothers. The study was undertaken at 12 hospitals in the Kanto and Kansai areas in Japan from May 2012 through September 2013. Women were recruited by researchers or research nurses during their

hospitalization after delivery. Eligible participants were Japanese women who were 16 and over, 0 to 4 days postpartum, had a singleton live birth vaginally or operatively, and had a fixed address during the 6 months after the time of recruitment. Exclusion criteria included those who had difficulty with communication in Japanese and those with serious health problems, either in the mother or newborn. We obtained informed consent forms from all participants. Institutional ethics approvals were obtained if the institution had any review board before initiation of the study.

Data were collected using self-report questionnaires at 5 points in time: the day before hospital discharge, 1 month, 2 months, 4 months, and 6 months postpartum. The present study specifically reports the findings during the hospital stay. The self-report questionnaire during hospitalization consisted of the following contents: demographics and background information; depressive symptoms, as measured by the Japanese version of the Edinburgh Postnatal Depression Scale (the Japanese-EPDS) (9); fatigue, as measured by the Postnatal Accumulated Fatigue Scale (PAFS), which we developed; maternal confidence and maternal satisfaction, as measured by the Postpartum Maternal Confidence Scale and the Postpartum Maternal Satisfaction Scale, respectively (10); childcare values, as measured by the Childcare Value Scale (CVS) (11); checklists for physical symptoms; perceptions on childcare and daily life; and perceptions on the nursing care they received during the hospital stay. In addition to questionnaire responses by participants, researchers or research nurses obtained additional data from vital records data at the hospitals.

Data were analyzed using stepwise logistic regression through SPSS ver. 21. The two-category outcome was whether a woman scored >9 in the Japanese-EPDS. To generate candidate variables for entry into a stepwise logistic regression analysis, we initially performed univariate analysis via  $\chi^2$  tests for categorical variables and Mann-Whitney U-tests or Kruskal-Wallis tests for those with nonparametric distributions. We introduced significant ( $p < .05$ ) or nearly significant ( $p < .10$ ) independent variables from the univariate analysis into a stepwise logistic regression analysis. When independent variables that were known to be predictors of postpartum depression from previous studies failed to show significant correlations with the outcome (the Japanese-EPDS), we decided to enter those variables into a stepwise logistic regression analysis. Independent variables were entered in two sets: type of delivery (vaginal vs. elective cesarean section (CS) vs. emergency CS) was entered first, and then all remaining variables were entered based on the maximum likelihood-ratio statistic.

**Results:** Of the original 3769 women who agreed to participate, 3633 women responded to the questionnaire during the hospital stay (96.4% response rate). After deletion of 292 cases (47 women with diagnosed or previous history of prenatal psychological disorders including depression, 22 women who did not respond within the specified time limit, 152 women who did not practice rooming-in during the hospital stay, 70 women with missing values for main outcome measures, and 1 woman without vital records data), data from 3341 women were available for analysis. From this sample, we created a group of 461 first-time mothers aged 35 and over, which we used for the analysis of the present study.

Nearly 21% of women scored >9 on the Japanese-EPDS during the hospital stay. Univariate analysis resulted in 14 independent variables that showed significant correlations with the Japanese-EPDS. Depressive symptoms were more strongly associated with: emergency cesarean section, gestational diabetes or diabetes in pregnancy, husband/partner with more advanced age, higher physical burden during hospital stay, lower satisfaction with sleep, not exclusively breastfeeding, taking more minutes for baby feeding, lower satisfaction with birth experience, more concerns about newborn caretaking after discharge, more concerns about one's own life after discharge, more concerns about social support after discharge, newborn lower birth weight, newborn long-term complications, and the pregnancy desired most not by the mother or couple. A stepwise logistic regression analysis showed that only six predictors provided an adequate model among Japanese first-time mothers aged 35 and over. Emergency cesarean section (odds ratio (OR) of 2.88, 95% confidence interval (CI) of 1.47, 5.63), lower satisfaction with birth experience (OR 2.07, 95% CI 1.24, 3.45), higher physical burden in daily life (OR 3.04, 95% CI 1.11, 8.29), newborn long-term complications (OR 4.63, 95% CI 1.79, 11.96), more concerns about newborn caretaking after discharge (OR 1.21, 95% CI 1.05, 1.39), and more concerns about one's own life after discharge (OR 1.24, 95% CI 1.08, 1.41) were associated with depressive symptoms. For the logistic regression model, the Hosmer and Lemeshow test was not significant ( $\chi^2=10.72$ , df 7,  $p=0.218$ ), indicating that the data fit the model well. Of women who scored <9 in the Japanese-EPDS, 95.0% were

correctly classified by the model; of those who scored >9, 29.6% were correctly classified. The overall success rate of prediction was 81.1%.

**Conclusion:** The findings of logistic regression analysis indicated that women with lower birth experience satisfaction showed more depressive symptoms, as did women who experienced emergency CS compared with those with vaginal delivery. The birth experience is potentially traumatizing for some women. Mothers may experience distress if they require medical interventions such as vacuum extraction and emergency CS, especially when they expected to have a natural delivery. Because older first-time mothers often require more medical interventions during delivery, nurses should be sensitive to women's perceptions of their birth experience, especially when women experience emergency CS unexpectedly. Higher physical burden was found to be another significant predictor for depressive symptoms. This indicates the importance of assessing women's perceptions of their physical burden during the hospitalization. Postpartum hospital stays in Japan are usually 4 to 5 days following a vaginal birth, a few days longer in cases of CS. Asking postpartum women about their perceived physical burden and providing appropriate care during hospitalization will help to prevent depressive symptoms. Women who had more concerns about their own life and newborn caretaking after discharge also showed more depressive symptoms. An additional predictor of depressive symptoms was newborn long-term complications that included congenital diseases. Nursing assessment of women should include their concerns about life including newborn caretaking after discharge and perceptions of newborn long-term complications. These assessments will lead to appropriate nursing support which may help to prevent PPD for older first-time mothers.

In summary, logistic regression analysis identified the following six predictors for PPD in Japanese first-time mothers aged 35 and over: emergency cesarean section, lower satisfaction with birth experience, higher physical burden during hospital stay, newborn long-term complications, and more concerns about one's own life including newborn caretaking after discharge. Recognition of women with these factors will help nurses to identify those at risk for developing PPD and to provide appropriate care during hospitalization after childbirth.

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## Contact

[mori@faculty.chiba-u.jp](mailto:mori@faculty.chiba-u.jp)

## RSC PST 3 - Research Posters Session 3

### College Students' Attitude Toward the Elderly with Dementia in Japan: A Comparison Between Nursing and Non-Nursing Students

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*Miwako Hoshi, PhD, RN, Japan*

*Chizuru Ikeda, BS, RN, Japan*

*Yuri Kondo, BS, RN, Japan*

*Maki Fujimura, BS, RN, Japan*

*Yurie Maeda, BS, RN, Japan*

#### Purpose

The purpose of this research is to examine the attitude toward elderly people of college nursing students and those who are not nursing majors, as well as to investigate whether student background data would affect their attitudes shown.

#### Target Audience

The target audience of this presentation are nursing educators and researchers who are interested in gerontological nursing education, especially those striving to improve the quality of care provided for the elderly with dementia via increasing young generation's understanding of the elderly people suffering from dementia.

#### Abstract

**Purpose:** The purpose of this study was to evaluate the attitude of Japanese nursing and non-nursing students toward the elderly with dementia and to investigate the effects of students' varied background data on their attitudes shown.

**Methods:** A total of 214 nursing students (n=137) and non-nursing students (n=77) was recruited to complete a questionnaire from a national university located in Southern Japan using convenience sampling method. The criterion of choosing subjects is the level of their professional nursing knowledge and clinical training experience. Based on their professional nursing knowledge and clinical experience, subjects were assigned to three groups: Group A-students receiving no formal health-related education and clinical experience training, Group B-freshman nursing students who have limited professional knowledge and no clinical experience with demented elderly people, and Group C-senior nursing students who have profound nursing knowledge and clinical experience with the elderly. A semantic differential scale with 25 bipolar pairs of adjectives is used to explore the attitudes. Demographic data collected in the questionnaire consist of age, gender, experience with the elderly suffering from dementia, whether having family members with dementia, and whether engaging in a volunteer activity held for the demented elderly. In addition, subjects' level of empathy is assessed to use as a personality variable. Methods used in this study include descriptive statistics, Pearson's correlation analysis and analyses of variances (ANOVAs). The former were used to examine the correlations among variables, whereas the latter were used to evaluate group differences in the attitude shown toward the elderly with dementia.

**Results:** The results showed that the senior nursing students demonstrated a significantly higher positive attitude toward the elderly with dementia compared to their freshman nursing peers as well as those non-nursing students. The findings also showed that students with more experience of interacting with or volunteering for the demented elderly demonstrated a higher positive attitude than those with less experience in interaction or volunteer work. In addition, the results revealed that people with a higher level of empathy had a significantly more positive attitude toward these elderly people.

**Conclusion:** The study indicated that having professional nursing knowledge, clinical and volunteering experience, or even a simple interaction with the elderly with dementia may result in young college students' positive attitude toward these elderly people. Findings of the study could be used to design courses for college nursing students in facilitating the understanding of old people living with dementia.

#### Contact

[hoshichan@hotmail.com](mailto:hoshichan@hotmail.com)

## RSC PST 3 - Research Posters Session 3

### The Relationships Between Fatigue, Depression and Quality of Life Among Depression Outpatients

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Ya-Ting Hsu, BS, Taiwan

#### Purpose

The purpose of this presentation is to understand the distribution of the depression outpatients with fatigue, depression, and quality of life. To investigate the factors which influence the depression outpatient's quality of life.

#### Target Audience

The target audience of this presentation are clinical nurses.

#### Abstract

**Purpose:** The purpose of this study is to understand the distribution of the depression outpatients with fatigue, depression, and quality of life. To investigate the factors which influence the depression outpatient's quality of life.

**Methods:** This study used cross-sectional study design. A total of 150 subjects were recruited by convenience sampling from a teaching hospital. Research instruments included basic demographic questionnaire, Visual Fatigue Scale(VFS), Beck Depression Inventory(BDI-II), and SF-36 Taiwan version.

**Results:** (1)There were 96 female(64%) and 54 male(36%).Mean age of female was 52.6 years old (SD = 13.5) and mean age of male was 50.5 years old (SD = 15.8) .

(2)Most of the subjects were moderate depression (N=39, 26%) , mean fatigue score was 18.6 (SD=17.9) , and quality of life score was 52.6 (SD=20.9) .

(3)The higher fatigue, the higher depression, showed a positive correlation ( $r=.767$ ,  $p<.001$ ) . The higher fatigue, the lower quality of life ( $r=-.781$ ,  $p<.001$ ) .

(4) The multiple linear regression models showed that fatigue and depression are the best predictors of quality of life. Multiple regression model explained quality of life .302 variances.

**Conclusion:** Clinical nurses can understand the distribution of fatigue, depression, and quality of life. And understand the factors which influence the depression outpatient's quality of life. Clinical nurses can give depression outpatients supports and interventions to enhance their quality of life.

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#### Contact

[happybabybaby@hotmail.com](mailto:happybabybaby@hotmail.com)

## RSC PST 3 - Research Posters Session 3

### The Project of Improving the Rate of Access Site Bleeding after Femoral Artery Cardiac Catheterization

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Hui-Yi Pan, BS, Taiwan

Pei-Jing Wu, RN, BS, Taiwan

Chia-Chi Liu, RN, BS, Taiwan

Ying-Ju Lin, RN, BS, Taiwan

Hsin-Mei Wu, RN, BS, Taiwan

Cheng-Kang Chen, RN, BS, Taiwan

Tzu-Chia Lin, MS, Taiwan

#### Purpose

The purpose of this presentation is to reduce the rate of access site bleeding after femoral artery cardiac catheterization.

#### Target Audience

The target audience of this presentation is health professionals and cardiovascular technicians.

#### Abstract

**Purpose:** Access site bleeding is the most common complication after cardiac catheterization. The classic sand bag method is widely used for control of bleeding and prevention of vascular complications. It is also crucial for nurses to monitor and assess the access site after the procedure. In 2012, the incidence of access site bleeding after cardiac catheterization is 15.4% (12/91) in our intensive care unit, and all of them have the procedure via femoral artery. The aim of the project was to improve the incidence of access site bleeding after the procedure.

**Methods:** The characteristics of nurses (n = 20) and patients (n =12) were analyzed. Half of the nurses have work experience less than three years. The average age of patient is 61 years old. Most of them were overweight (71.4%), having at least one chronic disease (e.g., heart disease, hypertension, diabetes, kidney disease, and liver disease) and taking anticoagulant medicine (78.5%). Through the situation analysis and field observation, the causes of access site bleeding were identified as follows: patient characteristics, a lack of evaluation indicators of nursing standard, inadequate professional ability and experience of novice nurses, displacement of sand bag due to *longer* periods of *bed rest*, inappropriate fixed equipment for the sand bag, and insufficient orientation program. To resolve problems such as those listed above, we created equipment with elastic material to fix the sandbag and compress the access site. The guideline and evaluation indicators of post-cardiac catheterization were also built. The novice nurses were arranged to care post-cardiac catheterization patients and were supervised by senior nurses. An educational audiovisual and in-service education supervised by a licensed cardiologist were established to enhance nurses' knowledge.

**Results:** The incidence of access site bleeding after cardiac catheterization decreased from 15.4% to 0%.

**Conclusion:** Through implementing those strategies, the incidence of access site bleeding after cardiac catheterization significantly decreased. Also, the experience of using the elastic equipment for fixing the sandbag and compressing the access site is spread to other intensive care unit. However, considering that some of the patient characteristics are irreversible, nurses and cardiologist should carefully assess the risks factors of access site bleeding. The project could serve as a reference for clinical practice.

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Contact

[aicu@cych.org.tw](mailto:aicu@cych.org.tw)

## RSC PST 3 - Research Posters Session 3

### The Association Between Obesity and Asthma in Children

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*Pei-Ching Liu, MSN, RN, Taiwan*  
*Bih-Shya Gau, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to explore the relation and related covariates between childhood asthma and obesity.

#### Target Audience

The target audience of this presentation is health professionals paying special attention on the health issues encountered by pediatric populations.

#### Abstract

**Purpose:** The simultaneous increase in asthma and obesity prevalence has been widely discussed in past twenty worldwide. However, the research finding is still inconsistent and scanty in Taiwan. Therefore, this study was conducted to explore the relationship between obesity and asthma in Taiwanese children.

**Methods:** A cross-sectional study was conducted in National Taiwan University Hospital in Taiwan from December 2009 till December 2011. Children with diagnosed asthma were recruited. Demographic data, asthma history, diet pattern and daily activity were recorded through questionnaires. Each child's current weight and height were measured to acquire their age- and gender-adjusted BMI values. Asthma control level was defined by a summary score from the Children Asthma Control Test (C-ACT). The food frequency questionnaire (FFQ) was adopted to evaluate children diet pattern.

**Results:** 94 children with asthma were recruited. Higher BMI was correlated with a worse C-ACT score (OR 1.15, 95% CI 0.99 to 1.37). A more frequent intake of hamburger, oily snacks, sweetened drinks and chocolate or candies was associated with the worse asthma control (OR 1.85, 95% CI 0.89 to 3.99). In addition, children from lower SES (OR 4.66, 95% CI 1.43 to 16.22) and born with mothers in older ages (OR 1.14, 95% CI 1.03 to 1.31) suffered from worse asthma control. On the other side, children had better asthma control if parents reported that the doctor had ever encouraged their children to engage in more physical activities ( $p < 0.02$ ).

**Conclusion:** Higher BMI is correlated with a worse asthma control among children with asthma in Taiwan. A more intake of unhealthy food may also contribute to their asthma severity. Children with both epidemics form a unique group and should receive specific care.

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#### Contact

[ressyliu@gmail.com](mailto:ressyliu@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Hope and Learned Resourcefulness Among Parents of Disabled Children

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*Ozlem Aslan, PhD, Turkey*  
*Sekmen Kamile, MSN, Turkey*  
*Mesut Akyol, Turkey*

#### Purpose

The aim of this presentation was to explain nurses the hope and learned resourcefulness levels among parents of disabled children.

#### Target Audience

Nurses

#### Abstract

**Purpose:** The aim of this research was to determine the hope and learned resourcefulness levels among parents of disabled children.

**Methods:** 105 parents of disabled children in a school for disabled children in Ankara were included in the study in March 2003. Herth Hope Scale (HHS) and Rosenbaum's Learned Resourcefulness Scale (RLRS) were used to collect the data. Descriptive statistics, Student's t test, Mann-Whitney U Test, Kruskal Wallis Variance Analysis, Spearman Correlation were used to analyze the data in SPSS program. In the reliability analysis, Cronbach's alpha was 0.90 for HHS, Cronbach's alpha was 0.82 in RLRS.

**Results:** The mean age of parents was  $33.59 \pm 6.01$  years. 50.5% of children had a neurological disease. The mean disease duration was  $7 \pm 4.7038$  years. The mean HHS score was  $71.72 \pm 14.848$  and mean RLRS score was  $69.49 \pm 9.791$ . The mean HHS score was statistically higher than that of female parents ( $z=2.028$ ,  $p=0.043$ ). Hope scores didn't differ with parent's social support, parent's and spouse's education level, child congenital disease and child diagnosis ( $p>0.05$ ). RLRS scores didn't differ with parent's gender, parent's social support, parent's and spouse's education level, child's congenital disease and child's diagnosis ( $p>0.05$ ). There was a statistically significant positive correlation between HHS scores and RLRS scores ( $\rho=0.85$ ,  $p<0.001$ ).

**Conclusion:** This research showed that hope and learned resourcefulness levels of parents of disabled children were above middle level. Male parents' hope scores were higher than those of female parents. Defining and supporting parents who have problems during nursing care process will provide an uninterrupted adaptation process and positive care outcomes.

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#### Contact

[oozlem.aslan@gmail.com](mailto:oozlem.aslan@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Measured Noise Levels in the Hospital with Correlating Patient Perception

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*Rachel Marie Lyle, USA*

*Mercy N. Mumba, Honors BSN, RN, CMSRN, USA*

*Deborah Behan, PhD, RN-BC, USA*

#### Purpose

The purpose of this presentation is to present and educate healthcare professionals about the findings of our study, including: noise levels found in the hospital along with correlating patient perceptions, the most disturbing noises for patients, and recommendations for improving patient satisfaction related to quietness.

#### Target Audience

The target audience of this presentation is all healthcare professionals involved in direct patient care in an acute care facility.

#### Abstract

**Purpose:** The primary objective of this study were to (1) determine de-identified patient perceptions of noise and compare with the actual current noise levels within their rooms. Other objectives of this study were to: (2) determine the actual decibels of noise within the hospital, including the nurse's station, hallways, and patient rooms; (3) determine the noise sources occurring within the rooms and hallways at the time of decibel measurement; and (4) identify the most disturbing causes of noise to the de-identified patients.

**Methods:** This was a quantitative study with a two-part design. It is both a correlational study correlating patient perceptions of noise levels within their rooms and the actual current noise levels within their rooms. The other part is a descriptive study describing the most disturbing sources of noise to patients. The hospital investigated for this study was a hospital with a size of approximately 300 beds located in north central Texas. A decibel meter was used to measure sound levels in the hallways, nurse's stations, and patient rooms of different floors of the hospital on different days of the week at differing times of the day. Patient rooms were randomly selected from the floor to measure noise levels within and 187 observations were recorded. No identifying information was collected and participation was voluntary. After obtaining verbal consent, two dB measures were taken in each patient's room: (1) in the doorway at the extent of the length of the door with the door open, and (2) in the room at the foot of the patient's bed with the door closed. Two questions were asked of the patient, "Is the noise level right now okay for you?" and "What would you say has been the most disturbing cause of noise during your hospital stay?" An observation log was used to record these decibel readings, as well as to record the sources of noise occurring within the room at the time of the dB measurement. Answers to the question "Is the noise level right now okay for you?" were recorded in the observation log as a "Y" or "N". Patient answers to the open-ended question, "What would you say has been the most disturbing cause of noise during your hospital stay?" were recorded verbatim. Statistical software called SPSS was used to determine differences and correlations between noise levels and patient perceptions.

**Results:** A significant negative correlation was found between patient perception of noise levels and decibels recorded in patient rooms with the door open. The morning time frame was found to be the noisiest and the time with the lowest patient satisfaction with noise levels, followed by nighttime and then late afternoon. The majority of the most cited disturbing noise sources to patients were those occurring outside the patient rooms. Alarms, beeping noises, and staff talking in the hallway were cited most often.

**Conclusion:** Excess noise is often reported by patients as one of the most disturbing factors during their hospital stay. Scores on the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) Survey from the particular hospital studied have also shown poor patient satisfaction in the area of hospital noise. The majority of patients were okay with the current noise levels at the time of our interview, however many stated that there were periods during their hospital stay in which the noise level was not okay. There is a need for staff education involving findings of this study regarding the current

noise levels, causes of patient disturbance, and ways to reduce noise levels on the floor. Because patient satisfaction with noise levels decreased as noise levels with the door open increased, one recommendation would be to keep patient doors closed when possible. Other recommendations to improve patient satisfaction with quietness of the hospital would be for staff to keep conversations in the nurse's stations or away from patient rooms and attend to alarms or other beeping noises as quickly as possible.

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### Contact

[mercy.mumba@mavs.uta.edu](mailto:mercy.mumba@mavs.uta.edu)

## RSC PST 3 - Research Posters Session 3

### The Effectiveness of Acupressure in the Quality of Sleep of the Head and Neck Cancer Patients Receiving Chemotherapy: The Application of Rogers' Theory

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Shu-Ya Chan, RN, MSN, Taiwan

#### Purpose

1.The purpose of this presentation is identify the protocol of acupressure program, the Head and Neck cancer patients receiving chemotherapy. 2.The purpose of this presentation is recognize the beneficial effects of the protocol of acupressure program on the Head and Neck cancer patients receiving chemotherapy.

#### Target Audience

1.The target audience of this presentation is know the quality of sleep of Head and Neck cancer patients receiving chemotherapy. 2. The target audience of this presentation is recognize the beneficial effects of the protocol of acupressure program on the Head and Neck cancer patients receiving chemotherapy.

#### Abstract

**Purpose:** The purpose of this study is to examine the effectiveness of acupressure in regards to the Quality of Sleep of Head and Neck Cancer Patients receiving Chemotherapy. Purposive sampling is used in this study of 58 Head and Neck Cancer Patients (PSQI>5) receiving Chemotherapy from the Head and Neck Cancer units of a medical center in Southern Taiwan.

**Methods:** An experimental design is used for this study. By controlling the effect of hypnotics, age, and gender (male), subjects are randomly assigned to either an experimental group or a control group. The experimental group has 25 subjects, and the control group has 33 subjects. The total sample size is 58 subjects. The experimental group received two weeks of acupressure protocol. The sessions were conducted five days per week, two times per day with one session in the morning and one in the evening. Each session lasted 12 minutes. The control group did not receive the acupressure protocol. Five series of data were collected from the fifty eight subjects during the one month experiment. Research instruments include the Demographic Inventory of Patients, Pittsburgh Sleep Quality Index, and Richards-Campbell Sleep Questionnaire. Statistical analysis of all collected data were performed with descriptive analysis, Chi-Square, two-sample t-test, two-way ANOVA with repeated measures, and three-way ANOVA with repeated measures.

**Results:** Results: Acupressure significantly improved the quality of daily sleep, as well as the sleep quality in the previous one month of Head and Neck cancer patients receiving chemotherapy. Subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbance were all significantly improved.

**Conclusion:** Based on the research results and a thorough literature review, we suggest that four week long acupressure research study be conducted. Continuous intervention shall result in better treatment effectiveness. This study serves as a reference for medical practitioners to help improve sleep quality of Head and Neck cancer patients receiving chemotherapy.

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#### Contact

[y17168@ms57.hinet.net](mailto:y17168@ms57.hinet.net)

## RSC PST 3 - Research Posters Session 3

### Avoiding Litigation: Legal-Based Mediation Education for Nurses

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*Takako Hiramatsu, RN, MSN, Japan*  
*Michiko Senda, RN, Japan*

#### Purpose

The purpose of this presentation is to describe our mediation education program. We hope that sharing our experience would facilitate discussion of how to design an effective training program for medical mediators.

#### Target Audience

The target audiences of this presentation are nurse managers and clinical nurses.

#### Abstract

**Purpose:** In response to an increasing number of litigations relating to medical errors and growing awareness of patients' rights, training for a medical mediator, who engages in a mediating role in a hospital, is in progress. Mediation is a dialogue based negotiation, and is one of conflict management models, which aims to resolve confrontations resulting from different values and interests held between individuals or nations. Mediation also aims to manage individuals' psychological and emotional conflicts.

Following the establishment of a medical safety administration department at our institution in 2003, multidisciplinary teams including nurse medical safety officers have taken the lead in tackling prevention of in-house medical errors. The activities included mediation education for nurses, in which the legal aspects of various problem cases were discussed with the guidance from the hospital's legal advisors. By enabling nurses to act as first responders to a problem using mediation skills based on direct conversation, it was expected that nurses could promote good communication between patient and medical staff prior to escalation of a situation to something serious like medical litigation.

This poster describes our mediation education program. We hope that sharing our experience would facilitate discussion of how to design an effective training program for medical mediators.

**Methods:** Nursing administrators presented problem cases they were personally dealing with and then discussed these cases in groups. The hospital's legal advisors commented on legal aspects and participants learned how to build good legal and ethical relationships as a nurse.

**Results:** The first session - In the first session, 20 nursing administrators and 6 legal advisors examined two cases regarding "dealing with family". Key words included "family registration law", "legal heirs" and "livelihood protection law", and the definition of family was thoroughly debated. The second session - In the second session, a topic of "dealing with a patient's verbal abuse and violence" was discussed by 22 nursing administrators and 6 legal advisors. Key words of this session were "patient's competence in decision-making", "a charge relating to infliction of bodily injury", and "criminal intimidation". The nursing administrators received legal advice on how to deal with situations where nurses are exposed to immediate danger. In particular, nursing administrators realized the importance in discussing these issues in nursing and multidisciplinary conferences, if the issue can be solved by medical teams or if patients' violence and verbal abuse result from their illnesses. The third and fourth sessions - A further two sessions were held based on different themes. One of the topics was "the right to self-determination", and nursing administrators discussed the pros and cons of a related advance directive system and a method of writing nursing records during problematic situations were shared. Another topic was medical procedures defined in the Medical Practitioners Acts and Act on Public Health Nurses, Midwives and Nurses. Managerial topics relating to patients' violence was also discussed. The example included how to document patients' behaviors, which break the hospital regulations and obstruct nursing practice.

**Conclusion:** In addition to providing an opportunity for thinking from an ethical perspective, which is integral to nursing, consideration of problem cases from a legal standpoint during discussion with legal advisors enables nurses to acquire the skills to not only build relationships with patients but also protect themselves as nurses. The outcomes of this educational program have not yet been evaluated. However,

it is expected the continuance of this educational program would lead to desirable changes in the behaviors of nursing administrators.

Contact

[thiramatsu@med.kawasaki-m.ac.jp](mailto:thiramatsu@med.kawasaki-m.ac.jp)

## RSC PST 3 - Research Posters Session 3

### Sparks Code-Blue Ability Questionnaire of Novice Nurses in the ICU

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*Madelyn Marie Sparks, RN, BSN, USA*

#### Purpose

The purpose of this presentation is to discuss the creation and testing of a questionnaire to accurately and reliably measure the confidence of novice nurses before and after a mock code-blue simulation.

#### Target Audience

The target audience of this presentation is nursing researchers and nursing educators from ICU's around the world that are in charge of training novice nurses.

#### Abstract

**Purpose:** The need for intensive care nurses worldwide is growing. Turnover rates of critical care nurses in excess of 12% and an aging population living with more complex health issues has created a continuing need to educate novice nurses who are working in intensive care units with little to no experience in this specialty. A comprehensive literature review of the literature was conducted to determine the existence of a tool to test the confidence level of novice nurses during code-blue resuscitation. No standardized questionnaire was found to measure the effectiveness of education on the confidence of novice nurse's in code-blue skills before and after mock code-blue simulations. The purpose of this project therefore was to develop and test the initial reliability and validity of the Sparks Code-Blue Ability Questionnaire of the Novice Nurse in the ICU.

**Methods:** A mixed-methods design will be used in this study. A 10-point Likert-type questionnaire was developed to assess confidence of the novice nurse in a code-blue scenario. The research questions for this study are: 1) What is the initial reliability and validity of the Sparks Code-Blue Ability Questionnaire of Novice Nurses in the ICU (SCBAQ)? 2) What is the confidence of novice nurses before and after the mock code-blue simulation as measured by the SCBAQ. In order to assess the validity of the questionnaire the item-level I-CVI method will be used. A panel of (n=5) experts will be recruited to determine the content validity index of the SCBAQ. Data will be collected from a population of novice nurses (n=30). The SCBAQ will be administered at pre and post test during simulated code blue scenarios on both day and night shifts over a period of two months. A paired t-test,  $\alpha < 0.05$ , will be used to compare mean pre-test post-test scores on the SCBAQ.

**Results:** IRB approval for this study has been obtained. Data collection for research questions one and two are in progress.

**Conclusion:** The ability to retain qualified ICU nurses is essential to the health of the public. The Sparks Code-Blue Ability Questionnaire of the Novice Nurse in the ICU is a newly created tool that may help to determine the confidence level of the novice nurse during a code blue and further research is merited.

#### Contact

[msparks5145@lcu.edu](mailto:msparks5145@lcu.edu)

## RSC PST 3 - Research Posters Session 3

### Quality of Life Among Family Caregivers for Stroke Patients Discharged from Hospital within Six Months in Northern Taiwan

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Yu-Hsia Tsai, RN, MS, Taiwan  
Hsueh-Erh Liu, PhD, RN, Taiwan

#### Purpose

The purpose of this presentation is to share our study that we assessed the quality of life of caregivers who took care of home-bound stroke patients discharged from hospital within 6 months and to identify its associated factors.

#### Target Audience

The target audiences of this presentation are researchers, educators, administrators, clinicians, and policy makers in medical associative disciplines.

#### Abstract

**Purpose:** The aims of this study were to assess the QoL of caregivers who took care of home-bound stroke patients discharged from hospital within 6 months and to identify its associated factors.

**Methods:** This was a cross-sectional study. **Participants:** Name lists of stroke patients discharged within 6 months were provided by several agents located in a suburban county in the northern Taiwan.

**Process:** After screening by the selection criteria, participants were contacted by phone call first and then completed the questionnaires by face-to-face interview at their home. **Instruments:** The instruments selected for data collection were Caregiver Quality of Life Index (CQLI), patients' characteristics (including Barthel Index, BI; Short Portable Mental Status Questionnaire, SPMSQ), caregivers' characteristics (including Caregiver Strain Index, CSI), and family resources. **Data analysis:** All data was managed by PSSPC-Win18.0. Descriptive statistics (means, frequencies, and percentage) were used to describe the distribution of each variable. The results of Kolmogorov-Smirnov test showed that none of these variables were normally distributed ( $p > .05$ ). Therefore, non-parametric statistical analysis (Spearman correlation, Mann-Whitney test, Kruskal-Wallis test) was performed. In addition, multiple regression was performed to identify the predictors of the caregivers' QoL. The significant level of this study was 0.05.

**Results:** A total of 184 family caregivers completed questionnaires. Most patients were characterized as: elderly ( $67.3 \pm 12.3$  years old), male (61.4%), married (81%), and unemployed (62.5%), first being diagnosed as stroke (70.1%), no surgery (91.3%), no intubation (89.7%), no rehabilitation (65.2%), not using devices (52.7%), no need for institutional care ( $BI \geq 60$ , 72.8%), and intact cognitive function ( $SPMSQ > 5$ , 77.7 %). Participants' average duration of hospitalization was 16.5 days ( $SD = 21.3$ , range = 2 to 214 days). Most family caregivers were characterized as: middle age ( $49 \pm 13.7$  years old), female (67.9%), high school educated (52.2%), married (84.8%), non-spouse (58.2%), co-resident (83.7%), fair health (54.3%), and their CSI was  $\geq 7$  (the mean score of CSI was  $6.2 \pm 4.7$ , ranging from 0 to 13). The family resources were characterized as: most family income was around NT \$20,000 to 60,000 per month (47.8%), major payer was patients' offspring (50.5%), and the average number of co-resident family were  $4.2 \pm 2.6$  (range: 0-22) persons. Most family had someone to help (81%), but no hired caregiver to share with their caregiving tasks (77.2%). The total CQLI was  $255.1 \pm 53.9$  (ranging from 0 to 400). The total CQLI were associated with patients' characteristics (employment, using devices, BI, SPMSQ); caregivers' characteristics (education, self-perceived health, CSI); and family resources (monthly family income, became major payer for medical fees, hired other caregiver or not). The CSI was negatively correlated with the overall CQLI ( $r = -.31$ ,  $p < .01$ ). Multiple regression revealed the following factors determined the caregivers' QoL: poor and fair self-perceived health of the caregivers, CSI score, monthly family income below NT \$20,000 and 2-60,000, and medical fees paid by spouse were significant predictors of the CQLI. These factors explained 33% of the total variance in this regression model.

**Conclusion:** Caregivers' care strains were correlated with their QoL. Caregivers with poorer self-rated health condition, with higher CSI, lower monthly family income, and patient's spouse who paid patient's

medical fees reported a lower QoL. Caregivers' characteristics and their financial situations are the main factors of caregivers' QoL among these stroke patients. In order to improve stroke caregivers' QoL, facilitating communities' care system and providing appropriate assistance for medical fee for these long-term stroke patients would decrease caregivers' care strains and physical burden. Thus, caregivers' issues should be considered in discharge planning and community care system.

Contact

[yhtsai@mail.cgu.edu.tw](mailto:yhtsai@mail.cgu.edu.tw)

## RSC PST 3 - Research Posters Session 3

### Health Perspectives and Lifestyle Issues of First-year Nursing Students: As Revealed Through a Seminar in Health Self-Management

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Shu Chun Chien, RN, PhD, Japan  
Toshie Yamamoto, PhD, RN, PHN, Japan  
Yoshiko Wazumi, PhD, RN, Japan  
Shinobu Saito, PhD, RN, Japan  
Akiko Nagata, MN, RN, Japan  
Fusako Kawabe, PhD, RN, PHN, Japan  
Takashi Maeda, PhD, RN, PHN, Japan  
Tomoko Katagiri, MSN, RN, Japan

#### Purpose

1) The learner will become able to find strategies to assist nursing students with examining and reflecting upon the relationships between their lifestyles and health conditions. 2) The learner will learn how to utilize the concept of the Meridian to improve the symptoms and discomfort experienced by students.

#### Target Audience

The presentation aims to discuss a “Seminar in Health Self-Management” and the benefits this has for been shown to have for first-year nursing students. The target audience is researchers and educators with an interest in developing courses that promote the health of students.

#### Abstract

**Purpose:** The leading causes of mortality in Japan are related to lifestyle diseases. One need only consider the top three causes of death: cancer, cardiac disease, and cerebrovascular disease, respectively. In addition to the pathology and treatment of diseases, it is necessary to offer lectures that guide students towards thoroughly understanding the principles of health at all stages of development, so that they may grasp preventive methods. The course “Seminar in Health Self-Management” was designed to address the principles of health and ways of arranging daily life through applying concepts from Traditional Chinese Medicine (TCM). The first step is to teach freshmen students how to assess their lifestyle and identify symptoms or signs of discomfort as health issues. Next, they are guided towards understanding the relationships between their lifestyles and those issues. The purpose of this study is to describe the educational strategies of the course, which is designed to improve the health perspectives of first-year nursing students, and assess how their health perspectives concerning their lifestyles and health issues changed after attending the course.

**Methods:** The course “Seminar in Health Self-Management” was organized around several key elements, including 1) how to monitor physical condition through *Ryodoraku* – an approach to acupuncture developed by Dr. Nakatani Yoshio and which employs a machine to measure the electric potential difference of meridians on the skin – and through 24-hour records of daily life that include such information as the time the person wakes up and goes to sleep, their diet, exercise, and health conditions involving symptoms or signs of discomfort on those days; 2) the value of traditional Japanese traditional food and its efficacy for our health; 3) the functions of our stomach and bowels, and how to select and cook natural food; 4) effective breathing and exercises and how to apply meridian yoga to adjust one’s health condition; 5) reflection on lifestyle and health conditions to clear up the students’ health issues. Ten nursing students who attended the course were measured with *Ryodoraku* every after lecture, and submitted their daily life and health condition records for seven weeks. Aside from *Ryodoraku*, blood pressure, spirometry, weight, height, bone density, and subcutaneous fat were also measured in the classes. Researchers analyzed the relationships between daily life patterns, health conditions, and the *Ryodoraku* results.

**Results:** 90 percent of the students could identify the relationships between their lifestyles and health conditions. One example that illustrates the resulting change in health perspective is that of a female student, A. A had two little children, of two and four years of age, and suffered from subjective symptoms

such as sensitivity to cold and lower back pain. She related how she had been a conscientious flight attendant before being married, and had to do her best to ensure the safety of her passengers. Now simultaneously a mother and a college student, she continues to feel that she must do everything perfectly, despite this resulting in her often sleeping only three hours per night. From the daily life records, researchers realized that she had been taking care of her children and her college matters every day almost entirely without support from the rest of the family. She believed that she could sufficiently handle everything by herself. However, her *Ryodoraku* results revealed that her physical strength was lower than the average for women of the same age. She reflected upon this and noted that she would have to re-arrange her lifestyle, such as sleeping time and the content of meals. Her daily life records for the last two weeks showed that she went to bed before twelve o'clock at night and planned to enjoy outside activities on the weekend with her children.

**Conclusion:** As A's case illustrates, not only the daily lives of the students themselves but also those of their family members need to be arranged together. This course is useful for enabling students to reflect on their lifestyle and change their perspectives towards health.

Contact

[chien@chiba-u.jp](mailto:chien@chiba-u.jp)

## RSC PST 3 - Research Posters Session 3

### “Back to School”: An Educational Collaboration and Tool for School Nurses and Their Patients with Chronic Headache and School Absence

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*Lori A. Lazdowsky, RN, BSN, USA*

*Alessandra J. Caruso, BA, USA*

*Elyse D. Mahoney, BS, USA*

*Ashley M. McCarthy, BA, USA*

*Victoria E. Karian, NP, USA*

*Karen J. Kaczynski, PhD, USA*

*Rupa Gambhir, PsyD, USA*

*Laura Simons, PhD, USA*

*Alyssa A. LeBel, MD, USA*

#### Purpose

The purpose of this project is to develop an effective teaching tool to facilitate communication among medical providers, students and families, and school administration on how to best meet the complex needs of students with chronic pediatric headache as they transition back to school after an extended medical absence.

#### Target Audience

The target audience of this presentation includes school nurses, guidance counselors, teachers, principals, adjustment counselors, school psychologists, social workers, and other school administrators of public, private, and parochial elementary, middle, and high schools across the United States, and with the potential of expanding globally.

#### Abstract

**Purpose:** The purpose of this project is to develop an effective teaching tool to facilitate communication among medical providers, students and families, and school administration on how to best meet the complex needs of students with chronic pediatric headache as they transition back to school after an extended medical absence.

In recent decades, the number of children with chronic illnesses transitioning back to school has increased (Kliebenstein & Broome, 2000). Though medical professionals provide much of the necessary physical and psychological care to facilitate school reentry, the process may be delayed for several weeks to months. Of the approximately 20% of all children suffering from a chronic illness, about one-third of that number experiences consequences severe enough to interfere with school functioning and performance (Kaffenberger, 2006). Chronic pediatric headache, including diagnoses of new daily persistent headache, tension-type headache, and chronic migraine, is becoming an increasingly prevalent pain condition in children and adolescents. One study reported that 15% of the pediatric patients presenting to neurology clinics at Royal Manchester, Booth Hall, and Birmingham Children's Hospitals were diagnosed with daily headaches (Viswanathan, Bridges, Whitehouse, & Newton, 1998), while a US-based study cited pediatric migraine as one of the five most prevalent childhood disorders in the US, affecting up to 10% of children and 28% of adolescents (Split & Neuman, 1999). Chronic headache is often associated with significant impairment of daily functioning, including difficulty with school performance and attendance (Hershey & Winner, 2007) and higher rates of school absenteeism than children with other chronic illnesses (Powers et al., 2006). As Freudenberg and Ruglis (2007) note the intricate connection between good health and education, minimizing school drop-out rates for children with pain conditions such as chronic pediatric headache has evolved beyond individual patient care towards a global public health issue.

**Methods:** Chronic headache patients seen at the Pediatric Headache Program at Boston Children's Hospital meet with an integrated team of psychologists, neurologists, nurse practitioners, and nurses who provide comprehensive care during initial and follow-up evaluations. At initial assessment, patients report missing an average of 8.73 days of school per three months; at follow-up evaluation, the number drops to

5.06 absent days (McDonald, 2010). While many of the patients' school attendance and disability improve between initial and follow-up appointment in utilizing this multidisciplinary approach to chronic pain management, addressing the patients' medical and psychological needs is the beginning of rehabilitation. Successful school reintegration and academic performance for patients with prolonged absenteeism due to headache pain mark the primary objectives of medical professionals, school administration, and the families of children and adolescents suffering with chronic pain conditions. School nurses are key players in this process, as they are the daily medical contact for these patients, are psychologically and culturally knowledgeable regarding the needs of this age group, and work consistently with the academic staff.

Per review of questionnaires completed by patients attending the Pediatric Headache Program at Boston Children's Hospital, as well as school nurses in the greater Boston area, the Pediatric Headache Program has developed a two-armed study addressing the necessity, implementation, and efficacy of an educational tool designed for school nurses in supporting the complex needs of chronic pain patients reentering school. Phase I of the study surveyed a total of 73 child and adolescent patients and their parent(s) and school nurses in 6 Massachusetts districts presenting to or involved with the Pediatric Headache Program. Questionnaire items address the specific actions, support skills, and knowledge-base of school nurses caring for the physical and psychological needs of students with chronic pediatric headache conditions. When asking patients about their actions at the onset of headache pain, 37.6% reported visiting the school nurse, 21.1% took prescribed or over-the-counter medications, 33.0% ignored the pain, and 8.3% texted or called their parents. In asking the school nurses to report which actions are most helpful when headache and migraine sufferers report to their offices, 27.3% checked "providing snacks and drinks," 18.2% reported "providing over-the-counter medications," and 9.1% indicated "allowing time for a nap." Regarding emotional support provided by school nurses during acute pain, 49.2% of patients and their families reported feeling "very" supported by their school nurses. However, when questioning whether the patients and families perceived their school nurse to be knowledgeable about their chronic headache condition, 16.4% reported "not at all knowledgeable" and 29.5% reported "somewhat knowledgeable."

**Results:** While nurses possess varying degrees of knowledge and experience in dealing with chronic pediatric headache conditions, school nurses should be provided with an educational tool and checklist to ensure proper medical services are being offered to these unique students. This tool, currently being developed by the nurses, neurologists, psychologists, and clinical support staff at the Pediatric Headache Program, include specific suggestions regarding atmosphere (environment), hydration, relaxation techniques, stress and anxiety management, and over-the-counter medication available in the nursing office, as well as information on sleep, medication overuse and rebound headaches, and the interplay of headaches and social, family, and financial stressors. When asking school nurses whether they would be interested in access to such a tool, 66.7% of the nurses responded "yes."

**Conclusion:** Phase II of the study (in progress) will focus on the efficacy of the tool from the perspectives of the school nurses, patients, and families. Through the development and implementation of an educational tool available to school nurses, this study seeks to bridge the gap between medical and psychological care provided at chronic pain centers (like the Pediatric Headache Program) and successful reintegration into school for chronic pediatric headache patients. Though this project is being developed at a pediatric headache center in the northeast United States, this tool may also be globally applicable to patients with non-headache chronic pain.

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Contact

[alessandra.caruso@childrens.harvard.edu](mailto:alessandra.caruso@childrens.harvard.edu)

## RSC PST 3 - Research Posters Session 3

### The Relationship Between Perceived Self-Efficacy and Postpartum Self-Care Behaviors in Adolescent Mothers

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*Atcharobon Sangpraseart, RN, Thailand*

#### Purpose

This descriptive research study aimed to determine the relationship between perceived self – efficacy and postpartum self – care behaviors in adolescent mothers. The Bandura,s Perceived Self – Efficacy Theory (1977) was employed as a theoretical framework.

#### Target Audience

This research aims to health promotion in postpartum self-care behaviors of adolescent mothers

#### Abstract

**Purpose:** This descriptive research study aimed to determine the relationship between perceived self-efficacy and postpartum self-care behaviors in adolescent mothers. The Bandura’s Perceived Self-Efficacy Theory (1977) was employed as a theoretical framework.

**Methods:** A questionnaire was developed to gather data in relation to perceived self-efficacy and postpartum self-care behaviors in adolescent mothers. Content validity was examined by five experts. The Cronbach’s alpha coefficient of the two parts of the questionnaires (perceived self-efficacy and postpartum self-care behaviors) were 0.82 and 0.70 respectively. A sample of 229 adolescent mothers who delivered a baby and admitted at the postnatal care unit Sawanpracharak Nakhonsawan Hospital from January to August 2013 participation in this study.

**Results:** The findings indicated that 50.1 percent of adolescent mothers had the moderate level of perceived self-efficacy. And 80.2 percent of adolescent mothers had the high level of postpartum self-care behaviors.

**Conclusion:** There was a significantly positive correlation between perceived self-efficacy and postpartum self-care behaviors in adolescent mothers. ( $r = 0.39$  ,  $p$ -value less than 0.01).

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#### Contact

[sangpraseart2518@yahoo.com](mailto:sangpraseart2518@yahoo.com)

## RSC PST 3 - Research Posters Session 3

### Spouse Support, Family Support Influencing Maternal Role Attainment in Adolescent Mothers

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Sudkanya Pancharean, MNS, Thailand

#### Purpose

This research aims to report factors associated with maternal role attainment among adolescent mothers. Personal factors and social support were consistently identified as important variables. These findings may be used as a guideline to enhance maternal fetal attachment for adolescent mother's achievement of their new maternal roles.

#### Target Audience

The target audience of this presentation is Nurse/ Healthcare provider/ Adolescent mothers.

#### Abstract

**Purpose:** The purpose of this predictive descriptive research was to examine influences of spouse support, family support and personal factors on maternal role attainment in adolescent mothers.

**Methods:** The purposive sample included 200 adolescent mothers bringing their 4 months - 1 year infants to well baby clinic at Sawanpracharak Hospital. Mean age of the mothers were 17.23 years (S.D. = 1.04, range = 15 - 18). Data were collected from January to May 2012. Research instruments included a demographic questionnaire, the spouse support questionnaire, the family support questionnaire, and the maternal role attainment questionnaires. Their Cronbach's alpha reliability were .92, .91, and .95, respectively. Data were analyzed by using frequency, percent, mean, standard deviation and range. Pearson's correlation and Chi-square were used to test correlation between variables. *Hierarchical regression* analysis were employed to test the predictors.

**Results:** Results revealed as follows:

1. Mean total scores of spouse support, family support, and maternal role attainment were good level ( $X = 56.19$ , S.D. = 10.49;  $X = 59.14$ , S.D. = 9.61;  $X = 211.21$ , S.D. = 24.95, respectively).
2. Spouse support, family support and income were positively correlated to maternal role attainment ( $r = .42$   $p < .01$ ;  $r = .89$   $p < .01$ ;  $r = .25$   $p < .01$ , respectively). Education were positively correlated to maternal role attainment ( $p < .01$ ).
3. Family support and Education were significant predictors, and they accounted for 38.5 % in the prediction of maternal role attainment. The best predictor was family support ( $\beta = .54$ ,  $p < .01$ ), and the second predictor was education ( $\beta = .16$ ,  $p < .01$ ).

**Conclusion:** These findings indicate that family, nurses should provide intervention to promote and encourage family support to adolescent mothers. Thus, outcome of the intervention can lead to increase appropriate maternal role attainment among adolescent mothers.

#### Contact

[pancharean@yahoo.com](mailto:pancharean@yahoo.com)

## RSC PST 3 - Research Posters Session 3

### Effects of Telephone-Based Support Group Program for Family Caregivers of Elders

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*Eun-Young Kim, RN, MPH, PhD, South Korea*

#### Purpose

The purpose of this presentation is to develop a telephone-based support group program for family caregivers of elders and to identify its effects on depression, caregiving burden and satisfaction.

#### Target Audience

The target audience of this presentation are nursing researchers.

#### Abstract

**Purpose:** To develop a telephone-based support group program for family caregivers of elders and to identify its effects on depression, caregiving burden and satisfaction.

**Methods:** A non-equivalent control pre-post design was used. Participants were recruited from support groups in 3 long-term care agencies and were assigned to the experimental group (n=16) or control group (n=19) receiving usual care. For the experimental group, the telephone-based support group intervention, consisting of self-help group activity in small group, was given for 8 weeks. Outcomes included changes in depression, caregiving burden and satisfaction. Data were analyzed using Fisher's exact test and Mann-Whitney U-test with SPSS 21.0.

**Results:** After 8 weeks intervention, the experimental group had a significantly increase caregiving satisfaction ( $Z=-2.390$ ,  $p=.017$ ) than the control group. Within the experimental group, there was a significant decrease in depression ( $Z=-2.261$ ,  $p=.024$ ) scores but not the caregiving burden.

**Conclusion:** The results indicate that a telephone-based support group program is effective increasing caregiving satisfaction, and decreasing depression. Therefore, it can be useful utilized in the field of nursing for family caregivers of elders.

#### Contact

[eykim@dau.ac.kr](mailto:eykim@dau.ac.kr)

## RSC PST 3 - Research Posters Session 3

### Medication Adherence Intention and Health Status Among People with Osteoarthritis in Korea: Pilot Study for Development of Medication Adherence Program

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*Yang Heui Ahn, PhD, RN, HHC-APN, South Korea*

#### Purpose

The purpose of this study was to explore medication adherence intention and health status among people with osteoarthritis in Korea, to provide data that could be utilized to develop intervention strategies for medication adherence.

#### Target Audience

The target audience of this presentation is individuals including community/public health nurses or case managers in a community or hospital nurses who take care of patients with osteoarthritis, or researchers who have an interest in medication adherence.

#### Abstract

**Purpose:** The purpose of this study was to explore medication adherence intention and health status among people with osteoarthritis in Korea, to provide data that could be utilized to develop intervention strategies for medication adherence.

**Methods:** A survey design was employed. The participants were 157 patients with osteoarthritis in a rural community of Korea who were interviewed on adherence to prescribed medications. A direct interview method was carried out in January, 2013. Instruments were the Modified Morisky Scale, the Korean Western Ontario McMaster Universities, the Stanford Health Assessment Questionnaire, the Korean Center for Epidemiologic Studies Depression Scale. The MMS includes three questions each on medication motivation and medication knowledge, which are measured on nominal scale (yes, no). An adherence quadrant is identified by MMS scoring. Data were analyzed using descriptive analysis and ANOVA.

**Results:** The mean age of participants was 73.2(SD=8.05), and 80.9% (n=127) were women. The adherence quadrant was identified as 16.6% (n=26) of the participants who were low on both medication motivation and medication knowledge, with being 56.1% (n=88) high both, 13.4% (n=21) having low motivation and high knowledge, and 14.0% (n=22) having high motivation and low knowledge. ANOVA analysis showed that there were significant differences in physical functioning and depression by type of medication adherence ( $p<.0001$ ), but no difference in pain ( $p>.05$ ). These results illustrated that those with both high medication motivation and medication knowledge had better physical functioning, and less depression than those low both.

**Conclusion:** The results indicated that nurses should be aware that 43.9% of patients with osteoarthritis taking a prescribed medicine have low medication motivation or low medication knowledge, or low both. Medication adherence strategies to bridge the gap in medication knowledge and enhance motivation are needed, which mean coaching and empowerment services considering factors related to medication motivation and knowledge.

#### Contact

[ahn57@yonsei.ac.kr](mailto:ahn57@yonsei.ac.kr)

## RSC PST 3 - Research Posters Session 3

### The Effectiveness of Supportive Nursing Care in Sleep Quality of Patients with Heart Failure

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*Ai-Fu Chiou, PhD, RN, Taiwan*

*Yia-Ling Chang, RN, Taiwan*

#### Purpose

The purpose of this presentation is to provide an evidence-based nursing intervention for those who are interesting in issues related to sleep disturbance in patients with heart failure.

#### Target Audience

The target audience of this presentation is those who are interesting in issues related to sleep disturbance in patients with heart failure.

#### Abstract

**Purpose:** Sleep disturbance is one of the most common complaints in heart failure patients. Up to 74% heart failure patients reported poor sleep. However, research related to sleep disturbance of heart failure patients is limited in Taiwan. This study aimed to examine the effects of supportive care program in sleep disturbance of heart failure patients.

**Methods:** An experimental design was used. Subjects were selected using a purposeful sampling and were randomly assigned to the intervention (n=30) or control group (n=30). Patients in the intervention group received an 12-week supportive care program including education on sleep hygiene, coaching self-care, emotional support and nursing visit monthly at home. The control group received regular nursing care. Data is collected by structural questionnaire. Participants completed structural questionnaire in pre-test, fourth, 8th and 12th weeks after intervention. The instruments included basic data, Pittsburgh Sleep Quality Index, Epworth Sleepiness Scale, Symptom Distress Scale, Hospital Anxiety and Depression Scale and Social Support Scale. Data analysis included descriptive statistics, independent t-test, chi-square, Mann-Whitney U test, and generalized estimating equation.

**Results:** data collection is on-going.

**Conclusion:** The results of this study will contribute to the knowledge of nursing care of patients with health failure.

#### Contact

[afchiou@ym.edu.tw](mailto:afchiou@ym.edu.tw)

## RSC PST 3 - Research Posters Session 3

### Knowledge, Attitude, and Rejecting Use Behavior of Trans-Fatty Acid Among Children

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Shu Yu, PhD, RN, Taiwan  
Chun-Hsia Huang, MA, RN, Taiwan

#### Purpose

The purpose of this presentation is to investigate children's knowledge, attitude, and rejecting trans-fatty acid (TFA) use behavior and to identify influencing factors and predictors of the behavior.

#### Target Audience

The target audience of this presentation is nurses (particularly to community health nurses and school nurses), school teachers, health educators, nutritionists, and public health policy makers etc.

#### Abstract

**Purpose:** Health damage due to trans-fatty acid (TFA) is an important issue around the world, however there is a relatively few studies to explore TFA, particularly for children. The main purpose of this study consisted of investigating children's rejecting TFA use behavior as well as identifying influencing factors and predictors of the behavior.

**Methods:** A cross-sectional research design was conducted to 1086 children studying in the fifth and sixth grader in Taiwan (562 male occupied 51.75%; 524 female occupied 48.25%). A questionnaire was used to collect data.

**Results:** The main finding indicated that the mean score on a 'knowledge' questionnaire was 11.00; total score ranging from 0 to 23; SD = 5.26). Gender comparison indicating that female's knowledge was significantly higher than male ( $t = -2.39$ ,  $P = 0.017$ ). For attitudes, a mild tendency of passive attitude was found in this study (Mean  $\pm$  SD =  $48.81 \pm 9.70$ ; total score was 100). Gender comparison indicating that male's attitude was significantly more positive than female ( $t = 4.11$ ,  $P = 0.001$ ). For rejecting TFA use behavior, a moderate level of behavior was revealed by this study (the mean score was 90.68 out of a possible score of 145; SD = 26.15), however, no gender difference was found between two genders. Regarding the relevant factors, a multiple stepwise regression analysis on rejecting TFA use behavior indicating four variables (including attitude, knowledge, grade, and gender) could be singled out as significant predictors and accounted for 24.6% of the variance.

**Conclusion:** Based on this study, we emphasize that education and health administrators and health professionals should actively provide broader health educational programs and health services regarding TFA use to children in Taiwan, not only improving knowledge and behavior but also building a correct and active attitude.

#### Contact

[yushu@ym.edu.tw](mailto:yushu@ym.edu.tw)

## RSC PST 3 - Research Posters Session 3

### What is the Impact of Progressive Mobility on a Medical Cardiology Ward in a Tertiary Hospital in Saudi Arabia?

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*Catherine Buckley, BSc, HDip, Saudi Arabia*

*Sofia Macedo, BSN, PG, Saudi Arabia*

#### Purpose

to demonstrate the positive impact of Early Mobilization in an adult medical cardiology ward in a tertiary hospital in Saudi Arabia. Predominately, bed rest is used as a recovery tool due to the values and beliefs in the middle eastern culture.

#### Target Audience

being a multidisciplinary approach, all areas of healthcare will benefit from this presentation. However, nurses will be the predominant beneficiary of this information.

#### Abstract

**Purpose:** The main purpose of this study is to measure the impact of the progressive mobility approach outside of the critical care setting in terms of length of stay (LOS), hospital acquired harm and cultural change within nurses and patients in regards to bed rest. This study aims to trial the progressive mobility tool within the medical cardiology setting while providing education for both staff and patients, in turn trying to change the culture of bed rest in Saudi Arabia.

The anticipated outcomes are:

1. Decrease Length of Stay (LOS) by 1,5 bed days per patient
2. Decrease Pressure Ulcers Incidence, Falls incidence and Hospital Acquired Infections measured through the National Database of Nursing Quality Indicators (NDNQI®)
3. Increase staff nurse's level of education on Progressive Mobility

**Methods:** This study is a prospective cohort study. We are applying the Progressive Mobility Tool and providing education sessions and materials to staff and patients that are admitted to the Adult Medical Cardiology Ward at the King Faisal Specialist Hospital and Research Centre. The patients that are eligible to the study are assessed utilizing the Progressive Mobility tool and depending on their score, the nurse implements the guidelines accordingly, until the day of discharge. The educational sessions targeting nurses start with them entering the organization during their orientation program. They are trained in manual handling, effective use of the equipment and the risks associated with immobility.

The total sample size is 334 patients.

**Results:** The study is on its early stages, therefore no preliminary results are being able to be announced.

**Conclusion:** Early mobility provided through a multidisciplinary team approach will reduce risk of immobilization which can lead to pressure ulcers, HAIs, increases falls risk, prolonged use of antibiotics, unnecessary respiratory treatments which all in turn can lead to increase of length of stay and poor quality of life. Therefore early mobility will significantly reduce hospital expenditure due to the reduction of the comorbidities mentioned above.

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Contact

[cbuckley@kfshrc.edu.sa](mailto:cbuckley@kfshrc.edu.sa)

## RSC PST 3 - Research Posters Session 3

### Views of Women Regarding Infant Feeding Practices of HIV Exposed Children in Vhembe District, Limpopo Province South Africa

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*Patrone Rebecca Risenga, DipNsg, BACur, HonsCur, MACur, MHPE, DCur, South Africa*

#### Purpose

The purpose of this presentation is to describe the views of women regarding infant feeding practices of HIV exposed children in Vhembe District, Limpopo Province South Africa

#### Target Audience

Nurses

#### Abstract

**Purpose:** South Africa consists of many cultural groups who manage pregnancy and lactation differently. Infant feeding is one of the best practices to promote life and reduce infant mortality rates that are escalating due to various issues including HIV/AIDS. HIV infection can be spread from mother to child during pregnancy, labour and delivery and as well as during breastfeeding. During PMTCT programme women are advised on feeding options such as breast feeding, and advised on measures to reduce the spread of HIV during the feeding process. The aim is to ensure zero HIV infections in new-born babies from 2015. South Africa has 5.6 million people who are HIV positive including children. Parents have choice of choosing the feeding method deemed to be relevant and appropriate for them within their communities. It is not surprising that mothers of new-born infants are somewhat bewildered by what constitutes best practice, and hence they are highly susceptible to the (ill) advice of individual health workers or family members. There is scant literature on how choices are made and what influences change more specifically amongst the Tsonga speaking people in Limpopo Province, South Africa. The **purpose** of the study was to describe the views of women regarding infant feeding practices of HIV exposed children in Vhembe District, Limpopo Province South Africa

**Methods:** This study adopted a qualitative approach using an exploratory, descriptive and contextual design in order to explore and describe the views of women regarding infant feeding practices of HIV exposed children. A non-probability purposive sampling was used. The target population was females between 20 and 35 years, who are having new-born babies between one month and a year. All of them were Tsonga speaking people and were interviewed in Xitsonga. They were from three different villages in Vhembe District Limpopo Province.

**Results:** Three themes emerged from the findings of women with regards to infant feeding practices.

- Community reactions and in-laws regarding infant feeding fuelling the spread of HIV to infants and new-born babies as well as children.
- Mothers have mixed reactions regarding feeding options
- Physical problems experienced by mothers who are breastfeeding

**Conclusion:** The use of the findings will contribute to the reduction of HIV and AIDS by promoting the use of correct infant feeding options by mothers and other members in the communities:

#### Contact

[risenpr@unisa.ac.za](mailto:risenpr@unisa.ac.za)

## RSC PST 3 - Research Posters Session 3

### Ineffective Peripheral Tissue Perfusion: Construct Validation Using Rasch Analysis

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*R. C. G. Silva, RN, MSc, PhD, Brazil*

*Erika de Souza Guedes, MSc, RN, Brazil*

*Diná de Almeida Lopes Monteiro da Cruz, PhD, Brazil*

#### Purpose

To describe what defining characteristics were validated by Rasch Analysis To provide elements for discussion about the construct analysis of Ineffective Peripheral Tissue Perfusion

#### Target Audience

Nurses and other health care professionals interested in vascular health, nursing diagnosis and validation methods.

#### Abstract

**Purpose:** The validation of nursing diagnoses is important to nursing practice in clinical, educational and research settings. It allows the refinement of nursing diagnoses classification. Moreover, validation studies allow the identification of diagnostic elements which are able to measure what they are intended to measure, i.e., the diagnosis. There are many methods that can be used to verify the validity of a nursing diagnosis. Fehring's models are the most frequently used. Among the methods proposed by Fehring the content validation model is the most widely used because it is easier and less expensive. In this context, several nursing diagnoses have been validated. Researchers carried out studies in which Ineffective Peripheral Tissue Perfusion (IPTP) was clinically validated. However, in our best knowledge, there are no studies in which IPTP construct validation by Rasch Analysis was performed. The aim of this study was to verify the IPTP construct validity in patients with intermittent claudication by Rasch Analysis.

**Methods:** We performed a reanalysis of a previous study database that was carried out by our group and was approved by Ethical Committee. The mentioned study included 65 adult patients with intermittent claudication which did not need assistive devices for ambulation. The reanalysis included data from physical examination, arterial stiffness (carotid-femoral pulse wave velocity – CF-PWV) and functional capacity (six minute walk test). The construct validation was carried out through Rasch Analysis. The concept of construct validity is useful to explain the nature of the nursing diagnosis. In this context, the nursing diagnosis is a defined variable which is placed in a concept system whose relations are explained by a theory. The Rasch analysis is taken as a criterion for the structure of the responses because it considers that the comparison of two people is independent of which items may be used within the set of items assessing the same variable.

**Results:** Skin color alteration was the most frequent defining characteristic, i.e., the item with the highest response probability. It measure was -2.54 logit. Skin temperature alteration was the less frequent defining characteristic, i.e., the item with the lowest response probability. It measure was 2.49 logit. CF-PWV and altered walking distance (AWD) response probabilities were 0.05 logit, i.e., very close to the average of items. All defining characteristics (n=14) had appropriate Infit values (between 0.7 and 1.3 logit). It means that they are well adjusted to the model. However, the Outfit values of altered left femoral pulse (FE) and CF-PWV were 2.33 and 1.63 logit, respectively. In other words, FE and CF-PWV seemed to not properly identify outlier patients. The biserial correlation of FE was -0.2, i.e., it did not belong to the group. Then, we decided to exclude FE of the analysis. It causes an alteration in the adjustment of altered right femoral pulse which, in turn, was excluded of analysis. Twelve items remained in the model. A new Rasch analysis was performed. The remained defining characteristics had good adjustment to the model. The items with the highest and lowest response probabilities were skin color alteration and skin temperature alteration. The probabilities of CF-PWV and AWD were -0.14 logit. Despite this, AWD had better adjustment than CF-PWV. No items had negative correlation or equal to zero. Model reliability was 0.62 and the separation was 1.27.

**Conclusion:** AWD and CF-PWV seem to contribute to IPTP construct whereas femoral pulses do not.

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#### Contact

[rita.gengo@usp.br](mailto:rita.gengo@usp.br)

## RSC PST 3 - Research Posters Session 3

### Self-Care Related Factors in Patients with Heart Failure

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*Pi-Kuang Tsai, MSN, RN, Taiwan*  
*Hsing-Mei Chen, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to share the study findings in terms of correlates of self-care in Taiwanese patients with heart failure.

#### Target Audience

The target audience of this presentation is nurses and researchers who are interested in understanding and promoting self-care of patients with heart failure.

#### Abstract

**Purpose:** Heart failure is a complex syndrome and requires the patient to engage in long-term self-care activities, in order to stabilize the condition. American Heart Association has issued a scientific statement advocating self-care as one of heart failure treatment modalities. Self-care adequacy has been viewed to have great influence in determining the heart failure outcomes. Identifying correlates of self-care is important to help patients engage in better self-care practice. The purpose of this study was to analyze the correlates of self-care in patients with heart failure

**Methods:** The study used a questionnaire survey with a non-probability sampling for the data collection. A total of 71 inpatients who met the inclusion criteria were face-to-face interviewed to complete demographic and clinical questionnaires, the Dutch Heart Failure Knowledge Scale (DHFKS), and the Self-Care of Heart Failure Index (SCHFI). Data analyses included t-tests, one-way ANOVA, and Pearson correlation methods.

**Results:** The results showed significant positive correlations among self-care maintenance, self-care management, and self-care confidence ( $r = .50$  to  $r = .63$ ,  $p < .001$ ). Self-care maintenance was significantly positively correlated with the DHFKS scores, heart failure duration, admission frequency, and number of comorbidities; self-care management was significantly positively correlated with the DHFKS scores, admission frequency, and number of comorbidities. Self-care confidence was significantly positively correlated with the DHFKS scores ( $r = .46$ ,  $p < .001$ ) and admission frequency.

**Conclusion:** Admission frequency and HF knowledge were important correlates of the three self-care variables. The more admission frequency, the better HF knowledge and the better self-care the patient had. Improving patients' knowledge is therefore a task which brooks no delay. Nurses should discuss with patients about the home self-care suitable for them by using case sharing or successful case referral. Families of the patients should also be included in health education program to facilitate them in giving patients psychological support and improving patients' self-care abilities.

#### Contact

[850157@ms.kmuh.org.tw](mailto:850157@ms.kmuh.org.tw)

## RSC PST 3 - Research Posters Session 3

### Disaster Preparedness of Mothers Raising Preschool Children: Lessons from the Great East Japan Earthquake

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Akemi Matsuzawa, PhD, RN, Japan

Yuko Shiroki, RN, Japan

Shigeko Tsuda, PhD, RN, Japan

#### Purpose

The purposes of this presentation are providing information about situation after the Great East Japan Earthquake and discuss this problem among other researchers.

#### Target Audience

The target audiences of this study are public health nurse, community nurse, and researcher of pediatric nursing, community nursing, disaster nursing.

#### Abstract

**Purpose:** The purpose of this study was to determine the degree to which mothers raising preschool children in disaster areas are prepared for disasters and to identify factors related to preparedness.

**Methods:** A quantitative cross-sectional analytical design was used. Data were collected from 272 mothers whose children attended one of three institutions (two certified public nursery schools and one kindergarten) in one city using a self-administered questionnaire. Participants were asked about the presence or absence of disaster-prevention and disaster-mitigation measures in their homes as well as about the characteristics of such measures, their knowledge and ideas regarding preparedness, and disaster-induced influences. The study was conducted between January and February 2013, and 166 parents returned questionnaires, a 61.0% response rate.

**Results:** According to the results, more than 90% of participants were prepared for disasters, as they commonly stored flashlights, candles, drinking water, spare batteries, and emergency food. In contrast, fewer mothers discussed the actions to be taken at the time of a disaster with family members, determined how to contact family members and relevant institutions (nursery schools or kindergartens) in the case of an emergency, or informed their children about an emergency phone number. Mothers who were more prepared for disasters were more likely than were other mothers to believe they should be prepared ( $p = 0.01$ ).

**Conclusion:** The results of this study suggest the need to promote and maintain preparedness, including knowing how to contact others in an emergency. Therefore, it is important to provide education and training about disaster preparedness for families and for staff members of the nursery schools and kindergartens in Japan.

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@M, Tamiya N, Kas

#### Contact

[matuzawa@icc.ac.jp](mailto:matuzawa@icc.ac.jp)

## RSC PST 3 - Research Posters Session 3

### A Comparison of Health Promoting Behavior and Quality of Life Among Early Stage of CKD and Healthy Adults in Taiwan

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Hsiu-Lan Teng, RN, MS, Taiwan

#### Purpose

This study was to compare 1-3 stage of CKD and healthy adults in terms of: (a) the differences in health promoting behaviors and quality of life; (b) the relationships between health promoting behavior and quality of life.

#### Target Audience

The target audience of this study for health professional who care the patient with chronic kidney disease.

#### Abstract

**Purpose:** This study was to compare 1-3 stage of CKD and healthy adults in terms of: (a) the differences in health promoting behaviors and quality of life; (b) the relationships between health promoting behavior and quality of life.

**Methods:** This cross-sectional study was conducted through a convenience sample of 78 CKD subjects and 87 healthy adults recruited in southern Taiwan. The Chinese version of the Health Promotion Lifestyle Profile-II (HPLP-II) was used to measure the health promotion behaviors. Quality of life was measured using Taiwan version of the WHOQOL-BREF. Independent t-tests were used to compare the means of the HPLP-II and QOL. Pearson correlation coefficient was used to measure relations between the HPLP-II and QOL.

**Results:** Of the 165 participants who completed the questionnaires, 87 (52.7%) were healthy adults and 78 (47.3%) were CKD patients. The mean age was 46.4 ( $\pm 7.13$ ) years for healthy adults and 49.1 ( $\pm 9.86$ ) years for CKD patient. The data revealed no statistically significant differences between the two groups for most of the demographic variables. Health promotion lifestyle behaviors scores for CKD and healthy adults were significant different in health responsibility, nutrition and spiritual growth subscales. QOL of CKD patients was found to be significantly impaired in comparison to QOL of healthy adults, particularly with respect to the overall health and psychological domains, but not in the physical, social and environment domain. Person's correlation showed a positive relation between the health promotion behavior and QOL.

**Conclusion:** The early stage of CKD is often asymptomatic and similar to general population. The performed of healthy behaviors may be more strongly associated with QOL in the two groups.

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#### Contact

[ns235@fy.edu.tw](mailto:ns235@fy.edu.tw)

## RSC PST 3 - Research Posters Session 3

### Effectiveness of a Trans-Theoretical Model-Based Stage-Matched Intervention to Promote Lifestyle Modification Among Chronic Kidney Disease in Taiwan

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Miaofen Yen, PhD, RN, FAAN, Taiwan

#### Purpose

The purpose of this presentation is to examine the effects of a lifestyle modification consultation program. Lifestyle modification has been promoted for the control of chronic kidney disease. The Trans-Theoretical Model has become increasingly influential as a framework for understanding health-related behaviors and directing targeted interventions to promote health behavior.

#### Target Audience

The target audiences of this presentation are health care providers who care for people with chronic kidney disease.

#### Abstract

**Purpose:** Chronic Kidney Disease (CKD) is a global public health issue. To following a healthy lifestyle is good for people with CKD. Therefore, lifestyle modification has been promoted for the control of various chronic disease included CKD. The Trans-Theoretical Model (TTM) has become increasingly influential as a framework for understanding health-related behaviors and directing targeted interventions to promote health behavior. The study apply the transtheoretical model (TTM) to assess the effectiveness of a lifestyle modification consultation program on subjects with stage 1 to 3 CKD at baseline, 6, 12, 18, 24, 30 and 36 months later by examining the changes in health promotion lifestyle factors, and overall knowledge of renal protection and quality of life through a longitudinal follow-up survey.

**Methods:** A repeated-measures study design applied to evaluate the effectiveness of lifestyle modification intervention using random controlled trail. A total of 103 participants were recruited, 51 and 52 subjects were in control and experimental group, respectively. Data were collected six times over 3 years. The generalized estimating equations (GEE) was used to assessed the main effects of the intervention on the outcome variables after adjusting for the difference in outcome variable baseline scores.

**Results:** At baseline, CKD patients in both groups showed no significant difference in the stage of change in diet behavior ( $\chi= 9.35, p=.05$ ). The number of patients in the experimental group reporting a change in the stage of diet behavior with regard to action and maintenance increased across the 36 months, from 13.6% at baseline to 43.7%. Over the 36-month intervention period, there were significant differences for both groups in the follow-up visits for the renal protection knowledge variable. The post hoc analysis showed the 36 months ( $p = 0.045$ ) and 24 months ( $p = 0.007$ ) and 18 months (0.016) renal function protection knowledge scores were higher than those at six months. In addition, there were significant differences for both groups in the follow-up visits for the total health promoting lifestyle scores. After using a post hoc test, the 30 ( $p = 0.027$ ) and 36 month ( $p = 0.012$ ) total health promoting lifestyle scores were higher than that at 12 months. Between the two groups, there was a significant difference in the follow-up visits for the health responsibility ( $P = 0.04$ ). However, no differences in quality of lifestyle scores between the two groups were found.

**Conclusion:** These results partial support the applicability of the Trans-theoretical model stage-matched for lifestyle modification intervention that may promote renal protection knowledge scores and partial health lifestyles scores in patients with early stage of chronic kidney disease.

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#### Contact

[miaofen@mail.ncku.edu.tw](mailto:miaofen@mail.ncku.edu.tw)

## RSC PST 3 - Research Posters Session 3

### IMRT-Induced Acute Fatigue in Patients with Head and Neck Cancer: A Prospective Study

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Canhua Xiao, PhD, RN, USA  
Jonathan Beitler, MD, USA  
Kristin Higgins, MD, USA  
Luke Ong, RN, USA  
Andrew Miller, MD, USA  
Deborah Bruner, PhD, RN, USA

#### Purpose

The purposes of this study were to 1) describe acute fatigue changes from pre to one-month post IMRT, 2) examine the risk factors for IMRT-induced acute fatigue changes, and 3) explore the relationship between fatigue and other most common treatment-induced symptoms during the acute phase.

#### Target Audience

The target audience of this presentation is nursing researchers, clinical nurses, and other health care providers.

#### Abstract

**Purpose:** Fatigue profoundly impacts a cancer patient's quality of life,<sup>1</sup> treatment adherence,<sup>2</sup> and health care utilization.<sup>3</sup> Pre or post radiotherapy (RT) fatigue is a prognostic factor for pathologic tumor response<sup>4</sup> and survival.<sup>5,6</sup> Patients with head and neck cancer (HNC), who are usually treated with RT because of the structural complexity and functional importance of cancer sites, have particularly high rates of fatigue during treatment.<sup>7</sup> Most recent research on Intensity-modulated Radiation Therapy (IMRT), a commonly used new radiotherapy that targets tumors with higher doses while avoiding normal structures, has shown that patients experience even higher fatigue compared to conventional-RT.<sup>8,9</sup>

The purposes of this study were to 1) describe acute fatigue changes from pre to one-month post IMRT, 2) examine the risk factors for IMRT-induced acute fatigue changes, and 3) explore the relationship between fatigue and other most common treatment-induced symptoms during the acute phase.

**Methods:** This was a prospective study investigating 44 patients with HNC from pre to one-month post IMRT. Only patients diagnosed with histological proof of squamous cell carcinoma and without distant metastasis were enrolled into the study. Fatigue was measured by the Multidimensional Fatigue Inventory (MFI)-20 that includes five dimensions: general fatigue, physical fatigue, reduced activity, reduced motivation, and mental fatigue. Other common symptoms were collected using the Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (CTCAE) that categorizes depressive symptoms, sleep problems, cognitive problems, pain, dry mouth, difficulty swallowing, skin burn from radiation, mouth or throat sores, taste change, nausea, vomiting, and sensation of thirst. Fatigue was also collected by the CTCAE for the purpose of comparing fatigue with other symptoms. Risk factors (age, gender, race, education, marital status, alcohol and smoking history, BMI, HPV, surgery, chemotherapy, cancer stage, and cancer site) were collected through chart review. Paired t-test was used to examine fatigue changes from pre to post IMRT. Regression modeling was used to correlate risk factors with fatigue changes over time. Correlation coefficients and regression modeling were used to explore the relationship between fatigue and other symptoms.

**Results:** All patients received IMRT. The majority of the patients was male, white, married, and with a history of tobacco use. Most of them were diagnosed with non-laryngeal cancer, had stage IV cancer, received current chemoradiotherapy, and had feeding tubes. Among patients with oropharyngeal cancer (a total of 17), 88% of them were either HPV or P16 positive, and all of them received concurrent chemoradiotherapy.

Patients' overall fatigue increased significantly from pre ( $47 \pm 16$ ) to one-month post ( $60 \pm 16$ ) IMRT ( $t=5.27$ ,  $p=0.000$ ). Of all the patients, 40% experienced severe fatigue (MFI  $\geq 65$ ) at one-month post

IMRT, while only 10% had severe fatigue at pre IMRT. Additionally, all five dimensions of fatigue increased statistically significantly in the following order from the highest to the lowest: physical fatigue, reduced activity, general fatigue, reduced motivation, and mental fatigue.

Multivariate analysis revealed that chemotherapy and pre-IMRT fatigue were significantly correlated with fatigue changes over time ( $F=10.89$ ,  $p=0.000$ ). The patients receiving chemotherapy experienced increased fatigue changes from pre to one-month post IMRT ( $t=2.29$ ,  $p=0.027$ ). Interestingly, patients with lower pre-IMRT fatigue were more likely to have increased fatigue change over time, compared with patients with higher pre-IMRT fatigue ( $t=-3.56$ ,  $p=0.001$ ).

Fatigue was the third severest symptom among the 13 common symptoms at pre-IMRT in our sample (the first two were sleep problems and pain), and the second severest symptom at one-month post IMRT (the first was taste changes). Fatigue at either pre or post-IMRT was significantly correlated with other biobehavioral symptoms, including depressive symptoms, sleep problems, and cognitive problems at either or both time points. Pre IMRT fatigue explained the most variance (20%) in a previously identified HNC specific symptom cluster,<sup>10</sup> involving symptom of pain, dry mouth, difficulty swallowing, skin burn from radiation, mouth or throat sores (mucositis) and taste change, after controlling other variables, such as sleep problems and chemotherapy ( $F=9.22$ ,  $p=0.000$ ).

Discussion: Patients with HNC reported remarkably increased fatigue at one-month post IMRT, compared to pre IMRT, and 40% of them experienced severe fatigue ( $MFI \geq 65$ ). It appears that different dimensions of fatigue were affected by the treatment in different severity levels. The fatigue dimensions related to physical function and activity were more significantly influenced by the treatment than the dimensions related to motivation and mental function. This finding may guide future studies to pay attention to different dimensions of fatigue.

Consistent with previous studies,<sup>11,12</sup> chemotherapy is a significant risk factor for fatigue. Our study further showed that patients receiving current chemoradiotherapy experienced significantly higher increased fatigue at one-month post IMRT than patients receiving only radiotherapy or radiotherapy plus surgery. This finding indicates the negative synergistic effect of multiple concurrent treatment modalities on fatigue. Interestingly, patients with lower pre IMRT fatigue experienced much more significant increases in fatigue from pre to one-month post IMRT than those with higher pre IMRT fatigue did. The reason for this is unclear, and future larger studies are warranted.

By comparing fatigue with other most common treatment-induced symptoms for patients with HNC, our study demonstrated that fatigue was the only symptom that was consistently among the top three severest symptoms experienced by patients at both pre and post IMRT. Furthermore, pre IMRT fatigue was the most predictive variable for the HNC specific symptom cluster, involving the most common radiation-induced symptoms in this population.

**Conclusion:** Fatigue is one of the major treatment-related symptoms experienced by patients with HNC. HNC patients receiving IMRT report significantly increased acute fatigue from pre to one-month post IMRT. Concurrent chemotherapy further worsens the symptom of fatigue. Fatigue, in turn, is the most significant risk factor for other common radiation-induced symptoms, or the HNC specific symptom cluster. Although these findings are from a prospective longitudinal study design, further larger studies are needed to verify our results. Additionally, as there is no Food and Drug Administration (FDA)-approved pharmacological agent that reliably prevents or treats fatigue,<sup>13</sup> future research on understanding the molecular and genetic mechanisms of fatigue is critical to its successful management.

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#### Contact

[cxiao2@emory.edu](mailto:cxiao2@emory.edu)

## RSC PST 3 - Research Posters Session 3

### Influences of Women's Childbirth Experiences Related to Husband's Supports for during Childbirth and Attitudes Toward Husband's Childbirth Presence

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Yu-Jin Lee, RN, MSN, South Korea  
Sun-Hee Kim, RN, PhD, South Korea

#### Purpose

The purpose of this presentation is to to inform the relations among husband's supports during childbirth, attitudes toward husband's childbirth presence, and women's childbirth experiences in Korea. This presentation will give the audience the evidence based information to improve childbirth experiences of women at the chilbirth center. .

#### Target Audience

The target audience of this presentation is mainly nurses and mid-wives who work in the childbirth centers.

#### Abstract

**Purpose:** The purpose of this study was to identify the relations among husband's supports during childbirth, attitudes toward husband's childbirth presence, and the childbirth experiences in women.

**Methods:** The study was conducted at five women's hospital in the D city of Korea. The participants in this study were 178 women who were within 2 days after normal spontaneous vaginal delivery. Data were collected from September 1st to September 30th, 2013 using a structured questionnaire. Collected data were analysed by t-test, one way ANOVA, Pearson's correlation coefficient, and stepwise multiple regression using IBM SPSS/WIN Ver. 19.0 program.

**Results:** (a) Husband's total support scores was moderate. Physical support scores were under moderate, emotional support scores were over moderate, informational support scores were moderate. Attitudes toward husband's childbirth presence were 'positive attitude'. Childbirth experience scores were over moderate.

(b) The significant factors affected on the women's childbirth experiences were husband's supports during childbirth (emotional supports)( $\beta=.33$ ), psychological preparation for childbirth ( $\beta=.28$ ), attitudes toward husband's childbirth presence ( $\beta=.22$ ), childbirth supporters to except for husband ( $\beta=.14$ ). These variables explained 35% of the childbirth experiences in women.

**Conclusion:** Based on the outcomes of this study, in order to increase positive childbirth experiences in women, it would be necessary to develop nursing intervention programs that increasing husband's supports during childbirth (emotional supports), psychological preparation for childbirth, positive attitudes toward husband's childbirth presence, and childbirth supporters. Nurses should be more attention on participating in the process of childbirth as a family-centered nursing intervention.

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## Contact

[yjoshi@naver.com](mailto:yjoshi@naver.com)

## RSC PST 3 - Research Posters Session 3

### Transnational Care: Perceptions of Filipino Nurses Working in Japanese Hospitals Under the Japan-Philippine Economic Partnership Agreement (JPEPA)

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*Cora A. Anonuevo, PhD, RN, Philippines*

#### Purpose

The purpose of this presentation is to impart the realities of Filipino nurses who were deployed in Japan's hospitals. Specifically, it presents their perceptions on their work status after passing the Japanese Licensure Examination; their personal and professional plans; and their views about the JPEPA implementation.

#### Target Audience

The target audience of this presentation are nurses who may intend to work in Japan and in other host countries; and those in administrative position who may potentially deal with nurses coming from source countries.

#### Abstract

**Purpose:** This paper is an exploration of the perceptions of Filipino nurses on their current status and work conditions after passing the Japanese Licensure Examination for nurses, their plans in light of their conditions, and their views on the implementation of Japan-Philippine Economic Partnership Agreement or JPEPA.

**Methods:** Individual interviews were conducted in July 2012 with six Filipino nurses who passed the Japanese licensure examination. The study participants have been working as staff nurses in five tertiary health care facilities in Japan. The interview was held in the hospital premises. Permission to conduct the interview was given by the participants themselves, with consent of their employers.

**Results:** The narratives of the six Filipino nurses revealed that preparation for the Japanese licensure examination was a difficult challenge that required personal effort and institutional support. Passing the national examination has brought encouraging changes in their nursing functions, salaries and benefits, interpersonal relationships, and professional image. However, language barrier and communication problems persist. Most of them were uncertain whether to stay long or not in Japan.

**Conclusion:** In pursuit of international cooperation particularly on the movement of natural persons, JPEPA can have a bright prospect if both countries address difficulties arising from language and cultural barriers. Further, regulatory measures need to be strengthened to ensure the quality and protection of nurses and care workers.

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#### Contact

[cora\\_anonuevo@yahoo.com](mailto:cora_anonuevo@yahoo.com)

## RSC PST 3 - Research Posters Session 3

### The Relationship Between Executive Dysfunction and Instrumental Activities of Daily Living in Early-Stage Dementia

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*Daisuke Fukuta, RN, PHN, MS, Japan*  
*Chizuru Mori, RN, PhD, Japan*

#### Purpose

The purpose of this study is to investigate the relationship between executive dysfunction and IADL in early-stage dementia.

#### Target Audience

Psychiatric and geriatric nurses

#### Abstract

**Purpose:** One of the key clinical features of early symptoms of dementia is the cognitive deficits in everyday activities. Until a few years ago, it was considered that early-stage dementia is typically characterized primarily by memory impairment. In the latest survey for early-stage dementia, executive dysfunction has been attracting attention to not only memory impairment in the significant cognitive deficits. The cognitive deficits are often mild and may get worse very gradually, but it has been suggested that executive dysfunction affects the Instrumental activities of daily living (IADL) of early-stage dementia.

Executive function consists of complex attention, working memory, verbal and visual organization, planning, judgment, and reasoning. IADL includes activities related to independence, organization, and judgment abilities, such as the ability to use a telephone, shopping, food preparation, housekeeping, laundry, transportation, responsibility for one's own medication, and handling finances. In the recent studies, executive dysfunction and IADL impairment are thought to be associated with prefrontal dysfunction of mild cognitive impairment (MCI).

Several studies using executive function tests have revealed differences in performance between healthy control subjects and patients with Alzheimer's disease (AD) or mild cognitive impairment (MCI). However, some of the most widely used tests of executive functions, such as the Wisconsin Card Sorting Task (WCST) and the Trail Making Test (TMT), can be performed normally by patients with clear executive impairments. The observations are not consistent across all studies.

To assess executive functions in the context of more ecologically relevant behaviors, Wilson (1996) developed the Behavioral Assessment of Dysexecutive Syndrome (BADS). The BADS is a valid battery of tests which assesses problems in everyday behavior which are typically found in patients with dysexecutive syndromes. There are no studies which revealed the association between IADL and executive dysfunction using the BADS to patients with early-stage dementia, although executive function is an important cognitive function for individuals efficiently performs IADL.

The purpose of this study is to investigate the relationship between executive dysfunction and IADL in early-stage dementia.

**Methods: Participants** - 29 participants (6 male and 23 female) were recruited in the present study. Inclusion criteria were as follows: 1) age older than 60 years; 2) a Mini-Mental State Examination (MMSE) score > 20; 3) the Beck Depression Inventory (BDI) score  $\leq$  14; 4) absence of vascular lesions; 5) absence of psychiatric disease which could cause cognitive impairment.

**Measurement Instruments - Executive function assessment - The Behavioral Assessment of Dysexecutive Syndrome (BADS):** The BADS (Kashima H, 2003) is a standardized battery that includes six subtests and two forms of the Dysexecutive Questionnaire (DEX). The six subtests consists of the Rule Shift Card Test, Action Program Test, Key Search Test, Temporal Judgment Test, Zoo Map Test, and Modified Six Elements Test. A profile score, ranging from 0 (severely deficient) to 4 (normal performance), is determined of each subtest, and the sum of each subtest is calculated as the overall profile score. The maximum total score is 24. From the results, the overall classification is obtained:

impaired, borderline, low average, average, high average, superior, and very superior. The DEX questionnaire comprises 20 items constructed to examine the range of problems associated with the dysexecutive syndrome. Two versions are used: DEX self-rating (patients) and DEX other-rating (caregivers). The maximum score is 80 points on each questionnaire. In all cases, the BADS was performed on a single session and it took approximately 45 minutes on average.

**Instrumental activities of daily living (IADL) assessment:** The Instrumental Activities of Daily Living (IADL) scale is an appropriate instrument to assess independent living skills (Lawton, 1969). There are 8 domains of function measured with the IADL scale: using the telephone, shopping, food preparation, housekeeping, laundry, mode of transportation, responsibility for own medications, and ability to handle finances. A summary score ranges from 0 (low function, dependent) to 8 (high function, independent). Until this point, women were scored on all 8 domains of function, men were not scored in the domains of food preparation, housekeeping, and laundry. However, current recommendations are to assess all domains for both genders.

**Analyses:** Spearman's correlation test was used to investigate the relationship between the BADS and the IADL scale, the BADS and sample descriptive data. The Mann-Whitney U test was used to detect difference between DLB and AD in relation to sample descriptive data, the BADS, and the IADL scale. We used the Statistical Package for Social Sciences (SPSS) version 21, at the 95% confidence level.

**Ethical considerations:** This study was approved by University of Tsukuba Faculty of Medicine, Ethics Committee. Written informed consent was obtained from participants, before the initiation of any research procedures.

**Results:** The BADS was performed on 27 inpatients and 2 outpatients (13 Dementia with Lewy bodies, 13 Alzheimer's disease, and 3 Suspected Dementia).

The BADS overall profile score was significantly correlated with MMSE score ( $r = 0.61$ ;  $p < 0.01$ ) and IADL score ( $r = 0.54$ ;  $p < 0.01$ ). There was no correlation between the BADS overall profile score and age ( $r = -0.20$ ). The BADS overall profile score was correlated with DEX other-rating score ( $r = -0.48$ ), but no correlation with DEX self-rating score ( $r = 0.03$ ). Correlations between BADS subtests and IADL score were statistically significant ( $r = 0.41$  to  $0.49$ ;  $p < 0.05$ ), except for the Temporal Judgment Test ( $r = -0.04$ ) and Modified Six Elements Test ( $r = 0.23$ ). IADL score was correlated with DEX other-rating score ( $r = -0.67$ ;  $p < 0.01$ ), but no correlation with DEX self-rating score ( $r = -0.04$ ).

There was no statistically significant differences between DLB patients and AD patients in age (patients mean = 74.75, SD = 7.61 [range 60 to 87];  $p = 0.40$ ), MMSE score (patients mean = 25.24, SD = 3.13 [range 21 to 30];  $p = 0.56$ ), IADL score (patients mean = 4.31, SD = 1.85 [range 1 to 8];  $p = 0.56$ ), BADS overall profile score (patients mean = 10.34, SD = 4.04 [range 3 to 19];  $p = 0.77$ ), DEX self-rating score (patients mean = 8.82, SD = 8.37 [range 0 to 29];  $p = 0.25$ ), and DEX other-rating score (patients mean = 16.94, SD = 17.99 [range 0 to 58];  $p = 1.0$ ).

The BADS overall profile score was 18 impaired, 5 borderline, 2 low average, and 4 average.

**Conclusion:** The BADS was a useful battery that can evaluate the relevance of executive dysfunction and IADL. We found that executive function was associated with IADL. So, it is recommended that nurses should assess the executive function to patients with early-stage dementia. IADL score was significantly correlated with the 4 subtests. But, the Temporal Judgment Test was no correlation with IADL score. The Temporal Judgment Test was shown to be not appropriate for the evaluation of the relevance of executive function and IADL.

The BADS overall profile score was correlated with MMSE score, and 23 patients (79.3%) were classified into impaired or borderline. The presence of executive dysfunction in early-stage dementia was suggested. The BADS overall profile score was no correlation with age, and there was no significant difference between BLD and AD. In previous research, correlation between age and executive dysfunction has been suggested, and difference in the progression of executive dysfunction of BLD and AD has been shown by observation by psychiatrist. However, it was not evident in this study sample of early-stage dementia.

The evaluation of the executive dysfunction by patients (DEX self-rating) was lower than caregivers (DEX other-rating). It is considered that the evaluation of caregivers is important in the assessment of executive function to patients with early-stage dementia.

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#### Contact

[s1230457@u.tsukuba.ac.jp](mailto:s1230457@u.tsukuba.ac.jp)

## RSC PST 3 - Research Posters Session 3

### The Influence of Helping Relationships from Significant Others on Healthy Lifestyle Among Patients with Chronic Kidney Disease

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*Shu-Mei Chao, MS, RN, Taiwan*

*Miaofen Yen, PhD, RN, FAAN, Taiwan*

*Fang-Ru Yueh, RN, Taiwan*

#### Purpose

The helping relationships is that significant others provide support to people for living with healthy life style and conducting healthy behaviors. The aim of this study was to explore that significant others' positive and negative supports help patients with chronic kidney disease (CKD) to adopt healthy life style.

#### Target Audience

The target audience of this presentation is clinical nurses.

#### Abstract

**Purpose:** The aim of research is to study and explore helping relationships impact on establishing healthy lifestyle among patients with chronic kidney disease (CKD). The positive behaviors and negative behaviors of helping relationships from significant others assist patients with chronic kidney disease to do health behaviors about diet and exercise. Therefore, the patients will get higher possibilities to insist in suggestions from medical staff and act healthy lifestyle for maintaining healthy behavior and delaying deteriorated disease. Addition to helping relationships from perspectives of Transtheoretic Model, the study explores influence how helping relationships from significant others set and maintain healthy behaviors of patients. According to literature review, there is no helping relationships instrument. Therefore, this study will develop helping relationship of significant others instrument for patients with CKD.

**Methods:** Firstly, three nursing or medical experts in chronic disease field discussed and evaluated the item equivalence, clarity and readability about the helping relationship of significant others instrument. A validity index was calculated and any item scoring less than 3 was reconsidered by the experts and suggestions would be incorporated. Secondly, this study will recruit 200 Taiwanese Mandarin-speaking patients aged 20 or older and with a diagnosis of CKD. The psychometric properties of the instrument including the internal consistency, factor analysis and parallel analysis will be performed.

**Results:** The study is in progress. Descriptive statistics will express frequencies, percentage, or mean $\pm$ SD. Internal consistency of the helping relationships from significant others will be assessed by determining Cronbach's alpha coefficients for the overall scale and subscales. Confirmatory factor analysis, exploratory factor analysis, scree plot examination, eigenvalues greater than 1, and parallel analysis will be also performed.

**Conclusion:** The helping relationship of significant others instrument may show good reliability and validity. The positive behaviors and negative behaviors of helping relationships from significant others may assist patients with CKD to do healthy lifestyle about diet and exercise.

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#### Contact

[smchao125@gmail.com](mailto:smchao125@gmail.com)

## RSC PST 3 - Research Posters Session 3

### An Evaluation of Motivators for Colonoscopy Screening Compliance

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*Holly Marcusen Wright, RN, BSN, USA*

#### Purpose

to reveal what motivates people to comply with colonoscopy screening guidelines. We are finding that doctor recommendations, family history of colon cancer and family pressure are among the most significant influences that help people choose to have a screening colonoscopy. This information can be used to increase colonoscopy screening compliance.

#### Target Audience

Healthcare workers and individuals who have potential influence on people who need to have a screening colonoscopy.

#### Abstract

**Purpose:** Polyp removal, which is done during a colonoscopy screening, has been shown to reduce colorectal cancer by as much as 90%. Only 53% of Americans who are age 50 comply with colorectal cancer screening guidelines. More people need to have colonoscopy screenings. This study aims to learn what motivators are working to get people to comply with colonoscopy screening so that this information can be used to motivate more people to have the screening done.

**Methods:** We used mixed-methods with qualitative and quantitative features in a one-on-one interview and a questionnaire with 206 participants

**Results:** We are finding that doctor recommendations, family history of colon cancer and family pressure are among the most significant influences that help people choose to have a screening colonoscopy

**Conclusion:** This information can be utilized to increase colonoscopy screening compliance.

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<http://www.nejm.org/doi/full/10.1056/NEJM199312303292701>

#### Contact

[hmw801@gmail.com](mailto:hmw801@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Parenting Stress, Social Support, Re-Birth Intention of Mother with Infant or Child

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*Jung Kim, RN, South Korea*

#### Purpose

The purpose of this presentation is to provide understanding the correlation among variables such as married women's pregnancy intention, social support and parenting stress.

#### Target Audience

The target audience of this presentation is professor, nurse and students in the field of women health nursing.

#### Abstract

**Purpose:** This study was performed to examine the correlation among the parenting stress, social support and re-birth intention of married women with infant or child.

**Methods:** A self-administered questionnaire survey was carried out for 123 mothers having infant or child between March 01 and April 01, 2011 in Daegu-city of Korea. This study was investigated parenting stress, social support and re-birth rate of married women with infant or child.

**Results:** Among the parenting stress scores, parent's pain score as the sub-items of the parenting stress was significantly different according to the sex composition of children( $p<0.05$ ). Parent's pain of mother with each other different genders children was higher than parent's pain of mother with same gender children( $p<0.05$ ). The re-birth intention rate of married women with infant or child was 31.7%. The major reasons why they avoided giving birth were 'economic burden', followed by 'to bring up present child well', 'not to want more children', 'to be subjected to individual and marital relation', and 'non-confidence in playing a role of parents'. The reasons of the subjects intending to give births were 'to need siblings for their child', 'to be pleased to see their children grow', 'to achieve family plan', and 'to be asked by family seniors' request or derived from a sense of obligation' in order. In bivariate analysis, re-birth intention rate was higher as the mother was younger( $p<0.05$ ), in the mothers who had job( $p<0.05$ ), in the mothers who had only one child( $p<0.01$ ), and in the mothers who had only girl or girls( $p<0.01$ ). In multiple logistic regression analysis, the variables affecting re-birth intention were the gender composition of children and number of child( $p<0.05$ ). Re-birth intention of the mother who had only girl infant or children was higher than re-birth intention of the mother who had boy and girl infant or children. And re-birth intention rate was lower as number of child was increasing. In correlation of re-birth intention, parenting stress and social support, parent's pain as sub-item of parenting stress and re-birth intention were negatively correlated( $p<0.05$ ). The parent's pains and dysfunctions between parents and children as sub-item of parenting stress were negatively correlated with social support( $p<0.01$ ), And Children's difficult characteristic as sub-item of parenting stress showed significant negative correlation with husbands' cooperation as social support( $p<0.05$ ).

**Conclusion:** Low birth rate is associated with national existence, and it causes various social problems. If the birth rate of Korea remains at the current level, it will raise the average working age of Korea; it will weaken global competitiveness of industry; it will eventually reduce the rate of increase in national income. As a result, the younger generation will have to shoulder the burden of supporting the older generation, and the overall crisis of the social security system will hit the nation. As our society is rapidly becoming an aging society, consciousness of crisis on low birth rate in Korea has increased. To increase this low birth rate, an active political, economic and social involvement should be carried out. However, it is very difficult to increase low birth rate thorough policy because birth rate is affected by complex factors. Currently, the social participation of the married woman becomes enlarged and the desires to make their dream come true are strengthened. But most of married women have to take on the major responsibilities of parenting. Therefore, we should identify mother's needs. We should establish a policy to suit their own desires by analyzing the factors to affect their birth intention. In conclusion of above findings, parenting stress is associated with social support. And the parent pains as sub-item of parenting stress is associated with re-birth intention. The parent's pains as sub-item of parenting stress

were negatively correlated with social support. To encourage re-birth and reduce mothers' parenting stress, we need create a social mood to reinforce social support.

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### Contact

[k140835@gmail.com](mailto:k140835@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Using Field Theory to Explore the Resourcefulness of Patients with Depression

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*Chun-O Chien, RN, MSN, Taiwan*  
*Chien-Yu Lai, RN, PhD, Taiwan*

#### Purpose

The purpose of this study is to explore the resourcefulness in patients with depression and to understand the personal or social resourcefulness expected by them.

#### Target Audience

The target audience of this presentation is clinical staffs in medical facilities. The findings of this study provide psychiatric and mental health clinical staffs to have better understanding about depressed adults' skills of resourcefulness which they usually used.

#### Abstract

**Purpose:** The purpose of this study was to explore the resourcefulness in patients with depression and to understand the personal or social resourcefulness expected by them.

**Methods:** A qualitative research design based on Field Theory with the method of focus group interviewing was used. The participants were recruited via purposive sampling from outpatients department of a medical center in Southern Taiwan. Totally, seven adults with depression were invited and completed the full courses of focus group in this study. Closed groups with six interviews, two hours per time, were implemented to collect data. Content analysis was used to analyze the findings of this study.

**Results:** Three themes in terms of resourcefulness in patients with depression were concluded as follows. The first theme was "Personal resourcefulness", including four subthemes such as "relieving emotional tension by self", "problem solving", "positive thinking", and "self-efficacy". Depressed adults were used to crying, writing diary, shouting and exercise to relieve their emotional tension. They had tried to avoid the stressors, shifting attention, using relaxation skills and doing some things they enjoyed to get rid of the distress. They also used active approaches such as positive self-encouragement and positive thinking to change their mind. Additionally, they possessed their religious belief and self-efficacy to believe that they can overcome the adversity.

Another theme, "social resourcefulness" was also used to get help from two types of social resources. The first subtheme is "informal resources" including families, friends and/or relative others. "Conveying a help-seeking message", "talking to others", "asking help from the right person", and "being with people" were the means they would apply. The second subtheme is "formal resources" indicating physicians, psychologists, family education centers and community counseling services.

The third theme involved "the ways to get resourcefulness" with two accesses, including "the way for personal resourcefulness" and "the way for social resourcefulness". Depressed adults expected themselves to effectively use self-efficacy, positive thinking and ways of relieving emotional tension by a well-planned daily schedule or a notice board to remind ones of their personal resources. In addition, in order to acquire listening, company, and timely guidance from others, "to get involved in social support systems" was what they need.

**Conclusion:** The findings of this study provide clinical staffs to have better understanding about depressed adults' skills of resourcefulness which they usually used. Knowing the gaps in successfully performing the ability of resourcefulness, the training programs constituting resourcefulness skills will be suggested to develop for patients with depression.

#### Contact

[cochien@mail.ncku.edu.tw](mailto:cochien@mail.ncku.edu.tw)

## RSC PST 3 - Research Posters Session 3

### The Self-Concept of Schizophrenia

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*Hiromi Sugawara, RN, NS, Japan*  
*Chizuru Mori, RN, PhD, Japan*

#### Purpose

The Purpose of this study was to elucidate the self concept of patients with schizophrenia.

#### Target Audience

The target audience of this presentation is psychiatric nursing.

#### Abstract

**Purpose:** According Self-concept theory, "Self" was divided "I" and "Me" (James, 1890). "I" is the self who recognized "Me", "Me" is the self who is recognized. When we think about and image ourselves, "I" and "Me" are distinguished. Therefore, we can be conscious ourselves objectively. Self-concept is said that basic concept structure which supports self-consciousness tacitly (Kajita 1988). It is thought that self-concept is basis of the relationship between "I" and "Me". Self-concept is developed in childhood, and established from adolescence to adulthood (David 1992). Especially, a number of life events occur, people change individual role from adolescence to adulthood. Each time change of social role, people conscious to self objectively. As a result, self-concept would be more complex. Self-worth and self-development are increasing (David 1992). In case of patients with Schizophrenia, their self-monitoring is poor because of cognitive deficit. Therefore, it is hard to they have objective view to themselves. In addition, they have hospitalization experience, stigma, and loss of the social role (McCay 1998). Also, Schizophrenia often develops in a prime of life from youth where numbers of life events occur. So, their self-concept has influence since they were diagnosed with Schizophrenia. It suggests that their self-concept might be ambiguous. In review, Kajita (1988) said that the patients with psychiatric disorder, who have incorrect self-concept like "I an emperor" are difficult to adapt social life. Not adaption in social life leads to their low self-worth and self-esteem. There are a lot of reports about self-concept, but most report were academic self-concept which means self-evaluation. And the research that focuses on the self concept of patients with schizophrenia is not found. That why we focus on the self concept of patients with schizophrenia and explore nursing approach for patients with schizophrenia in this study. The Purpose of this study was to elucidate the self concept of patients with schizophrenia

**Methods:** Subject: Our study's Subjects were patients with schizophrenia in three psychiatry hospitals and out-patients in a community workshop.

**Procedure:** First, we recruited subjects that their doctors and nurses decided patient's condition could stand our study. Because there are not doctors and nurses in community workshop, subjects were recruited by staff. Then, we ask to consent with each subject. After we adjusted convenient time with subject, we conducted semi-structured interviews with participants 1 time or 2 times. Considering their condition, interviews was set less than 30 minutes each time. And also, we investigated Demographic information from medical record (age, sex, disease duration, chlorpromazine equivalent) in hospitals. In case of out-patients, we investigated Demographic information by asking them.

**Analysis:** About the transcription of all interviews, we used QCA to analyze our material. We focus on self-concept that Kajita (1988) proposed, categories were added in a concept-driven procedure. Self-concept that Kajita proposed is consist of Present cognition and definition to the self, Feeling and evaluation to the self, The self that is seen from others, Past self-image, The self-image about possibility and future, What should do and ideal about the self (1988). To assess content validity, expert who is familiar with self-concept check coding frame.

**Ethical considerations:** Our study obtained organization of the Ethics Committee's proposal. We explained the purpose and method of this study, the participation is free, keeping anonymous in document. Participants Signed on Consent form.

**Results:** 39 patients with schizophrenia participated in our study. We excluded four participants of those, because they have thought disorder. That why we analysed interview contents from 35 participants. Among 35 participants, 14 participants admitted the recording of interview contents and other participants admitted that a researcher wrote down interview contents in a memo. We interviewed participants 1-2 times. The interview time of the average was 25 minutes each time. Participants were 21 men and 14 female, the average age was 46.7 years old.

Following a concept-driven procedure in QCA, first we treated six component (Present cognition and definition to the self, Feeling and evaluation to the self, The self that is seen from others, Past self-image, The self-image about possibility and future, What should do and ideal about the self) of the self-concept Kajita proposed as main categories. All labels of transcription divided to subcategories by considering related main categories.

#### 1) *Present cognition and definition to the self*

*Present cognition and definition to the self* consisted of three subcategories (State of the self, Emotional intention and attitude of the self, self-definition). The labels which means their feeling sense of incongruity, like "A voice order and advice me in various ways" "I feel heavy at a body because of the sleep shortage" were integrated into the self who feels sense of incongruity. And the labels which means state of the self in delusion, like "I am God of the religion" were integrated into. The self who feels sense of incongruity and the self that changed by a disease were integrated into State of the self. In Emotional intention and attitude of the self, expression about like or dislike as "I like walking" "I don't like to cook" were integrated. In self-definition, attributes of the self like "I am schizophrenia" "I have family" were integrated.

#### 2) *Feeling and evaluation to the self*

*Feeling and evaluation to the self* is consisted of three subcategories (Self-confidence and pride, Sense of superiority and inferiority complex, Self-acceptance). In Self-confidence and pride, the confidence that understands an illness than anyone else like "I know my illness than physician", Resistance to stigma like "I don't have mental illness", pride to the self like, "I have worked for the major company" were integrated. In Sense of superiority and inferiority complex, "I envy healthy person" "I have a power of the telepathy" were integrated. The labels which means feeling about the self who is under medical treatment like "I hate having to take medicine", evaluation about change of the state of the self like "I feel getting better from my illness" evaluation of modified the self to the self like "I do not understand effect of the medicine clearly, but the medicine may work" acceptance of the patient role like "There is me who cannot beat the self who have illness" were integrated into Self-acceptance.

#### 3) *The self that is seen from others*

*The self that is seen from others* consisted of two subcategories (image and definition from others, Feeling and evaluation from others). In image and definition from others, definition of schizophrenia by others were integrated. In Feeling and evaluation from others, evaluation about the self who have illness like "I am seen strange mentally by others" were integrated.

#### 4) *Past self-image*

*Past self-image* is consisted of three subcategories (Past experience, image and definition to past self, Feeling to past self). Interpretation to Past self, a sense of guilt to Past self and so on were integrated into this category.

#### 5) *The self-image about possibility and future*

*The self-image about possibility and future* is consisted of four subcategories (Possibility of prediction and conviction, Image for plan for future, Image for will and intention, Desire to the self). Self-image for state, action and will when I became ill badly, were integrated into this category.

#### 6) *What should do and ideal about the self*

This main categories is consisted of two subcategories (What should do and ideal about the self). The labels which means What should "I" do, ideal and dream were integrated into this category.

**Conclusion:** In our study, schizophrenia were conscious to themselves objectively like "A voice order and advice me in various ways" "There is me who cannot beat the self who have illness" but some label

means the self that changed by a disease like "I am God of the religion". According old review in Japan, when shizophrenia want to talk about experience of delusion, they already couldn't make "me" objective, and they feels something enter into "me" (Kimura1978). Therefore our study suggested that shizophrenia have two sides of the self. One side was the self and other side was the self that was influenced by illness. It thought that this result is characteristic of schizophrenia

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#### Contact

[aheppiro@gmail.com](mailto:aheppiro@gmail.com)

## RSC PST 3 - Research Posters Session 3

### The Effect of a Community-Based Fitness and Aerobic Exercise Program for Older Adults: A Randomized, Controlled Trial

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*Shu-Chuan Chen, MSN, RN, Taiwan*

*Hsueh-Jen Ho, MSN, RN, Taiwan*

*An-Na Chao, MSN, RN, Taiwan*

*Chiung-Hua Lin, MSN, RN, Taiwan*

*Ruenn-Ching Wang, MSN, RN, Taiwan*

#### Purpose

The purpose of this presentation is to share a good model of a community-based fitness program for improving health and preventing chronic conditions in community-dwelling older adults.

#### Target Audience

The target audience of this presentation is clinic nurses and health promotion workers and every audience who are interesting in health promotion.

#### Abstract

**Purpose:** The purpose of study aimed to examine the effects of a fitness and aerobic exercise (FAE) on muscle strength, flexibility, cardiorespiratory fitness and balance in community-dwelling older adults.

**Methods:** Participants F A sample of 64 older adults (aged\_60+) was recruited from community centers.A prospective, single blind, randomized, controlled intervention trial was undertaken. The participants were randomly assigned to the intervention or control group. Participants were randomized into intervention group (n=31) or control group (n=33). The intervention group underwent a fitness and aerobic exercise (FAE) program which designed for older adults to improve leg muscle strength, flexibility cardiorespiratory fitness, agility and balance training program. This is 1-hour session and twice per week for 8 weeks. The control group underwent a walking program. Measurement FMuscle strength (Chair stand test and Arm curl test), flexibility (Chair sit-and reach test and Back scratch test), cardiorespiratory fitness (2-minute step test), agility (8-foot up-and-go test) and balance (Gait balance).

**Results:** At baseline both groups were well matched in their physical performance, health and activity levels. The intervention group had significantly more gains in leg and arm Muscle strength, balance and agility than controls. There were no significant trends for improvement on flexibility and cardiorespiratory fitness.

**Conclusion:** These findings indicate that participation in FAE program can improve muscle strength; balance and agility. The FAE program is a feasible and beneficial for improving physical conditions in older adults. FAE program may serve a good model of a community-based fitness program for improving health and preventing chronic conditions in community-dwelling older adults.

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#### Contact

[sandra@mail.ntin.edu.tw](mailto:sandra@mail.ntin.edu.tw)

## RSC PST 3 - Research Posters Session 3

### Weight Gain in Breast Cancer Survivors

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Su-Ying Yu, MSN, ANP, RN., Taiwan

#### Purpose

Purpose : Weight gain is a common issue that may lead to poor prognosis or adverse health outcomes in breast cancer (BC) survivors. The aims of this study was to investigate the pattern and degree of weight gain within 2 years after BC diagnosis and to identify its risks.

#### Target Audience

Methods: The study cohort consisted, 1954 women, stage I-III, primary, operable BC between 2008~2010. Their body weight, body mass index (BMI) were measured before surgery and followed by 1, 3, 5, 12, 24 months after. The analysis of weight gain was stratified by demographic data, menopausal status and adjuvant therapy.

#### Abstract

**Purpose:** Weight gain is a common issue that may lead to poor prognosis or adverse health outcomes in breast cancer (BC) survivors. The aims of this study was to investigate the pattern and degree of weight gain within 2 years after BC diagnosis and to identify its risks.

**Methods:** The study cohort consisted of 1954 women with stage I-III, primary, operable BC between 2008~2010. Their body weight, body mass index (BMI) were measured before surgery and followed by 1, 3, 5, 12, 24 months after. The analysis of weight gain was also stratified by demographic data, chronic illness, menopausal status and adjuvant therapy.

**Results:** This sample had a mean age of 50.5. Before the BC surgery, a majority of them were menopause (56.7%), without history of DM, hypertension or heart disease (89.5%); and they had a mean weight of 58.2kg (SD=9.55kg) and 23.8 (SD=3.9) for the BMI. Weight gain was accounted for 50% or more with the maximum of 17.3kg increased at 1, 3, 5, 12, 24 months after. The weights changed significantly along the time course, with the peak at the 5<sup>th</sup> month after the surgery. The analysis of GLM with repeat measure indicated that the risks factors of history of DM, hypertension, chemotherapy and menopausal status.

**Conclusion:** The finding can assist oncology nurses and clinicians to develop future intervention to improve the care for health promotion and risk reduction for weight gain in BC women.

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#### Contact

[cherylyu119@gmail.com](mailto:cherylyu119@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Exploring Significant Others Provide Helping Relationship for Mid-Adulthood Diagnosed with Early-Stage Chronic Kidney Disease

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*Fang-Ru Yueh, RN, Taiwan*

*Miaofen Yen, PhD, RN, FAAN, Taiwan*

*Shu-Mei Chao, MS, RN, Taiwan*

#### Purpose

The helping relationship means seeking social support to protect healthy life style. According TTM (Transtheoretical model) illustrate helping relationship include positive and negative support. The aim of this study is to explore significant others provide helping that can improves individual's motivational for healthy life style and healthy behavior.

#### Target Audience

Clinical practice nursing.

#### Abstract

**Purpose:** The helping relationship means seeking social support to protect healthy life style. According TTM (Transtheoretical model) illustrate helping relationship include positive and negative support.

This qualitative study aimed to describe the helping relationship context within significant others and early-stage chronic kidney disease(CKD).

**Methods:** A qualitative content analysis approach put to use analyzing semi-structured, open-ended, in-depth interview.

Purposive sampling is to recruit patients diagnosed with early-stage CKD from the nephrology education departments of medical centers. Participants are eligible for the study if they are between the age of 40 to 60 and with a diagnosis of early-stage CKD.

The rigor and trustworthiness of this study will evaluate using Lincoln and Guba's criteria.

**Results:** This study is in the process. No studies have yet explored the helping relationship between significant others and patients, therefore implement pilot study to allow us to clarify and refine the interview question.

**Conclusion:** Findings from this study is to know relationship of significant others helping patients, that include positive and negative support. This finding can help healthcare professionals insight into health education necessary to assess significant other of patients, that can improve patients motivation, and keep healthy style and behavior.

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#### Contact

[t26011068@gmail.com](mailto:t26011068@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Personal Weight Beliefs Predictive of Eating Behavior Patterns and Actual Weight in Young African-American Women

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Stephanie Pickett, PhD, MSN, BSN, RN, USA

#### Purpose

to determine whether personal weight beliefs were predictive of eating behavior patterns and weight in young AA women.

#### Target Audience

Anyone interested in the belief/behavior relationship and its application with weight management

#### Abstract

**Purpose:** Over 80% of African American (AA) women in the United States (US) are overweight or obese. Weight management in AA women is multifaceted and not completely understood. However, cultural beliefs about weight suggest that many AA women hold beliefs about their weight that may interfere with a desire to engage in behaviors for weight management, it is not known whether personal weight beliefs are predictive of weight management behavior. Personal weight beliefs were defined as a multidimensional concept consisting of three domains including the descriptive characteristics, causal attributions, and consequences of one's personal weight. The objective of this study was to determine whether personal weight beliefs were predictive of eating behavior patterns and weight in young AA women.

**Methods:** A sample of one hundred-fifty AA women, 18-40 years old (mean age = 28.4, mean years of education = 13.78, mean BMI = 31.5) in Metropolitan Detroit completed a preliminary version of a newly developed Beliefs about Personal Weight Survey (BPW) based on the definition of personal weight beliefs. Responses from BPW were analyzed by domain using principal component analysis, composites were developed from components. The Eating Behavior Pattern Questionnaire (EBPQ) was used to measure eating behavior patterns (low fat diet, snacking on sweets, haphazard meal planning, and meal skipping and emotional eating). BMI was calculated from measured weight and height. Multiple linear regressions using stepwise entry was used to examine the ability of personal weight beliefs to predict eating behavior patterns and BMI.

**Results:** Stepwise regression results show that the weight belief composites significantly predicted all five of the eating behavior patterns and BMI. Two composites were most predictive. The descriptive weight composite (describing personal weight as overweight) explained 51% of the variance in BMI ( $F = 154.16$ ,  $p = .001$ ). Causal belief composites (unhealthy eating behaviors, not eating healthy behaviors, and stress factors) explained 34% of the variance in emotional eating ( $F = 24.91$ ,  $p = .001$ ).

**Conclusion:** Beliefs about the descriptive characteristics, and causal attributions, of one's personal weight predicted eating behavior patterns and BMI in young AA women.

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Contact

[picks@nursing.upenn.edu](mailto:picks@nursing.upenn.edu)

## RSC PST 3 - Research Posters Session 3

### Prevalence of Colorectal Cancer in Psychiatric Patients: the Preliminary Results of Colorectal Cancer Screen

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*Yu-Cheng Chen, BS, Taiwan*  
*Shu-Hui Wang, BS, Taiwan*  
*Luan- Chen Lin, BS, Taiwan*  
*Chiou-Shiang Wu, BS, Taiwan*  
*Ya-Lin Ciou, MS, Taiwan*  
*Shih-Hsien Kuo, RPh, PhD, Taiwan*

#### Purpose

The purpose of this presentation is to identify the risk of colorectal cancer in psychiatric patients through colorectal cancer screen and to explore the association of health behavior and colorectal cancer.

#### Target Audience

The target audience of this presentation is nurses in the fields of psychiatrics, oncology, and internal medicine and other health related professionals.

#### Abstract

**Purpose:** The aim of this study was to demonstrate colorectal cancer prevalence in Taiwanese psychiatric patients to provide the reference for psychiatric professionals to improve the physical care for these patients.

**Methods:** A "Quantitative immunoassay fecal occult blood test " and a questionnaire of habitual diet and daily health behavior were used to screen colorectal cancer and related health behaviors to determine the prevalence and its correlations with habitual diet and health behavior in psychiatric patients. Samples of this study were recruited from a psychiatric hospital in southern Taiwan.

**Results:** 2088 psychiatric patients (1011, 48.4% male and 1077, 51.6% female) were invited to complete this screen. Average age was  $57.33 \pm 5.47$  years. The positive rate of colorectal cancer was 9.9% and 8.1% for male and female respectively. In the number of diagnostic items aspect, the more psychiatric diagnostic items the patients had, the more positive rate of colorectal cancer the patients had (7.9%, 9.6%, and 12.1% for the patients had 1, 2, and 3 psychiatric diagnosis, respectively,  $p = 0.045$ ), and patients with 3 psychiatric diagnostic items had 1.62 fold risk of colorectal cancer to with 1 diagnostic item ( $p = 0.02$ ).

**Conclusion:** This survey showed that psychiatric patients are in the risk of colorectal cancer, and the more items of psychiatric diagnosis, the more risk of colorectal cancer these patients have. These preliminary data of this survey hopefully can be the reference for psychiatric professionals to improve the physical care for these patients.

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#### Contact

[kathy6339@yahoo.com.tw](mailto:kathy6339@yahoo.com.tw)

## RSC PST 3 - Research Posters Session 3

### The Role of Substance Abuse in the Lives of Childhood Trauma Survivors

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Linda Grabbe, PhD, PMHN-BC, FNP-BC, USA  
Weihua Zhang, PhD, APRN, USA

#### Purpose

Purpose: This qualitative, descriptive study aims 1) to summarize critical childhood events for a sample of 8 women trauma survivors, who were in treatment for addiction, and 2) to identify the experience and meanings of substance use in their lives.

#### Target Audience

The target audience is nurses in academic and practice settings.

#### Abstract

**Purpose:** Traumatic events early in life have been associated with substance abuse problems and mental health disorders (Adverse childhood experiences study, 2013). The development of addictions is a result of complex interactions among genes, environment, chronic stress, and neurobiology (Stephens & Wand, 2012). For persons who have experienced severe childhood abuse or neglect, there are fundamental changes in brain development (DeBellis et al., 1999), and many individuals deal with lifelong mental health problems such as depression, anxiety, post-traumatic stress disorder, and emotion dysregulation. One theory of substance use associated with mental distress is “self-medication,” that is, persons with mental health conditions use substances for short-term benefit--relief from stress and psychological pain.

This qualitative, descriptive study aims 1) to summarize critical childhood events for a sample of 8 women trauma survivors, who were in treatment for addiction, and 2) to identify the experience and meanings of substance use in their lives.

**Methods:** Life narratives of 8 women trauma survivors in recovery from addiction were audiorecorded and transcribed. The transcripts were coded, summarized, and clustered into themes. NVivo software was used for data management. The different meanings of trauma and drugs and alcohol use will be presented.

**Results:** These women experienced significant levels of abuse and neglect during childhood. Alcohol was predominantly the first substance they used. Early adolescence was marked by a lack of nurturance from significant figures, leaving home, and early involvement in drug or street culture. The perceptions of the women regarding their drug use will be presented.

**Conclusion:** Insights gained from this research may serve to inform preventative interventions for both mental health and substance use disorders in this high-risk population.

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#### Contact

[wzhang3@emory.edu](mailto:wzhang3@emory.edu)

## RSC PST 3 - Research Posters Session 3

### Correlation Between Food Allergy Response Capabilities of Mothers Who Raise Children with Food Allergy and the Quality of Life

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Satoko Aika, MNS, Japan

Misae Ito, RN, RMW, MSN, PhD, Japan

#### Purpose

The purpose of this presentation is to discuss care toward food allergy response capabilities in mothers of children with food allergy.

#### Target Audience

The target audience of this presentation is the clinical nurses who are interested in food allergy.

#### Abstract

**Purpose:** The objective of this study is to clarify the correlations among food allergy response capabilities of mothers, factors affecting it and quality of life (QOL).

**Methods:** Subjects were mothers who raised children between the ages of 0-6 years (preschool age) who had been diagnosed by physicians as having a food allergy. A self-recorded questionnaire was distributed and collected via post. The evaluation period was from September 2010 to March 2011. A total of 650 self-recorded questionnaires were distributed to hospitals with a pediatric allergy outpatient clinic (8 institutions) and general clinics (11 institutions) or pediatricians specialized in allergy (2 institutions).

Questionnaire items included the subject's background such as mother's age, working condition, health condition, allergic disease, gender, health condition, removed items, number of removed items, consultation facilities, hospital transfer experience, number of hospital transfers, anaphylactic experience, allergic disease apart from food allergy, commuting to kindergarten, self-made lunch box for kindergarten, and the family health condition. In addition, in total 26 items of the Japanese version of the World Health Organization Quality of Life-26 (WHOQOL26) which composed of satisfaction on 4 domains and an added 2-item health condition and QOL subjective evaluation; food allergy response capability proposed by Aika et al., which consisted of 5 factors and 17 items (Cronbach's  $\alpha$  coefficient  $\square\square 0.81$ ); and the

All statistical analyses were conducted using statistical analysis software IBM SPSS ver.19.0. Pearson's correlation was used to analyze the correlation between food allergy response capabilities and QOL. In addition, multiple regression analysis (stepwise method) was carried out with QOL as the dependent variable and food allergy response capabilities, the effect of food allergy on daily life, health condition, removed food items, anaphylactic experience, and hospital transfer experience as the independent variables.

**Ethical considerations:** A written explanation on the study objectives and significance, methods, voluntary based participation, anonymity, and privacy protection were enclosed in the survey, and the written consent was received via post. This study was proceeded following an approval from the Kawasaki University of Medical Welfare Ethics Committee.

**Results:** The questionnaire response was obtained from 328 subjects, with a response rate of 50.5%. Among them, 23 subjects were excluded due to missing data. In addition, those with 0 number of removed items in food and those without the description of number of removed food (25 subjects) were excluded, resulting in 280 subjects to be included in the analysis (effective answer rate: 45.0%). Mean age of mothers was  $33.6\pm 4.6$  years and mean age of children was  $35.6\pm 19.8$  months. Ratio of male and female was 1.7:1. As for working status of the mother, those who answered full-timer were 74 subjects (26.4%), part-timer mothers were 44 subjects (15.7%), and unemployed mothers were 162 subjects (57.9%). Mean value of food allergy response capabilities was as follows: "Stress coping"  $2.96\pm 0.80$ , "skills in performing the elimination diet"  $3.57\pm 0.96$ , "gathering information from the healthcare

professionals"  $2.96 \pm 0.80$ , "knowledge on food allergies"  $2.96 \pm 0.80$ , and "husband's cooperation"  $2.96 \pm 0.80$ .

WHOQOL26 score of the mother was  $3.42 \pm 0.42$ . As for the score grouped by the domains, physical domain was  $3.55 \pm 0.51$ , mental domain was  $3.41 \pm 0.52$ , social relationships was  $3.50 \pm 0.56$ , and environmental domain was  $3.32 \pm 0.49$ . From a multivariate regression model ( $R^2 = 0.49, p < 0.001$ ), it was found that mother's QOL consisted of food allergy response capabilities ( $\beta = 0.31, p < 0.001$ ), mother's health condition ( $\beta = 0.29, p < 0.001$ ), feelings of stress, anxiety and difficulty in one's overall life except child care ( $\beta = -0.24, p < 0.001$ ), and family health condition ( $\beta = 0.13, p < 0.05$ ).

**Conclusion:** In order to prevent reduction of mother's QOL, it is important to improve food allergy response capabilities as early as possible following the diagnosis. It is important for nurses to have correct knowledge on food allergy, to understand the situation and feelings of mothers, to deliver appropriate information, to introduce individually-adjusted menus as well as possible eating-out places, to provide practical information supply in cooperation with the dietician, to draw mother's stress coping capability, to ensure cooperation between the mother and the husband, to recommend the presence of the husband during consultation, and to introduce the importance of husband's cooperation for child care with food allergy using pamphlets.

#### Contact

[aika@med.shimane-u.ac.jp](mailto:aika@med.shimane-u.ac.jp)

## RSC PST 3 - Research Posters Session 3

### The Preliminary Study of Family Resilience and Its Correlates Among Cancer Parents

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*Wei-Ching Chen, RN, BS, Taiwan*

*Chin-Mi Chen, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to share the preliminary findings that included the relationships of perceived stress, parent-adolescent communication, and family resilience among the parents with cancer.

#### Target Audience

The target audiences of this presentation are nurses, Psychologist, Social Worker, and Oncologists.

#### Abstract

**Purpose:** The purpose of this study was to explore the relationships of perceived stress, parent-adolescent communication, and family resilience among the parents with cancer. The family resilience framework that was developed by Walsh (2003) was used as the theoretical framework of this study.

**Methods:** The study was a cross-sectional design, and participants were included by convenience sampling. Inclusion criteria were 1) diagnosed with cancer over 3 months, and 2) being parents with adolescent children. Data were collected by a structured questionnaire that consisted of a demographic information datasheet and three scales: perceived stress scale, family resilience scale, and parent-adolescent communication scale. The IRB approvals ensured that participants' human rights were considered and protected.

**Results:** Eleven patients (6 fathers; 5 mothers) were recruited from a medical center in the northern of Taiwan. Mean score of the perceived stress were 23 (SD=1.732) for fathers, and 19 (SD=3.194) for mothers. Mean score of the parent-adolescent communication were 66 (SD=5.489) for fathers, and 68.2 (SD=2.691) for mothers. Mean score of the family resilience were 93.83 (SD=7.855) for fathers, and 89.6 (SD=9.19) for mothers. In addition, family resilience negatively correlated with perceived stress ( $r = -0.170$ ), and positively with parent-adolescent communication ( $r = 0.245$ ).

**Conclusion:** These results reveal the feasibility of this study and showed this mean score of each scale may be various between fathers and mothers. Perceived stress and parent-adolescent communication may be the correlates of family resilience. Therefore, we need more participants to prove these preliminary findings.

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#### Contact

[amywings7528@hotmail.com](mailto:amywings7528@hotmail.com)

## RSC PST 3 - Research Posters Session 3

### Adolescent Mothers' Experiences With Decision Making During Labor and Birth

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Carrie Jacobson, MS, CNM, RN, WHNP, USA  
Audrey Lyndon, PhD, RN, FAAN, CNS-BC, USA

#### Purpose

The purpose of this presentation is to highlight the particular risks and vulnerabilities of US adolescent mothers, their developmentally unique decision making process, and the ways in which decision making during labor and birth may impact adolescent maternal/child health. Areas for further research and nursing intervention will be reviewed.

#### Target Audience

The target audience of this presentation is maternity nurses, nurse midwives, family physicians, obstetrician gynecologists, maternal and child health researchers, adolescent health experts, advocates, and those concerned with regulating care and policy in support of young families.

#### Abstract

**Purpose:** US adolescent mothers face higher risks of postpartum depression and traumatic experiences than adult mothers, and have developmentally unique needs and decision making patterns. While a poor experience of decision making during labor and birth has been shown to increase the risk of postpartum depression and birth-related post-traumatic stress disorder in adult women, it is unknown how US adolescent mothers experience decision making during labor and birth. Better understanding of how adolescent mothers experience decision making during labor and birth could help guide efforts to decrease the risk of poor postpartum outcomes in this vulnerable population. The purpose of this study is to develop a mid-range theory of adolescent mothers' experiences of decision making during labor and birth.

**Methods:** A constructivist grounded theory design using individual, semi-structured interviews and participant observations is employed, using methods from Clarke (situational analysis) and Schatzman (dimensional analysis). 20 participants attending clinics and/or schools providing specialized services for adolescent parents in an urban area of the Western United States were interviewed 1 to 2 times. Observations took place in a childbirth class for adolescents. Findings are developed through constant comparison, theoretical sampling, and member reflection until theoretical saturation is reached. Rigor is maintained through reflexivity, peer analysis, data triangulation, and use of an audit trail.

**Results:** US adolescent mothers desire to be engaged in decision making during labor and birth. However, their knowledge regarding available options and their right to participate in healthcare decision making are variable. Mothers' decisions are guided by what they feel is best for their baby, and are sometimes at odds with healthcare providers' recommendations. Most mothers in this study express a preference for "going natural," or having a vaginal birth without pain medication, in order to prove their worth as mothers as well as avoid health risks they perceive could result from epidural anesthesia. Some mothers opt for epidural anesthesia in order to "stay calm" to protect their baby from the harm they perceive will result from a mother's emotional upset. Mothers describe often feeling unheard or overlooked when family members or care providers made decisions for them, and report that at times they do not receive sufficient or timely information from providers. Mothers express resilience in their response to decision making experiences that are frequently negative, and rely on support from family, friends, and/or doulas to help them navigate decision making during labor.

**Conclusion:** Adolescent mothers show surprising resilience in coping with frequently negative experiences of decision making during labor and birth. However, they also assign significance to the way in which a mother chooses to go through birth, in particular her ability to cope with the pain and fear of labor. The lack of emotional support and involvement in decision making some adolescent mothers experience during labor and birth may represent a missed opportunity to provide crucial support for their perceived competence and self-efficacy as new mothers.

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Contact

[jacobsonc@obgyn.ucsf.edu](mailto:jacobsonc@obgyn.ucsf.edu)

## RSC PST 3 - Research Posters Session 3

### Difference of Knowledge and Attitude about Human Papillomavirus in Male and Female College Students

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*Dong Sook Cho, PhD, South Korea*

#### Purpose

The purpose of this presentation is to identify the gender difference of knowledge and attitude about Human Papillomavirus(HPV) in college students.

#### Target Audience

The target audience of this presentation is women health nursing researcher or college student health care provider.

#### Abstract

**Purpose:** This study was done to identify the gender difference of knowledge and attitude about Human Papillomavirus(HPV) in college students.

**Methods:** A cross-sectional survey design with a convenient sampling was used. The subjects were 215 college students. Data collection was done by self-reporting method from September 10 to 22, 2012. The reliability of the instruments were from .81 to .83. Descriptive statistics were used to analyze the characteristics of the sample and knowledge and attitude about Human Papillomavirus(HPV). The independent t-test and  $\chi^2$  test were performed using SPSS 18.0 to confirm gender differences.

**Results:** The participants in this study were 100 male and 115 female students. 7.2% of the participants has family history of cancer of cervix, ovarian cancer and uterine cancer. The percentage of correct answer of knowledge items toward the HPV were 4.2% to 42.8%. 84.7% of the participants were heard about cancer of cervix, 31.6% of the participants were heard about HPV, and 68.4% were heard about HPV vaccine. There was a significant differences in the correct answer rate about knowledge items toward the HPV between the gender. Female students were more correct answers than male student about "HPV can be prevented with vaccine" ( $\chi^2 = 5.90$ ,  $p = .019$ ), but male students were more correct answers than female student about "low risk virus make dysplasia of cervix area" ( $\chi^2 = .01$ ,  $p < .001$ ) and "for man, HPV can occur genital cancer, so preventive exam is necessary" ( $\chi^2 = 7.26$ ,  $p = .013$ ). In attitude of HPV vaccine, male was higher attitude score than female about "I am afraid of side effects of HPV vaccine" ( $t = 2.704$ ,  $p = .007$ ). But female was higher attitude score than male about "I don't need HPV vaccine" ( $t = -1.984$ ,  $p = .049$ ), "I am not interest in HPV vaccine" ( $t = -2.339$ ,  $p = .020$ ), "HPV vaccination may lead to unsafe sex" ( $t = -2.304$ ,  $p = .022$ ).

**Conclusion:** Subjects's knowledge about HPV were low level. College students were more aware of the HPV vaccine rather than HPV. The significantly differences between the gender were due to differences in gender characteristics

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Contact

[chds@eulji.ac.kr](mailto:chds@eulji.ac.kr)

## RSC PST 3 - Research Posters Session 3

### Correlations Between Psychological Symptoms and Quality of Life in Resident Elderly: A Regional Hospital in Taiwan

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Liao Sujung, RN, Taiwan  
Liu Tse-Tsung, Taiwan  
Rong Jiin-Ru, PhD, Taiwan

#### Purpose

This study aims to evaluate and quantify the possible effect of psychological symptoms on resident elderly them.

□fs quality of life

#### Target Audience

The target audience of this presentation is: 1. Investigate relevance of the elderly inpatient quality of life, psychiatric symptoms and suicidal ideation. 2. Understand the mind of the elderly residents and psychological needs to feel. 3. Providing the reference of clinical care in the elderly related medical personnel and health education.

#### Abstract

**Purpose:** According to the Council for Economic Planning Committee in Taiwan, said the United Nations and our population data and comparison of the data with the U.S. Census Bureau found that Taiwan's population is aging while compared with 193 countries in the United Nations, and our ranked world No. is 48 in 2010(1). At present, Taiwan's population's "aging index" is only 69% (the so-called aging index is defined as the population aged 65 and over accounted for 0 to 14 year-old the proportion of the elderly population is a young population that's 0.6 times) (2). However, Taiwan's fertility rate is too low, leading to aging rate increases. Council for Economic Planning Committee released data show that Taiwan will surpass Japan to become the world's most "old" country in 2033, when the population's aging index in Taiwan as high as 251%, that is, the elderly population will be 2.51 times the juvenile population (Council for Economic Planning, 2011)(1). As medical technology and advances in medical care, life expectancy has been increasing, the increase in seniors general trend is not only the world, but also the future world while facing one of the important issues need to be solved. Taiwan's elderly people entered the aging society since 1993 and the proportion of people over 65 years old continues to rise. According to Ministry of the Interior Department, to 2010 the number of 23,150,000 population in Taiwan, the elderly population is 2.48 million, accounting for 10.72% of the overall population (Ministry of the Interior and Statistics Department in Taiwan, 2010)(3)

□BCouncil for Econon

increase the proportion was 14.0% in 2017. Formally entered the aged society and then increased to 20.1% in 2025, will be entering the so-called super-aged society (Ministry of Economic construction Committee, 2008)(2). Taiwan's young population structure has been converted into a pyramid with larger populations are young lantern type, estimated mainly elderly population will be converted to the inverted Admiralty type in 2050 (Republic of China Statistical Information Network, 2007). (4) In the majority of countries, suicide rates increase progressively with age, the highest suicide rates occurring in men above 75 years. In order to understand the needs of hospitalized aging elderly and to help them. The This study aims:

1. Investigate relevance of the elderly inpatient quality of life, psychiatric symptoms and suicidal ideation.
2. Understand the mind of the elderly residents and psychological needs to feel.
3. Providing the reference of clinical care in the elderly related medical personnel and health education.

**Methods:** During this study were enrolled from February 7, 2012 to December 24, 2012, for 65 years or psychiatric inpatients General Division conducted a comprehensive screening, received a total of 2199 cases hospitalized elderly, those who do not meet the inclusion criteria with 35, accounting for 1.64%, of which there are eight younger than 65 years old, 27 have significant cognitive impairment (1.23%), the final number of samples collected 2165 (98.41%), in which a result of completing the questionnaire

completion rate below 60%, the excluded, the final data analysis included in the total number of hospitalized elderly sample 2164 (N = 2164).

Inclusion criteria: (1) 65 years (or more) of the hospitalized patients (2) clear consciousness, attention sustainability 30 minutes, depressive symptoms will not interfere with interviews and gather information, vision, hearing acuity and oral communication without prejudice (3) no alcohol or drug dependence phenomena (4) willing to participate in this study sample and other conditions.

Exclusion criteria: (1) Impairment of cognitive function, moderate or severe dementia and mental retardation (2) Mental disorder such as schizophrenia or bipolar disorder with manic episodes (3) patients with substance addiction (4) cannot communicate and talks (5) Concentration inability to last 30 minutes.

Based on ethical considerations, this study oath by the body through the audit committee , parties to close the case.

The 5 questions style Brief Symptom Rating Scale were retrieved from the Scale for Suicide Ideation; SSI

□ BScale for Suicid

from one of the tools by Bech et al 1979. The evaluation project contains the frequency of suicidal ideation and suicidal intent in the past wanted. Scale for Suicide Ideation of Beck et al 1985 was used in psychiatric inpatient and ambulatory patient assessment, but also widely used in various units, including hospitalization, emergency care, rehabilitation, private clinics, as well as college students and clinical elderly population. This scale has a medium to high degree of internal consistency, Cronbach's alpha value of .89 (Beck et al., 1997), who also has a very high consistency reliability of the test, the correlation coefficient was .83 (Beck et al. , 1997). A total of 21 questions, the entire time of the completed questionnaire will take about 10 minutes, compared with time-consuming. The five questions formula Brief Symptom Rating Scale(BSRS-5), Inventoried by NTU Professor Li Ming-been and Wang (2005) captured Scale for Suicide Ideation(SSI) among the translated version translated from SSI. Mainly as a mental illness in the screening table, the purpose of being able to quickly understand the psychological care needs of individuals, and thus provide the necessary mental health services. In this study, this scale of the top 5 questions (BSRS-5) for hospitalized elderly suicidal ideation assessment, scoring more than six points above expressed suicidal ideation, and if questionnaires to express any active or passive suicidal intent, also expressed suicidal ideation scale scores higher, which means that the stronger suicidal ideation. This scale applies to the elderly in the community of internal consistency reliability Cronbach's alpha value of .84

□ BUsed in different popu

reliability. Obviously the extensiveness of its reliability and validity for a good internal consistency. (BSRS-5's Cronbach's  $\alpha = 0.77-0.90$ , Test-retest reliability was 0.82) Which sensitivity was 78.9% and specificity of 74.3%. Compare with the mental illness diagnostic results of Mini-International Neuropsychological Interview schedule. To six points as the cut-off point scale can be obtained 76.3% of the correct diagnosis.

**Results:** 1. A hospitalization for the elderly quality of life and the presence of suicidal ideation score situation

The results showed that the age distribution of elderly residents in the 65 to 101 years old, of which 65-74 years old (44.8%), 75-84 years old at most (39.0%) followed. Mean age  $76.5 \pm 7.4$  years, males accounted for 55.8% majority, females 44.2%. Up to literacy education level (35.8%), followed by the junior high school (31.0%). Hospitalized elderly States (including) accounted for 84.1% the following display generally low level of education. Most hospitalized elderly live with their children (28.4%) or living with their spouse (25.6%). Conscious state of the economy as "fair" (76.6%), however, 55% perceived health status "bad". BSRS-5 <6 points accounted for 74.9% and <sup>3</sup>a 6 points accounted for 25.1%, which is more than 1/4 of the screening of elderly hospitalized with suicidal ideation, more worthy of our investment in more research and tracking.

2. Elderly residents socio-demographic characteristics on the differences of suicidal ideation compared

Compare Brief Symptom Rating Scale (BSRS-5) is less than 6 points, and greater than or equal to 6 points(with or without suicidal ideation) and elderly residents of the differences in socio-demographic

characteristics analysis of the results: gender, education level, economic status and health status significant differences were reached. Among elderly residents of the age, marital status and state of residence of the statistical analysis on the presence or absence of suicide ideation found no statistic difference exists.

### 3. Correlation between Elderly residents BSR5 and Quality of Life Scale

The elderly residents of suicidal ideation and quality of life scores for conduct Pearson correlation analysis found Brief Symptom Rating Scale and physical health domain (QoL1), psychological domain (QoL2), environmental aspects (QoL3) social category (QoL4) and quality of life score (QoL Total) were statistically significant differences in the correlation coefficients between the scales 0.062 ~ 0.79, are moderate to strong correlation, but in order to score with suicidal ideation the correlation coefficient between the comparative scales are negatively correlated.

**Conclusions:** The BSR5 score is predictive for scores of all four domains and 28 items of the Taiwanese version of the WHOQOL-BREF for resident elderly. This study aimed to investigate relevance of the elderly inpatient mental function, quality of life, psychiatric symptoms (insomnia, nervousness and depression) and suicidal ideation, and impact of patient factors associated with suicidal ideation in the elderly.

Suicide among the elderly is a complex and multi-faceted problem, and the suicide mortality rate ranks the highest of all ages. The development of preventive, risk screening and case management strategic plan should be positive for the elderly suicide and timely assessment of the effectiveness of prevention in order to gradually reduce the incidence of suicide among the elderly.

In order to understand the mind of the elderly residents and psychological needs to feel in order to be able to collect more elderly suicidal ideation associated with a message, providing the reference of clinical care in the elderly related medical personnel and health education.

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### Contact

[sujung@mch.org.tw](mailto:sujung@mch.org.tw)

## RSC PST 3 - Research Posters Session 3

### The Effects of Communication Skills, Compassion Satisfaction, Compassion Fatigue on Burnout Among Staff of Long-Term Care Insurance in National Health Insurance Corporation in Korea

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*Kyongeun Lee, MSN, South Korea*  
*Hyoungshim Choi, MSN, South Korea*

#### Purpose

This study was a descriptive research to identify the effects of communication skills, compassion satisfaction, compassion fatigue on burnout among staff of long term care insurance for the elderly in National Health Insurance Corporation in Korea.

#### Target Audience

The target audience of this presentation is a interested administratives about staff of Long-term care insurance corporation to eventually promote elderly person.

#### Abstract

**Purpose:** This study was a descriptive research to identify the effects of communication skills, compassion satisfaction, compassion fatigue on burnout among staff of long term care insurance for the elderly in National Health Insurance Corporation in Korea.

**Methods:** The participants were 203 full-time employees at Long-term Care Insurance for elderly in National Health Insurance Corporation in Korea. Data were collected via mail from the 24 branch offices of Long-term Care National Health Insurance Corporation which were randomly selected among the total of 226 centers of National Health Insurance Corporation. A survey was conducted by using structured questionnaire from November 16 to 29, 2013. Stamm's professional quality of life (ProQOL) and Communication Skills Test tool were included in questionnaire. SPSS WIN 20.0 was used to conduct the descriptive statistics, t-test, ANOVA, correlation analysis, and multiple regression.

**Results:** The results showed that burnout was associated with communication skills, compassion satisfaction, compassion fatigue, education, perceived health, favor of client's family, support of colleagues, and intention to seperation. The cases with low communication skills, low compassion satisfaction, high compassion fatigue, low education status, low perceived health, low favor of client's family, low support of colleagues, and high intention to seperation showed significantly high burden.

**Conclusion:** The result of this study is expected to contribute to developing Long-term Care Insurance for the elderly into a high quality tasked with Long-term Care Insurance for elderly and eventually promote health promotion of elderly. The findings suggest that further studies examine ways to develop proper intervention to decrease burnout for staff of long term care insurance for the elderly in National Health Insurance Corporation.

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Contact

[leekyongeun@gmail.com](mailto:leekyongeun@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Outcomes of Receiving Service-Learning Activities Among Elders Living in a Long-Term Care Facility

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*Chia-shan Wu, RN, MSN, Taiwan*

*Ching-Len Yu, PhD, Taiwan*

*Su-Hsien Chang, PhD, RN, MSN, Taiwan*

#### Purpose

The purpose of this presentation is to present the effectiveness of service-learning for elders living in a long-term care facility.

#### Target Audience

The target audience of this presentation will be nursing educators and administrators of long-term care facilities.

#### Abstract

**Purpose:** Service-Learning is a form of experiential education. Teaching Long-Term Care Nursing via service-learning activities, students can learn how to communicate with elders, present caring, and meet the needs of elders. However, outcomes of receiving service-learning among elders living in long-term care facilities in Taiwan were limited studied. **The purpose of the study was to exam outcomes of receiving service-learning activities among elders living in a long-term care facility.**

**Methods:** This is a single group, pre and post test research design. The service-learning activities were provided by 4<sup>th</sup>-year nursing students in a five-year Junior College located in southern Taiwan. Each service-learning activity was provided 2 hours a week for six weeks in a morning of weekday. During the service-learning activities performed, students not only accompany elders, but also review elders' prior life with elders.

**Results:** There were 52 elders living in a long-term care facility in southern Taiwan participated in the study, Results showed that no statistically significant changes in mood status ( $t = 0.825$ ) and self-esteem ( $t = 0.084$ ). Although the self-perceived health status have improved, but no statistical significant improved in self-perceived physical health ( $t = 3.071$ ) and mental health ( $t = 2.537$ ). Hence, elders' life satisfaction score showed statistical significant declined ( $t = 2.537$ ). These results might relate to a short period of service-learning activities provided. Elders might feel unhappy due to lack of student visits.

**Conclusion:** Nursing faculties who plan service-learning activities in the curriculum, teachers should prepare students knowledge and skills on how to say goodbye with elders, and than to decrease elders' separation anxiety. Hence, continuing social visits might be provided to decrease elders' feeling of loss. Elders might increase their life satisfaction, improve mood status and self-esteem.

#### Contact

[chiashan@mail.ntin.edu.tw](mailto:chiashan@mail.ntin.edu.tw)

## RSC PST 3 - Research Posters Session 3

### Risk Factors and Outcomes Associated with Initial Use of Inappropriate Indwelling Urinary Catheters Among Hospitalized Elderly Patients

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*Shih-Ting Piao, RN, Taiwan*

#### Purpose

The purpose of this presentation is to explore the risk factors and clinical outcomes for initiation of inappropriate urinary catheterization among hospitalized elderly in Southern Taiwan.

#### Target Audience

The target audience of this presentation is clinical care providers including clinicians, nurses, and patients' caregivers.

#### Abstract

**Purpose:** The aim of this study was to explore the risk factors and clinical outcomes for initiation of inappropriate urinary catheterization among hospitalized elderly in Southern Taiwan.

**Methods:** The subjects were selected with a purposive sampling method at a medical center in Southern Taiwan from October 29, 2012 to May 19, 2013. A prospective study was conducted to collect data from hospitalized elders who used IUCs within 48 hours after admission. One hundred and fifteen patients were recruited. Data was collected including: demographic variables, Charlson Comorbidity Index, Katz Index of Independence in Activities of Daily Living, Geriatric Depression Scale Short-Form, Short Portable Mental Status Questionnaire, and information of IUCs placement. The outcomes associated medical care was collected at discharge. SPSS software for windows version 19.0 was applied to analyze the data through descriptive statistic, chi-square, *t*-test, and binary logistic regression analyses.

**Results:** The results indicated that the incidence rate of inappropriate use of IUCs was 37.4%. The most frequent indication for catheterization was surgical intervention (43.1%), the second most frequent indication was accurate assessment of urinary output (37.5%). The most common reasons that inappropriate IUCs use was for convenience (62.8%), and used for manage acute urinary retention without assessment (18.6%). The findings of logistic regression analysis suggested that the diagnosis of urinary tract infection (OR=7.75, 95%CI=1.84-32.73, *p*=.005), lower scores of SPMSQ (cognitive function) (OR=0.77, 95%CI=0.62-0.96, *p*=.02), and higher Katz scores (activities of daily living) (OR=1.17, 95%CI=1.04-1.33, *p*=.012) were risk factors associated with inappropriate IUCs use among hospitalized elderly. Inappropriate catheterized patients also had a poor recovery in activities of daily living at discharge, but were not associated with such outcomes as catheter-associated urinary tract infection, length of hospital stay, nursing home admission, mortality, and catheters reinsertion.

**Conclusion:** Urinary catheters were inappropriately used more commonly among the diagnosis of urinary tract infection, poor cognitive function, and better activities of daily living status in older patients. Careful attention to this aspect of medical care may increase the degree of recovery in activities of daily living at discharge. Given the significance of these results can help identify groups at increased risk for inappropriate urinary catheters placement. Multiple approaches are needed to reduce inappropriate utilization, including avoiding the placement of unnecessary urinary catheters and education about appropriate indications for indwelling urinary catheters.

#### Contact

[piao75612@gmail.com](mailto:piao75612@gmail.com)

## RSC PST 3 - Research Posters Session 3

### Application of Root Cause Analysis to Improve the Safety of Patients: A Case Study of Adverse Event

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*Fang-Ru Lin, RN, Taiwan*

#### Purpose

Head trauma and limb fracture are common consequences of falls in children. The aim of this study was to describe the adverse event with falls children in hospitalized. We used root cause analysis to survey the adverse event on practices relevant to improving patient safety.

#### Target Audience

Clinical staff(nurse,doctor),Child Life and play Specialist.

#### Abstract

**Purpose:** Head trauma and limb fracture are common consequences of falls in children.The aim of this study was to describe the adverse event with falls children in hospitalized. We used root cause analysis to survey the adverse event on practices relevant to improving patient safety.

**Methods:** The setting of this study was about a 24-bed pediatric oncology ward in northern regional teaching hospital in Taiwan from January, 2010 to November, 2013.The first applied instrument was based on literatures review. We wouldretrospectively chart review and “reporting system of medical incidents” describing in detail the adverse event and activities to leading up this. Then, we constructed the event diagram to show the steps in the process where fail maybe. We were made based on these root cause to avoid adverse events.

**Results:** The total errors events 23 adverse events (Systemic errors:2; personal errors: 21).We found those questions:

1. Children are largely dependent on the age of the child is main risk factor. Mean age of the children was 5.8 years old. More than half of all fall-related childhood injuries occur among children age 3 years (about 56.6%).
2. Lack of main caregiver on the alert (lack of main caregiver watched closely) is a common cause of falls (about 86%).

**Conclusion:** Falls are a leading cause of children morbidity, mortality and high risk of interruption or delaying chemotherapy in cancer patients. Based on our results, we suggested to provide appropriate the tools to educate children and main caregivers of the potential risk of falls and was to develop individualized management plans of care to reduce risk for high risk children.

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#### Contact

[linlyn0101@gmail.com](mailto:linlyn0101@gmail.com)

## RSC PST 3 - Research Posters Session 3

### The Effects of a Dash Diet-Based Nutritional Intervention Program for Elderly Women's Bone Health

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Haeyoung Lee, RN, PhD, South Korea

#### Purpose

The purpose of this study is to examine the effects of Korean DASH diet education and calcium/vitamin D supplementation on nutrient intake and bone turnover markers in older women.

#### Target Audience

The target audience of the study is healthcare providers and healthcare educators who want to help improve musculoskeletal health and lifestyle habits of elderly women at high risk for osteoporosis.

#### Abstract

**Purpose:** Despite to high prevalence of osteoporosis, elderly women show overall nutritional deficiency including calcium intake. The DASH diet (Dietary Approach to Stop Hypertension) encourages reducing saturated fat intake and increasing the potassium and calcium intake. The effectiveness of Korean DASH on bone mineral density has been validated. However, the effectiveness of the DASH diet education with calcium and vitamin D supplements women is unknown among Korean elderly. Thus, the purpose of the study was to investigate the impact of the DASH diet education with calcium/vitamin D supplements on the nutritional intake and the bone turnover marker among Korean elderly women.

The DASH (Dietary Approach to Stop Hypertension) that focuses on food high in calcium and potassium was originally designed to regulate high blood pressure. And its positive effects on bone density have been reported in studies conducted in many countries including Korea (Kim et al., 2010; Lin et al., 2003). So if the DASH diet food choices are modified in favor of Korean elderly and provided to them (Korean DASH diet), it would be possible to see increased intake of calcium, potassium and other nutrients that are helpful for bone health. Unlike young people, however, older people may have difficulty increasing calcium and potassium intake from food because they may find their long-lived eating habits hard to and may have some degrees of dental problems.

From the meta-analysis of calcium supplementation effects on bone density, the effects were better for those who had consumed less calcium and who were older (Tang, Eslick, Nowson, Smith, & Bensoussan, 2007). Therefore, elderly women with serious calcium deficiency need to have increased nutrient intake and supplementation of calcium from means other than food to maintain and improve their bone density (Bae et al., 2006).

**Methods:** This study is carried out with a non-equivalent control group pre- and post-test and quasi-experimental research design to evaluate the effects of Korean DASH diet education and calcium/vitamin D supplementation on nutrient intake and bone markers in elderly women.

We examined 48 women aged 65 or over who enrolled in a senior welfare center in Seoul, Korea. A total of 108 elderly people were initially recruited through advertisements in the center. At the initial screening, however, 23 participants were excluded due to their sex (male), cognitive disabilities and not filling in questionnaires. The remaining 85 subjects were seen in the first blood sampling, but another 30 were excluded again. In the process of this research, a total of 7 (surgery, n=1; start osteoporosis medication, n=4; refuse to participating, n=2) were withdrawn, leaving 26 subjects in experimental group and 22 in control for analysis.

The tools used for data collection were as follows.

General characteristics and health information of subjects were obtained through one-on-one interviews with questionnaires. Participants were interviewed with a questionnaire concerning age, levels of education, living alone or not, monthly expenses (allowance), self-rated economic status, regular exercises, ages at menarche and menopause, parity, history of hormonal replacement treatment, history of fracture after age 50, family history of osteoporosis and dental problems.

Weight and standing height were recorded in light clothing without shoes using the automatic scale(DS-101, Dong Sahn JENIX Corporation, Korea) to produce BMI(Body Mass Index, kg/m<sup>2</sup>).

DASH diet knowledge and adherence measurement tool (Kim et al., 2010) was used after being adapted partly and reviewed its content validity by an expert group(2 adult nursing professors, 1 nutrition professor and 2 nursing doctors)(CVI=.84, KR20=.70). Dietary knowledge scale comprises of 10 questions with answers of Yes/No/Don't Know. Correct answer was scored 1 point and incorrect or Don't Know answers 0 point. Those who get higher totals are interpreted to have more knowledge (Kim et al., 2010). The tool to measure DASH diet adherence consists of 9 questions with 5-point scales(never true/rarely true/neutral/ usually true/ always true). With higher totals, participants have stronger adherence to the diet(Kim et al., 2010). The Cronbach's  $\alpha$  reliability coefficient of this tool was .68 when it was developed, and is .68 in this study.

Nutrient intake was measured with participants' 3-day dietary records(2 week and 1 weekend day) using 24-hour recall method. Average daily intake was calculated using CAN-pro 3.0(Computer Aided Nutrition Analysis Program version 3.0)(The Korean Nutrition Society, 2007).

Bone turnover markers were analyzed from blood samples obtained after fasting for more than 8 hours(Eone Reference Laboratory).Electrochemiluminescence Immunoassay(ELISA) was used to assess two kinds of bone markers, CTx(C-telopeptide of collagen cross-links) for bone resorption and osteocalcin for bone formation.

Bone density was assessed with ultrasound measurements using the Achilles Express Ultrasonometer (GE Lunar Healthcare Corporation, USA). The measured site was calcaneus and recorded in stiffness index (Kim et al., 2010).The effectiveness of our program was examined by comparing stiffness indexes taken before and after intervention.

Data collection and intervention programs were executed with following process.

The Institutional Review Board in the Nursing School of S University approved this study. After acquiring approval from the welfare center, we explained the purpose of this study to the elderly who enrolled in the center and obtained consent from them for data collection.

To evaluate the effectiveness of interventions, data were collected pre and post interventions. Five graduate nursing students who had participated in nutrition studies conducted one-on-one interviews with the subject to assess general characteristics and dietary intake records. All the participants were required to write food diaries records at pre and post interventions. The dietary records were collected after food intake on the days of tests and ways of food preparation were evaluated. For those who had trouble writing food diaries, their daughters or in-law daughters wrote the diary. Real-sized food models were used to help subjects recall the foods they had eaten. Anthropometry and bone density were measured by 4 undergraduate nursing students who had been trained beforehand for their assigned areas. Data collection for the two cohorts was conducted on the same day by research assistants who did not know which subjects were in which group. Researchers participated only in providing the intervention program, not directly involved in data collection to avoid any probable impact on study results.

Korean DASH diet is a modified DASH diet for Korean foods that Korean elderly can consume while retaining DASH's original emphasis on fruits, vegetables, low-fat milk and dairy products together with whole grains, poultry, fish and nuts. Diet education program was developed after advised by two nutrition professors and one nursing professor. Diet counseling was made a total of 12 times through our center visits (6 times) and telephone calls(6 times) over 12 weeks. Individual counseling was made in the center every other week, and in those weeks without our visits, telephone counseling was made to encourage diet and calcium supplementation compliance. In this study, calcium/vitamin supplementation is defined as the provision of white pills containing 1200m of calcium and 800IU(20 $\mu$ g) of vitamin D every other week or 6 times over 12 weeks to the participants. The pills were put into 7-day pill holders for a 2-week use and provided.

Collected data were analyzed using PASW Statistics 18.0. General characteristics were analyzed with frequency, percentage, average, and standard deviation. Homogeneity before interventions and variable differences after intervention between the cohorts were assessed using  $\chi^2$ -test and independent t-test.

Reliability of the tools was evaluated with KR20 and Cronbach's  $\alpha$  coefficient. Statistical significance was accepted at  $p < .05$ .

**Results:** Participants in the intervention group showed the higher knowledge score ( $8.7 \pm 1.0$  vs  $7.7 \pm 1.3$ ,  $p = .002$ ) and better compliance to the Korean DASH diet ( $36.9 \pm 4.5$  vs  $30.8 \pm 4.7$ ,  $p < .001$ ) than the control group. In terms of other nutritional intake, the intervention group showed higher vitamin C intake than control group after the program ( $p = .026$ ). The intervention group also showed higher intake of vegetable ( $p = .013$ ), milk and dairy product ( $p = .041$ ), whereas the control group showed no changes. Consequently animal calcium intake from milk and dairy product was increased in intervention group ( $p = .023$ ). In terms of biochemical bone turnover marker, the intervention group showed the significant decrease in carboxy-terminal collagen crosslinks (CTX) than the control group ( $0.30 \pm 0.15$  vs  $0.40 \pm 0.16$ ,  $p = .030$ ) after the intervention. There was no significant difference in osteocalcin and bone mineral density among both groups.

**Conclusion:** This study examined the effects of Korean DASH diet education and calcium/vitamin D supplementation on bone health in elderly women ages 65 or over. Based on the results, our interventions are believed to have a positive influence on bone turnover in older women. Nonetheless, the time was limited to fully evaluate changes in bone marker levels and the sample size was small, which raises concerns of selection bias. This limitations warrant the need for extensive research over more than one year. Considering that elderly have difficult to remember and maintain acquired knowledge for a long term and to change dietary habits, we suggest a study that provides Korean DASH diet meals to participants directly and reconfirm its effectiveness on their bone turnover.

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#### Contact

[hylee@hoseo.edu](mailto:hylee@hoseo.edu)

## RSC PST 3 - Research Posters Session 3

### On the Use of Count Model to Predict Falls in Community-Dwelling Elderly: Using KLoSA (Korean Longitudinal Study of Ageing) Data

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Sehoon Hong, RN, PhD, South Korea  
Heun Keung Yoon, RN, MSN, South Korea  
Jiheon Choi, RN, CPNP, PhD, South Korea

#### Purpose

The objectives of the study were: (1) to ascertain the risk factors for falls in elderly; (2) to determine whether risk factor profiles differ between first time fallers and recurrent fallers; and (3) to build decision tree map of fall down risks in elderly and to suggest effective interventions.

#### Target Audience

The target audience of this presentation is health care providers who are interested in elderly's falls and effective interventions for prevention.

#### Abstract

**Purpose:** Falls has been caused of increasing rates of morbidity or mortality in elderly population (Centers for Disease Control and Prevention, 2013). In community-dwelling adults aged 65 years or older, one in three in the US (Kannus et al., 2007) and 17.2% of South Korean (Korea Ministry of Health and Welfare, 2009) suffers a fall each year. It's been led to spend of much of budgets from medical finance. And, the severity of complications of fall accidents has increased the length of stay of the old in hospital or care facility (Donaldson et al, 2005). Even though many of studies have been proposed the predictors or solutions for fall prevention, falls are still methodological issues in geriatric nursing field. This study suggests predicting the causes of increasing fall accidents in elderly by analyzing the national data with count model. The objectives of the study were: (1) to ascertain the risk factors for falls in community-dwelling elderly; (2) to determine whether risk factor profiles differ between first time fallers and recurrent fallers; and (3) to build decision tree map of fall down risks in elderly and to suggest effective interventions for first time fallers and recurrent fallers each.

**Methods:** Secondary data analysis was conducted on information collected Korean Longitudinal Study of Aging (KLoSA). KLoSA is a national panel data set that is publicly available. Data collected from 4,163 community-dwelling elderly in 2006 and 2008. Each subject was assessed by individual records of history and physical performance tests. Falls were recorded in frequency of fall for past 2 years. Data were analyzed by Chi-square, t-test, and zero-inflated negative binominal regression. Count models were estimated using STATA version 10.0 and regression tree with R program.

**Results:** The incidence of falls among community-dwelling elderly in Korea was 6.5%. Significant predictors of being a non-faller or a faller were vision, place of residence, pain and depression ( $p < .05$ ). And significant predictors of being a recurrent faller were place of residence, alcohol and fear of falls ( $p < .05$ ). For diagnosis and predicting regression trees of recurrent fallers were as follows (characteristics of high risk group): fear of falls (always worried), height (<175.5cm), age (<78.5year), vision (very bad), Quality of life (lower), and then height (<159.5cm).

**Conclusion:** These results provide new points of view of nursing implication for fall prevention of elderly in Korea. First, this study provides additional methodological option to study for prevention of falls and decrease the numbers of recurrent falls in elderly. This paper summarizes information to help guide the health care providers in choosing the high risk group of falls and the most appropriate preventing intervention. Second, this secondary-analysis provides comprehensive evidence-based assessment of risk factors for falls and recurrent falls in older people, confirming their multifactor etiology. Thus, the findings of this study will be the basis for effective intervention program to prevent falls and repeat falls.

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Contact

[38hooni@hanmail.net](mailto:38hooni@hanmail.net)

## RSC PST 3 - Research Posters Session 3

### Physical and Psychological Care of Breast Cancer Patients Receiving Chemical Therapy

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*Yi-Chiu Ou, RN, Taiwan*  
*Chia Jung Lin, RN, Taiwan*  
*Min Juan Zeng, RN, Taiwan*  
*Ruo-Nan Jueng, RN, Taiwan*

#### Purpose

The purpose of this exploratory study was to investigate and describe searching for physical and psychological care of breast cancer patients receiving chemical therapy in Taiwan.

#### Target Audience

Nursing intervention included promoting physical health, helping patients face the change of body appearance and uncomfortable, and encouraging patients joining families activities, to improve physical and psychological status and keep life of quality. This research provided nurses with a reference for caring similar patients in the future.

#### Abstract

**Purpose:** This exploratory study was to investigate and describe searching for physical and psychological care of breast cancer patients receiving chemical therapy in Taiwan. The study was conducted in a community's hospital in east Taiwan.

**Methods:** Eleven adult women with breast cancer, who indicated their present followed up in outpatient department and were able to communication well, were recruited. A hermeneutical, phenomenological research method was employed to guide the study. Interview were used to explore the structure of the study participants.

**Results:** Three themes emerged include (1)loss of control ,(2)health and choice, (3) to live. They were impaired insomnia causes severe distress, vomiting, feel nauseated, disturbance of body image. However sleep disturbance not only make patients uncomfortable and interfere with their mental health.

**Conclusion:** Nursing intervention included promoting physical health, helping patients face the change of body appearance and uncomfortable, and encouraging patients joining families activities, to improve physical and psychological status and keep life of quality. This research provided nurses with a reference for caring similar patients in the future.

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#### Contact

[11218@ymuh.ym.edu.tw](mailto:11218@ymuh.ym.edu.tw)

## RSC PST 3 - Research Posters Session 3

### Effects of Self-Regulated Exercise Maintenance Program (SR-EMP) on Cognitive and Behavioral Changes and Musculoskeletal Health of Elderly Women with Osteoporosis

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*MiJeong Park, RN, PhD, South Korea*

*Sue Kim, RN, PhD, South Korea*

#### Purpose

The purpose of this study is to determine the effects of the self-regulated exercise maintenance program (SR-EMP) on the cognitive aspects, such as self-efficacy and expected outcome, the behavioral aspects, such as exercise frequency and time, and the musculoskeletal health aspects, such as bone density, balance and muscular strength.

#### Target Audience

The target audience of this study comprised the health care providers or health educators who wanted to help the elderly women with osteoporosis maintain and improve their musculoskeletal health.

#### Abstract

**Purpose:** As Korea becomes an ageing society rapidly, geriatric diseases recently increased in the South Korean society. Especially, over the past decade, osteoporosis has drastically increased in the elderly women in their sixties and seventies (Ministry of Health and Welfare), so active social, economic and scientific attention should be paid. The osteoporosis is a disease which enhances a risk of fracture by weakening bone strength through bone mass reduction, bone tissue atrophy, and fine structure damage (Kotz, Deleger, Cohen, Kamigaki, & Kurata, 2004). The disease is treated by means of exercise, intake of calcium and vitamin, no alcohol, no smoking, weight control, medication etc. Among them, exercise therapy is effective for reducing fracture, since it gives mechanical load to bone, thus preventing bone loss, increasing bone strength and improving muscular quantity and strength and sense of balance (Lewiecki, 2011). Therefore, continuous exercise should be strongly emphasized for elderly osteoporosis women. Six months or more are needed to make the temperament of bone formed again in response to the transformed load caused by exercise (Spirduso, Francis, & MacRae, 2005). Hence, elderly osteoporosis women should do continuous exercise in everyday life, not during a short term. However, there is a preceding study according to which 50% of the elderly stop exercise after 3-6 months of exercise (Resnick & Spellbring, 2000). This indicates that it is very difficult for old people to maintain their habit of exercise for a long time. The present study paid attention to Park et al. (2013)'s self-regulated exercise maintenance program (SR-EMP), a new strategic program to induce elderly osteoporosis women to do exercise continuously in everyday life and eventually to improve musculoskeletal health. The SR-EMP was developed to lead elderly osteoporosis women into continuous exercise by using self-observation, goal setting, social and environmental support and reinforcement, time management and relapse prevention, which are sub-concepts of self-regulation, as the tactics of the intervention program, but the practical efficacy of the program should be verified among elderly osteoporosis women. Therefore, this study aims to determine the effects of the SR-EMP program on cognitive and behavioral changes and musculoskeletal health improvement by applying the program to the elderly women having osteoporosis.

**Methods:** The present study was performed using the pretest-posttest design with a comparison group at two silver schools in C and W cities for about six months from April 26 to October 22, 2012. The subjects were the women of 65 to 74 years old who were diagnosed as osteoporosis and recommended to do regular exercise but did not take the drugs which are likely to affect osteoporosis without restricting physical activities. The study was joined by 19 subjects in the test group (C city) and 18 subjects in the control group (W city) to the end. There was no statistically significant difference in the demographic characteristics and study.

This study applied the SR-EMP and a general exercise program to the test group and the control group, respectively in order to check how effective the SR-EMP with reinforced self-regulated strategy were for

study factors, as compared to the existing exercise programs. To determine self-regulation abilities, an intermediate test was performed after pretest and 12-week introduction and adaptation period, during which regular exercise was maintained by the investigator, and posttest was performed after 12-week maintenance period, during which the subjects maintained exercise (24 weeks after the prior test).

The SR-EMP was developed through the six steps of need assessment, goal setting, selection theory-based intervention methods and performance strategies, development of program application and performance schemes and development of program effect assessment methods, and consists of the health education using self-control strategy's sub-factors, self-observation, goal setting, social support, environmental aids, reinforcement and relapse prevention, and the strategic intervention methods, such as complex exercise, self-help meeting, exercise notebook and telephone consulting.

In order to help elderly osteoporosis women exercise at home after completing intervention, the program is composed of one-time health education, complex exercise three times a week, self-help meeting once a week in the 8-week introduction period; complex exercise once a week, self-help meeting once a week and telephone consulting two times a week in the 4-week adaptation period; keeping and updating an exercise notebook in the 12-week period.

This study used the tools to measure self-efficacy, expected outcome, exercise frequency and time, osteoporosis, balance and muscular strength in order to determine the effects of the SR-EMP on cognitive and behavioral aspects and health aspects. For self-efficacy, 6 questions (Won In Sook, 2009) of 10 point VAS scale were used, and for expected outcome, 16 questions of 4-Likert scale (Kim Yul, 2009) were used. Higher average points mean greater self-efficacy and expected outcome. This study analyzed the exercise notebooks that the subjects kept during the study period to measure behavioral aspects, exercise frequency and time. For exercise frequency, average values were obtained by adding up the exercise sessions per week. Higher values mean higher exercise frequency. For exercise time, average values were obtained by adding up practical exercise hours among complex exercise hours (5-minute preparatory exercise, 25-minute aerobic exercise, 25-minute resistance exercise and 5-minute finishing exercise) every week. Higher values mean more exercise hours. For bone density, T scores were measured in the calcaneus at a simple test using a mobile bone density measurer for quantitative ultrasonometry. Higher T-score values mean higher bone density. For balance, static balance measurement was used. Higher values mean higher sense of balance. For back strength, a back muscle dynamometer was used. Higher values mean better back strength. The collected data was using the IBM SPSS Statistics version. A repeated measure ANOVA was used to analyze the differences in self-efficacy, expected outcome, exercise frequency and time, bone density, balance and muscular strength.

**Results:** The effects of the SR-EMP on cognitive aspects are as follows. First, self-efficacy was no statistically significant difference between the test and control groups ( $F=0.72$ ,  $p=.401$ ), but there were statistically significant differences between periods ( $F=34.50$ ,  $p<.001$ ), and there was no statistically significant difference in interaction effect between groups and periods ( $F=3.07$ ,  $p=.053$ ). Second, the expected outcome was no significantly significant difference between the test and control groups ( $F=1.03$ ,  $p=.318$ ) and periods ( $F=0.72$ ,  $p=.492$ ). However, there were statistically significant differences in interaction effect between groups and periods ( $F=6.00$ ,  $p=.004$ ).

The effects of the SR-EMP on elderly osteoporosis women's behavioral aspects are as follows. First, the exercise frequency were statistically significant differences between the test and control groups ( $F=4.43$ ,  $p=.043$ ) and periods ( $F=277.49$ ,  $p<.001$ ). However, there were no statistically significant difference in interaction effect between groups and periods ( $F=6.00$ ,  $p=0.103$ ). Second, the exercise time were statistically significant differences between the test and control groups ( $F=6.96$ ,  $p=.012$ ), periods ( $F=239.33$ ,  $p<.001$ ), in interaction effect between groups and periods ( $F=4.99$ ,  $p=.024$ ).

The effects of the SR-EMP on the musculoskeletal health of elderly osteoporosis women are as follows. First, the bone density was no significantly significant difference between the test and control groups ( $F=1.03$ ,  $p=0.566$ ) and periods ( $F=0.72$ ,  $p=0.329$ ). However, there were statistically significant differences in interaction effect between groups and periods ( $F=6.00$ ,  $p=0.005$ ). Second, the balance was no statistically significant difference between the test and control groups ( $F=0.17$ ,  $p=.684$ ), but significant differences between periods ( $F=12.12$ ,  $p<.001$ ). There was no statistically significant difference in interaction effect between groups and periods ( $F=6.00$ ,  $p=0.130$ ). Third, the muscular strength was no

statistically significant difference between the test and control groups ( $F=3.01$ ,  $p=.092$ ), but significant differences between periods ( $F=34.77$ ,  $p<.001$ ). There were statistically significant differences in interaction effect between groups and periods ( $F=6.05$ ,  $p=.004$ ).

**Conclusion:** The present study was performed to determine the effects of the SR-EMP on the cognitive and behavioral changes and musculoskeletal health of elderly osteoporosis women. As a result, the SR-EMP proved to continuously promote expected outcome, a cognitive factor, and increase exercise time, a behavioral factor, and thus have positive effects on bone density and muscular strength. The SR-EMP is expected to be used in various fields as an intervention tool for elderly osteoporosis women to do effective and continuous exercise.

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### Contact

[jeong7676@hanmail.net](mailto:jeong7676@hanmail.net)

## RSC PST 3 - Research Posters Session 3

### The Development of Educational Tool to Support Disease Management Nurses for Preventing the Recurrence of Brain Infarction

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*Yasuko Fukuoka, MSN, RN, PHN, Japan*

*Yae Takeshita, MSN, RN, PHN, Japan*

*Masahiro Kamouchi, PhD, MD, Japan*

*Michiko Moriyama, RN, PhD, Japan*

#### Purpose

In this study, we have developed the educational tool to support nurses who newly came into to DM field for them to understand and be able to practice evidence-based DM programs. This reports development of the Stroke educational tool for nurses.

#### Target Audience

The target audience of this presentation is disease management nurses.

#### Abstract

**Background:** Stroke, including brain infarction, is the top cause of producing care-needy condition and one of the highest disease categories of national medical expenditure in Japan(Health and Welfare Statistics Association., 2010) as well as other developed countries(Johnston, 2008). Stroke is reported as a high recurrence rate(Hata et al., 2005), and is aggravated by a recurrence even if it was a mild disability at the first time(Hankey, Jamrozik, & Broadhurst, 2002).

For preventing the recurrence, Stroke evidence-based clinical guideline 2009, Japan, recommends to control risk factors with medication and lifestyle modification(Shinohara et al., 2011). From medical care delivery system's perspective, one of the methods to solve the recurrence of stroke is disease management (DM) system(Howe, 2005; Warren & David, 2001).

DM is defined as "a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant. DM supports the physician or practitioner/patient relationship and plan of care; Emphasizes prevention of exacerbations and complications utilizing evidence-based practice guidelines and patient empowerment strategies; and Evaluates clinical, humanistic, and economic outcomes on an on-going basis with the goal of improving overall health"(Care Continuum Alliance., n.d.). Developed nations such as United States, Germany and Australia have adopted DM as a national strategy. Following those countries, national council on social security system reform, the Japanese government, in 2013, finally recommended developing DM strategies to prevent chronic disease aggravation into the integrated community care system, and to effectively use nurses in this disease management system. DM is the key to resolve preventing disease aggravation/recurrence and the reduction of the medical expenditure as a result(Moriyama et al., 2009; Moriyama, Takeshita, Haruta, Hattori, & Ezenwaka, 2013; Otsu & Moriyama, 2011). Therefore, we are now in the process of developing DM system in Japan.

**Purpose of this study:** In order to effectively operate the DM system in Japan, we have developed the disease management center outside of medical facilities, and started to provide DM to clients who have been discharged from acute care hospitals and also clients of medical insured who are targeted through analysis of medical receipt/claim data and health check-up data.

In this study, we have developed the educational tool to support nurses who newly came into to DM field for them to understand and be able to practice evidence-based DM programs. This reports development of the Stroke educational tool for nurses.

**Significance of this study:** Nurses providing DM programs (Disease Management Nurse: DMN) assess clients' health conditions through physiological laboratory data, physical examinations, and interviewing lifestyle of clients, and focus target risk factors. DMNs also need to acquire skills of behavior modification, motivational interviewing, and communication skills to feed back to clients' physicians. These are high

abilities which need to educate to DMNs even who have clinical experiences at hospitals. When DMNs use this educational tool, they can provide high quality, stable skills to clients, and this tool makes reliable quality condition to DMNs, as consequently, clients can receive reliable DM services.

**Methods: Process of the development of education tool for DMN - The target** - The target population, using this educational tool is DMN. Clients who receive DM services through this trained DMN are clients who had brain infarction whose modified Rankin scale is 0-3, who can conduct self-management after having an education from DMN.

**Scheme and contents of the tool** - This tool is based on a critical pathway format, including intervention timeline, intervention contents to both clients and their physicians. Intervention contents were extracted from evidence-based clinical guidelines of stroke, hypertension, diabetes, dyslipidemia, chronic kidney disease (CKD), alcohol, and smoking cessation, and arrhythmia. We placed those items with criteria. Decision map/algorithms were embedded. Nurse's intervention such as self-management education (understanding of disease/condition, diet, exercise, self-monitoring and etc.), motivation interviewing tools, and nursing actions such as foot examination were included.

**The goal setting, planning, and stratification** - As the education subjects vary depending on risk factors of each client, we set a stratification groups divided by hypertension, diabetes, dyslipidemia, CKD, and atrial fibrillation. The criteria values for the stratification were extracted from clinical guidelines. Then, the frequency and the subjects of the intervention were set in every stratification group.

We create an algorithm to do automatic select of necessary extra medical data and education subjects. In addition, the education methods were arranged due to the clients' level of understanding and enforcement for the self-management of the disease.

**How the algorithm works** - According to the inserted basic client information (e.g., risk factor, medical history, and physiological data), the necessary extra data, education subjects and other information needed are automatically displayed on the screen. During input the data, if there are some abnormal data, the warning appears on the screen. Furthermore, reminding function is added. The actions need to be taken to the abnormal data (e.g., additional patient education and report to the physician) appears on the screen automatically.

**Intervention method** - The intervention period is three months. DMN make a face-to-face interview for the first time, and total phone calls are 5 times for every 2 weeks.

**Validity verification** - The validity of the tool is clinical indicators and educational contents were checked and compared to the neurologists and clinical nurse specialist nurses. Also for checking validity, we compared the extracted indicators with the examination subjects and those frequencies by using medical records of brain infarction outpatient.

Ethical consideration

This study was approved by the Ethics Committee of Hiroshima University.

**Results:** The purpose of this educational tool is to ensure a certain level of patient education quality for preventing of brain infarction recurrence. For the achievement of this goal, there are two distinctive characteristics of the tool.

1. The reminding function automatically selects strategies which cope with the abnormal data. This function ensures the proper action to choose what kind of intervention to take and also reduce omissions the necessary intervention.
2. As the stratification groups are made due to the risk factors, this tool customizes support to match the risk factors of the clients. This function made it possible to standardize the thinking process for disease management. It is important to customize the support depending on the risk factor which the client has, because the brain infarction has many risk factors.

**Conclusion:** Those functions help to keep the quality of DM even when inexperienced nurse need to perform the intervention. The practicability of this tool, however, is not confirmed yet. Now we are in the process to check and proof the ability of the tool.

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## Contact

[yasukofukuoka@hotmail.com](mailto:yasukofukuoka@hotmail.com)

## RSC PST 3 - Research Posters Session 3

### Epigenetic Risk Factors in Women with Breast Cancer: A Family Case-Control Study

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Mildred C. Gonzales, RN, MSN, USA  
Shyang-Yun Pamela K. Shiao, PhD, RN, FAAN, USA

#### Purpose

The purpose is to disseminate the current scientific evidence, including meta-analyses and a pilot prospective family-based case-control study on genome health on epigenetic risk factors for breast cancer.

#### Target Audience

Target audiences include nurses and inter-professionals who are interested in understanding genome health and epigenetic risk factors for breast cancer.

#### Abstract

**Purpose:** The purpose is to disseminate the current scientific evidence, including meta-analyses and a pilot prospective family-based case-control study on genome health on epigenetic risk factors for breast cancer.

Breast cancer is the most common malignancy and the second leading cause of cancer death among women worldwide. Methylene tetrahydrofolate reductase (MTHFR) is critical for methylation pathways for deoxyribonucleic acid (DNA) repair and normal cellular development. Methylation pathways are affected by health behaviors such as folate intake, alcohol consumption, and tobacco smoking.

**Methods:** Meta-analyses and a prospective pilot study on the associations of MTHFR gene variations, and health behaviors with breast cancer.

**Results:** Preliminary meta-analyses results included 55 studies for a total of 22,077 breast cancer cases and 25,419 controls including 27 studies with Whites, 21 studies with Asians, and 7 studies with mixed Euramericans. From the selected studies with MTHFR gene counts, there were 12 studies with folate intake levels for 8,032 cases and 10,482 controls; 5 studies with alcohol consumption for 3,068 cases and 5,157 controls; and 5 studies with tobacco smoking status for 909 cases and 1,233 controls. MTHFR C677T was associated with increased risk of breast cancer ( $P < 0.005$ ). The results also suggested that low folate intake, heavy alcohol consumption, and tobacco smoking contributed to increased risks for breast cancer. Preliminary results of the prospective pilot study conducted in southern California will be presented.

**Conclusion:** The results of this study can be translated into individual differences in gene variations and personalized behavioral interventions for cancer prevention. In addition, it has implications for the role of the nurses as advocates for their clients through knowledge interface from epigenetic advances to efficient health promotion in the clinical and community settings.

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### Contact

[mgonzales10@apu.edu](mailto:mgonzales10@apu.edu)

## RSC PST 3 - Research Posters Session 3

### Telling It like It Is: The Lived Experience of Young People with Type 1 Diabetes in Rural Australia

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*Ainsley M. James, BN, GradCertPaeds, GradCertHigherEd, MN, Australia*

#### Purpose

The purpose of this presentation is to provide an understanding or awareness of what life is like for a young person with type 1 diabetes living in a rural environment, the challenges they face and the impact (or influence) chronic illness may have on these aspects.

#### Target Audience

The target audience for this presentation are health care professionals involved in the care of young people with type 1 diabetes. Healthcare professionals will be better placed to provide relevant, contextual and adolescent specific care to young people experiencing chronic illness.

#### Abstract

**Purpose:** The purpose of this research is to provide an understanding or awareness of what life is like for a young person with Type 1 diabetes living in a rural environment, the challenges they face and the impact (or influence) chronic illness may have on these aspects. Healthcare professionals will be better placed to provide relevant, contextual and adolescent specific care to young people experiencing chronic illness; care that takes into consideration the impact Type 1 diabetes has on a young person at various points in their life by tailoring care that 'fits' into the young person's life. There was a plethora of literature relating to management of symptoms, control of glycaemic levels complications, lifestyle, insulin pumps, activity, nutrition, monitoring and more importantly, searching for a cure; this list is not exhaustive. The missing link appeared to be a lack of published research into the actual meanings of experiences had by young people with type 1 diabetes.

**Methods:** A qualitative approach was implemented and underpinned by Max van Manen's method of phenomenological inquiry. Phenomenological inquiry provides opportunity to explore and describe lived experience of a particular phenomenon, to 'paint a picture' of what living with type 1 diabetes is actually like. The challenges faced and the impact (or influence) chronic illness may have will be highlighted. Participants were male or female, 16-24 years of age, living in rural Victoria Australia, and had type 1 diabetes. Interviews were digitally recorded and transcribed and transcriptions analysed for themes, utilising van Manen's approach to phenomenological inquiry. Themes were utilised to describe what life is like for young rural people with type 1 diabetes, essentially, their lived experience.

Participants were also invited to participate in creating an individual piece of art (of their choosing) that represented their experience of having type 1 diabetes while living in a rural setting. They were asked to interpret the artwork to the researcher, thus adding further depth to their lived experience. The artwork took various forms and included drawings, paintings, photograph/s, poems etc.

**Results:** Results continue to be under investigation. At present participants were provided with a voice to tell their story of what life is like living in a rural setting with type 1 diabetes with the aim to inform healthcare professionals about the participants' experiences. Results will strive to improve the care of young people with type 1 diabetes living in a rural setting by the development of recommendations enabling healthcare professionals to tailor care provided to young people. Results will also inform other young people with type 1 diabetes about the participants' experiences so that these experiences may resonate with other young people

**Conclusion:** Adolescence can be a time of great change both physically and emotionally and is a challenging period in a young person's life, even without alterations to their health. Adolescents diagnosed with a chronic illness, such as type 1 diabetes experience lifelong changes that some may find difficult to accept and cope with. Being adolescent, living with a chronic illness and residing in a rural environment triples the challenges. Healthcare professionals will be better placed to provide relevant, contextual and adolescent specific care to young people experiencing chronic illness; care that takes into

consideration the impact type 1 diabetes has on a young person at various points in their life by tailoring care that 'fits' into the young person's life. Support networks and programs can be designed specifically to meet the needs of young rural people with type 1 diabetes.

Contact

[ainsley.james@monash.edu](mailto:ainsley.james@monash.edu)

## Part VII: Invited Posters

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### RSG STR - Rising Stars of Scholarship and Research Invited Student Posters

#### Postpartum Urinary Retention and Contributing Factors in Taiwanese Women

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Ya-Ling Tzeng, RN, PhD, Taiwan

Ya-Wen Lin, RN,MS, Taiwan

Pei-Shun Ning, RN,BS, Taiwan

##### Purpose

Postpartum Urinary Retention is one of the most common urinary symptoms of women during the early postpartum period. The objectives of this study were to describe the incidence, duration, type, clinical management and its effect of postpartum urinary retention and to identify the factors influencing PUR.

##### Target Audience

Nursing staff ought to evaluate the bladder function of the postpartum women, especially primiparas, those who adopted epidural anesthesia, and with severe perineal laceration. Though not being the major reason causing PUR, episiotomy does affect postpartum women's urinary function.

##### Abstract

**Objectives:** The purposes of this study were to describe the incidence, duration, type, clinical management and its effect of postpartum urinary retention and to identify the factors influencing PUR.

**Method:** A prospective observational study was adopted. 270 women who had vaginal delivery, were recruited from a medical center in central Taiwan. We used either bladder scan or urine output to measure the post voiding residual volume, and further record the participants' information related to Postpartum Urinary Retention with a structural questionnaire.

**Result:** The PUR incidence of our participants was 7.78%, including 38.10% overt PUR and 61.90% covert PUR. 23.80% of the women could self-urinate after one-hour helping measure; 9.52% with indwelling catheterization and 66.67% adopted intermittent catheterization. Based on the logistic regression, women who are primiparas (OR,0.2; p=0.000), who have perineal laceration (OR,3.2; p=0.000), and who adopt epidural anesthesia (OR,2.8; p=0.000) have higher incidence of PUR.

**Conclusion:** Evaluate the bladder function of the women after birth is suggested, especially primiparas, those who adopted epidural anesthesia, and with severe perineal laceration. Though not being the major reason causing PUR, episiotomy does affect postpartum women's urinary function. The result of this study contributes to the understanding of the characteristics and risk factors of resulting in postpartum urinary retention, which could either help prevent or control postpartum urinary retention as well as increase the quality of the nursing care in the early postpartum period.

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#### Contact

[wen5001@mail.cmu.edu.tw](mailto:wen5001@mail.cmu.edu.tw)

## **RSG STR - Rising Stars of Scholarship and Research Invited Student Posters**

### **Musculoskeletal Pain in Newly Diagnosed Type 2 Diabetics in Taiwan**

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*Pai Lee-Wen, Taiwan*

*Li-Li Chen, PhD, RN, Taiwan*

*Hung Chin-Tun, PhD, Taiwan*

*Chang Shu-Chuan, Taiwan*

*Chen Wei, MS, Taiwan*

#### Purpose

The objective of this study was to investigate musculoskeletal pain occurring in newly diagnosed type 2 diabetics in Taiwan between 2001 and 2010. We hoped to estimate incidence rate and occurring region by the actual medical records. The result was provided the evidence of musculoskeletal pain in type 2 diabetics.

#### Target Audience

The target audience of this presentation is including the clinical professionals.

#### Abstract

**OBJECTIVE:** The objective of this study was to investigate musculoskeletal pain occurring in newly diagnosed type 2 diabetics in Taiwan between 2001 and 2010. We hoped to estimate incidence rate and occurring region by the actual medical records. The result was provided the evidence of musculoskeletal pain in type 2 diabetics.

**RESEARCH DESIGN AND METHODS:** The research data was obtained from the Taiwan National Health Insurance Research Database from 2000 to 2010. This study utilized a retrospective cohort method. We recruited 6,586 newly diagnosed type 2 diabetics from 18 to 50 years of age in Taiwan in 2001 as the diabetes subject group, and 32,930 age- and sex-matched controls without diabetes between 2001 and 2010. We tracked the outpatient medical records for musculoskeletal pain from 2001 to 2010 for both groups and according to which, we calculated the incidence and occurring region for musculoskeletal pain and compared the results.

**RESULTS:** The results showed that patients with diabetes had higher incidence rates as compared to controls for musculoskeletal pain from 2001 to 2010 ( $p < 0.05$ ). The relative risk of musculoskeletal pain occurrence for both groups was the highest (relative risk = 1.33) for patients 31 to 40 years of age; the lowest relative risk (1.17) was seen in patients 41 to 50 years of age, and the relative risk for female patients was always higher than male patients. The most occurring region was the lumbar and back area.

**CONCLUSIONS:** The study result indicated that patients with diabetes had higher incidence rates as compared to controls for musculoskeletal pain. Therefore, to assess the musculoskeletal pain in type 2

diabetics is necessary, the early intervention will help to maintain ideal physical activity for type 2 diabetes.

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## Contact

[lwpai@ctust.edu.tw](mailto:lwpai@ctust.edu.tw)

## RSG STR - Rising Stars of Scholarship and Research Invited Student Posters

### A Nurse-Led, Evidence-Based Stroke Self-Management Program for Community-Residing Stroke Survivors: Development and Design

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*Hoi Shan Lo, RN, BN, MSc, Australia*

#### Purpose

The purpose of this presentation is to illustrate the process of developing a nurse-led, theory-based stroke self-management program for community-residing stroke survivors based on the best available research evidence.

#### Target Audience

The target audience of this presentation includes nurses and healthcare professionals interested in stroke care.

#### Abstract

**Background:** Stroke recovery is long-term and demanding. It is important to optimise stroke survivors' capability to manage their own health after stroke. Previous systematic reviews showed potential benefits of stroke self-management programs. However some programs were not well designed with a theoretical framework.

**Aim:** The aim of this paper is to illustrate the design and development of a nurse-led, evidence-based, self-efficacy enhancing stroke self-management program for community-dwelling stroke survivors.

**Methods:** The development of the program is divided into two phases. Phase I included the conduct of a systematic review to assess the best available research evidence regarding the effectiveness of community-based stroke self-management programs underpinned by a theoretical framework. Phase II included the development of a theory-based stroke self-management program for community-dwelling stroke survivors based on the review findings.

**Results:** The results of the systematic review showed that Bandura's self-efficacy theory was frequently adopted to underpin the stroke self-management programs. Significant improvement in quality of life and self-efficacy among stroke survivors after receiving the program was reported. However some of the included studies did not measure stroke survivors' changes in self-efficacy. Description about strategies to enhance stroke survivors' self-efficacy in performing stroke self-management behaviours were also limited. Based on the review results, a nurse-led stroke self-management program underpinned by Bandura's self-efficacy theory for community-dwelling stroke survivors is developed. It is a three-week program including an individual home visit, two group sessions, and two follow-up phone calls. Individualised assessment and education on self-management skills will be provided to enable mastery experience. Video clips about experience sharing by stroke survivors were developed to provide vicarious experience. Verbal persuasion and skills in reinterpreting the signs and symptoms will also be provided. Furthermore stroke survivors' outcome expectation of performing stroke self-management will be assessed to tailor-make the strategies to enhance their participation in self-management.

**Discussion and Conclusion:** This new program adopts multifaceted strategies driven by the self-efficacy theory to enhance stroke survivors' self-efficacy in performing stroke self-management behaviours. A randomised controlled trial will be conducted to evaluate the program.

#### Contact

[h1.lo@student.qut.edu.au](mailto:h1.lo@student.qut.edu.au)

## RSG STR - Rising Stars of Scholarship and Research Invited Student Posters

### Methods of Developing and Evaluating an Acupressure Protocol for Managing Agitation in Dementia

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Rick Y. C. Kwan, RN, MSc, Hong Kong  
Claudia K. Y. Lai, PhD, RN, Hong Kong  
Mason C. P. Leung, PhD, BSc, BM(TCM), PDPT, Hong Kong

#### Purpose

The purpose of this presentation is to explicate the procedures on how a standardized acupressure protocol was developed methodologically from an evidence base and how its effects were evaluated in a randomized controlled trial.

#### Target Audience

The target audience of this presentation is researchers interested in the development of evidence-based protocols and evaluation of complementary and alternative therapies.

#### Abstract

**Background:** Agitation is prevalent among people with dementia (PWD) in nursing homes. It frustrates both the PWD and their caregivers. Acupressure is a complementary therapy whose effect can be explained by different theories, such as the meridian theory in traditional Chinese medicine. Preliminary studies supported its effectiveness in reducing agitation on PWD. However, acupressure is a multiple modality therapy that can comprise various different types of intervention components. There is a dearth of evidence to support which intervention components to use and to explain their effect. The purposes of this paper are to discuss, using an actual example, how an acupressure protocol was developed according to evidence-based procedures and how its effect was evaluated by an experimental study.

**Methods/Design:** *Methods of developing an acupressure protocol* - This intervention protocol was developed according to the 2008 Medical Research Council guideline for developing complex interventions. The intervention was developed based on three methods: a literature review, the Delphi process and a pilot study.

The literature review identified articles discussing the theories possibly connecting the use of acupressure and agitation. Evidence relevant to the use of acupressure on agitation in PWD was retrieved by a systematic review from the major databases. The literature review highlighted the existing evidence and developed theories to explain why acupressure might work. The relevant information retrieved from the literature was then organized for the subsequent Delphi process.

In the Delphi process, a panel of six TCM experts specialized in acupuncture was consulted. The Delphi process first asked the panel experts to suggest the intervention components (i.e. the selection of acupoints), the intervention dosage, and the rationales for the selection of components. They were then asked to give suggestions with reference to the information provided in the literature and their own professional knowledge and experience. Finally, consensus on the procedural details and possible effective components of the intervention protocol was reached through three cycles of stepwise anonymous discussion. Although consensus on the intervention dosage (i.e. the duration and frequency) was reached in the Delphi process, the narrative comments from the Delphi process showed that the dosage was based on the experts' experience only because TCM theory does not discuss dosage.

A pilot study was performed to provide supporting evidence for the dosage selection. In the pilot study, within the range of dosage suggestions given in the Delphi process, the effect of acupressure was compared among various dosages. The dosage that showed the largest and most significant effect was used in the intervention protocol. Finally, all the details of the intervention protocol were confirmed after the three methods. The intervention protocol was then evaluated in the subsequent experimental study.

*Methods of evaluating an acupressure protocol* = The experimental study was a multicenter, assessors-participants-statistician-blinded, parallel group, randomized controlled trial conducted in Hong Kong nursing homes. We targeted PWD over 65 years old in nursing homes, who were experiencing agitation.

We invited the participation of 157 nursing homes registered under the Hong Kong Social Welfare Department. 21 nursing homes agreed, and 12 were selected randomly to participate in the study in order to recruit an adequate number of participants (estimated to be 99) to demonstrate a significant effect difference (i.e.  $f = 0.27$ ) with a power of 0.8 and a significance level of 0.05 among the three groups. All residents in the 12 nursing homes ( $n=2014$ ) were primarily screened by the nursing home staff. After the screening, the staff compiled a list of potential participants ( $n=214$ ). With the consent of the participants and/or their families, we further screened all potential participants against the selection criteria. 121 participants were finally recruited.

All participants were assigned by permuted block randomization into three groups in a 1:1:1 ratio. In the acupressure group (AG), participants received acupressure at the Fengchi (GB20), Baihui (GV20), Shenmen (HT7), Niguan (PC6) and Yingtang (EX-HN3) acupoints. In the sham-acupressure group (SG), participants received pressure on five non-acupoints. In the usual-care group (UG), participants received no intervention apart from the care provided by the nursing homes. Participants assigned to the SG and UG received free acupressure, like that received by the acupressure group, as compensation after completion of the study.

The main outcomes being evaluated were agitation and stress. The effect of acupressure on moderating the participant's use of psychotropic drugs was also monitored. Agitation was measured by the Cohen-Mansfield Agitation Inventory (CMAI). Stress was measured by salivary cortisol. The measurements were carried out four times: before the commencement of the intervention (T0), the first week after completion of the intervention (T1), the third week after completion of the intervention (T2), and the sixth week after completion of the intervention (T3).

To ensure the quality of the intervention implementation and data collection, all research personnel, those conducting the intervention, and data collectors attended an eight-hour training course provided by two of the six members of the TCM expert panel. All personnel conducting the intervention took a skill examination administered by one of the six members of the TCM expert panel. All data collectors and research assistants had to pass the skill examination stipulated by the researchers before they could become involved in this study. The training content for the personnel conducting the intervention strictly followed the intervention protocol of the study, with complete agreement by the expert panel. In order to monitor the quality of the intervention and data collection, all the data collectors and those conducting the intervention had to attend a separate skill evaluation provided to the research team monthly. On-site visits were also conducted, once to each site, to monitor the skill of the data collectors and those conducting the intervention. Dropouts, withdrawals, undelivered interventions and uncollected data were recorded until completion of the study. The whole study lasted for 30 weeks. The intervention and data collection of the study were completed. Data analysis of the results is under way.

**Discussion:** This paper followed the MRC 2008 guideline to elucidate the methods of developing and evaluating a standardized acupressure protocol. Acupressure is like many other complementary therapies in that it has been used without strict regulations and strong consensus. For this reason, intervention components and implementation methods may vary largely from one context to another. It is difficult to evaluate the effects of an intervention with too many varying possible effective components.

This paper discussed three methods of developing an intervention. A literature review was used to identify the existing evidence. The Delphi process was used to gather experts' opinions and to reach a strong consensus based on experience and theories. A pilot study was used to provide empirical evidence on areas that could not be explained by theories or previous experience in the literature review and expert consultation steps. These methods standardized an intervention protocol with many possible effective components by using evidence-based procedures and making the intervention comparable and researchable in a trial.

Acupressure is a complex intervention and its effects can be confounded by many factors. This paper elucidated methods to control many of these confounding factors. Apart from the fundamental methods usually used in an RCT, many added methods were used. For example, a sham-acupressure group was

set up in order to explain the added effect beyond the placebo. The use of sham-acupressure also made blinding to the outcome observers feasible in order to reduce observers bias. Compensation (or the wait-list-control) was provided to clients who were randomized into the non-acupressure groups at the end of the trial, in order to reduce the dropout rate. Tight controls on the intervention and data collection skills (e.g. regular training and on-site visits) were used in order to enhance the intervention fidelity and data collection reliability.

This is the first paper on this topic to explicate how the effect of acupressure was evaluated by disclosing the steps from the stage of developing a standardized intervention protocol to that of the experimental evaluation. By explicating these steps, the effectiveness of acupressure (or other complementary therapies) can be better understood and further studied.

**Conclusion:**Acupressure is like many other complimentary therapies that can be difficult to evaluate for effectiveness because of largely varying active components and implementation methods. This paper explained how an intervention protocol can be developed based on a literature review, the Delphi process, and a pilot study. In evaluating the effects of acupressure, this paper also elucidated many additional methods besides the basic ones usually used in an RCT. These included: use of sham-acupressure, use of blinding to the outcome observers, use of intervention compensation, and use of tight control on the intervention implementation and data collection.

#### Contact

[rick.kwan@polyu.edu.hk](mailto:rick.kwan@polyu.edu.hk)

## Part VIII: Research Symposia

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### A 11 - Face-to-Face to Email to HELPP Zone App: Delivering Intervention in Intimate Partner Violence

#### Face-to-Face to Email to HELPP Zone App: Delivering Intervention in Intimate Partner Violence

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Rose E. Constantino, RN, BSN, MN, JD, PhD, FAAN, FACFE, USA

##### Purpose

1.To discuss the results of a research study on Face-to-Face to Email to HELPP Zone app: Delivering Intervention in Intimate Partner Violence. 2.To outline the steps the researchers took in developing the HELPP Intervention.

##### Target Audience

general population of healthcare providers-novice to experts.

##### Abstract

**Purpose:** To compare the effectiveness of HELPP (Health, Education on safety, and Legal Participant Preferred) intervention among three groups of participants experiencing IPV: online, face-face and waitlist controls.

**Methods:** A sequential transformative design in mixed methods was used. Participants were randomly assigned to one of three study groups (Online (ONL [n=11]), Face-to-Face (FTF [n=10]) and Waitlist Control (WLC [n=11]) by permuted block randomization after informed consent process and baseline testing were completed. Researchers were blinded to treatment allocation.

**Results:** The HELPP intervention was offered to a sample 32 female participants experiencing IPV who were predominantly Asian 45.2% (n=14), 32.3% (n=7) were White, 22.5% (n=10) Black and on average 40 years of age. Primary outcomes were anxiety, depression, anger, personal support, and social support. Secondary outcomes were IPV experience <18 years old, experience of pain, and 4 types of social support: tangible, appraisal, belonging, self-esteem (TABS) social support. The qualitative data analysis will be excluded from this presentation. Sixty-five percent of the 20 participants experienced IPV before age 18 years. The Anxiety, depression, anger, personal resource and social support mean scores pretest to posttest differences were significant for ONL (p<0.001).

**Conclusions:** The HELPP intervention was instrumental in decreasing participants' feelings of anxiety, depression, and anger and increasing personal support and social support with significant reported improvements in the ONL group. The acceptability of online intervention, specifically email-delivered HELPP intervention was shown to be feasible and effective compared to waitlist controls. Further research may determine whether email alone or combined with mobile devices could also be used to deliver intervention in IPV survivors.

##### Contact

[rc0100@pitt.edu](mailto:rc0100@pitt.edu)

### Text Messaging Information for Survivors of Intimate Partner Violence

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Linden Wu, USA

##### Purpose

to discuss the therapeutic value of TMI in recognizing and responding to prevent IPV.

##### Target Audience

General population of healthcare providers - novice or experts.

#### Abstract

**Purpose:** Disruptive Innovations (DI), using an intentionally and deliberately developed product or service that becomes part of daily human activity such as Text Messaging Intervention (TMI) is the conceptual framework we used. Our specific aim is to evaluate text messaging as a feasible disruptive and protective tool on IPV. Three research questions are: Will TMI 1) increase participants' awareness of potential IPV? 2) improve participants' knowledge of the warning signs of IPV? and 3) improve participants' knowledge of actions to take to prevent IPV?

**Methods:** A mixed methods design was used to examine the feasibility of text messaging qualitatively and quantitatively. We recruited 20 participants to receive one text message once every week five days a week for 4 weeks. Examples of the TMI are "Roses are red, violets are blue, dating is sweet but should not leave marks on you", and "Concerned for your safety? Move to an area where witnesses are plenty". One-way ANOVA, Chi-square test or other nonparametric statistical procedures will be used as appropriate to analyze quantitative data from the pre-TMI and post-TMI survey. Change in scores from pretest to posttest will be computed and compared.

**Results:** Of the 20, 14 owned and have used it for the past 5 years. Twelve of the participants reported texting as their first mode of communication via a smartphone, 9 reported texting every hour. Fourteen of the 20 respondents felt somewhat confident in their knowledge of dating violence warning signs. Posttest results will also be reported in this presentation.

**Conclusions:** Preliminary data suggest that texting is a primary form of communication for college students. If TMI will be found to be feasible, we will explore TMI's effectiveness in reducing IPV in a larger study to show the importance of evaluating and developing evidence-based IPV prevention programs using mobile devices.

#### Contact

[liw39@pitt.edu](mailto:liw39@pitt.edu)

## **The HELPP Zone App for Survivors of IPV**

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*Joseph Burroughs, USA*

#### Purpose

to provide an orientation on how the HELPP Zone app was developed and its user outcomes.

#### Target Audience

General population of healthcare providers.

#### Abstract

**Purpose:** Our objective was to build a mobile app called HELPP (Health, Education on safety, and Legal Participant Preferred) Zone app to help users of mobile technology recognize, respond and prevent Intimate Partner Violence (IPV). IPV is a serious, preventable public health problem. It is described as physical, sexual, or psychological harm inflicted by a current or former partner or spouse. IPV has brought serious public health and social justice issues to people, especially the young who may not report it because they are afraid to tell friends and family. If IPV is left unchecked, it will bring short term and/or long term negative effects to the survivors, they may binge drink, attempt suicide, and argue and fight with friends and family. IPV comes at an enormous cost to physical, mental, economic, and social well-being to the U.S. at \$13.6 billion and is expected to rise to \$15.6 billion by 2020.

**Methods:** We collaborated with the School of Information Sciences faculty and students in building the HELPP Zone (Health, Education on safety, and Legal Participant Preferred) app. In building the HELPP Zone App, we addressed the fundamental paradigm of Diffusion of Disruptive Innovations (DDI) as evidence-based theoretical framework. A DDI is defined as a deliberately and intentionally developed product that functions as a disruptive innovative tool. The HELPP Zone app was designed as a simple

product that enters the transformative service arena as a common activity. The HELPP Zone app is free and currently available for Android as an inexpensive and more widespread platform.

**Results:** We will seek resources to field test the app for its feasibility and effectiveness in reducing or disrupting IPV. A prototype of the HELPP Zone app is available.

**Conclusions:** The app was designed as a simple product that enters the transformative service arena as a common activity. If it offers a convenient service that enhances users' capacity to recognize, respond, and prevent or stop RV through just-in-time communication, educational resources, and intervention from pre-set trusted contacts and is found to be feasible and effective, we will disseminate the app into a diverse population of users first regionally, then nationally and internationally.

Contact

[jdb109@pitt.edu](mailto:jdb109@pitt.edu)

## B 11 - The Asian Women's Health Research Network: A Showcase of Studies by the Korean Side

### Effects of Shift Work Change on Occupational Stress in South Korean Female Nurses

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*Bokim Lee, PhD, South Korea*  
*Hyesun Jung, PhD, South Korea*

#### Purpose

The purpose of this presentation is to understand the association between shift work schedule change and job stress among Asian female nurses and to discuss international collaborative research on it.

#### Target Audience

The target audience of this presentation is a diverse group of individuals and organizations with an interest in shift work and health and health care professionals working to improve health of Asian female nurses worked shift.

#### Abstract

**Purpose:** For adequate care of shift workers' health, it is essential to understand the relationship between shift work schedule change and job stress. However, there is no published research on the association between shift work schedule change and job stress among South Korean workers, especially South Korean female nurses. The purpose of this study was to examine differences in job stress by shift work schedule change and to determine the association of shift work schedule change to job stress among South Korean female nurses.

**Methods:** A cohort of 781 nurses was established in 2012 (Time Point [TP] 1). Participants were registered nurses from three large hospitals in South Korea. At TP2 (one year after TP1), the same nurses were asked to complete a new set of questionnaires. A total of 659 female nurses were selected for this analysis. Among them, 419 nurses kept the shift work, 190 nurses kept the non-shift work, 45 nurses changed from shift work (TP1) to non-shift work (TP2), and 25 nurses changed from non-shift work (TP1) to shift work (TP2). The data were analyzed using descriptive statistics, ANOVA, and multiple regression analysis.

**Results:** The nurses who changed from non-shift work to shift work reported higher job stress than others ( $p < .01$ ). The change in shift work schedule, especially from non-shift work to shift work, is relevant to higher level of job stress ( $p < .01$ ). Changes in working position, the number of night shift, and shift work schedules were significant predictors of job stress ( $p < .05$ ).

**Conclusion:** Shift work is an integral part of labor markets all over the world. Therefore, it is necessary to help mitigate the negative effects of changes in shift work schedule change on workers' occupational stress, especially female workers. Also, to confirm the association between shift work schedule change and job stress, it is required to conduct additional internationally-joint research projects.

#### Contact

[bokimlee@ulsan.ac.kr](mailto:bokimlee@ulsan.ac.kr)

### Predictors of Depression among Midlife Women in South Korea

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*Ok-kyung Ham, PhD, RN, South Korea*  
*Eun-Ok Im, RN, MPH, PhD, CNS, FAAN, USA*

#### Purpose

The purpose of this study was to determine the prevalence of depressive symptoms and identify predictors of depressive symptoms among midlife women in Korea.

### Target Audience

Researchers and practitioners who conduct intervention studies to promote Asian women's mental health.

### Abstract

**Purpose:** Across the globe, depressive symptoms are more prevalent in women compared with men. Especially among Korean midlife women in South Korea, the prevalence of depressive symptoms ranged from 14 to 22%. Furthermore, within the population, women with specific characteristics (e.g., low income) were reported to experience depressive symptoms more than their counterparts. The purpose of this study was to determine the prevalence of depressive symptoms and identify predictors of depressive symptoms among midlife women in Korea.

**Methods:** A cross-sectional study was conducted among a convenient sample of 200 midlife women recruited from a community health center and a branch office of the Planned Population Federation of Korea located in one metropolitan area. Self-administered questionnaires included questions on socioeconomic characteristics, lifestyle behaviors, and the Beck Depression Inventory. The data were analyzed using descriptive statistics and multiple regression analyses.

**Results:** The mean age was 52.48 (SD=8.82, range = 35-65). Sixty-seven percent had monthly income of less than 1 million Won (US \$1,000), and 39.5% were living without a spouse. Mild depression was reported in 20.0% of the women. Moderate and severe depression was reported in 25.0%. Depressive symptoms were significantly associated with income ( $\leq$  US \$ 1,000), marital status (single, separated, divorced, or widowed), and menopausal status ( $p < .05$ ). All the variables considered in the model accounted for 21.5% of the total variance in depressive symptoms ( $F=3.318, p < .001$ ).

**Conclusions:** The study results indicated that certain groups of Korean midlife women with specific characteristics (e.g., low income, divorced, peri-menopausal, etc.) were more vulnerable to depressive symptoms. Therefore, future development of interventions to promote mental health should target high risk groups of women with specific characteristics. However, further international collaborative studies are needed to confirm the characteristics of midlife women that make them more vulnerable to depression.

### Contact

[okkyung@inha.ac.kr](mailto:okkyung@inha.ac.kr)

## **Does Social Activity Decrease the Depression in the Elderly?: An Analysis of a Population-Based Study in South Korea**

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*Seung Hee Lee, PhD, MPN, RN, South Korea*  
*Young Bum Kim, PhD, South Korea*

### Purpose

The purpose of this study was to investigate whether social activity decreases depressive symptoms in elderly Korean women and to provide directions for future development of interventions to prevent geriatric depression.

### Target Audience

The target audience of this presentation is the nurses or nursing scholars who are interested in Asian women's health problem, health study to decrease health problem, and future directions for research collaboration.

### Abstract

**Purpose:** Geriatric depression is a common condition in elderly Asian women including South Koreans. Geriatric depression also becomes an imminent challenging health concern with an increasing number of geriatric populations in Asian countries. In South Korea alone, the prevalence of probable depression in elders was 15.5% and increased with age (19.0% in female and 10.7% in male). The purpose of this study was to investigate whether social activity decreases depressive symptoms in elderly Korean women and to provide directions for future development of interventions to prevent geriatric depression.

**Methods:** For this study, we used the data of 2,114 women who were aged  $\geq 65$  years from the 2011 Korean Longitudinal Study of Ageing (KLoSA). This survey was a nationally representative study of community-dwelling Korean older adults for obtaining information on diverse aspects of ageing. Depressive symptoms were assessed using the Center for Epidemiological Studies Depression scale 10, and the 10 + cutoff was applied to define the presence of significant depressive symptoms. Social activities were measured using the questions on the number of formal associations that the women were participating, the number of meeting close friends, and the number of contacting children living separately. The data were analyzed using multiple logistic regression analyses.

**Results:** After adjustment for potential confounders, frequent contacts with children and friends were negatively associated with depressive symptoms. However, the number of formal associations that the women participated in showed no significant association with depressive symptoms.

**Conclusions:** These findings suggest that encouraging informal social activity may protect against depressive symptoms in elderly Asian women including South Koreans. In order to confirm these results in other ethnic groups of Asian elderly women and to provide directions for future intervention development, we need further international comparative studies on the association of social activity to geriatric depression across Asian countries.

Contact

[woaiyoung@gmail.com](mailto:woaiyoung@gmail.com)

## C 11 - Establishing and Maintaining International Research Collaboration: Processes, Outcomes, and Exemplars

### Experiences, Benefits, and Challenges of Initiating and Maintaining International Research Collaborations

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*Joan E. Haase, PhD, RN, FAAN, USA*

*Li-Min Wu, PhD, Taiwan*

*Chin-Mi Chen, PhD, RN, Taiwan*

#### Purpose

The purpose of this presentation is to (1) describe processes for and outcomes from establishing and maintaining international collaboration between researchers in the United States and Taiwan, and (2) describe the researchers' perspectives of benefits and challenges.

#### Target Audience

The target audience for this presentation is PhD students, nurse researchers, clinicians, and administrators who want to facilitate or participate in international research collaboration and/or individuals specifically interested in learning about international collaboration related to children/adolescents with cancer and their families.

#### Abstract

**Purpose:** Processes for establishing international research collaboration often seem elusive; there are few descriptions of successful strategies for establishing or maintaining productive international collaborations. This presentation describes ways researchers in Taiwan and the United States effectively established and maintain international research collaboration.

**Methods:** Our collaboration began through semester-long study-abroad programs required of PhD nursing students in Taiwan. Two students, now Drs Chen and Wu, selected Dr. Haase, a faculty at Indiana University, as mentor. Their study-abroad experience required planning for family care and costs, completing pilot work prior to studying abroad as a basis for collaborating on a dissertation proposal, adjusting to life in another country, overcoming language barriers, and taking courses. From a mentor's perspective the experience included sensitivity to students' adjustment needs, becoming acquainted with their projects and learning styles, and establishing collaborative, rather than hierarchical, communication. The goals of our collaborations were dissertation proposals ready for implementation upon return to Taiwan. Dr. Haase served as an external member of both committees. Following dissertation completion, because we all had positive experiences and common research interests, our collaboration continues productively into its 7<sup>th</sup> year, through internet conferencing, visiting lectureships, attending professional meetings, and formal university partnerships.

**Results:** We experienced challenges (e.g. obtaining funding support and time commitments), developed strategies to overcome them (e.g. establishing mutually beneficial goals, writing grants, establishing formal university partnerships) and derived many benefits (e.g., productive, culturally sensitive research programs addressing important questions, lasting friendships, travel enrichment). Products of our work include grants for mixed method studies, publications and presentations.

**Conclusions:** By understanding potential challenges and strategies, researchers who want to have international collaboration can anticipate and plan appropriately to make connections, conduct research that will can be universally applied and reap personal and professional benefits. Exemplars of collaboration can serve as one model.

#### Contact

[Johaase@iu.edu](mailto:Johaase@iu.edu)

## Cross-Cultural Comparison of the Haase Resilience in Illness Scale: Psychometric Properties Testing

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*Chin-Mi Chen, PhD, RN, Taiwan*

*Li-Min Wu, PhD, RN, Taiwan*

*Joan E. Haase, PhD, RN, FAAN, USA*

### Purpose

Describe the translational process and evaluating the equivalence between the English and Mandarin version of the Haase Resilience in Illness Scale. Cross-cultural comparison of reliability and validity for the HRIS were done between American adolescents and Taiwanese adolescents.

### Target Audience

The target audience of this presentation are pediatric physician, pediatric nurses, psychologists, social workers.

### Abstract

**Background:** The quality of studies using translated scales is determined by the equivalence between the original and translated versions. It is important to validate the cultural appropriateness prior to using the translated version of the Haase Resilience in Illness Scale (HRIS) in Taiwan.

**Purpose:** Describe the translational process and evaluating the equivalence between the English and Mandarin version of the HRIS. In addition, cross-cultural comparison of reliability and validity for the HRIS were done between American adolescents with cancer and Taiwanese adolescents.

**Methods:** A forward-backward translation and the conceptual and semantic equivalences were examined between the original and translated version of HRIS, a 13 item Likert-type scale. Thirty bilingual university students tested the two instrument versions. Internal consistency reliability of the translated versions was evaluated. Confirmatory factor analysis was used to examine the construct validity of the translated version. The factor loadings and mean scores were compared across groups: adolescents with cancer (Group 1, N=111 American; Group 2, N=160 Taiwanese) and healthy Taiwanese adolescents (Group 3, N=120).

**Results:** No significant difference was found between the original and translated versions. The two versions demonstrated moderately high correlations (Pearson correlation coefficient = 0.87,  $p < .01$ ). All groups had similar item-to-factor loadings, except on 2 items related to perspectives of measuring up to one's own and to other's expectations. A single factor structure explained 71.71% of variance in Group 1), 42.75% in Group 2, and 34.47% in Group 3. Cronbach's alpha coefficients ranged from 0.81-0.86 across three groups.

**Conclusion:** The HRIS is appropriate for comparative cross-cultural studies. Two items with strikingly different loadings, "It is important to live up to my own expectations of myself" and "I know others look up to me" seem to reflect cultural differences in emphasis on self verses others, should be further investigated.

### Contact

[fdi613@yahoo.com.tw](mailto:fdi613@yahoo.com.tw)

## Experience of Taiwanese Mothers of Children Completing Cancer Treatments

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*Li-Min Wu, PhD, RN, Taiwan*

*Chin-Mi Chen, PhD, RN, Taiwan*

*Joan E. Haase, PhD, RN, FAAN, USA*

### Purpose

The purpose of this presentation is to describe the essential structure of the experience of Taiwanese mothers' caregiving experiences for their child after completion of cancer treatments.

### Target Audience

The target audience of this presentation is pediatric oncology nurse researchers and clinicians, nursing students, and individuals interested in international research collaboration, especially in pediatric oncology.

### Abstract

**Background:** More than 60% of childhood cancer survivors have at least one long-term treatment side effect; over 30% experience moderate to severe delayed effects. Most parents have lingering concern about their child's health, especially perseveration of uncertainty and anxieties about the possibility of cancer relapse, however, most studies have focused on parents' experiences during the course of treatment. Information about the crucial post-treatment period is lacking.

**Purpose:** In this presentation we describe the essential structure of the lived experience of mothers in Taiwan caring for their child after cancer treatments.

**Methods:** A phenomenology approach was used. The sample of 10 mothers of children ages 13-20 who had completed cancer treatments within the past 24 months consented to participate and were interviewed in a pediatric setting. Data were generated using open-ended questions about their experiences of life following treatments. Data were transcribed and analyzed using Giorgi's four-step procedures to derive the essential structure caring for a child post-cancer treatment. Credibility strategies included a systematic approach to data collection, analysis, and management using audit trail.

**Results:** Two theme categories were found. Living under the Cloud of Relapse included the sub-themes: Cancer Relapse is the Sword of Damocles, Vigilance Is a Way of Life, and Maintaining a Good Healthy Lifestyle. Changing to Face the Future included sub-themes: Becoming My Child's Healthcare Provider, Adjusting Expectations, and Moving Forward by Making Family Adjustments.

**Conclusion:** Mothers never stop worrying about their child's cancer returning, but they understand the need to move forward and face the future. They attempt to return to normalcy, to accept the consequences of the treatments, and to compromise dreams with reality. After treatments, mothers of children need continued support to understand the symptoms and signs of relapse, manage uncertainty, and adjust to a new normal for the family.

### Contact

[painting@kmu.edu.tw](mailto:painting@kmu.edu.tw)

## D 11 - More Than Vital Signs: Reframing nurses' Recognition and Response to Clinical Deterioration

### Development of the Barriers to Nurses' Use of Physical Assessment Scale

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*Clint Douglas, RN, BN, PhD, Australia*

#### Purpose

The purpose of this paper is to describe and discuss development and psychometric testing of the Barriers to Nurses' Use of Physical Assessment Scale and the implications of findings for nursing assessment practice.

#### Target Audience

The target audience of this presentation is nurse clinicians, managers, educators and researchers with an interest in current trends, debates and challenges surrounding the concept and practice of recognition and response of clinical deterioration of hospitalized ward patients.

#### Abstract

**Purpose:** There is growing evidence of failure to recognise hospitalised patients at risk of clinical deterioration, in part due to inadequate physical assessment by nurses. Yet, little is known about the barriers to nurses' use of physical assessment in the acute hospital setting and no validated scales have been published. Complex intervention studies designed to address these barriers and improve nursing assessment skills are also needed. However, before interventions targeting nurses' assessment practices can be developed, a valid and reliable measure of barriers to physical assessment skills is required. The purpose of the study was to develop and psychometrically test the Barriers to Nurses' use of Physical Assessment Scale.

**Methods:** Scale development was based on a comprehensive literature review, focus groups, expert review and psychometric evaluation. The scale was administered to 434 acute care registered nurses working at a large Australian teaching hospital between June and July 2013. Psychometric analysis included factor analysis, model fit statistics and reliability testing.

**Results:** The final scale was reduced to 38 items representing seven factors, together accounting for 57.7% of the variance: (1) reliance on others and technology, (2) lack of time and interruptions, (3) ward culture, (4) lack of confidence, (5) lack of nursing role models, (6) lack of influence on patient care, and (7) specialty area. Internal reliability ranged from .70 to .86.

**Conclusion:** Findings provide initial evidence for the validity and reliability of the new scale and point to the importance of understanding the organisational determinants of nurses' assessment practices. Barriers to nurses' use of physical assessment may impair timely recognition of patient deterioration and interventions targeting these factors may improve patient outcomes. This new measure should encourage future researchers and clinicians to assess the barriers to nurses' use of physical assessment, to better understand how to support nursing assessment in acute care settings.

#### Contact

[c2.douglas@qut.edu.au](mailto:c2.douglas@qut.edu.au)

### Factors Influencing Nursing Assessment Practices

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*Carol Reid, PhD, MAppSc, GradCertHlth (Sexual Health), BHSc(N), RN, Australia*

#### Purpose

The purpose of this presentation is to present findings from a research study exploring Registered Nurses' use of, and perceived barriers to, physical assessment skills used in routine assessment and recognition and response to patients at risk of deterioration.

#### Target Audience

The target audience of this presentation is nurse clinicians, managers, educators and researchers with an interest in current trends, debates and challenges surrounding the concept and practice of recognition and response of clinical deterioration of hospitalized ward patients.

#### Abstract

**Purpose:** Changing acuity of hospitalised patients means sicker patients with more complex needs are at greater risk of becoming seriously ill during their stay. Frontline registered nurses (RNs) play an essential role in detecting patients at risk of clinical deterioration through ongoing assessment and timely, appropriate action in response to changing health status. Government agencies worldwide have developed guidelines for recognition of and response to acute clinical deterioration. Nevertheless, clinical deterioration continues when it may have been prevented. Little research has examined factors related to registered nurses' use of assessment skills. The purpose of this study was to explore RNs' use of and perceived barriers to physical assessment skills used in routine assessment, recognition and response to patients at risk of deterioration.

**Methods:** A cross-sectional survey of RNs was undertaken. Data collection instruments included the validated Physical Assessment Skills Inventory, Barriers to Registered Nurses' Use of Assessment Skills Scale and demographic data.

**Results:** A minimum data-set of seven skills were used by most nurses most of the time: temperature, oxygen saturation, blood pressure, evaluation of breathing effort, skin assessment, wound assessment, and mental state/level of consciousness assessment. Multivariable modelling controlling for specialty area and role revealed reliance on others and technology ( $p=0.001$ ) and lack of confidence ( $p=0.019$ ) were associated with use of physical assessment skills ( $p=0.001$ ).

**Conclusion:** Results show the majority of nurses regularly assess those physiological markers that typically form the core of early warning and rapid response protocols. Furthermore, nurses lack confidence in using the full breadth of assessment practices and indicate a reliance on technology and other clinicians. These factors pose barriers to nursing assessment practices. This, together with the assessment focus on overt signs of deterioration, may well be distracting nurse attention away from holistic patient assessment and surveillance that could detect more subtle signs of change in health status earlier; thus, possibly preventing patients spiral down the clinical deterioration pathway.

#### Contact

[c2.reid@connect.qut.edu.au](mailto:c2.reid@connect.qut.edu.au)

## **Exploring Patient Assessment Practices in the Acute Hospital Environment: An Ethnography**

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*Sonya R. Osborne, RN, BSN, GradCert (Periop Nsg), GradCert (HigherEd), MN, PhD, Australia*

#### Purpose

The purpose of the study was to improve understanding of the unexamined factors that influence patient assessment practices by exploring patterns of behaviour, and interpersonal, cultural and geographical factors related to nursing assessment practices in the acute care hospital environment.

#### Target Audience

The target audience of this presentation is nurse clinicians, managers, educators and researchers with an interest in current trends, debates and challenges surrounding the concept and practice of recognition and response of clinical deterioration of hospitalized ward patients.

#### Abstract

**Purpose:** In Australia, as in other countries, recognising and responding to clinical deterioration in hospitalised patients has become a national priority. Ward nurses play an essential role in detecting acute care patients at risk of clinical deterioration through attentive surveillance, diligent assessment, and timely intervention. Much attention in the literature has been given to the efferent limb of the clinical deterioration pathway, such as hospitals' implementation of the use of early warning scores, track and trigger systems,

and rapid response teams. Yet, unrecognised clinical deterioration continues to be a significant problem. The literature is consistent in viewing the situation of clinical deterioration from the perspective of improving detection and documentation of clinical deterioration with scant attention to the nature of assessment practices.

The purpose of the study was to improve understanding of the unexamined factors that influence patient assessment practices by exploring patterns of behaviour, and interpersonal, cultural and geographical factors related to nursing assessment practices in the acute care hospital environment.

**Methods:** The study design was a hospital ethnography using participant observation and informal and formal interviews. Data, collected in the form of field notes and transcribed audio-recorded interviews, was analysed using an iterative process

**Results:** Nurses' assessment and surveillance of patients is practiced in the context of the medical emergency response framework. As such this creates a culture that dominates and dictates a focus on monitoring and recording of patient's vital signs for medical team review and response. This focus influences multidisciplinary relationships and roles and the organisation factors that govern nurses' work.

**Conclusion:** The study findings illustrate the complex interplay of factors that influence nurses' assessment practice in the acute care setting. Development of holistic picture of patient assessment practices will inform development of effective health service improvements in managing patients at risk for clinical deterioration.

Contact

[s.osborne@qut.edu.au](mailto:s.osborne@qut.edu.au)

## E 07 - Workplace Behaviors Affecting Patient Safety: Role of Nurses and Physicians as Partners in Change

### Disruptive Behavior and its Effects on Workplace Safety: What Can Nurse Leaders Do?

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*Ann Marie T. Brooks, DNSc, RN, MBA, FAAN, FACHE, FNAP, USA*

#### Purpose

The purpose of this presentation is to address the issue of disruptive behavior between nurses and physicians. Using data from an IRB approved survey and other evidence, the presenter will examine innovative methods for addressing disruptive behavior in collaboration with physician colleagues.

#### Target Audience

The target audience are nurses interested in improving patient safety and fostering a positive work environment through communication, collaboration and partnership.

#### Abstract

**Purpose:** Disruptive behavior between nurses and physicians in healthcare interferes with care delivery and negatively affects patient safety and outcomes. Throughout the three year process of building a culture of safety at a five hospital system, considerable attention and focus was devoted to educating staff and physicians on error prevention tools and minimizing the power gradient that has been recognized as a major obstacle in speaking up for safety by nurses with physicians. Following the completion of error prevention training of over 10,000 employees and physicians, staff across the system continued to express reluctance in speaking up for safety when it involved a physician and a perceived power gradient issue. Based on this feedback, one system nurse executive and one vice president for medical affairs from the same hospital developed and submitted a proposal to the system IRB for approval to replicate a survey on disruptive behavior between nurses and physicians previously conducted by the American College of Physician Executives in partnership with the American Organization of Nurse Executives.

**Methods:** Following approval from the system IRB, an announcement of the survey was sent to all nurses and physicians in the system. An e-mail blast followed the next week including a consent form and a link to the survey. Protection of subject confidentiality was maintained throughout the online survey process with limited access to data. A reminder was sent to all nurses and physicians across the system during the data collection phase.

**Results:** Seven hundred and eighty six nurses and physicians from across the system participated in the online survey and verified that disruptive behavior occurs on a regular basis with physicians identified as the most frequent cause of the disruption. Yelling was identified as the most frequently occurring disruptive behavior.

**Conclusion:** Disruptive behavior continues to occur in the system with a lack of significant change despite the education and focus on use of error prevention tools in daily practice. The 'power gradient' between nurses and physician remains an issue and contributes to the reluctance to speak up for safety.

#### Contact

[annmariebrooks@hotmail.com](mailto:annmariebrooks@hotmail.com)

### Disruptive Behavior Between Physicians and Nurses: The Role of the Physician Leader

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*Helen M. Kuroki, MD, USA*

#### Purpose

is to examine the effect of disruptive behavior on safety through a comparison of 2013 survey findings from a five hospital system and 2009 survey from the American College of Physician Executives and American Organization of Nurse Executives by a practicing and vice president of medical affairs.

#### Target Audience

nurses who are interested in how physicians view disruptive behavior and are seeking further understanding of strategies to engage them in a shared accountability for change and problem solving.

#### Abstract

**Purpose:** Disruptive behavior interferes with building a culture of safety and teamwork. Physicians and nurses play a major role in patient outcomes. Physicians often view their role as providing care solely for a patient, rather than as a collaborator, partner or member of the healthcare team. As part of a culture of safety program, physicians within a hospital system were educated about error prevention tools with specific emphasis on understanding the power gradient and how it negatively affects safety, teamwork and the work environment. The education included role play and group discussion of a clinical situation that involved disruptive behavior. Discussion focused on strategies needed to build collaborative relationships among the healthcare team in order to ensure quality outcomes and a safe environment for patients and staff. Measurement of changes in behavior related to the training was of interest. The Vice President of Medical Affairs and Vice President of Patient Care Services who had been involved in physician nurse collaboration processes decided to use an established survey related to disruptive behavior as a method to collect baseline data from physicians and nurses across the system and assess the current environment. The results are being used to improve safety and communication.

**Methods:** The 2009 American College of Physician Executives (ACPE) survey related to disruptive behavior was replicated following approval of the system IRB in March 2013. A blast e-mail announcing the survey was sent to all nurses and physicians across the system and then the online survey was launched the following week, including directions for informed consent.

**Results:** Seven hundred and eighty six physicians and nurses participated in the survey with participants recorded from all five hospitals. Using the 2009 ACPE survey for comparison, survey findings were similar in type of disruptive behavior and frequency of occurrence, with yelling as the primary disruptive behavior followed by degrading comments and insults. The respondents from both the 2009 ACPE study and the 2013 study indicate that the problem of disruptive behavior still overwhelmingly exists in their organizations.

**Conclusion:** Disruptive behavior continues to affect patient safety and the work environment. Findings from this survey are being used to identify and address nurse-physician relationship issues that negatively influence patient care and the work environment.

#### Contact

[kurokiH@MLHS.org](mailto:kurokiH@MLHS.org)

## Disruptive Behavior Between Physicians and Nurses: Building the Interdisciplinary Toolkit for Change

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*Nikki S. Polis, PhD, RN, FNAP, USA*

### Purpose

The purpose of this presentation is to use the results of IRB approved studies and other evidence from the literature to identify strategies for building a toolkit for nurses leaders to use in partnering with physicians and other leaders to address disruptive behavior.

### Target Audience

The target audience is nurses interested in learning more about disruptive behavior, its effects on patient safety and strategies that can be implemented to address the issue.

### Abstract

**Purpose:** Healthcare organizations face the challenge of disruptive behavior every day. Addressing these behaviors involves more than talking with the individuals involved. Acknowledging the power gradient as an underpinning of disruptive behavior, the lack of infrastructure to address the issue, the lack of policies and procedures and inconsistent support from leadership to resolve the issues in a meaningful way are essential to developing a zero tolerance culture.

**Methods:** Using results from IRB approved surveys about disruptive behavior from two healthcare organizations and other evidence, behavioral issues and patterns related to disruptive behavior were identified and used as the basis to develop an interdisciplinary toolkit. The intent was to provide comprehensive strategies to deal collaboratively with the power gradient and to identify the required structures and processes needed to resolve this organizational challenge.

**Results:** Survey results were similar between the two healthcare systems and with the 2009 American College of Physician Executive Survey. Disruptive behavior still exists within healthcare organizations, and a comprehensive approach is critical to finally resolve this enduring issue.

**Conclusion:** Developing an evidence based toolkit is an important first step in addressing disruptive behavior. Recognition of the factors influencing disruptive behavior, from the power gradient to the lack of organizational supports, informs the strategies included. Developing policies and procedures and educating all involved about behavioral expectations are approaches to demonstrating the organizational commitment to zero tolerance.

### Contact

[nsp421@gmail.com](mailto:nsp421@gmail.com)

## E 11 - Empirically-Based Bystander Education Programmes to Prevent Dating Violence in University Students: Lessons from U.S. and Hong Kong Experience

### Friends Helping Friends: A Peer-Based Programme in Responding to Dating Violence in U.S.

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Angela Frederick Amar, PhD, RN, DF-IAFN, FAAN, USA

#### Purpose

The purpose of this pilot study was to evaluate the effectiveness and feasibility of Friends Helping Friends, a community level education program to teach young women to recognize and intervene to prevent and respond to interpersonal violence.

#### Target Audience

The target audience of this presentation is nurses, academic nursing faculty, nursing educator, researchers, teachers and social workers.

#### Abstract

Dating violence is a public health issues, affecting young women in the college campus. Despite the importance of dating violence, few prevention programs address peer roles and target community responses to dating violence. Providing education to peers on how to help a friend could increase their confidence to help and in turn, increase reporting to formal sources. As a result, we would provide the support and resources that could mitigate health, academic, and social consequences of interpersonal violence.

**Purpose:** The purpose of this pilot study was to evaluate the effectiveness and feasibility of Friends Helping Friends, a community level education program to teach young women to recognize and intervene to prevent and respond to interpersonal violence.

**Methods:** This was a quasi-experimental study with 101 undergraduate students aged 18-22 years participated in Friends Helping Friends and assigned to either a treatment group or control group. Participants completed pre- and post-test measures of attitudes related to sexual and partner violence and willingness to help. Repeated measures analysis of variance was used to examine changes in scores between pre and post-test conditions and to compare the treatment group to the control group.

**Results:** As compared to the control group, treatment group participants reported increased perceived responsibility to help, skills to act as a positive bystander, and intention to help, and decreased rape myth acceptance.

**Conclusion:** Friends Helping Friends shows promise as an effective strategy for older adolescent females in the prevention and response to dating violence.

#### Contact

[angela.amar@emory.edu](mailto:angela.amar@emory.edu)

### Dating Café Ambassadors Programme: A Bystander Education Programme to Prevent Dating Violence in Hong Kong

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Janet Yuen Ha Wong, PhD, RN, MNurs, Hong Kong

#### Purpose

The purpose of this presentation is to evaluate the Dating Café Ambassadors Programme. This is a pilot study to provide evidence on dating violence prevention program addressing local needs.

#### Target Audience

The target audience of this presentation is nurses, academic nursing faculty, nursing educator, researchers, teachers and social workers.

#### Abstract

Hong Kong was the median city with prevalence of physical victimization being 25.6% and sexual coercion being 13% among dating partners in university campus. The study also found 37.7% of university students in Hong Kong reported suicidal ideation, which was above average among 32 countries. The high prevalence of dating violence and severity of suicidal ideation among university students in Hong Kong accentuate the need to tackle dating violence by interventions specifically targeting the Chinese population.

**Purpose:** The Dating Café Ambassadors Programme is evaluated in this pilot study. The programme is the first to provide evidence on dating violence prevention program addressing local needs.

**Methods:** Twenty Chinese university students were recruited and joined Dating Café Ambassador Programme in Hong Kong. They underwent a face-to-face 7.5 hours training program (3 weekly sessions, 2.5 hours per session) that based on Ajzen's Theory of Planned Behaviors. Four modified real dating violence stories were used in the training session to enhance the relevance, appropriateness, and acceptability of the program. Apart from training, homework was assigned as practical application. Pre and post-test were conducted for outcome measurements.

**Results:** The results showed that the Dating Café Ambassadors Programme enhanced the behavioural intention of students to help peers experiencing dating violence.

**Conclusion:** The programme was feasible and acceptable to the university students.

#### Contact

[janetyh@hku.hk](mailto:janetyh@hku.hk)

## **Am I Responsible to Help Peers in Abusive Dating Relationships?: Learning from a Qualitative Study**

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*Claudia Kor Yee Chan, RN, MSc, Hong Kong*

#### Purpose

This study explored the university students' intention to prevent dating violence and identify the barriers in responding peers in abusive dating relationships by using qualitative approach.

#### Target Audience

The target audience of this presentation is nurses, academic nursing faculty, nursing educator, researchers, teachers and social workers.

#### Abstract

Young people's attitude towards dating violence and perceived barriers in responding peers in abusive dating relationships may contribute to their willingness to help peers in abusive relationships.

**Purpose:** This study explored the university students' intention to prevent dating violence and identify the barriers in responding peers in abusive dating relationships by using qualitative approach.

**Methods:** Twenty university students were recruited at Dating Café Ambassadors Programme to educate peers in helping to prevent dating violence on university campus. Participants were followed for 3 workshops of participant observations and a focus group interview. An interview guide was used for data collection. Interview questions included what is the definition of dating violence, why do you / don't you help peers in abusive relationships, do you perceive it is your responsibility to help, and describe your expectation of a healthy relationship. Data were analysed using content analysis.

**Results:** Results showed that the barriers in responding peers in abusive dating violence included low awareness of dating violence on campus; and lack of skills and resources to help.

**Conclusion:** The lessons learned from the qualitative study findings will help in develop and refine dating violence prevention and intervention for university students.

Contact

[koychan@ouhk.edu.hk](mailto:koychan@ouhk.edu.hk)

## F 09 - A Place at the Table: Voices of Nursing at the UN, Bringing the Voice of the UN to Nurses

### On the Ground and from Afar: STTI & Global Nursing Organization Representatives to UN NGO community: A Place at the Table

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*Holly Shaw, PhD, RN, USA*

#### Purpose

The purpose of this presentation is to describe and illustrate the responsibilities and activities of NGO representatives. Presenters will share the unique perspective of an insider's view of establishing a distinct role for nurse advocates associated with the UN System, as members and leaders in the global NGO community.

#### Target Audience

The target audience of this presentation is STTI members and Chapter and Regional representatives who are interested in learning about the UN System and opportunities for civil society participation within it, particularly in shaping the Post 2015 Agenda and SDGs.

#### Abstract

**Purpose:** In the inception of the UN, civil society was included to participate through representatives of NGOs. This presentation will focus on the experience of STTI representatives inside the UN NGO community and in the transnational CoNGO (Conference of NGOs in Consultative Status with the UN). Through DPI-NGO (Department of Public Information) and ECOSOC (Economic and Social Council) programs and NGO Committee participation, a voice for the nursing profession is emerging, providing an opportunity to contribute to global health issues.

**Methods:** STTI members will learn about the NGO UN Committees in the UN System world wide, addressing issues of Health and Mental Health, gender equity, social justice, human rights, including UNICEF, Mental Health, NGO Health Committee, NGO Working Group on Girls, and NGO Commission on the Status of Women, which facilitates the annual CSW in NYC attracting over 5,000 participants from all countries in the world. and opportunities for participation using web casting, social media and electronic communication. Opportunities for participation in these and other events will be discussed, as well as suggestions for stimulating chapter and regional activities.

**Results:** Representatives will describe and illustrate the responsibilities of NGO representatives, and share the unique perspective of an insider's view of the UN System as members and leaders in the global UN NGO community, establishing a distinct role for nurse advocates within the UN System.

**Conclusion:** The presentation will focus on a description of opportunities for STTI members to participate in the development of the UN Post 2015 Agenda and the shaping of the Sustainable Development Goals (SDGs). The NYC UN Headquarters team's experience can provide encouragement and support for participation of all members, chapters and regions.

#### Contact

[drhollykshaw@gmail.com](mailto:drhollykshaw@gmail.com)

### Sustaining Global and Local Nursing Voice at the United Nations

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*Gloria Chan, BSN, RN-BC, CCRN-CSC, PCCN, USA*

*Raissa Lynn Sanchez, BSN, RN, TNCC, USA*

#### Purpose

The purpose of this presentation is to educate STTI members about the UN interest group created within the NYC region.

### Target Audience

The target audience of this presentation is STTI members interested in the United Nations.

### Abstract

**Purpose:** This presentation will describe the development of chapter and regional programs and projects that focus on UN goals and initiatives, highlighting the STTI Region 14 UN Interest group and the NIGH UN Interest Group Team. The response among STTI and NIGH members to these initiatives has been positive and enduring, with members demonstrating interest in pursuing meaningful opportunities to collaborate on global health and nursing issues. Programs have included evening education and all day symposia, networking, and fundraising events held at universities and UN Headquarters. UN goals and activities have provided young and experienced members with opportunities to collaborate and participate in global health projects.

**Methods:** UN Interest Group leaders will present their experiences in the development of events, activities and projects related to Millennium Development Goals and the post 2015 Agenda and Sustainable Development Goals. They will discuss their experiences engaging chapter and regional leaders to provide information and coordinate programming.

**Results:** The UN Interest Group initiatives have resulted in successful, ongoing UN programming and bringing over 400 nursing professionals on site to UN Headquarters in NYC.

**Conclusion:** The UN Interest Group can be a model for successful endeavors to stimulate interest and provide opportunities for contribution to UN goals and global health and nursing issues. While the proximity to UN Headquarters has provided an extra dimension to this experience, the presenters will discuss methods for replication for all chapters and regions of STTI.

### Contact

[sanchez.raissalynn@gmail.com](mailto:sanchez.raissalynn@gmail.com)

## **Youth UN Representatives: Emerging Roles for Youth at the UN**

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*Timothy Shi, BSN, RN, USA*

*D. J. Schnabel, BSN, RN, USA*

### Purpose

The purpose of this presentation is to educate STTI members about UN Youth Representatives.

### Target Audience

The target audience of this presentation is STTI members interested in the UN.

### Abstract

**Purpose:** This purpose of this presentation is to describe the newly established Youth Representative role within the UN System, and activities associated with the DPI NGO (Department of Public Information) and ECOSOC (Economic and Social Council). Youth engagement in the UN is regarded as a crucial focus for developing leadership and participation in the resolution of transnational issues. Activities and opportunities for youth participation (18-24) will be explored and discussed.

**Methods:** The experience of the UN Youth Representatives will be highlighted for STTI members interested in engagement of young members. Mentorship and collaboration on global health and nursing projects demonstrates successful and meaningful intergenerational and collegial activities.

**Results:** UN Youth Representatives from nursing NGOs will share their experiences in the UN System and provide information for members and chapters interested in promoting youth activity in the UN.

**Conclusion:** The youth representatives will discuss the UN System, and offer suggestions for engagement of young members.

### Contact

[fs230@nyu.edu](mailto:fs230@nyu.edu)

## F 11 - Practical Interventions to Improve Adherence

### Review of the Predictors of Medication Non-Adherence and Adherence

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*Kathy Wheeler, PhD, BSN, MSN, APRN-FNP, NP-C, FAANP, USA*

#### Purpose

To review, in detail, the research on predictors of medication non-adherence and medication adherence.

#### Target Audience

Nurses, Nurse Practitioners, Advanced Practice Nurses

#### Abstract

**Purpose:** This is the second of a three part series on Medication Adherence in which the authors describe the continuum of adherence to non-adherence of medication usage.

**Methods:** Research articles through Medline and PubMed.

**Results:** The research review showed medication adherence and non-adherence can be categorized according to the following: patient demographic characteristics, patient psychological and behavioral characteristics, social factors, disease related factors, financial and other health system factors, patient-provider relationships, and treatment related factors.

**Conclusion:** The implications for advanced practice nurses and other prescribers is that it is important to evaluate the patient according to unique predictor qualities in order to tailor responses and activities, thereby assuring the highest medication adherence possible.

#### Contact

[kjwheeler@roadrunner.com](mailto:kjwheeler@roadrunner.com)

### A Review of the Patterns, Predictors, and Interventions to Improve Adherence

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*Mary Neiheisel, BSN, MSN, EdD, FNP-BC, CNS-BC, FAANP, USA*

#### Purpose

Open a dialog on the enormity of the problem of non-adherence to medications prescribed for disease conditions, reasons for the non-adherence, the significance of non-adherence, and the interventions by health care providers which will improve medication adherence rates is presented.

#### Target Audience

Nurses, Nurse practitioners, advanced practice nurses

#### Abstract

**Purpose:** This is the first of a three part series on Medication Adherence in which the authors describe the continuum of adherence to non-adherence of medication usage.

**Methods:** Research articles through Medline and PubMed.

**Results:** Understanding the magnitude and scope of the problem of medication non-adherence is the first step in reaching better adherence rates. The second step is to evaluate the risk factors for each patient for medication adherence/non-adherence. Steps are then taken to prevent non-adherence.

**Conclusion:** The implications for nurse practitioners include using time with patients to assist them in adherence, building a trusting relationship with patients, and developing protocols for assessing and preventing non-adherence.

#### Contact

[mbn8682@louisiana.edu](mailto:mbn8682@louisiana.edu)

## Strategies for Improving Adherence

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*Mary Ellen Roberts, DNP, RN, APN, FAANP, FAAN, USA*

### Purpose

develop protocols for assessing and preventing non-adherence.

### Target Audience

Nurses, Nurse Practitioners, Advanced Practice Nurses

### Abstract

**Purpose:** This is the third of a three part series on Medication Adherence in which the authors describe the continuum of adherence to non-adherence of medication usage.

**Methods:** Research articles through Medline and PubMed.

**Results:** Understanding the magnitude and scope of the problem of medication non-adherence is the first step in reaching better adherence rates. The second step is to evaluate the risk factors for each patient for medication adherence/non-adherence. Steps are then taken to prevent non-adherence.

**Conclusion:** The implications for nurse practitioners include using time with patients to assist them in adherence, building a trusting relationship with patients, and developing protocols for assessing and preventing non-adherence.

### Contact

[maryellen.roberts@shu.edu](mailto:maryellen.roberts@shu.edu)

## G 11 - Challenges in the Context of Self-Care and Family Caregivers

### Self-Management on Chronic Diseases

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*Fernanda Bastos, PhD, MsC, Portugal*

#### Purpose

Create an explanatory model on self-management carried out by people with demonstration of ineffectiveness, in order to infer the elements of a health intervention that promotes a responsible self-management.

#### Target Audience

The target audience is health professionals and educators

#### Abstract

**Purpose:** Chronic disease and its comorbidities represent the cause of episodes of hospitalization for lack of disease control, or its consequences. Ineffective self-management contributes to hospital readmissions and the high number of episodes of specialized care, indicates deficiencies in primary care.

The study purpose was to create an explanatory model on self-management carried out by people with demonstration of ineffectiveness, in order to infer the elements of a health intervention that promotes a responsible self-management.

**Methods:** Selected for study were those with chronic illness, with five or more hospitalizations. Twenty-two participants were followed for a maximum of a year and a half, in a multicases study(1). Data were obtained from the analysis of documentation, participant observation and interviews.

The data were analyzed according to the method proposed by Strauss and Corbin, to generate a Grounded Theory(2,3). Beginning with a microanalysis, which was organized in an open coding, then grouping the concepts and their relationships through an axial analysis, and summarizing the data, drawing up theoretical reduction in a selective coding, finally, presenting the theory.

**Results:** In this study emerge a pattern of vulnerability with personal and contextual conditions. Socio-economic and cultural poverty arises like the context of greater vulnerability straight by family background(4).

**Conclusion:** Analysis of personal circumstances showed that attitude toward life and illness and personal attributes grouped participants in four patterns, which we named as "style": responsible, independent, formally guided and negligent. Some of these conditions are hardly conducive to a healthy transition(5) and identify the style of self-management can enable nurses to anticipate some difficulties.

#### Contact

[fernandabastos@esenf.pt](mailto:fernandabastos@esenf.pt)

### Critical Factors on Autonomy Reconstruction after Self-Care Dependency

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*Alice Brito, RN, McN, PhD, Portugal*

#### Purpose

to develop a theory on rebuilding of autonomy in self-care, after an event generator of dependence.

#### Target Audience

the target audience is health professionals and educators

#### Abstract

**Purpose:** to characterize the phenomenon of dependence on self-care at discharge moment and to explore in depth the process of self-care autonomy reconstruction

**Methods:** qualitative study

**Results:** During the transition there are factors considered critical to the personal conditions, community resources, the support and the health condition that determines the way of experiencing the transition. Personal condition identified that interfere in the process was awareness, motivation, engagement, self-care attitude, make decisions capacity, understand self-care as “situation” or “condition; meanings attributed to the changes and health status. Support in the process of rebuilding of autonomy is fundamental and may be economic, spiritual, family and community level. Society can promote socialization, promoting the involvement and facilitating the process or increase and promote social stigma associated with this very issue of dependency.

**Conclusion:** The nursing therapeutics promoters of healthy transition that emerged throughout the study were: promoting awareness; promoting self-care; facilitating decision making; promoting use of equipment; promoting housing changes; and, promoting access to available resources.

Contact

[alice@esenf.pt](mailto:alice@esenf.pt)

## Family Vulnerability

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*Maria Joana Campos, RN, MScN, Portugal*

*Abel Paiva Silva, PhD, MScN, RN, Portugal*

Purpose

Characterize the family transition experienced by caregivers of dependent people on self-care

Target Audience

the target audience is health professionals and educators

Abstract

**Purpose:** Characterize the family transition experienced by caregivers of dependent people on self-care

**Methods:** Grounded Theory (Strauss & Corbin, 2008) .

**Results:** A main category emerges from analysis: “vulnerability”. The vulnerability is related with social exclusion, since the dependent needs a lot of care, cope with social isolation and most of them are unknown of the health system. On the other hand, family caregivers aren’t prepare for care, they have conflict of interests with their usual roles in family and society. The resources available by the families usually are insufficient. They search for more support but is difficult to find the professionals and equipment’s to help them with this hard task.

Consequently, they marginalize themselves and there are feelings like “everybody forgets us”.

**Conclusion:** The understanding of this complex transition is crucial to provide care with quality for these families.

Contact

[joana@esenf.pt](mailto:joana@esenf.pt)

## Educational Tool to Improve Caregiver Role

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*Maria José Lumini Landeiro, RN, MScN, Portugal*

*Teresa Martins, PhD, Portugal*

Purpose

The purpose is divulgate a research developed with family caregivers and nursing professionals

Target Audience

The target audience is health professionals and educators

#### Abstract

**Purpose:** The development of new technologies in the health area is a strategic axis to improve family caregiving role.

**Methods:** Develop “Caring for dependent persons” an interactive tool in order to provide information tailored to the needs of family caregivers of dependent patients to complement the given guidance and promote their autonomy. Using an instrument to evaluate this educational tool through 6 experts in the area of family caregivers.

**Results:** Quantitative and qualitative study, quasi-experimental field, with two study groups. To be implemented in an Oporto`s hospital. Consisting of three phases:

- 1.<sup>a</sup> - Identify the importance to have an interactive tool to improve family caregiving role.
- 2.<sup>a</sup> - Develop of interactive tool based on Instructional Design in Context for caregivers.
- 3.<sup>a</sup> - Evaluate the impact of the interactive tool

**Conclusion:** The experts consider that the interactive educational tool is good concerning very items like accessibility, main areas, utility, Simplicity airworthiness, graphical presentation, Quality videos, Clarity of language. The major innovative element will be the platform` interactivity with the users` needs helping their decision making, allowing family caregivers to decide which information want to know and learn about.

#### Contact

[lumini@esenf.pt](mailto:lumini@esenf.pt)

## H 09 - Working with Communities to Address Obesity Across the Lifespan

### Establishing the Reliability and Validity of HeartSmartKids Cardiovascular Risk Assessment for Children 2-18 Years

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*Bonnie Gance-Cleveland, PhD, RNC, PNP, FAAN, USA*

#### Purpose

To describe the development of a computerized decision support technology to prevent pediatric obesity and report on reliability and validity of screening questions used in the screening tool.

#### Target Audience

researchers.

#### Abstract

**Purpose:** To describe the development of a computerized decision support technology to prevent pediatric obesity and report on reliability and validity of screening questions used in the screening tool.

**Background:** Experts have developed guidelines for childhood obesity. Clinicians report difficulty incorporating the screening and counseling components into routine care. HeartSmartKids™ (HSK) is a decision support tool for implementation of the obesity guidelines. HSK assesses family health behaviors and provides tailored guidance. Patients complete a bilingual screening interview on health behaviors using a touchscreen computer. Clinic staff add the clinical measurements and print the tailored guidance for families. The purpose of this study was to document the reliability and validity of the screening questions included in this technology for assessing eating, activity, and inactivity.

**Methods:** This study was part of a larger intervention study. Children aged 11-14 years old were enrolled in a community-based healthy eating and activity after school program. Children in the control group (n=35) completed the HSK at two time points 8 weeks apart to establish test-retest reliability. Baseline responses from children in the intervention and control groups (n=103) on the HSK and HABITS, a 19-item questionnaire with subscales for diet, activity, and sedentary behaviors, were used to establish concurrent validity.

**Statistical Analysis:** A multitrait/multimethod correlation matrix (MTMM) was used to examine the reliability and validity of HSK relative to HABITS.

**Results:** Reliability of HSK using the main diagonal elements in the monomethod blocks established that reliability coefficients were equal to or higher for HSK than for HABITS. Convergent validity using the main diagonal of the monotrait/heteromethod block was established. Convergent validity was good for all items (r values ranged from .33 to .62, all p's <0.05) with the exception of milk consumption (r = .28, p < 0.05) and eats at restaurants (r = 0.16, n.s.) where questions differed considerably on the questionnaires.

**Conclusion:** The questions used in the HSK are equivalent or superior to the HABITS questionnaire and are integrated into technology that is user friendly and generates a tailored patient education handout.

#### Contact

[bonnie.gance-cleveland@ucdenver.edu](mailto:bonnie.gance-cleveland@ucdenver.edu)

### The Relationship of Maternal BMI and Child Body Size, Home Environment, and Food in Low-Income Minority Women and Children Participating in a Child Obesity Primary and Secondary Prevention Project

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*Elizabeth Reifsnider, PhD, FAAN, WHNP, PHNCS-BC, USA*

#### Purpose

to discuss the primary and secondary obesity prevention projects which were developed through community-based participatory research with a local grass-roots organization and local WIC program.

#### Target Audience

researchers.

#### Abstract

**Purpose:** The primary and secondary obesity prevention projects were developed through community-based participatory research with a local grass-roots organization and the local WIC program. Both programs focused on nutrition guidance to mothers and encouragement of more physical activity with less time devoted to screen viewing (television and computer). The projects are based on the Ecological Model of Growth (EMG).

**Methods:** The mothers and children were recruited through several WIC clinics within the same county. The instruments used to collect data were based on the EMG and reflected the food environment (24 hour diet recall, Household Food Inventory [HFI]), the level of stimulation in the home (HOME Screening Questionnaire [HSQ], hours of TV viewing), and maternal body size. The results from the first data collection time period for both projects are presented in this paper.

**Results:** The association between fiber and protein was non-significant although approaching significance; the association between fiber and fat were non-significant, and the association between fat and protein was highly significant ( $p < .000$ ). There were no significant associations between types of food intake and child or maternal BMI. There were significant associations between the Household Food Inventory and the HSQ ( $p < .03$ ) and between HFI and TV hours ( $p = .05$ ).

**Conclusion:** The types of food in the home affect mother and child body size. Hours of TV watching and the level of high calorie foods in the house are positively associated. In addition, the amount of high calorie food in the household is associated with the level of stimulation in the home. This could possibly demonstrate that interactions between mother and child involve pleasurable foods (high sugar, high fat). The relationships of maternal and child body sizes may possibly be positively related to number of high calorie foods in the house although this was not conclusively shown in this project.

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#### Contact

[Elizabeth.Reifsnider@asu.edu](mailto:Elizabeth.Reifsnider@asu.edu)

## **Cultural Relevance of the Healthy Choices Intervention Program**

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*Diana L. Jacobson, PhD, RN, PNP-BC, USA*

#### Purpose

to discuss the acceptability, applicability and cultural relevance of the Healthy Choices Intervention (HCI) program for underserved, Hispanic overweight and obese 9 to 12 year old children and their parents who utilize the healthcare services at an inner city pediatric primary care clinic.

#### Target Audience

researchers.

#### Abstract

**Background:** The burden of obesity and its health consequences disproportionately affects Hispanic children and families. In Arizona, nearly 18% of the state's children and adolescents are obese (up from 12.2% in 2003) with the rate rising by nearly 46% between 2003 and 2007. Researchers have determined that multi-component; comprehensive obesity interventions are feasible in the primary care setting. In addition, it has become evident that intervention effectiveness is improved when obesity interventions are individualized to address the family's social and cultural influences on health.

**Purpose:** The purpose of this study was to determine the acceptability, applicability and cultural relevance of the *Healthy Choices Intervention (HCI)* program for underserved, Hispanic overweight and obese 9 to 12 year old children and their parents who utilize the healthcare services at an inner city pediatric primary care clinic. This study was funded by a 2012 Sigma Theta Tau International Small Grant.

**Methods:** Research Design - Phase 1. The preliminary efficacy of the *HCI* with overweight and obese 9-12 year old Hispanic children (N=20) and their parents/legal guardians (N=20), recruited from a clinic that delivers health care to the medically underserved was evaluated utilizing a quasi-experimental design. Phase 2. A descriptive qualitative design, utilizing parent and child focus groups, informed as to the acceptability and cultural relevance of the *HCI*.

Outcomes Measured - Demographics, anthropometrics and self-reported measures of beliefs, behaviors and psychosocial functioning were obtained.

**Results:** The parents and children reported high acceptability and applicability of the *HCI*. Parental feedback included recommendations pertaining to the cognitive skills building activities and nutritional content of the intervention.

**Conclusion:** Incorporating feedback from the participants strengthened the *HCI*. The *HCI* has been now been adapted, not only to be culturally relevant to the Hispanic families, but also addresses the current recommendations for comprehensive obesity management in primary care settings.

#### Contact

[diana.jacobson@asu.edu](mailto:diana.jacobson@asu.edu)

## **Overweight and Obesity in Young Children: A Critical Period for Intervention**

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*Leigh Small, PhD, RN, CPNP-PC, FNAP, FAANP, FAAN, USA*

#### Purpose

for attendees to discuss the four weight-related factors and the behavioral factors predictive of later life obesity; and to outline the evidence that supports early childhood as a critical time point in weight development in the life course and effective strategies to intervention with preschoolers and their parents.

#### Target Audience

researchers.

#### Abstract

**Background and Significance:** While there has been a surge in prevalence rates of overweight and obese children over the last three decades; recent epidemiological data suggest that the trends have stabilized for all child age groups except preschool-aged children. Furthermore, the increase in the prevalence of obesity across child age groups continues to be the greatest between the preschool and school-age groups; underscoring the importance of intervening with young children.

**Purpose:** The purpose of the study was to appreciate the effect of a parent-focused intervention conducted in an office setting on child (4-8 years of age) anthropometric and behavioral outcomes.

**Methods:** Following IRB approval, study recruitment and baseline assessments, parent-child dyads (N = 60) were randomly assigned to either the treatment or control condition. Four intervention sessions were conducted with the parents in their child's healthcare office. The impact of the intervention was evaluated by assessing child anthropometric (e.g., waist, waist-by-height ratio, BMI) and behavioral measures (e.g., internalizing and externalizing behaviors) immediately, 3, and 6 months following the intervention period.

**Results:** ANOVA models suggested that children in the experimental group were found to have significantly reduced waist circumference and waist-by-height ratio immediately following the intervention that persisted for 3 and 6 months. BMI and BMI percentile decreased over time but was not differentially affected. The internalizing scores decreased significantly following the intervention but there were not

significant differences 3-, or 6-months later. The parent-reported externalizing behaviors of hyperactivity and aggression significantly decreased at each time point when compared with baseline.

**Conclusion:** Specific child weight-related and behavioral factors have been found to be reliably predictive of adult obesity and can be identified during adiposity rebound suggesting that this may be a critical period related to weight development. This intervention demonstrated arrest of obesity-related anthropometric measures and improved child behavioral changes.

Contact

[lsmall2@vcu.edu](mailto:lsmall2@vcu.edu)

## H 11 - ICU Diary: Supporting the Intensive Care Patients Transition from the ICU

### ICU Diary: Mind the Gap

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*Judy Martin, MSN, BSN, RN, USA*

#### Purpose

The purpose of this presentation is to educate the registered nurse as to the positive clinical benefits the ICU diary has on the critically ill patient's transition from the ICU setting. Evidence-base knowledge has demonstrated the diary improves patient outcomes and enhances the clinical experience of family members.

#### Target Audience

The target audience of this presentation is registered nurses, academic and administrative leaders concerned with improved patient outcomes and the move to embrace population health management. The ICU diary is a cost effective tool that has been demonstrated to benefit both patient and family members.

#### Abstract

**Purpose:** Critically ill patients have reported gaps in their memories, distorted perceptions and hallucinations which can contribute to the development of posttraumatic stress disorder (PTSD). A review of literature indicated patients have reported not believing they had been that sick causing mistrust of family members and their healthcare team. The purpose of this project was to better understand the effect of the ICU diary on the critically ill patient's transition from the ICU setting.

**Methods:** An evidence-based practice project, based on the IOWA Model of EBP, was conducted in an intensive care setting located in Central Texas, USA. Critically-ill patients (n = 6) who were on the ventilator for at least 24 hours were enrolled in the study. Registered nurses, ancillary staff and family members wrote in the diaries. Photographs were taken of the patient on the ventilator and at various points during their stay with the purpose of providing a visual timeline.

**Results:** One patient was discharged from the hospital but died shortly afterwards. One patient was unenrolled from the study. Four patients completed the study. Results of the study indicated the diary is a therapeutic tool: 1) the four patients chose to keep their diary and to include the photographs in the diary; 2) three of the four patients reported no memories of their stay in the ICU and; 3) one patient had memories of the ICU which included "horrible" hallucinations. Four patients reported the ICU diary helped them with their transition. Four patients reported the photographs helped them with their transition.

**Conclusion:** The diary is a cost-effective therapeutic instrument. Observed implications included: 1) family members appeared calmer 2) improved communication between nursing staff and family members and, 3) diary and pictures had a positive effect as evident by the reaction of the patients at the point of delivery.

#### Contact

[jjmartinrn@yahoo.com](mailto:jjmartinrn@yahoo.com)

### The Emergence and Evolution of the Intensive Care Patient Diary

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*Ingrid Egerod, PhD, MSN, RN, Denmark*

#### Purpose

The purpose of this presentation is to educate the registered nurse as to the positive clinical benefits the ICU diary has on the critically ill patient's transition from the ICU setting. Evidence-base knowledge has demonstrated the diary improves patient outcomes and enhances the clinical experience of family members.

### Target Audience

The target audience of this presentation is registered nurses, academic and administrative leaders concerned with improved patient outcomes and the move to embrace population health management. The ICU diary is a cost effective tool that has been demonstrated to benefit both patient and family members.

### Abstract

**Purpose:** The intensive care patient diaries originated in the Scandinavia countries of Denmark, Norway and Sweden. In the 1990's, the ICU nurses began keeping the ICU diary with the purpose of helping their patients come to terms with their illness following being discharged from the hospital. The diaries were written by the nurses, with the patient's family contributing as well. Following being critically ill and being cared for in the intensive care setting, patients were found to be developing psychological problems such as nightmares, hallucinations, delusions, anxiety, depression and symptoms of posttraumatic stress. The purpose of this study was to compare and describe the emergence and evolution of the intensive care patient diary among the ICU units located in Denmark, Norway, and Sweden.

**Methods:** This study was a meta-analyses comparative international multicenter design. The qualitative secondary analysis sought to examine data previously developed to describe the practice of keeping intensive care diaries for critically ill patients. The research questions were: (1) what are the differences and commonalities in using patient diaries in the three Scandinavian countries and (2) how did it start and where are we now?

**Results:** The results of the study indicated the diaries were introduced concurrently in Denmark, Norway and Sweden. The concept of the ICU diary began as a cross-national grass-roots initiative and evolved into an evidence-base knowledge domain of inquire. Reoccurring terms described the diary as: (1) a therapeutic instrument; (2) an act of caring; (3) an expression of empathy, and (4) a combination of all of the above.

**Conclusion:** Diaries have the potential to fulfill the innate needs of the patient who struggles to understand what happened to them and aids them as they constructs their own story of what happened.

### Contact

[ingrid.egerod@gmail.com](mailto:ingrid.egerod@gmail.com)

## **ICU Diaries Reduce Post Traumatic Stress Disorder after Critical Illness in Patients and Family Members**

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*Christina Jones, PhD, MPhil, PgD, Bsc RN, United Kingdom*

### Purpose

The purpose of this presentation is to educate the registered nurse as to the positive clinical benefits the ICU diary has on the critically ill patient's transition from the ICU setting. Evidence-base knowledge has demonstrated the diary improves patient outcomes and enhances the clinical experience of family members.

### Target Audience

The target audience of this presentation is registered nurses, academic and administrative leaders concerned with improved patient outcomes and the move to embrace population health management. The ICU diary is a cost effective tool that has been demonstrated to benefit both patient and family members.

### Abstract

**Purpose:** Delusional memories from the period of critical illness have been shown to be a major contributor to the later occurrence of post traumatic stress disorder (PTSD). The experience of watching the patient being critically ill is also traumatic to families, making them at risk of PTSD. It

was hypothesised that an ICU diary could help patients and their families come to terms with their differing memories and so reduce the incidence of PTSD.

**Methods:** A prospective randomised, controlled study was performed in 12 ICUs across 6 European countries. 1 week after ICU discharge the ICU Memory Tool was used to identify recall for delusional memories. 1 month post ICU discharge PTSD related symptoms was assessed using the PTSS-14 and the patients were randomised to receive their diary at this point or after the next interview 3 months post ICU discharge. At 3 months a diagnosis of PTSD was made using the PDS. After the final interview, the control patients also received their diaries. In 2 of the study ICUs relatives were asked to complete the PTSS-14 at 1 month and 3 months post ICU discharge.

**Results:** 352 patients were randomised, 322 (91.5%) completing the 3 month follow-up. 11 patients with undiagnosed, pre-existing PTSD were excluded from the final analysis. The incidence of new PTSD in the intervention group was 5% (8/154), and 13.4% (21/157) in the control group; this was statistically significant ( $p = 0.013$ ). 30 relatives (15 in the intervention group and 15 in the control group) completed questionnaires at 1 and 3 months. Relatives in the intervention group had reduced PTSD symptom ( $P = .03$ ).

**Conclusion:** This randomised, controlled trial confirms that an ICU Diary helps patients come to terms with critical illness and reduces PTSD incidence. In addition the diary helps reduce symptoms of PTSD in relatives.

#### Contact

[Christina.Jones@sthk.nhs.uk](mailto:Christina.Jones@sthk.nhs.uk)

## **ICU Diaries: The Journey to Psychological Recovery for Critically Ill Patient's Family Members**

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*Carl Gosta Backman, PhD, BSc, RN, Sweden*

#### Purpose

The purpose of this presentation is to educate the registered nurse as to the positive clinical benefits the ICU diary has on the critically ill patient's transition from the ICU setting. Evidence-base knowledge has demonstrated the diary improves patient outcomes and enhances the clinical experience of family members.

#### Target Audience

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#### Abstract

**Purpose:** Delusional memories from the period of critical illness have been shown to be a major contributor to the later occurrence of post traumatic stress disorder (PTSD). The experience of watching the patient being critically ill is also traumatic to families, making them at risk of PTSD. It was hypothesised that an ICU diary could help patients and their families come to terms with their differing memories and so reduce the incidence of PTSD.

**Methods:** A prospective randomised, controlled study was performed in 12 ICUs across 6 European countries. 1 week after ICU discharge the ICU Memory Tool was used to identify recall for delusional memories. 1 month post ICU discharge PTSD related symptoms was assessed using the PTSS-14 and the patients were randomised to receive their diary at this point or after the next interview 3 months post ICU discharge. At 3 months a diagnosis of PTSD was made using the PDS. After the final interview, the control patients also received their diaries. In 2 of the study ICUs relatives were asked to complete the PTSS-14 at 1 month and 3 months post ICU discharge.

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**Conclusion:** This randomised, controlled trial confirms that an ICU Diary helps patients come to terms with critical illness and reduces PTSD incidence. In addition the diary helps reduce symptoms of PTSD in relatives.

Contact

[Carl.Backman@lio.se](mailto:Carl.Backman@lio.se)

# I 09 - Utilization of Nursing Classification Systems for the Depiction of the Nursing Process in Electronic Patient Records in Order to Improve Evidence-Based Nursing

## Aims of Utilization Nursing Process Data in Electronic Patient Records

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*Monika Linhart, RN, PhD, Germany*

### Purpose

The purpose of this presentation is to lay the basis for the overall goal of this symposium to spur a scientific discussion of the requirements nursing classification in general should have to be most beneficial for the use in electronic patient records and the further development of Evidence-based Nursing

### Target Audience

The target population of this presentation is first, clinicians who use nursing classification systems in practice, secondly academics who are interested in the development of nursing terminology and/or electronic patient records and lastly, administrative personnel who are interested in utilizing electronic nursing process data e.g. for outcome measurement

### Abstract

**Purpose:** While the use of nursing classification systems in nursing practice is increasing, there is still unclarity about the variety of aims which could be met by additionally implementing these systems for the nursing process documentation in electronic patient records.

**Methods:** Therefore, the first presentation will illustrate and discuss a selection of these potential aims, like improving the communication of healthcare professionals with one another, supporting process flows such as the transfer from one institution to another, supporting the performance transparency of nursing and outcome measurement, and last but not least supporting decision-making by nurses within the framework of the nursing process by presenting up-to-date nursing knowledge.

**Results:** None stated.

**Conclusion:** None stated.

## Contact

[mliinhart@recom.eu](mailto:mliinhart@recom.eu)

## **Illustration of Aims for Utilization Nursing Process Data in Electronic Patient Records with the Aid of the European Nursing Care Pathways (ENP)**

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*Sebastian Kraus, RN, BS, Germany*

### Purpose

The purpose of this presentation is to deepen the understanding of the content presented in the first presentation of this symposium

### Target Audience

The target population of this presentation is first, clinicians who use nursing classification systems in practice, secondly academics who are interested in the development of nursing terminology and/or electronic patient records and lastly, administrative personnel who are interested in utilizing electronic nursing process data e.g. for outcome measurement

### Abstract

**Purpose:** The before delineated aims will be illustrated in more detail with the aid of the European Nursing Care Pathways (ENP).

ENP is a classification system which has been developed in Germany since 1989 by a scientific development team with diverse nursing competences. ENP consists of nursing diagnosis with characteristics, etiologies, resources, outcomes, interventions as well as detailed guiding interventions. In Germany and other European countries, ENP is currently used by many hospitals, nursing homes and home health care services as an electronic patient record for nursing process documentation.

**Methods:** None stated.

**Results:** None stated.

**Conclusion:** None stated.

## Contact

[skraus@recom.eu](mailto:skraus@recom.eu)

## **Requirements of Nursing Classification Systems for an Useful Application in Electronic Data Records**

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*Pia Wieteck, RN, PhD, Germany*

### Purpose

The purpose of this presentation is to finalize the content input and to spur a scientific discussion of the requirements nursing classification in general should have to be most beneficial for the use in electronic patient records and the further development of Evidence-based Nursing

### Target Audience

The target population of this presentation is first, clinicians who use nursing classification systems in practice, secondly academics who are interested in the development of nursing terminology and/or electronic patient records and lastly, administrative personnel who are interested in utilizing electronic nursing process data e.g. for outcome measurement

### Abstract

**Purpose:** In the final presentation, the necessary requirements of nursing classification systems for an useful application in electronic data records will be discussed. The main question will be which

abstraction level or granulation is needed for nursing terminologies to enable nursing documentation and all of the before presented aims in an electronic patient record.

**Methods:** To support the discussion the levels of granulation of a number of nursing diagnoses in different nursing terminologies and the results of a cross-mapping of ENP and NANDA will be presented.

**Results:** None stated.

**Conclusion:** This and the other presentations of this symposium should spur a scientific discussion of the requirements nursing classification in general should have to be most beneficial for the use in electronic patient records on the one hand and the further development of Evidence-based Nursing on the other hand.

Contact

[pwieteck@recom.eu](mailto:pwieteck@recom.eu)

## J 09 - New Evidence-Based Practice Competencies for Practicing Nurses and Advanced Practice Nurses: From Development to Real World Implementation

### The Development of New Evidence-Based Practice Competencies for Practicing Registered Nurses and Advanced Practice Nurses

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

#### Purpose

The purpose of this presentation is to disseminate the findings of two Delphi surveys created to develop new evidence-based competencies for practicing registered nurses and advanced practice nurses.

#### Target Audience

The target audience of this presentation is clinicians and administrators who are building, promoting and, or sustaining a culture of EBP in their healthcare organization.

#### Abstract

**Purpose:** Research supports that evidence-based practice (EBP) promotes high value healthcare, including enhancing the quality and reliability of healthcare, improving health outcomes and reducing variations in care and costs. Even with its tremendous benefits, EBP is not the standard of care that is practiced consistently by clinicians throughout the United States and globe. Although there is a general expectation of healthcare systems globally for nurses to engage in EBP, much uncertainty exists about what exactly that level of engagement encompasses. Lack of clarity about EBP expectations and specific EBP competencies that nurses and advanced practice nurses (APNs) who practice in real world healthcare settings should meet impedes institutions from attaining high-value, low cost evidence-based healthcare. Therefore, the aim of this study was to develop a set of clear EBP competencies for both practicing registered nurses and APNs in clinical settings that can be used by healthcare institutions in their quest to achieve high performing systems that consistently implement and sustain EBP.

**Methods:** Seven national EBP leaders developed an initial set of competencies for practicing registered nurses and APNs through a consensus building process. Next, a Delphi survey was conducted with 80 EBP mentors across the United States to determine consensus and clarity around the competencies.

**Results:** Two rounds of the Delphi survey resulted in total consensus by the EBP mentors, yielding a final set of 13 competencies for practicing registered nurses and 11 additional competencies for APNs.

**Conclusion:** Incorporation of these EBP competencies into healthcare system expectations, orientations, performance appraisals, job descriptions and clinical ladder promotion processes could drive higher quality, reliability and consistency of healthcare as well as reduce costs. Research is now needed to develop valid and reliable tools for assessing these competencies as well as linking them to clinician and patient outcomes.

#### Contact

[Melnyk.15@osu.edu](mailto:Melnyk.15@osu.edu)

### Partnering with Healthcare Organizations to Pilot the Implementation of EBP Competencies

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*Lynn Gallagher-Ford, PhD, RN, DFPNAP, NE-BC, USA*

#### Purpose

The purpose of this presentation is to disseminate process used to pilot new EBP competencies.

#### Target Audience

Target audience is clinicians and administrators who are building, promoting and, or sustaining a culture of EBP in their healthcare organization.

#### Abstract

**Purpose:** There has been a lack of clarity about EBP expectations and specific EBP competencies that nurses and APNs who practice in real world healthcare settings should meet in healthcare organizations. This uncertainty has impeded institutions from attaining high-value, low cost evidence-based healthcare. The development of clearly articulated EBP competencies that align with the EBP process are a valuable contribution that healthcare organizations can integrate support an environment where EBP is the measurable expectation and practice for all.

**Methods:** Engagement with a variety of healthcare organizations to pilot the integration of EBP competencies into programs and processes was undertaken. The intent of the pilots was to evaluate the barriers, facilitators, and outcomes of these projects. The healthcare organizations are piloting the integration of the EBP competencies in unique ways such as: integration into job descriptions and performance appraisals; integration into a Nurse Practitioner Fellowship onboarding program; integration across the membership of an interdisciplinary policy and procedure committee.

**Results:** The pilot projects are providing valuable information about the integration experience and strategies for success in implementing the EBP competencies. The projects are very diverse and create a rich assortment of information and guidance that will serve healthcare organizations undertaking these activities in the future. A range of pilot project activities and experiences that have been systematically collected will be presented. The unique barriers and challenges as well as unexpected champions that emerged will be highlighted.

**Conclusion:** Clearly articulated EBP competencies are a valuable new resource that will help healthcare organizations achieve high value healthcare. Implementing new innovations is always a challenge and having real world exemplars to guide these endeavors is tremendously helpful in terms of effectiveness and efficiency. Key findings from EBP competency implementation pilot projects as well as effective strategies discovered will be presented.

#### Contact

[gallagher-ford.1@osu.edu](mailto:gallagher-ford.1@osu.edu)

### **Integration of EBP Competencies Exemplar: The Interdisciplinary Policy and Procedure Committee Experience**

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*Cheryl L. Boyd, PhD, WHNP-BC, NE-BC, RN, USA*

#### Purpose

The purpose of this presentation is to disseminate the findings of the pilot organization implementing the new EBP competencies.

#### Target Audience

The target audience is clinicians and administrators who are building, promoting and, or sustaining a culture of EBP in their healthcare organization.

#### Abstract

**Purpose:** Creating an environment where EBP is the foundation of clinical decision making and practice is a challenging undertaking in real world healthcare organizations. Resources to promote the transition to an EBP culture can accelerate this process. Having clear set of scientifically derived EBP competencies that are reasonable to expect of clinicians in practice would be a helpful tool. When presented with opportunity to pilot the integration of EBP competencies, our organization energetically accepted. Our engagement was based on our interest in enhancing our own ongoing work in advancing EBP in our organization as well as participating in work that could accelerate the integration of EBP in other organizations as well.

**Methods:** Our organization integrated the EBP competencies into the skill set of the members of our policy and procedure committee. The committee had expressed interest in learning more about EBP in the past however a framework to build upon had not been selected. The EBP competency pilot project was an excellent fit for designing a program to provide EBP education for the group with a clear set of measurable outcomes (competencies) that could be evaluated along the way.

**Results:** The implementation and results of the EBP competency integration pilot will be discussed including; initial discussions, obtaining group engagement and buy-in, barriers, facilitators, critical strategic recommendations for success, and individual as well as organizational outcomes.

**Conclusion:** EBP competencies are a valuable tool and resource for organizations seeking to build a culture of EBP. A pilot project to integrate scientifically derived EBP competencies into an important, interdisciplinary team in our organization had significant impact. The impact to the organization and plans for next steps in integrating EBP competencies throughout the organizations will be presented.

Contact

[cheryl.boyd@nationwidechildrens.org](mailto:cheryl.boyd@nationwidechildrens.org)

## K 09 - Improving Health Outcomes in Haiti through Nursing Education

### Collaborating Globally to Transform Haiti's Healthcare

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*Odiane Medacier, MSN, APRN, FNP-C, USA Jacqueline Cassagnol, RN, MSN, PMC, USA*

#### Purpose

The purpose of this presentation is to share the experience of one nursing organization partnering with a corporation to improve healthcare in Haiti, and to evaluate the impact of HANA's Teaching Initiative on Faculté des Sciences Infirmières de Léogane(FSIL) and Haiti's healthcare.

#### Target Audience

The target audience of this presentation are nurse educators, nurse leaders, nurse researchers, nursing students, all clinicians, and/or anyone who is interested and engaged in the improvement of global healthcare;

#### Abstract

**Purpose:** Haiti is facing a serious healthcare delivery crisis (Jerome & Ivers, 2010.) The Haitian American Nurses Association (HANA) is addressing this issue by collaborating with corporations/organizations in order to initiate projects that will transform Haiti's health care. Two main focuses of HANA have been community health and disaster preparedness in Haiti. The **purpose** of the Faculté des Sciences Infirmières de Léogane (FSIL)/Disaster Preparedness and community projects, sponsored by HANA, is to establish sustainable non-governmental policies and procedures for disasters at FSIL and the surrounding community, through Worldwide Community First Responder, Inc (WCFR).

**Methods:** The community health projects were created to ensure that FSIL students provide necessary community health care. WCFR nurse educators guided FSIL students to assess community health through health surveys and to analyze both access to and adequacy of existing community resources. The importance of health promotion in the community was emphasized.

**Results:** The results were very promising. The FSIL/Disaster Preparedness and community projects engaged nurse educators and student nurses in making FSIL and its surrounding community safer, more prepared, and more resilient for future disasters. It also contributed to the improvement of the health of the community in Leogane, Haiti.

**Conclusion:** The collaboration between HANA and WCFR has proven to be beneficial for all stakeholders. Being that nursing is such a vital segment of the healthcare delivery system, more emphasis should be put on building capacity through collaboration. Similar partnerships between nursing organizations and corporations must be sought and established.

#### Contact

[jackiecassagnol@gmail.com](mailto:jackiecassagnol@gmail.com)

### Fill in the Blank...The Experience of a Nurse Educator in Haiti

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*Louise Aurelien, EdD, MS, ARNP, NP-C, USA*

#### Purpose

The purpose of this presentation is to discuss the experience of a Haitian-American nurse educator, who studied and practiced in the United States for over 20 years and went to teach in her native land. Strategies to overcome barriers and maximize the teaching and learning experience are also emphasized.

#### Target Audience

The target audience of this presentation are primarily nurse educators, nurse leaders, nursing students. However, any nurse who has some experience in any field and seeking to share his/her knowledge and skills with future generations of nurses would greatly benefit.

#### Abstract

**Purpose:** The scarcity of qualified nurse educators is a global issue and even more pronounced in developing countries, like Haiti, due to the lack of educational infrastructure. Sponsored by HCR Manor, Care, The Haitian American Nurses Association of Florida (HANA) initiated a “Teaching Initiative Project” at the Faculté des Sciences Infirmières de Léogane (FSIL)” in Haiti. FSIL recruits nursing students who possess brilliant and hungry minds simply waiting to be stimulated, challenged and engaged. These future nurses are eager for learning opportunities. The **purpose** of this project was to engage Haitian American nurse educators from the United States to travel to Haiti to teach at FSIL and to introduce Haitian nursing students to innovative, interactive teaching/learning methods.

**Methods:** Assignments, interactive class activities and exams were developed and administered to afford nursing students the opportunity to correlate theory to practice in order to stimulate and develop critical thinking skills.

**Results:** The Students met the course objectives and obtained passing grades on the exams. They also demonstrated critical thinking skills during interactive classroom presentations and skills performance.

**Conclusion:** Using innovative teaching approaches to empower future Haitian nurses with higher level of critical thinking skills is a worthy investment necessary to revolutionize Haiti’s health system. Strategies to overcome barriers and maximize the teaching and learning experience are further discussed.

#### Contact

[aureliel@palmbeachstate.edu](mailto:aureliel@palmbeachstate.edu)

## **Empowering Nursing Students at the Faculté des Sciences Infirmières de Léogane (FSIL) to Promote Evidence-Based Practice in Haiti**

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*Marie-Carole France, EdD, MSN, BSN, USA*

#### Purpose

The purpose of this presentation is to share how Haitian nursing students at the Faculté des Sciences Infirmières de Léogane (FSIL) circumvented their traditional subject-focused learning approach to a process-driven learning method using problem-based learning (PBL) in nursing research.

#### Target Audience

The target audience of this presentation are nurse educators wanting to explore an innovative teaching strategy to promote lifelong learners, especially when teaching students who were taught in a subject-focused learning approach.

#### Abstract

**Purpose:** Nursing research is considered one of the most important courses in nursing curricula to prepare baccalaureate-nursing students for evidence-based practice. The **purpose** of this project was to evaluate how Haitian nursing students at the Faculté des Sciences Infirmières de Léogane (FSIL) circumvented their traditional subject-focused approach of learning to a process-driven method using problem-based learning (PBL) to stimulate their cognitive skills in the nursing research course.

**Methods:** To accomplish this goal, innovative teaching strategies: concept mapping, technology support, clinical case scenario, reflection, and group presentations were implemented in the course to help students develop the analytical skills necessary in critical thinking and evidence-based nursing skills, problem solving and self-evaluation skills, co-operation and teamwork, and interpersonal communication. These learning activities were fundamental for helping the students identify gaps in their knowledge to retrieve, access, and exercise information to critique and analyze the process of nursing research.

**Results:** The students at the Faculté des Sciences Infirmières de Léogane (FSIL) reported that PBL instructional teaching model promoted a higher order of thinking, improved group collaboration, and provided them with a better understanding of nursing research process, thus making the course more relevant to real life health care situations in Haiti. By implementing this innovative teaching model, the students were able to acquire critical thinking skills and direct their own learning. Problem-based learning was the teaching pedagogy that supports students' active participation in research.

**Conclusion:** PBL is an appropriate pedagogical framework for empowering the students at FSIL to take charge of their own learning. Nurse educators can make the learning experience stimulating, appealing, realistic, and applicable to the health care practices in Haiti by using this model. By guiding the students' lifelong learning, nurse educators can empower FSIL students to become the voices that will transform the health care delivery system in Haiti.

Contact

[mfrance@southuniversity.edu](mailto:mfrance@southuniversity.edu)

# K 11 - Translating Interventions to Practice: Dissemination and Implementation Research Methods

## Research Designs for Dissemination and Implementation

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*Usha Menon, PhD, RN, FAAN, USA*

### Purpose

The purpose of this presentation is to define translation research, determine readiness for dissemination and implementation research and identify appropriate study designs, funding sources, and feasibility and adaptation methods.

### Target Audience

The target audience of this presentation is academicians and clinicians interested in dissemination and implementation methods.

### Abstract

**Purpose:** The purpose of this presentation is to define translation research, determine readiness for dissemination and implementation research and identify appropriate study designs, funding sources, and feasibility and adaptation methods.

**Methods:** We will describe differences between key terminologies used in this area. Algorithms will be presented for assessing your program of research for readiness for D & I, and to differentiate between efficacy and effectiveness testing. Within the context of translation to community and clinical practice settings, methods will be described for adaptation, adoption, fidelity, outcomes and impacts, scalability and sustainability and the limitations and advantages of each.

**Results:** Exemplars of the key concepts above will focus on previous community-centered interventions designed to change health promotion behaviors. We will also address cost-effectiveness aims, feasibility of D & I designs, and empirical testing of evidence-based interventions both in the U.S. and abroad.

**Conclusion:** For optimal health benefits, efficacious interventions must be tested for Dissemination and Implementation. Dissemination and Implementation evaluation models must account for both effectiveness testing, adaptation and reach in practice settings.

## Contact

[menon.48@osu.edu](mailto:menon.48@osu.edu)

## **Putting Evidence into Practice: Dissemination and Implementation of a Cervical Cancer Prevention Project in Ethiopia**

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*Jennifer Kue, PhD, USA*

### Purpose

The purpose of this presentation is to describe a dissemination and implementation study of an evidence-based alternative, low-tech approach to preventing cervical cancer using visual inspection with acetic acid (VIA) and cryotherapy.

### Target Audience

The target audience of this presentation is academicians and clinicians interested in dissemination and implementation methods.

### Abstract

**Purpose:** Cervical cancer incidence rates are astonishingly high among women in Ethiopia (35.9 per 100,000). Almost 6,000 Ethiopian women die annually from the disease. In developed countries, cervical cancers are prevented by early detection using the Papanicolaou (Pap) test; however, in low resource countries, Pap tests are not readily available. An evidence-based alternative, low-tech approach to preventing cervical cancer using visual inspection with acetic acid (VIA) and cryotherapy has successfully reduced morbidity and mortality from cervical cancer in India and Uganda. Dissemination and implementation (D & I) of this evidence-based procedure can save women's lives when cancer treatment and providers are scarce.

**Methods:** We will detail the process of: 1) partnership building with an academic institution and non-governmental organizations in Gondar, Ethiopia for D & I of a VIA program, and 2) building capacity of a nursing program at a partner academic institution by training nurses and midwives in D & I of VIA procedures. We also describe the challenges of conducting a cancer prevention project in a global health setting.

**Results:** High degree of communication and collaboration between institutions are critical in implementing a cancer prevention program. Challenges include communication with in-country staff, competing international cancer prevention programs, high cost of using a standardized cervical cancer screen and treat curriculum, and cultural and linguistic differences.

**Conclusion:** D & I of an evidence-based screen and treat program for cervical cancer with nurses in low-resource settings is critical in countries with limited assets and skilled human capital. Enhancing the skills and competency of nurse faculty and students to conduct VIA can eliminate the burden of cervical cancer and untimely death of thousands of Ethiopian women. This presentation offers new insight into building capacity of nursing programs in a global context and provides guidance on carrying out global health research.

## Contact

[kue.2@osu.edu](mailto:kue.2@osu.edu)

## **Dissemination and Implementation Studies: The Statistician/Methodologist's Role and Responsibilities**

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*Laura Szalacha, EdD, USA*

### Purpose

The purpose of this presentation is to address the delay between health and healthcare research findings and everyday practice using dissemination and implementation methodology.

### Target Audience

The target audience of this presentation is academicians and clinicians interested in dissemination and implementation methods.

### Abstract

**Purpose:** The long delay between health and healthcare research findings and everyday practice is critical. The science of dissemination and implementation (D & I) addresses this gap by understanding how to create, evaluate, report, disseminate, and integrate evidence-based interventions to improve health and prevent disease within clinical and community settings and how to recast the nature or conduct of the research itself to make it more relevant and actionable in those settings. While the D & I field is growing, there are only a few training programs for D & I research.

**Methods:** This presentation will focus on the roles and responsibilities of the statistician and/or methodologist in a D&I study and how those procedures and practices differ from those in a randomized control trial. This includes the design of a study, appropriate models or theoretical frameworks, frameworks for evaluation (i.e., RE-AIM), measurement issues, concerns of fidelity and re-invention or adaptation of successful interventions and the diffusion of innovation principles.

**Results:** We will frame our discussion with the 5 core values for D & I proposed by the NIH: rigor and relevance, efficiency, collaboration, improved capacity, and cumulative knowledge.

**Conclusion:** We have successfully developed many interventions demonstrated to significantly treat and prevent illness. It is imperative that we hasten the translation of these findings.

### Contact

[szalacha.1@osu.edu](mailto:szalacha.1@osu.edu)

## L 09 - Factors Influencing Overweight and Healthy Lifestyles in Adolescents: Supporting Evidence to Guide Effective Interventions

### Sleep and Adolescent Obesity: Results from the Creating Opportunities for Personal Empowerment (COPE) Randomized Controlled Trial

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*Diana L. Jacobson, PhD, RN, PNP-BC, USA*

#### Purpose

The purpose of this presentation is to report baseline findings related to sleep, gender, weight and mood in adolescents participating in the NIH funded, COPE Healthy Lifestyles intervention.

#### Target Audience

The target audience of this presentation are clinicians and academicians.

#### Abstract

**Purpose:** The purpose of this presentation is to report baseline findings related to sleep, gender, weight and mood in adolescents participating in the NIH funded, COPE healthy lifestyles intervention which was delivered by trained health teachers in high schools in a large, southwest metropolitan area.

**Methods:** Several analyses were conducted on this large sample of 14-17 year old adolescents including: (1) chi square (2) t-tests, (3) frequencies, and (4) Pearson's correlations. Comparisons were conducted between males/females and overweight/non-overweight participants.

**Results:** There were 779 teens in this study. The majority of adolescents were Hispanic (67.52%). A large proportion of teens were overweight including 43.2% males and 41.8% females. Adolescent self-reported the number of hours of sleep obtained on school nights. Adolescents who were overweight or obese reported significantly less sleep each night ( $p < .001$ ). Females also reported significantly less sleep at night ( $p = .028$ ). There also was a significant relationship between hours slept at night and depressive symptomology ( $r = -.29$ ,  $p < .01$ ) and anxiety ( $r = -.31$ ,  $p < .01$ ).

**Conclusion:** Findings from this study support a relationship between sleep and weight. Additionally, duration of sleep was related to negative mood indicators. Addressing sleep patterns in adolescence as a component of a healthy lifestyle intervention has the potential to improve overall health.

## Contact

[diana.jacobson@asu.edu](mailto:diana.jacobson@asu.edu)

## **Differences in BMI, Self-Concept and Perceived Difficulty in Leading a Healthy Lifestyle between Hispanic and Non-Hispanic Teens**

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

### Purpose

The purpose of this presentation is to disseminate findings from the NIH funded, COPE Healthy Lifestyles intervention and specific areas to target in interventions.

### Target Audience

The target audience are clinicians and academicians.

### Abstract

**Purpose:** Overweight/obesity is a major public health problem in adolescence. The prevalence of overweight/obesity is even higher in minority populations. Understanding differences in key variables that may impact overweight/obesity is important for designing culturally sensitive interventions to address and prevent this problem. Cognitive theory guided the study and contends that how individuals think affects how they feel and how they behave.

The sample was comprised of 779 adolescents at 11 high schools in the Southwest United States who were participating in a randomized controlled trial to assess the efficacy of the COPE Healthy Lifestyles TEEN program on their physical, mental health and academic outcomes.

**Methods:** Baseline measures obtained included BMI along with valid and reliable scales, acculturation, perceived difficulty in leading a healthy lifestyle, self-concept, depression and anxiety.

**Results:** The mean age of respondents was 14.8 years with approximately 48% male and 52% female. Sixty-seven percent of the sample was Hispanic. Independent sample t-tests identified several significant differences between Hispanic and non-Hispanic teens. Beck Self-concept t-scores were significantly lower in Hispanic teens ( $p=.001$ ). All four acculturation subscales were significantly different, including assimilation ( $p=.000$ ), separation ( $p=.000$ ), integration ( $p=.000$ ), and marginalization ( $p=.011$ ). Hispanic teens had significantly higher BMI percentiles ( $p=.003$ ). Hispanic teens also perceived it was more difficult to live a healthy lifestyle ( $p=.046$ ). There were no significant differences on their steps per day, self-reported healthy lifestyle behaviors, anxiety or depression.

**Conclusion:** Adolescence is an important time to influence healthy lifestyle beliefs and behaviors. Beliefs regarding living a healthy lifestyle and self-concept should be targeted in interventions to enhance healthy lifestyle behaviors in Hispanic teens in order to prevent and treat obesity.

## Contact

[Melnyk.15@osu.edu](mailto:Melnyk.15@osu.edu)

## **Critical Components of Evidence-Based Interventions to Prevent Overweight/Obesity in Adolescents**

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*Jacqueline Hoying, MS, RN, NEA-BC, USA*

### Purpose

None stated.

### Target Audience

None stated.

### Abstract

**Purpose:** The incidence of adolescents who are overweight or obese has increased dramatically over the past 20 years across the globe, with approximately 34.2 percent of teens now being overweight (i.e., a gender and age-specific body mass index [BMI] at or above the 85<sup>th</sup> percentile, or obese, which is defined as a gender and age-specific body mass index (BMI) at or above the 95<sup>th</sup> percentile). Being overweight predisposes adolescents to adverse health outcomes compared to their non-overweight counterparts, including Type 2 diabetes, hypertension, dyslipidemia, sleep apnea, increased asthma symptoms and a shortened life span. Overweight and obese adolescents, in comparison to normal weight adolescents, also have a higher prevalence of school and mental health problems, including poor academic performance and self-esteem, depressive disorders, and a greater number of reported suicide attempts. Therefore, it is imperative to deliver evidence-based interventions to prevent overweight and obesity in at-risk teens. The purpose of this evidence review was to identify key components of efficacious interventions that prevent overweight and obesity in adolescents.

**Methods:** An evidence review was conducted identifying randomized controlled trials of interventions to prevent overweight and obesity in adolescents.

**Results:** Multi-component interventions lead to the best outcomes in preventing overweight/obesity in teens, including those that contain cognitive-behavior skills building, nutrition education and physical activity.

**Conclusion:** It is necessary to translate evidence-based interventions into real world practice settings in order to prevent the growing incidence of overweight and obesity in adolescents. Future research should include randomized controlled trials with long-term follow-up and dissemination/implementation studies in real world clinical and school-based settings.

Contact

[hoying.80@osu.edu](mailto:hoying.80@osu.edu)

## L 11 - Engaging Interprofessional Teams: Promoting Community and Global Health Initiatives for Education, Practice, Research and Policy

### Implementation of an Innovative Interprofessional Curriculum for Community Assessment, Practice, and Research for Masters' and Doctoral Education

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Quannetta T. Edwards, PhD, RN, FNP, WHNP, FAANP, USA

#### Purpose

The purpose of this presentation is to: Describe the implementation of an innovative inter-professional curriculum for community assessment practice, and research for doctoral education and to discuss the use of theoretical models as frameworks to guide community assessment.

#### Target Audience

The target audience of the presentation is Health care providers including nurses (advanced practice, community health, public health; physicians; allied health)

#### Abstract

**Purpose:** Describe the implementation of an innovative inter-professional curriculum for community assessment practice, and research for doctoral education and discuss innovative approaches utilizing vulnerability and community assessment models.

**Methods:** Descriptive summary of an innovative curriculum designed for doctoral students (i.e. nurses and physicians) using inter-professional collaborative team approach at multi-centers at one large Health Science University (centers in Oregon and California). The program uses a myriad of approaches to provide a thorough assessment of community/populations that includes an analysis of social, epidemiological, behavioral, environmental and predisposing, enabling and reinforcing factors that impact the overall health and quality of life of populations at the community and global health level. This assessment includes the use of an ecological/ educational model (i.e. Precede/Proceed) and Vulnerability models as frameworks to evaluate populations and identify *at-risk* groups so that students at master's and doctoral levels (i.e. nurses and physician) can provide evidence based strategies to improve health outcomes

**Results:** Curriculum development of an innovative program with in-depth community/population assessment resulting in mentored practicum experiences across disciplines; implementation of health promotion and quality safety programs for the community; development of research initiatives including grant funded projects and community based-participatory research and policy changes.

**Conclusion:** Assessing the needs of the community is an important part of healthcare and integral to the development, initiation and evaluation of health education programs, policies and regulations that promote population, community and public health and quality of life that resulted from this curriculum development.

#### Contact

[qedwards@westernu.edu](mailto:qedwards@westernu.edu)

### Community Engagement: Implementation of an Innovative Interprofessional Curriculum for Community Assessment and Practice for Master's Education

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Ruth Trudgeon, RN, MSN, PHN, USA

#### Purpose

The purpose of this presentation is to describe the implementation of an innovative inter-professional curriculum for community assessment and practice for master's education and discuss the utilization of theoretical models as a framework to guide the assessment

### Target Audience

The target audience of this presentation are nurses, educators and students

### Abstract

**Purpose:** The purpose of this presentation is to describe the implementation of an innovative inter-professional curriculum for community assessment and practice for master's education and to discuss the use of theoretical approaches as a framework to guide the assessment

**Methods:** Descriptive summary of an innovative curriculum that focuses on community assessment, education and practice for master's education using inter-professional approach

**Results:** Comprehensive in-depth analysis of communities using a wide-range of modalities resulting in strategies to improve outcomes. Practice implementation that focuses on health promotion across the life span has been implemented to vulnerable populations incorporating various disciplines (nurses, faculty, dentist, etc...)

**Conclusion:** The program meets the American Association of College of Nurses 'Essentials' that targets the following:

Lead change to improve quality outcomes; Advance a culture through life-long learning; Build and lead collaborative interprofessional care teams; Navigate and integrate care services across the healthcare system; Design innovative nursing practices

### Contact

[rtudgeon@westernu.edu](mailto:rtudgeon@westernu.edu)

## **Implementation of an Innovative Interprofessional Global Health Curriculum for Doctoral Education**

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*Ivy Tuason, RN, MSN, FNP-BC, USA*

### Purpose

The purpose of this presentation is to describe the implementation of an innovative inter-professional global health curriculum for doctoral education

### Target Audience

The target audience of this presentation is nurses who are involved in academia or who are interested or working in the area of global health or in inter-professional collaborative teams or with vulnerable populations

### Abstract

**Purpose:** The purpose of the presentation is to describe the implementation of an innovative inter-profession global health curriculum for doctoral education; and to discuss global health experiences that can be applied to doctoral students

**Methods:** Curriculum development of an innovative global health program within an existing course in doctoral education using inter-professional collaborative teams of global health experts. Emphasis is on core concepts of global health, global health core competencies and practice experiences

**Results:** Comprehensive modules were implemented enabling students an in-depth analysis of global health including its importance and relevance to health and quality of life. Vulnerable populations are discussed including cultural and social determinants that impact overall health. Focus on: Leading change to improve quality outcomes; life-long learning and exploring future global health opportunities

**Conclusion:** This is the first implementation of this innovative module and evaluations are currently underway; however thus far practice experiences overseas have been promising in providing stimulating experiences to enhance student's life-long learning and critical analysis of at risk populations.

### Contact

[ituason@westernu.edu](mailto:ituason@westernu.edu)

## M 09 - Evidence-Based Practice Mentors and Their Impact on Patient Outcomes and Healthcare Quality

### EBP Mentors Improving Healthcare Practice and Impacting Outcomes in Real World Clinical Settings

---

*Lynn Gallagher-Ford, PhD, RN, DFPNAP, NE-BC, USA*

#### Purpose

to share information and experience in developing EBP mentors which are a critical component for successfully implementing and sustaining EBP in real world clinical settings

#### Target Audience

clinicians and administrators from healthcare organizations and settings of any type that are seeking to implement EBP effectively.

#### Abstract

**Purpose:** Evidence-based practice mentors have been shown to be critical to effectively integrating and sustaining evidence-based practice and decision-making in clinical organizations. The Advancing Research and Clinical Practice through Close Collaborations Model (ARCC), developed by Melnyk and Fineout-Overholt, is a systemwide model for implementation and sustainability of evidence-based practice. In this model, development of a cadre of EBP mentors is a central and essential mechanism for success in implementing and sustaining EBP in an organization. Melnyk and Fineout-Overholt's work has described EBP mentors as healthcare providers who work with point-of-care staff to implement and sustain EBP. Effective EBP mentors must have deep skills and knowledge not only related to the actual EBP process but they must also be prepared to strategically lead change in organizations.

**Methods:** The knowledge and skills needed to be an EBP mentor are provided to clinicians through a 5-day education program that employs evidence-based adult learning principles such as; combining didactic content with activities to imbed learning, multi-modal delivery mechanisms, "guide on the side" techniques and individual work projects with expert facilitation to teach clinicians the essential attributes needed to perform effectively as an EBP mentor.

**Results:** Participants in the education program are guided through the entire EBP process and complete the program with an evidence-based practice change action plan to take back to their organization for implementation. The EBP mentors who participate in the education program are able to stay connected with their EBP mentor peers across the globe through listservs and bi-monthly synchronous webinars to share stories as well as resources and maintain the bonds and common passion for EBP that developed during the program.

**Conclusion:** The evidence-based education program has generated hundreds of EBP mentors who are working to improve healthcare practices and outcomes across the globe. The impact of EBP mentors will be highlighted.

#### Contact

[gallagher-ford.1@osu.edu](mailto:gallagher-ford.1@osu.edu)

### EBP Mentors in Action in a Real World Clinical Setting to Improve Care and Outcomes

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*Jaclyn Buck, PhD, RN, NE-BC, USA*

#### Purpose

to provide information and reflect on the experience of the impact of a cadre of skilled EBP mentors in successfully addressing a quality challenge in a large, complex healthcare organization

### Target Audience

clinicians and administrators interested in creating and sustaining an EBP culture in their organization to improve healthcare practices and outcomes

### Abstract

**Purpose:** Evidence-based practice mentors have been shown to be critical to effectively integrating and sustaining evidence-based practice and decision-making in clinical organizations

**Methods:** An exemplar of EBP mentors in action in a large, complex academic organization to improve care, outcomes, and cost will be presented. This healthcare organization had been building a cadre of EBP mentors over the past two years and when faced with a quality challenge, they called upon the knowledge and skills of their EBP mentors to find the best, evidence-based solutions and implement action plans to improve practices and outcomes related to this practice challenge.

**Results:** The evidence-based quality improvement initiative designed and led by EBP mentors will be presented. The processes involved, including; accurately articulating the clinical challenge that involved many stakeholders, developing the PICOT question to drive the search for best evidence, the search for evidence to answer the question, the critical appraisal and synthesis of the body of evidence to underpin the practice change recommendations, and finally the implementation and embedding of two innovative evidence-based practice change interventions as well as the outcomes of the projects will be described.

**Conclusion:** The highlights and strengths of the systematic EBP approach in addressing clinical challenges will be discussed and the return on the investment made by this organization to develop a cadre of EBP mentors will be highlighted.

### Contact

[Jaclyn.Buck@osumc.edu](mailto:Jaclyn.Buck@osumc.edu)

## **Creating an Environment Where EBP Is Reality: Engagement and Critical Contributions of the Nurse Executive**

---

*Mary G. Nash, PhD, RN, FAAN, FACHE, USA*

### Purpose

To provide information and the lived experience about the unique and critical role and contributions of the nurse executive in making EBP a reality and success in clinical organizations.

### Target Audience

Clinicians and administrators, at every level of the organization, interested in creating environments where EBP is supported and sustained.

### Abstract

**Purpose:** There are critical components of an organizational culture that must be embraced and imbedded in order for EBP to become a reality. These components must be actualized throughout an organization; however a commitment from the executive level is absolutely essential for success. The critical components include: a philosophy, mission and commitment to EBP; an environment where the spirit of inquiry is encouraged, acknowledged, and rewarded; a cadre of EBP mentors who have in depth knowledge and skills in EBP, mentoring others, and overcoming barriers to individual and organizational change; administrative role modeling of EBP and provision of the needed resources to sustain EBP; infrastructure (tools, space, time and resources) to promote and enhance EBP across the organization; and meaningful, timely recognition of individuals and units for EBP work.

**Methods:** The commitment and work of the nurse executive in a large, complex healthcare organization to create an environment that effectively integrated EBP Mentors and the EBP process to guide problem solving and practice change decision making will be presented.

**Results:** Challenges faced, solutions enacted, and unexpected champions discovered will be discussed. Critical aspects related to setting the strategic vision as well as innovating within the operational context of a complex nursing enterprise will be highlighted.

**Conclusion:** The rewards and return on investment of integrating evidence-based, best practice solutions experienced by individuals, teams, patients and the organization overall will be shared.

Contact

[mary.nash@osumc.edu](mailto:mary.nash@osumc.edu)

## M 11 - Meta-Analyses of Human Genome Studies: Epigenetic Risk Factors and Population Health Issues in the World

### Meta-Analyses of Human Genome Studies: Epigenetic Risk Factors and Population Health Issues in the World

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*Shyang-Yun Pamela K. Shiao, PhD, RN, FAAN, USA*

#### Purpose

The purpose of this symposium is to disseminate current evidence on population genome health, through the meta-analyses of epigenetic risk factors, for population health.

#### Target Audience

The target audiences can include nursing and inter-professional colleagues who are enthusiastic in learning about population genome health and epigenetics risk factors to prevent chronic diseases.

#### Abstract

**Purpose:** The purpose of this symposium is to disseminate current evidence on population genome health, through the meta-analyses of epigenetic risk factors, for population health.

The new discoveries in human genome sciences show that mutations in the genome of normal human cells can lead to the development of chronic diseases for oneself and future generations. Lifestyles have a major effect on the development of chronic diseases for oneself and future generations through epigenetics and methylation pathways. Western dietary habits cultivated under the modern industrial era may induce gene expression changes in key regulatory pathways and affect metabolic processes, which may play a mediating factor with ages in lifespan for the development of chronic diseases including cancer and cardiovascular syndromes.

**Methods:** Literature searches, quality scores, and inter-rater evaluation on data coding were completed to ensure data accuracy for pooled meta-analyses.

**Results:** The results of meta-analyses for various genes associated with cardiovascular health and cancer development including colorectal cancer and lung cancer, across populations for various race-ethnicity groups will be presented for mutation variations and epigenetics. Pollution indexes for past 10 years in the world will be associated with the gene mutations. Particulates matters (PM) smaller than 2.5 micrometers, PM<sub>2.5</sub>, can pass through lungs, leading to plaque deposits in cardiovascular systems causing systematic inflammation. Whereas, PM<sub>10</sub> are smaller than 10 micrometers, that can deposit in the pulmonary system causing pulmonary system inflammations. Both PM particles can cause health hazards. In addition, meta-analyses on lifestyles affecting methylation pathways for cancer and cardiovascular health with gene mutations for epigenetics, including dietary nutrient intake, smoking and alcohol intake will be summarized.

**Conclusion:** Goals for health behaviors will be explored with motivation activation through participants' active learning and participation process.

#### Contact

[pshiao@msn.com](mailto:pshiao@msn.com)

### Meta-Analyses of Epigenetics Risk Factors for Lung Cancer Prevention: MPO and GSTM1 Human Gene Variations Across Different Race-Ethnicity Groups

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*Po-Jui Yu, MSN, RN, Taiwan Shyang-Yun Pamela K. Shiao, PhD, RN, FAAN, USA Maria Suarez, MSN, RN, USA*

#### Purpose

The purpose of this presentation is to disseminate current evidence on population genome health, through meta-analyses of epigenetic risk factors, for lung cancer (LC) prevention.

#### Target Audience

The target audiences can include nursing and inter-professional colleagues who are enthusiastic in learning about population genome health and epigenetics risk factors for LC prevention.

#### Abstract

**Purpose:** The purpose of this presentation is to disseminate current evidence on population genome health, through meta-analyses of epigenetic risk factors, for lung cancer (LC) prevention. LC is one of the most common cancers worldwide and has the highest mortality rate among all cancers. Glutathione S-transferase that belongs to the mu class (GSTM1) and myeloperoxidase (MPO) gene polymorphisms have been cumulating in the literature, associating epigenetics factors and LC.

**Methods:** Literature searches, quality scores for the studies, and inter-rater evaluation on data coding was completed to ensure data accuracy for pooled meta-analyses.

**Results:** Preliminary analyses included 31,146 LC cases and 38,736 controls from 122 studies. The MPO gene mutations (GA and AA subtypes) in Asians were lower (16.7-33.3%) than Caucasians (31.8-49.1%) across the world, for control and case groups. However, the GSTM1 gene mutation variation (null subtype) was highest in Italians (87.5%) than other populations. Pollution indicators were checked and shown worse in Asia than other countries. For lifestyle related meta-analyses, smoking was associated with an increased risk of LC (98 studies, 28,831 cases, 35,069 controls, RR=1.40,  $p < 0.0001$ ). Low vegetable intakes were associated with increased LC risk (RR = 1.26,  $P < 0.05$ ) in 7 studies. No second hand smoking (6 studies) and limiting indoor pollution (3 studies) were protective for LC (RR=0.73 and 0.77, both  $P < 0.05$ ).

**Conclusion:** For association of GSTM1 gene variations, genotype present (44.3% cases, 47.9% controls) was protective against LC for all populations combined in the world (RR = 0.94,  $p < 0.0001$ ). Future studies are needed to examine epigenetic factors for population health associated with MPO and GSTM1 gene variations in the prevention of LC.

#### Contact

[pojuiyu@ntu.edu.tw](mailto:pojuiyu@ntu.edu.tw)

## **Meta-Analyses of Epigenetics Risk Factors for Heart Disease Prevention: NOS3 Human Gene Variations Across Different Race-Ethnicity Groups**

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*Nien-Tzu Chang, PhD, RN, Taiwan Shyang-Yun Pamela K. Shiao, PhD, RN, FAAN, USA Lisa Delacruz, MN, RN, USA*

#### Purpose

The purpose of this presentation is to disseminate current evidence on population genome health, through meta-analyses of epigenetic risk factors, for heart disease prevention.

#### Target Audience

The target audiences can include nursing and inter-professional colleagues who are enthusiastic in learning about population genome health and epigenetics risk factors for heart disease prevention.

#### Abstract

**Purpose:** The purpose of this presentation is to disseminate current evidence on population genome health, through meta-analyses of epigenetic risk factors, for heart disease prevention. Ischemic heart disease (IHD) is the major leading cause of deaths worldwide. Epidemiological studies have revealed the association between nitric oxide synthase 3 (NOS3) gene mutation variations with increased risks of IHD in various populations in the world. NOS3 is a gene affects metabolism in the urea cycle of the methylation pathways, critical for preventing systematic inflammation as an epigenetics risk factor for heart health.

**Methods:** Literature searches, quality scores for the studies, and inter-rater evaluation on data coding was completed to ensure data accuracy for pooled meta-analyses.

**Results:** Preliminary analyses include a total of 49 case-control studies with 13,830 cases and 10,595 controls. The gene mutation variations (GT and TT subtypes) were higher in Caucasians (47.5-64.8%) than Africans (42.9-55.9%), Eurasians (33.9-45.1%), and Asians (13.5-30.7%) across the world, for control and case groups. Pollutions in the world were documented worse in selected European countries from 2004-2009, and in Asia in recent years. Pollution particles smaller than 2.5 micrometers, PM2.5, can pass through lungs, leading to plaque deposits in cardiovascular systems causing systematic inflammation. For lifestyle related meta-analyses, smoking was associated with an increased risk of IHD (24 studies, 6,889 cases, 5,685 controls, RR=1.68, 95% Confidence Interval = 1.39-2.04,  $p < 0.0001$ ). The history of diabetes mellitus (RR=3.16, 2.4-4.17,  $P < 0.0001$ ) and hyperlipidemia (RR=2.92, 1.97-4.33,  $p < 0.0001$ ) were associated with IHD.

**Conclusion:** Wild-type GG subtype (52.5% cases, 59.3% controls) was protective against IHD for all populations combined (RR = 0.92, 0.89-0.96,  $p < 0.0001$ ). Future studies are needed to investigate the interactions between epigenetic risk factors, through methylation pathways, and NOS3 gene variations for cardiovascular health in various populations to prevent IHD.

Contact

[ntchang@ntu.edu.tw](mailto:ntchang@ntu.edu.tw)

## **Meta-Analyses of Epigenetics Risk Factors for Cardiovascular Health: APOA5 Human Gene Variations Across Different Race-Ethnicity Groups**

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*Yen-Chiun Lin, PhD, RN, Taiwan Veronica Nunez, MSN, FNP, USA Shyang-Yun Pamela K. Shiao, PhD, RN, FAAN, USA*

Purpose

The purpose of this presentation is to disseminate current evidence on population genome health, through the meta-analyses of epigenetic risk factors, for cardiovascular (CV) health.

Target Audience

The target audiences can include nursing and inter-professional colleagues who are enthusiastic in learning about population genome health and epigenetics risk factors for CV health.

Abstract

**Purpose:** The purpose of this presentation is to disseminate current evidence on population genome health, through the meta-analyses of epigenetic risk factors, for cardiovascular (CV) health. CV Disease (CVD) continues to be the leading cause of death worldwide. Studies have associated Apolipoprotein A5 (APOA5, 1131T>C, rs662799) gene polymorphism with plasma triglyceride levels for CVD. Life style risk factors such as smoking, alcohol intake, and physical inactivity were associated with increased risks for CVD.

**Methods:** Literature searches, quality scores, and inter-rater evaluation on data coding were completed to ensure data accuracy for pooled meta-analyses.

**Results:** Preliminary analyses included 11,340 CVD cases and 18,758 controls from 37 studies. The gene mutation variations (TC and CC subtypes) in Asian populations were higher (53.1-42.4%) than Caucasian populations (21.4-10.2%) across the world, for control and case groups. For validation, pollution indicators were checked and shown worse in Asia than other countries. For lifestyle related meta-analyses, smoking was associated with an increased risk of CVD (18 studies, 5,035 cases, 9,140 controls, RR=1.70, 95% Confidence Interval = 1.39-2.08,  $p < 0.0001$ ). However, alcohol intake (5 studies, 1,646 cases, 3094 controls, RR=1.42, 0.86-2.34) and physical inactivity (4 studies, 466 cases, 1,005 controls, RR=0.91, 0.74-1.13) were not significant for pooled meta-analyses.

**Conclusion:** For association of APOA5 gene variations, genotype TT (61.1% cases, 69.9% controls) was protective against CVD for all populations combined (RR = 0.78, 0.74-0.83,  $p < 0.0001$ ). APOA5 is a key gene for triglyceride metabolism to reduce inflammation for epigenetics in the methylation pathways. Future studies are needed to examine epigenetic factors for population health associated with APOA5 gene variations in the prevention of CVD.

Contact

[yenlin@ntu.edu.tw](mailto:yenlin@ntu.edu.tw)

## N 09 - The Impact of an Enculturated Evidence-Based Practice Environment on the Roles and Responsibilities of Nursing Leaders

### The Changing Role of the Hospital-Based Clinical Nurse Scientist in an Enculturated Evidence-Based Practice Environment

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*Esther M. Chipps, PhD, RN, USA*

#### Purpose

1. The learner will be able to discuss the impact of an enculturated evidence-based environment on the role of the Hospital-Based Clinical Nurse Scientist. 2. The learner will be able to identify strategies to facilitate the role change for the Hospital-Based Nurse Scientist as they support enculturated evidence-based practice environments.

#### Target Audience

Nurse Scientists and Nurse Administrators/Leaders

#### Abstract

**Purpose:** This presentation will discuss the necessary transitions in the role of the Hospital-Based Clinical Nurse Scientist to work successfully in a fully enculturated evidence-based practice environment.

The role of the Hospital-Based Nurse Scientist is relatively new. Nurse Scientists who are employed in hospital-based settings are educated in the traditional research paradigm and many have very limited exposure to evidence-based practice.

**Methods:** The traditional Nurse Scientist views himself/herself as a research generator<sup>1</sup> and therefore approaches mentorship of clinical staff from this paradigm. The overarching goal of the role has been to encourage and facilitate research among clinical staff. This includes grant writing, proposal development, data collection, data analysis and dissemination. In fact, the success of the role is often measured by the number of research projects funded, initiated and disseminated by the clinical staff. As hospital settings become more steeped in evidence-based practice, the Hospital-Based Nurse Clinical Scientist must incorporate and support the principles of EBP into their coaching and mentoring of staff.

**Results:** Recognition that a culture of high quality scholarly activity includes both EBP and clinical research is essential in sustaining the EBP culture.

**Conclusion:** The successful Hospital-Based Nurse Scientist must expand their base of scholarly activities and collaborate with the EBP leaders of their respective institutions.

#### Contact

[esther.chipps@osumc.edu](mailto:esther.chipps@osumc.edu)

### The Changing Role of the Administrator of Nursing Quality, Evidence-Based Practice and Research in an Enculturated Evidence-Based Practice Environment

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*Jaclyn Buck, PhD, RN, NE-BC, USA*

#### Purpose

The purpose of this session is to discuss the impact of an enculturated evidenced-based practice environment on the role of the Administrator for Nursing Quality, Research and Evidence-Based Practice and to identify strategies to facilitate role changes as the Administrator supports an enculturated EBP environment

#### Target Audience

The target audience will be mid-level and senior nurse leaders in the clinical setting.

## Abstract

### **Purpose:**

This presentation will discuss the transitions in the role of the senior administrator of nursing quality, EBP and research to work successfully in a fully enculturated evidence –based practice environment.

### **Methods:**

This includes the process of identifying and selecting nurse leaders to work in this department who support a comprehensive vision of the EBP culture and are able to sustain the enculturation.

### **Results:**

The Administrator must leverage the talents of his/her nurse leaders to balance the quality, EBP and research needs of his/her organization. Furthermore, the Administrator must encourage and support collaboration with the experts in nursing research, EBP, nursing education and nursing quality within his/her department.

### **Conclusion:**

To sustain fiscal support, the Administrators must be able to demonstrate the link between the scholarly pursuits of EBP and nursing research to patient and fiscal.

Contact: [Jacalyn.buck@osumc.edu](mailto:Jacalyn.buck@osumc.edu)

## **The Changing Role of the Chief Nursing Executive in an Enculturated Evidenced-Based Practice Environment**

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*Mary G. Nash, PhD, RN, FAAN, FACHE, USA*

### Purpose

The purpose of this presentation is to discuss the modifications in the role of the Chief Nursing Executive in an enculturated evidence-based practice environment. Examples of how organizational issues/problems were resolved and the provision of mentorship to less experienced nurse leaders will be discussed.

### Target Audience

The target audience of this presentation is mid-level and senior nurse leaders

### Abstract

**Purpose:** This presentation will discuss the transitions that the most senior nurse leader, Chief Nursing Executive (CNE) must make in his/her role to sustain the EBP culture and support mid-level nurse leaders.

### **Methods:**

As the most senior nursing leader in the organization, the Chief Nursing Executive (CNE) creates the vision and simultaneously maintains overall accountability for promoting a culture of evidence-based practice within a healthcare organization.

### **Results:**

Nursing staff empowerment is reported as a positive outcome of establishing an EBP practice environment. Nursing staff experience a renewed sense of confidence which can translate into a greater sense of autonomy and a heightened desire to question administrative decisions. Less experienced nurse leaders may see this as a threatening shift in the balance of power.

### **Conclusion:**

The CNE must thoughtfully support the spirit of inquiry among clinical staff and simultaneously mentor mid-level nurse leaders in the organizations as they acquire comfort with a renewed empowerment and engagement among their clinical nursing staff.

Contact: [mary.nash@osumc.edu](mailto:mary.nash@osumc.edu)

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