

# **PATIENT CENTERED CARE COORDINATION (PCCC) EVALUATING THE IMPACT OF A CURRICULAR MODULE ON STUDENT LEARNING OUTCOMES**



Dr. Ann Holland, Dr. Kathleen Tilton, Dr. Jone Tiffany, McCall Kleve

# Disclosures

We have nothing to disclose



# Symposium Objectives

- ❖ Describe a curricular module that helps students develop knowledge, skills, and attitudes for performing patient centered care coordination (PCCC)
- ❖ Describe the research design and methods
- ❖ Discuss the results of this study including how it increased student awareness of nursing care across various settings
- ❖ Discuss the collaborative research experience

# Part I

## Designing an Innovative Curricular Module to Teach Patient-Centered Care Coordination

# Objectives

- ❖ The learner will be able to identify strategies for creating patient-centered care coordination curricular modules
- ❖ The learner will be able to describe the need for implementing curricula with an emphasis on patient-centered care coordination

# Background: Changing Healthcare Needs

- ❖ Patient-centered care
  - Core competency
  - Needs and preferences
  - Complexities of care – chronic & acute
- ❖ Various Settings
  - Acute, sub acute, long-term, ambulatory
  - Transitions of care



# Chronic Illness Care

- **50% in US have at least 1 chronic illness**
- **70% of deaths per year are related to chronic illness**
- **An increase in chronic illness care knowledge and participation is necessary within the structure of the Affordable Care Act**

# Care Coordination

- ❖ Professional nursing competency
- ❖ Collaboration with members of the healthcare team
- ❖ Education – didactic and clinical learning  
(Camicia et al., 2013).
- ❖ Future of Nursing – the challenge

**The need + the charge =**



# The Curricular Module

- ❖ Challenge to optimize the learning experience
  - Evolving clinical direction
  - Concentration of emphasis for greater impact
- ❖ Response
  - Ambulatory care virtual simulation
  - Transitions of care
  - Home care and hospice
  - Community support group

# The Curricular Module (cont.)

## ❖ Maintaining the focus

- Non-acute care settings
- Chronic physical illness
- Mental health



# Transitions of Care

- ❖ Low tech simulation
- ❖ EHR based case study – complex care
- ❖ Emphasis – communication
  - ❖ Inter-professional
  - ❖ Intra-professional
  - ❖ Between environments of care



# Home Care and Hospice

- ❖ Partnered with a home care/hospice nurse.
- ❖ Focused observation
- ❖ Synthesis:
  - ❖ Roles of the nurse
  - ❖ Nursing diagnoses
  - ❖ Reflection – knowledge integration



# Support Group

- ❖ Chronic focus
  - ❖ Physical health
  - ❖ Mental health
  - ❖ Recovery
- ❖ Purpose
- ❖ Observational



- ❖ Student selected
- ❖ Reflection synthesis

# Ambulatory Care

- ❖ Chronic illness
- ❖ Self-management support
- ❖ “Live” patient care encounters
  - ❖ Diabetes type 2 and heart failure w/anxiety
  - ❖ Type 1 diabetes w/depression
  - ❖ Telephone encounter



## **Part II**

# **Using Technology to Enhance Student Learning**

# Objectives

- ❖ The learner will be able to explain the significance of the use of virtual role-play experiences to improve student learning outcomes.
- ❖ The learner will be able to describe various types of virtual role-play simulation activities that can be used in nursing curricula.



# Virtual Reality Technology

- Internet-based computer applications in which simulated environments are created.
- Active learning out of the gaming world
- “Residents” in the form of Avatars communicate, attend meetings and take part in simulations.
- Over 150 from Higher-Ed
- Standardized experiences
- New Generation of learners





Classrooms

Offices

Support Groups

Library

Clinics

Hospital

Midwife

Poverty Area

House

Train wreck

Flooded area





# THE CLINICAL EXPERIENCE:



## Virtual Simulation

# Ambulatory Care

- ❖ Chronic illness
- ❖ Self-management support
- ❖ “Live” patient care encounters
  - ❖ Diabetes type 2 and heart failure w/anxiety
  - ❖ Type 1 diabetes w/depression
  - ❖ Telephone encounter





# South Street Clinic











Nightingale Ho

NUR316  
Chronic Illness  
Non-acute Care Clinical:  
Self-management Support



[Click Here for Landmarks and Scrubs  
for your Second Life Clinical Day](#)





**FREE SCRUBS**  
Click on either the male or the female and let the program scan. Click Keep and the clothes will go into your inventory



ANGELA HANSEN





# Role-playing

## Angela – Type 1 Diabetes

## Emma – Type 2 Diabetes



# Using Technology to Enhance Fidelity

- **EduCanon Software**
- **Case Studies enhanced with Voice**



# Part III

## Translating Learning Outcomes to Enhance Teaching and Curricula

# Objectives

- ❖ The learner will be able to discuss the design and results of the research study
- ❖ The learner will be able to identify two strategies to enhance student learning through the application of care coordination principles.

# Research Design

- ❖ Study conducted during Spring semester, 2015
- ❖ Quasi-experimental, mixed methods research design
- ❖ 3 data collection tools, plus a demographic instrument
- ❖ 73 junior level nursing student participants
- ❖ Coding scheme developed to ensure confidentiality of data



# Research Design (cont.)

- ❖ Research design was influenced by Kirkpatrick & Kirkpatrick's (2006) 4-level evaluation framework
  - Level 1: reaction (attitudes, satisfaction)
  - Level 2: learning (measurable cognitive learning)
  - Level 3: behavior (behavioral change or student learning outcome)
  - Level 4: results (effect of student learning on patient outcomes)

# Data Collection: Focus Groups

- ❖ Researcher-developed semi-structured interview tool
- ❖ 16 participants volunteered and participated in a focus group
- ❖ 6 focus groups were conducted by one research team member, 3 for each half-semester module
- ❖ Audio-recordings of the focus groups were professionally transcribed

# Qualitative Data Analysis/Findings

## **Roles of the professional nurse**

- Patient resource and resource gatherer/provider
- Educator
- Patient advocate
- Care coordinator

## **Valuing the patient/family experience**

- Framed to look for integration—the whole patient, counselor
- Learning to value the patient's unique perception/understanding/experience/autonomy
- Valuing the significance of the deep patient relationship
- The family's role/needs
- Appreciating the challenges of self-care management, barriers
- Nurse as assessor

## **Knowledge and skills that nurses need for PCCC**

- Before: PCCC is something outside the hospital—not acute care
- Before: What's it all about—we don't understand PCCC
- Before: Random assignments, low expectations
- Getting an in-depth look at nursing—various settings
- Making links between acute care practice/discharge/non-acute settings/transitions
- You need to know so much
- You've got to be flexible and adapt, time management/autonomous decision making
- Healthcare team coordination/communication, areas for improvement

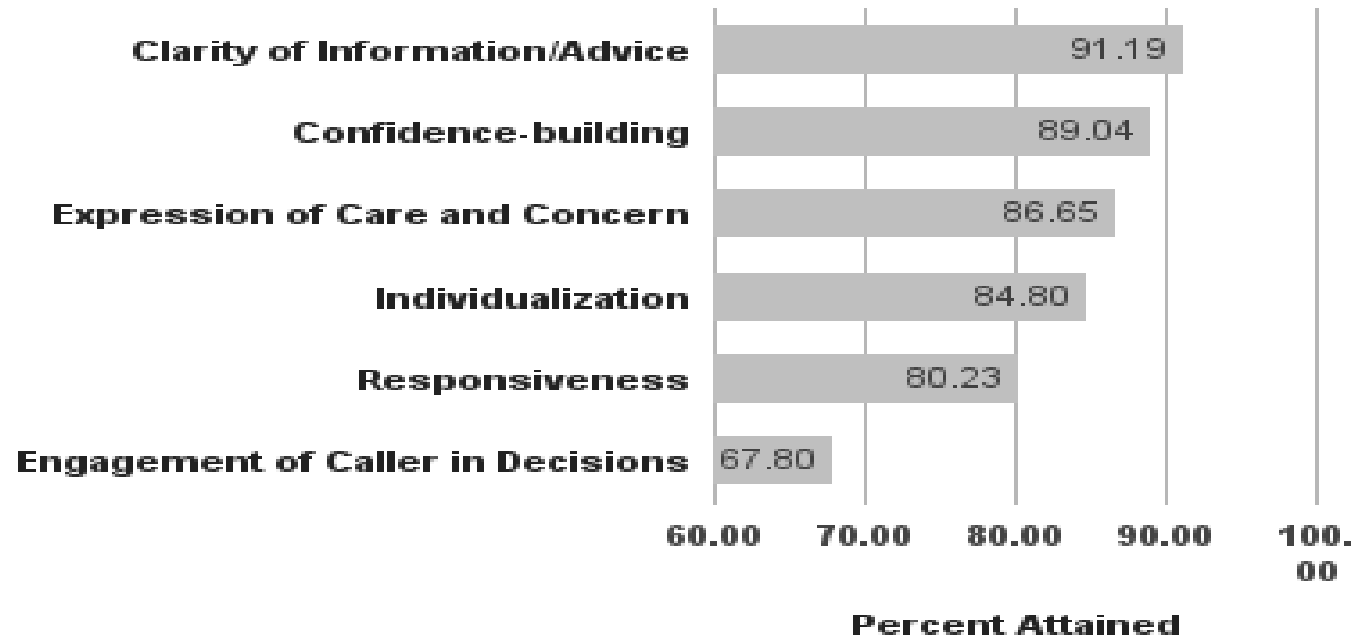
## **Challenges of the learning experience**

# Data Collection: ICSI

- ❖ Interpersonal communication style inventory (ICSI):
  - 37 item, 6 domain content validated instrument that measures communication performance
  - One research team member scored each participant during the ambulatory care virtual simulation

# ICSI Findings

**Figure 1**



# Data collection: CSMSS

- ❖ Confidence in self-management support survey (CSMSS):
  - 7- item Likert scale instrument that measures confidence in providing chronic illness self-management support to patients
  - Pre-test administered first week of class
  - Post-test administered within 3 days after completion of module

# CSMSS Findings

CSMSS Item Statistics (N = 73)

Survey Items	<u>Pre-Test</u>		<u>Post-Test</u>	
	Mean	SD	Mean	SD
Providing self-care goal setting advice	2.9863	1.07359	4.0137	.61222
Explaining the best time to take medications	3.0274	.92755	3.8904	.71805
Talking to a patient about chronic illness self-management	2.6575	.83698	4.1233	.62239
Discussing lifestyle changes with a patient	3.0137	.92034	4.1644	.64579
Explaining dietary changes for chronic conditions	2.8493	.87672	3.8904	.71805
Encouraging patients in making changes to improve self-management	3.1233	.84894	4.3425	.62847

# CSMSS Findings

Table 2

CSMSS Comparison of means Pre-test/Post-test (N = 73)

Paired Samples Statistics					
	<u>Mean</u>	<u>SD</u>	<u>Std. Error</u>	<u>Correlation</u>	<u>Significance</u>
Pre-test	20.3151	4.85305	.56801	.422	.000
Post-test	28.3973	3.44698	.40344		
t Test Paired Differences					
Pre/Post-tests	-8.08219	4.61806	.54050		.000

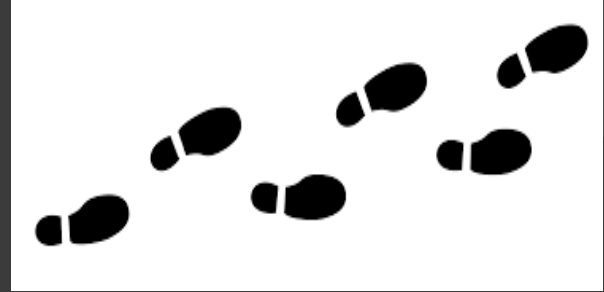


# Research Results



- ❖ The PCCC curricular module positively impacted student learning outcomes
- ❖ The students grasped the importance of communication
- ❖ Students became more confident in communicating essential self-care concepts to patients and families
- ❖ Students' behaviors in acute care settings changed as a result of their PCCC clinical experiences.

# Next Steps



- ❖ Curricular refinement
  - PCCC orientation
  - Transitions of care assignment
- ❖ Publication
- ❖ Presentations

# The Collaborative Research Experience

- ❖ Faculty/student collaboration
- ❖ Online collaborative processes
- ❖ Collaborative data analysis and manuscript writing



# References

- American Nurses Association (ANA). (2012). *Position statement: care coordination and registered nurses' essential role*. Retrieved from [www.nursingworld.org](http://www.nursingworld.org).
- Haas, S. A., & Swan, B. A. (2014). Developing the Value Proposition For the Role of the Registered Nurse In Care Coordination and Transition Management in Ambulatory Care Settings. *Nursing Economic\$, 32*(2), 70-79.
- Institute of Medicine. (2010). *The future of nursing: leading change, advancing health*. Washington, DC: The National Academies Press.
- Kirkpatrick, D. L. & Kirkpatrick, J. D. (2006). *Evaluating training programs: the four levels* (3rd ed.). San Francisco, CA: Berrett-Koehler.
- Tanner, C. (April, 2014). *The new imperative in nursing education research: impact on patient safety and quality of care*. Keynote presentation at the STTI/NLN Nursing Education Research Conference, Indianapolis, IN.
- Tilton, K., Tiffany, J., & Hoglund, B. (2015). Non-acute care virtual simulation: Preparing students to provide chronic illness care. *Nursing Education Perspectives, 36*(6), 394-395.  
<http://dx.doi.org/10.5480/14-1532>