

## INTEGRATING TELEMEDICINE AND IPE INTO SIMULATION

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## LEARNING OUTCOMES

Upon completion of this educational activity, participants will be able to:

1. Examine the modality of telemedicine as a framework for sim- IPE
2. Prepare undergraduate and graduate nursing students for workplace expectations regarding informational technologies
3. Implement clinical competency assessment into distance education programs via the modality of telemedicine

## NEARPOD

Nearpod app  
 Nearpod.com/student on laptop

## WHO WE ARE

### Rivier University Nashua NH

- Undergraduate nursing program
- Public health program
- Graduate nursing program
- FNP
- PMHNP



## WHY THIS MATTERS

- ✓ Essentials of Master's Education in Nursing (American Association of Colleges of Nursing, 2011)
- ✓ The Essentials of Baccalaureate Education for Professional Nursing Practice (American Association of Colleges of Nursing, 2008)
- ✓ Telemedicine- one technological option
  - Video conferencing between patient and provider
  - Providing health services using telecommunication technologies
  - Effective mechanism for delivering services to rural and remote communities

## CREATING AN INTER-PROFESSIONAL EXPERIENCE

Developing Simulation Experiences for Community Health Course

- Changes in Community Health curriculum
- Aligns with course outcomes, NCLEX, Baccalaureate Essentials
- Collaboration with FNP faculty
- Available resources:
  - Polycom equipment
  - Backup plan:
    - iPad or laptop
    - Smartphone

## CREATING AN INTER-PROFESSIONAL EXPERIENCE (CONTINUED)

### Results:

- Week 1: End of Life scenarios – NLN scenario about Julia and Lucy as resource
- Week 2: Home Care client/patient visits using Telemedicine technology
  - Three scenarios per day
  - One hour each: 45 minutes for visit, 15 minutes for debriefing

## DEVELOPING THE TELEMEDICINE SIMULATION SCENARIOS UG & FNP FACULTY

- ✓ Patient case studies selected to build on UG and FNP theory content
- ✓ Increased from 2 to 3 scenarios in 2018 to accommodate number of UG students
- ✓ UG students assigned roles of: Home Care nurse, Standardized patient and family members
- ✓ UG students given scripts and resources ahead of time to prepare for the scenarios

## SCENARIOS

- Scenario 1: Lucy Grey 73 years – home visit after hospital discharge for atrial fibrillation and falls. Lucy was the caregiver for Week 1 Hospice patient Julia Morales (NLN case study)
- Scenario 2: Ester Cramer-Martin 38 years old – lives in Appalachia with husband Esteban and two sons, metabolic syndrome, last PCP visit 2 years ago with no return visit
- Scenario 3: Molly Rivers 23 years old – in Transitional care following Rehab for Substance abuse, single parent to a 3 year old and 12 month old.

## LOGISTICS AND DEMONSTRATION

### A week in advance:

- FNP students provided case study background information to prepare
- UG students provided with assigned roles and scripts

### Day of Simulation:

- FNP student(s) connect to Polycom
- UG students not in scenarios observe
- Faculty remain out of view during visit

- \*Show brief video here\*

## PRE-BRIEFING AND DEBRIEFING

Prior to simulation day, all students complete preparation activities

### Before each Telemedicine visit UG students:

- Benefits of telemedicine
- Populations who could benefit
- Home Care nurse's role
- Prepare for patient roles
- Prepare "set"

### After the visits:

- UG students feedback to FNP students
- FNP student feedback on self reflection
- UG and FNP faculty comments

## STUDENT COMPETENCIES

1. Benefits of telemedicine
2. Nursing in the home/community setting
3. Working with provider as eyes, ears, hands
4. Taking and clarifying orders/plan
5. Assessment of patient: organization/ compassion/ presentation
6. Establishing a relationship via telemedicine
7. Role transition: to RN/ from RN to APRN
8. Importance of family and friends to a successful plan of care

### UNEXPECTED BENEFITS

- Priorities in the home/community differ from inpatient/acute care
  - ✓ Nurse a guest in "patient's territory"
- Home Care is a family affair – spouses, partners, children are also the patient
- UG students know something too!
- Able to invite distance students to participate in the Simulation experience
  - ✓ i.e. MS in Nursing education learning about uses of simulation

### UNDERGRADUATE SURVEY

- Used Delphi study (van Howelinger et al., 2016) on Telehealth Competencies to create the online Checkbox survey
- Received River University IRB permission to share results in this presentation
- Survey
  - Students self-evaluated competencies using following Likert Scale:

Not Competent - Beginning Competence - Competent - Very Competent

### COMPETENCIES EVALUATED

I can:

1. explain the benefits of telemedicine/ telehealth to patients and health care professionals.
2. prepare and teach the patient to use telemedicine to gain access to health care.
3. use telemedicine technology to share information with colleagues and providers to improve care and patient learning.
4. collaborate with a provider to assess and implement a plan of care.
5. receive and clarify the provider's plan/orders.
6. organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible.
7. portray an ethically correct attitude during videoconferencing (honesty, confidentiality, personal and professional integrity)
8. recognize and use techniques that communicate empathy to the patient when using telehealth/telemedicine technology.
9. reflect/debrief on my individual and the team's performance with the goal to improve.
10. conduct a home assessment focusing on the safety of children and older adults.

### DEFINING COMPETENCE

Adopted by the ANCC Competency-Based Education for Doctoral-Prepared APRNs Work Group (2016):

The array of abilities across multiple domains or aspects of performance in a certain context. **Statements about competence require descriptive qualifiers to define the relevant abilities, context, and stages of training.** Competence is multi-dimensional and dynamic. It changes with time, experience, and setting.

Frank, et al., 2010, p. 641

### WHY COMPETENCE MATTERS

- ❖ What people will do in a situation, or how they perform, does not always correlate with what they know about how to perform or what they are capable of (Miller, 1990)
- ❖ Components of CBA employ cognitive, technical, integrative, relational, and affective functions (Epstein & Hundert, 2002; Kalet & Pusic, 2014; Norman, 1985; Saucier, et al., 2012; Van der Vleuten, et al., 2012)
- ❖ Components of CBA equate to employment evaluations classifications of Knowledge, Skills, and Attitudes
- ❖ Certification exams are summative tests of knowledge
  - ❖ Research supports that this method of assessment does not establish clinical competence

### EDUCATIONAL CONCEPTUAL FRAMEWORK

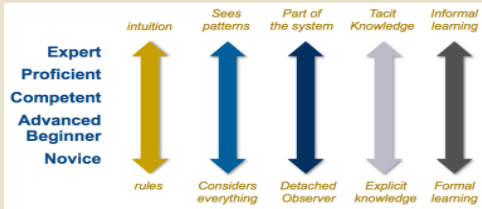
MILLER'S PRISM OF CLINICAL COMPETENCE (aka Miller's Pyramid)

It is only in the "does" triangle that the doctor truly performs



Based on work by Miller GE. The Assessment of Clinical Skills/Competence/Performance. Acad Med. 1990; 65(9): 83-87. Adapted by Drs. R. Mehay & R. Burns, UK (Jan 2008)

### EDUCATIONAL CONCEPTUAL FRAMEWORK: BENNER'S CLINICAL COMPETENCE MODEL ADAPTED FOR NURSING EDUCATION FROM THE DREYFUS MODEL OF SKILL ACQUISITION



Benner, P. E. (2001). From novice to expert: Excellence and power in clinical nursing practice. Pearson.  
Dreyfus, S. E., & Dreyfus, H. L. (1986). A five-stage model of the mental activities involved in directed skill acquisition (No. ORC-80-2). California Univ Berkeley Operations Research Center.

### DESIGNING HIGH STAKES SIMULATION FOR COMPETENCY BASED ASSESSMENT

- Case Studies and Scoring Rubrics
  - Adapted for Telemedicine
  - History taking
  - Differential diagnosis
  - Clinical reasoning
  - Physical exam is assessed during on campus assessments
- Technology requirements

### SIMULATED PATIENTS

- Standardized patient
  - Volunteer
  - Undergrad students
  - Community
  - Senior center
  - RISE
- Emailed a script a week prior to the day
- Coached, prepped and given the opportunity to ask questions upon arrival

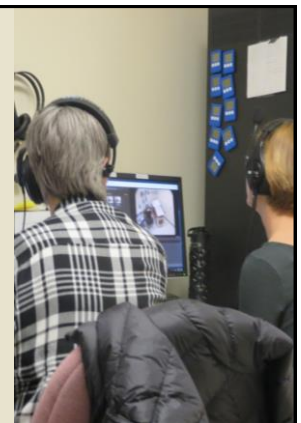
### STUDENTS

- Sign up for a 45 minute block of time
- Are given information 1 week prior to the test to prepare
  - Chief complaint
  - Medication list
  - Demographics
  - Summary of last office visit
- Times to check out connections

### DAY OF STANDARDIZED HIGH STAKES SIMULATION ASSESSMENT

- 3 rooms each with an iPad, external speaker and standardized patient
- Each room is streamed to the control room where an instructor is assigned to each room
- Video is recorded and saved and shared with the student
- 30 minute visit and 15 minutes of debriefing and reviewing the scoring rubric

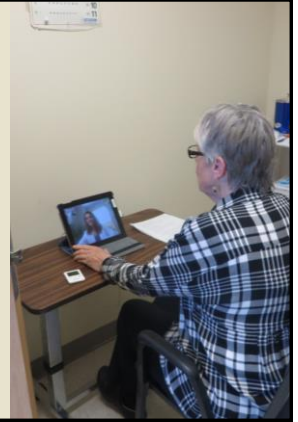
### THE CONTROL ROOM



## THE VISIT



## THE DEBRIEFING



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