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Poster Walk and Meet the Authors

Exhibit Hall
Wednesday, March 1st 1-2pm
WellSpan Gettysburg Hospital
4 Minute Drills- Using Simulation in Situ- What we REALLY learned
Elizabeth Charitonuk MSN, RN  Kimberly Shank MSN, RN

Problem Statement
Emergency Response, if not done routinely, is often disorganized with unclear processes and roles thus creating delays potentially impacting patient outcomes.

Understanding the Problem
Historically emergency response has been delegated to "code teams" with minimal attention to the immediate response and the process surrounding the care of the patient before their arrival. Prior to 2013 nurses were deemed competent during a non-interdisciplinary scheduled session. Skills were validated with some increased retention, however these sessions did not reflect the processes that occurred in the clinical setting.

Goal
To increase staff confidence and competency in emergency response situations to include use of equipment and processes associated with the first 4 minutes of an emergency.

Action Plan
Unannounced emergency response drills were conducted in patient and non patient care areas using a high fidelity patient simulator. The scenario has the patient having two minutes of chest pain followed by an unresponsive episode with a pulseless rhythm requiring defibrillation. The drill is stopped after "4 minutes" of unresponsiveness or post shock, whichever comes first. Debrief occurs immediately post session with focus on positive behaviors and process improvement.

Process
- Initiate CPR
- Call Code RN to A2
- Code Cart Arrives
- Defibrillation

Unintended Results/Process Improvements
- Step Stools added to code carts
- AED’s on the ground floor of the hospital
- Improvement of response times for coverage of other units
- Education changes to switchboard operator orientation to facilitate rapid notification
- Increase engagement of staff and physicians
- Increase teamwork and clarity of roles in emergency response
- Increased interdisciplinary education/collaboration
- A3 on code response as a result of prolonged response time to non-patient care areas
- Great catch of a speaker system on the second floor not functioning when back up microphones were being used
- 4 minute drills expanded to other entities (WSRH/YH) as a result of program success at Gettysburg Hospital

Results
- Increased staff comfort and competence as evidenced by decreased response times and anecdotal comments from staff
- Increase in staff satisfaction with the competency process
  - Decrease in response times for select data points including Code cart arrival
  - Initiation of CPR
  - Initiation of Airway maneuvers
  - Time to defibrillation

Lessons Learned
- Simulation was found to be a valid instrument for process improvement
- Goals may differ between disciplines
- Past experience with simulation may enhance/inhibit performance
- Staff requesting more opportunities to practice skills in a safe environment and prefer education on their respective units
- Flexibility in scheduling 4 minute drills

References:
Active Duty Students in the Virtual Classroom: Engaging the 21st Century Learner in an Innovative Online Population Health Course

Susan J. Garbutt, DNP, RN, CIC, CNE, CHSE and Catherine G. Ling, PhD, FNP-BC, FAANP
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University of South Florida College of Nursing, Tampa, Florida

Introduction
- The purpose of this presentation is to share an innovative, online graduate level population health course that was developed for Doctor of Nursing Practice (DNP) students at the Daniel K. Ingalls Graduate School of Nursing at Uniformed Services University of the Health Sciences.
- The mission of the Uniformed Services University of the Health Sciences (USUHS) is to educate, train, and prepare uniformed services health professionals, officers and leaders to directly support the Military Health System, the National Security and National Defense Strategies of the United States and the readiness of our Armed Forces.

Background and Significance
- The focus of graduate nursing education at USUHS is to prepare advanced practice nurses to provide care in the Federal and Defense Health Service, including primary and acute care, at home and in deployed settings worldwide. This course was designed both for and about military members. The design kept in mind the needs of Active Duty learners, while the content was focused on military specific population health planning. This course is foundational for live field experiences, other courses in the curriculum and DNP scholarly projects.

Identified Needs
- Federal and Active duty nurse corps officers training for Advanced Practice Nursing Roles
- Co-located in clinical practicum sites throughout the country and overseas
- Asynchronous delivery during the summer semester
- Adult Learners
- Technological
- Commitment to using active learning strategies to engage learners in this course content

The Online Course

Course Preparation
- In 2014, the GSN began teaching Population Health and Epidemiology in Advanced Practice, a required core course for the nurse practitioner and nurse anesthesia students in the DNP curriculum.
- The course employs adult learning principles and narrative learning to reinforce course content.
- The course planning and preparation involved full time faculty, the educational design team, and military faculty.
- In the spring of 2015, the online format was beta tested leveraging their field, clinical and faculty expertise.

Course Implementation
- Modules are designed using scaffolding to build toward competency and application.
- Course modules and assignments are structured to incorporate the life and deployment experiences of the students enrolled in this course.
- A fictitious narrative device in the course content enabled students to leverage their military and deployment experiences.

Lessons Learned
- Key stakeholders, including the Centers for Disease Control and Prevention, and the World Health Organization, advocate for a shift in the provision of healthcare from a chronic disease management model to a health promotion/population health focus.
- Incorporating engagement also elevates critical thinking and emphasizes application and synthesis.
- Beta testing material, especially experiential exercises and activities, creates more grounded and engaging materials.
- The lessons learned in designing and teaching this course can be applied to the development of virtual screen based simulation education in healthcare for civilian or military healthcare providers.

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MULTISTAGE STUDENT DEVELOPED SIMULATIONS

Simulation Scenarios
- Emergency Room
- Intensive Care Unit
- Medical Surgical Unit

12 Students are assigned a medical diagnosis and are required to develop a Multi-stage simulation scenario.

Simulation Preparation
Student teams develop 3 stage patient care scenarios. Students employ electronic healthcare record. Unit teams determine FLOW FROM EACH UNIT.

Informatics
Student are required to research for current evidence-based practices.

Communication
SBAR REPORTING is employed as handoff report to ensure continuity of patient care.
- Situation
- Background
- Assessment
- Recommendation

Digital Fluency
The students use an electronic healthcare chart.

Team Collaborations
Students divide into three teams: ER, ICU, MED/SURG

Critical Thinking
- The teams will construct a patient care scenario for their assigned unit.
- Students will develop patient demographics, S & S, psychosocial history, medical orders, medication administration record.
- Students select interventions, institute continuous assessments.

Evidence Based Practice
Students research current protocols per disease/diagnosis.

Physiological Adaptation
Students manage and provide care to acute and chronically ill patients.

Outcomes
Higher order critical thinking skills, team collaboration, communication, informatics, digital fluency.

THE LEARNING CENTER

Mission
Develop effective life-long learning and health care safety through the use of simulation training that supports successful transition to professional nursing development.

The Learning Center
The Learning Center showcases four high fidelity/tech simulators and 12 additional training rooms for various learning opportunities. Each educational activity includes opportunities for classroom instruction and hands on skill development. The Learning Center offers interdisciplinary staff an environment conducive to effective learning and guidance, orientation, education, mentoring, and socialization while enhancing psychomotor, critical thinking and clinical reasoning skills.

Regeneration for a New Generation
Improvements in Interprofessional Learning

Who
Expanded capacity and disciplines to now include:
- Acute Care Nursing
- VNA & Hospice
- Outpatient facilities
- Allied Health
- Physicians

Outcomes
Feedback from participants has attested to the success of the new state-of-the-art learning center reformation and has changed a culture for continued learning and safety.

Learning Opportunities
The Learning & Simulation Center consists of hands on learning opportunities for:
- Basic Life Support Training
- Respiratory and Cardiac Care
- Ultrasound and Central Line Insertion with Blue Phantom mannequin simulation
- Rapid Response/Code Blue/Intubation practice with CAE high tech simulators
- Equipment training experiences including Lifts, IV Pumps, Bed & Chair Alarms, Feeding Pumps, etc.
- Pressure Ulcer Care & Prevention
- Infection Control simulated experiences including hand washing, isolation, PAPR equipment training
- Intravenous IV Insertion, Vascular Access and targeting Port practice simulations
- Trauma and ED Skills Development
- Urinary Cather Care/Insertion simulation
- Perioperative training opportunities for SCDs, Universal Time Outs, PAWS hypothermia equipment
- Fall Prevention intervention simulation
- The Learning Center also includes computer work stations for online training

6th Floor at Genesis Medical Center, West Campus, 1351 West Central Park, Davenport, IA 52804

Author has no financial conflict of interest.
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Exhibit Hall
Wednesday, March 1st 1-2pm
Does Interprofessional Team Trainings via Videoconferencing (Vtel) Improve Outcomes of Code Blue Training Simulations?
Janet Sprehe, DNP, APH-BC, CVRN, RN-BC & Carol Wilson, DNP, MBA/TM, CCRN, CEN

**Background**
- Effective resuscitation requires expert technical skills & application of knowledge
  - Early defibrillation, adequate depth & rate of compressions, minimizing time off the chest
- 350,000-750,000 adult in-hospital cardiac arrest (IHCA) occur annually in the US
  - Quality of resuscitation efforts correlates with patient survival rates
    - Rates decreased by 52% for patients in VF/VT if not defibrillated within 2 minutes (Omata, 2012)
- Non-technical skills such as communication, decision-making, and role clarity performed among the team during a cardiac arrest positively affects patient survival (Young, 2012)

**Bandura Social Learning Model**
- Attention: Factors which increase/ decrease attention
  - Remembering the content – coding, imaging, motor & cognitive rehearsal
- Reproduction: Reproducing physical & mental images
- Motivation: Self-confidence to initiate
  (Bandura, 1971).

**Design/Methods**
- Observational study in large urban VA Hospital
- 120 interdisciplinary code team members from 4 code teams agreed to participate
- The experimental group consisted of the Emergency Department (ED) and Medical Intensive Care Unit (MICU) code teams who observed peers in training via video conferencing before performing simulated training
- The control group consisted of the Surgical Intensive Care Unit (SICU) and Coronary Care Unit (CCU) code teams who had the usual in-situ simulated mock code training without observing the other code team
- Wilcoxon Rank Sum Test was used to analyze data

**Findings**
- Decreased time of chest compression interruptions among all groups
- Shortened Response Time to defibrillate VF/VT
- Increased staff awareness of the importance of effective BLS skills
  Appropriate assessment & treatment of dysrhythmias

**Discussion and Conclusion**
- All code teams improved their performances over frequent trainings.
- The performance scores were the highest among the teams that had used video conferencing
- Code team members became motivated when they understood their responsibilities and roles improving team work dynamics
- A larger sample size needed to be statistically significant
  Video conferencing technology provides greater motivation toward team performance

**Aims**
The aims of the quality improvement/ research project initiative are:
1. Determine if utilizing video conferencing in simulation trainings improves outcomes.
2. Identify sources of promoting teamwork and communication among code team members that enhance survival in cardiac arrest.
3. Employ Bandura Social Learning Model for knowledge transfer in simulation activities.

**Distribution of Performance and Improvement**

**Code Team Performance Efficiency**

**References**

**ACKNOWLEDGEMENTS**
Carol Wilson, RN, MSN; Maria Rojas, RN, MSN; Tammy Sutton, RN, MSN; Susan Andrews IT Specialist
Interprofessional Collaboration Using Palliative Care in Simulation with Nursing and Social Work

Renee Anderson MSN, RN, Jessica Smiter MSN, RN & Sherric Tumer BSN, RN
Union University, Jackson, TN

Identified Educational Need
A need for interprofessional collaboration among health care disciplines at the university level to promote holistic care and prepare ready professionals.

Abstract
In collaboration with the School of Social Work Master’s Program and the School of Nursing Undergraduate Program at Union University, a simulation event was created to promote interprofessional client care. The purpose of the collaboration was to develop an interprofessional simulation to enhance opportunities for teamwork and interdisciplinary practice and to cultivate competent practice-ready health care professionals. The simulation was also designed to facilitate community based and regulation oriented client and family care in the home setting. The simulation learning outcomes included objectives for each discipline, as well as objectives that assisted the students in developing the interdisciplinary skills of collaboration and communication. The learning outcomes were designed to reflect the interprofessional collaborative practice competency domains as established by the American Association of Colleges of Nursing.

Description of Project
Prior to the simulation each group of students was provided instruction on learning outcomes related to their discipline as well as expectations related to the interprofessional learning outcomes. The simulation was created to allow the students from each discipline to work side-by-side as they strived to meet the palliative, holistic needs of the client.


1. Interprofessional teamwork and team-based practice
2. Interprofessional communication practices
3. Roles and responsibilities for collaborative practice
4. Values/ethics for interprofessional practice

Simulation Methods
Preconference: 10 minutes
Interprofessional Simulation Experience: 35 minutes
Debriefing/Post conference: 15 minutes

Objectives
1. Identify the roles and responsibilities of healthcare team composed of nursing and social work.
2. Develop student verbal interprofessional communication skills, to include interprofessional discussion and conflict resolution.
3. Recognize the importance of values/ethics for interprofessional practice that promote the safer, efficient team work and patient centered care.
4. Prepare students to be collaborative practice ready health providers.

Results

Qualitative Student Feedback
• Social Work students' knowledge of available resources and how to provide these services.
• The importance of collaboration with other professions to provide holistic patient care.
• Nursing and social work have many similarities.
• The importance of communication and collaboration within members of the healthcare team.
• Palliative care/Comfort care/Spiritual care.
• Community setting nursing care.
• Therapeutic communication with patient.
• Learning exactly what the social worker does helpful.
• How to collaborate well with others and respect for other health care professions.
• Working with others allows more resources for the patient.

Conclusion
Bring in other healthcare disciplines
Decrease group size
Provide larger interprofessional simulation experiences
Provide more than one interprofessional simulation experience per semester

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Exhibit Hall
Wednesday, March 1st 1-2pm
Out of the Seat and Into the Sim
Transforming Nursing Orientation
Paula Lubeck, MSN, RN, CHSE
Mary Kennedy, MS, RN
Ashley Schulte, RN, BSN, RN-BC
Avera McKennan Hospital and University Health System, Sioux Falls, South Dakota

Purpose
The purpose of the pilot project was to compare the effect of simulation versus a traditional classroom delivery during nursing orientation on registered nurse’s (RN) knowledge, perceived competence, and satisfaction with learning.

Relevance/Significance
• Health systems are challenged to provide orientation for RN’s in an effective and fiscally responsible manner.
• Simulation is supported in the literature as an effective technique to replace or augment clinical and classroom learning.
• In order to keep pace with the changing culture of healthcare education and a response to current education strategies, nurse leaders decided to pilot moving nursing orientation out of the classroom and into the simulation lab.

Strategy/Implementation
• Didactic content reviewed
• Two unfolding simulation scenarios created incorporating all required components of the current classroom orientation.
• Pre/Post survey completed by participants

Pilot cohorts:
Simulation - new to practice RN’s who previously participated in a clinical immersion experience participated in 8 hours of unfolding simulation orientation.
Comparison - all other new to practice RNs participated in 16 hours of classroom orientation.

Results
• Satisfaction with orientation - increased satisfaction for the simulation cohort.
• Simulation decreased the orientation time by 50 percent.
• Perceived competence and knowledge showed no significant difference.

Implications for Practice
• Simulation has changed the delivery of healthcare education
• Nursing orientation provides a foundation for the RN’s clinical role.
• All nursing orientation content will move into simulation.
• Future projects will assess simulation education on actual practice and patient outcomes.

References
Affective Domain Inclusion in Your Simulation Design

Ideas and questions to address when working through the educational design process

There are two major "themes" to consider when working through the components below

1. Affective elements that should be inserted, experienced, or create a response by the learner
2. Affective domain behaviors/elements the learner should demonstrate or manage appropriately

What are the desired behaviors (that a patient would desire)?
Where are the gaps or problems in affective elements (behavior)?
What data exists that support outcomes?
Identification of the learner group & level is essential.

What can be measured, how can it be measured, and by who?
Application and higher levels are desirable—but choose wisely to match the level of your learner group.
Engage a consensus process and ground to the known.

Likely more complex to design and more time consuming.
What design elements are required to add the desired affective?
Who is qualified to evaluate/monitor affective activities?
What resources are required to meet the affective needs?
Physical and Psychological safety will be more at risk—caution!
Will the learners be able to recognize the elements? But do not fall into the trap of going over the top on everything.
How will the affective elements be introduced and made effective (environment, participants, etc.)?

Ensure that all forms of safety are addressed—this will be a hard activity for many.
Share what is required—but do not give it all away. That will limit the impact of the affective elements.

Are your educators and operations specialists prepared to appropriately deliver and monitor the affective elements?
Are all aware and prepared to use “safety terms”?
Do you have support in place for those who are overwhelmed?

Structured elements must address the affective elements—and not allow for emotionally immature responses.
Debriefing facilitator must be experienced to do affective.
Self-reflection for affective elements is difficult and also often embarrassing for the adult learner—can you manage that?

Make sure to have tools to measure affective outcomes. These can be difficult and require work for validity/reliability.
Don’t be afraid to investigate impact of affective elements.

Gaps that can be closed by including the affective domain:
- “Book” vs. “street” medicine
- Personal Behaviors
- Professional Behaviors
- Stress Inoculation
- Empathy
- Communication
- Teamwork
- Self-confidence
- Patient advocacy
- Overwhelming situations
- Cognitive Task Management

The Ethical Imperative...

“The proper and careful development of SBME is an ethical imperative.”
There seems little question that, when used in a sophisticated manner, SBME has the potential to decrease the numbers and effects of medical errors, to facilitate open exchange in training situations, to enhance patient safety, and to decrease the reliance on vulnerable patients for training.

Have you included the affective domain in your simulation design, meeting the ethical imperative to prepare your students for what they will face?

Many learners are not prepared to address nor appropriately manage affective elements. Simulationists should deliberately and carefully employ affective elements with input and advice of many—to prevent training scars or other harm.
Do not neglect the educators, operations specialists and others involved—they may also be impacted and require debriefing.

What is the affective domain?

“The affective domain describes learning in terms of feelings/emotions, attitudes, and values.”

The area of learning concerned with feelings or emotions, including:
- Receiving: the learner’s sensitivity to the existence of stimuli
- Responding: the learner’s active attention to stimuli
- Valuing: the learner’s beliefs and attitudes of worth
- Organization: the Learner’s internalization of values and beliefs
- Characterization: the learner’s behavior that reflects their values and philosophy of life

What are “affective elements”?

- Stress
- Attitude
- Confidence
- Hate or Fear
- Confusion
- Panic
- Value statements
- Caring
- Sensory Overload
- Sensory Deprivation
- Altered environment
- Motivation
- Existing biases
- Advocacy

There are many more—some overlap cognitive and psychomotor.


[Dr. A. Weise, P.P., Toedl, T., & ORA, 3 (2002). Simulation-based Medical Education: An Ethical Imperative. Academic Medicine, 77(8), 793-798.]

How can you incorporate the affective domain to achieve these outcomes?

NEEDS ANALYSIS

GOALS & OBJECTIVES

Simulation ACTIVITY DESIGN

BRIEFING

SIMULATION ACTIVITY

DEBRIEFING

EVALUATIONS

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[Image 55x11 to 660x399]
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Making Lucina Come Alive
(The Condensed, Simplified, Updated and Very Visual Version!!)

The very best screams!!!!
Use your own voice! Easy!!

Make realistic charts with labor strips

By: Katharine Haensel LPN
Simulation Technician