Use of Simulation to Facilitate Interprofessional Education
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Abstract

Acute Care Nurse Practitioners work collaboratively, interacting with nurses, respiratory therapy, pharmacists, and nursing educators on a daily basis. However, the education of these groups historically occurs within each respective domain and lacks a focus on teamwork with other professions. To improve safety and yield the highest quality patient care and produce the best outcomes, recent publications, including the *Core Competencies for Interprofessional Collaborative Practice*; The Forum on the Future of Nursing for Acute Care (Robert Wood Johnson Foundation Initiative on the Future of Nursing at the Institute of Medicine (IOM, 2009) encourage interprofessional education and training. We seek to adopt these recommendations and simulation is an excellent modality to facilitate interprofessional education.

This project also reflects two important concepts for NP curriculum incorporation.
1. Collaboration of educational organizations & health care facilities together, train healthcare staff both before and after licensure.
2. Utilizing technology can improve efficiency in acute care settings.

Organizations

1. University of Massachusetts Medical School
2. UMass Memorial Medical Center
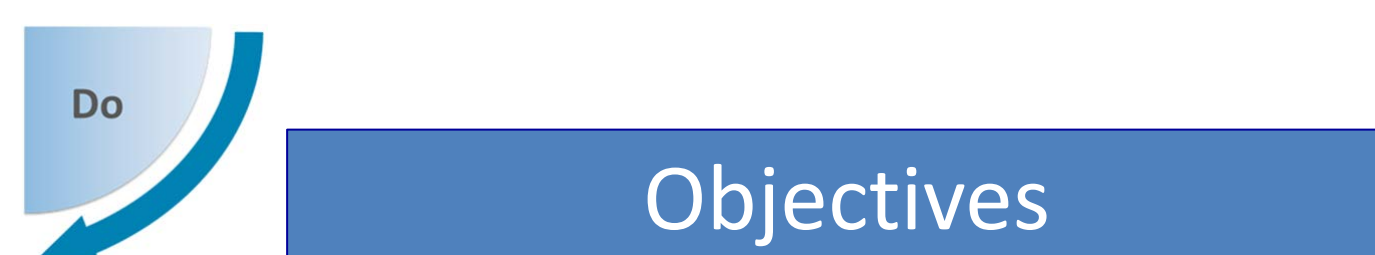3. Quinsigamond Community College

Implementation Model

Act | Plan
Study | Do

Cycle 1 – Spring 2012

Plan — Learners

1. New Nurses (RN)
2. Nurse Practitioner Students (NP)
3. Nurse Educator Students (NE)
4. Respiratory Therapy Students (RT)

Do — Objectives

1. Demonstrate selected roles in a code scenario
2. Integrate SBAR communication
3. Differentiate between calling a Rapid Response and a Code
4. Demonstrate critical thinking by anticipating client changes
5. Communicate within a multidisciplinary team
6. Analyze data, VS changes, and anticipates consequences & next interventions
7. Identify proper positioning of oral & nasal airways
8. Successfully intubate the mannequin
9. Identify proper heart sound auscultation locations
10. Identify aortic stenosis and mitral valve murmurs
11. Participate actively in debriefing session

Do — Stations

1. Airway station – Taught by RT students
2. Harvey Heart sounds – Taught by NP students
3. Mock Code, with RN, NP, RT (asystole, VF)
4. Debriefing by NE

Study — Faculty Evaluation

1. Too many objectives
2. Students unfamiliar with simulator
3. RNs needed a rhythm review
4. All learners needed a code cart review
5. Students loved it, but code scenarios overwhelmed the RNs
6. Students wanted more scenarios to "prove themselves"

Act — Next steps
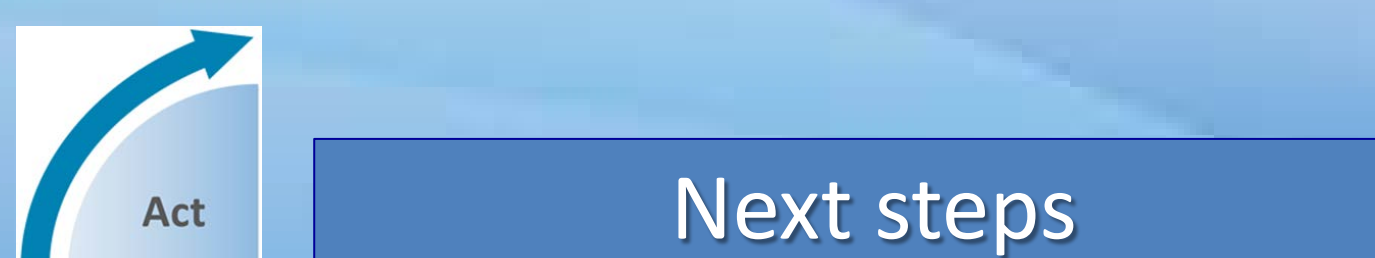
1. Created demonstration video
2. Enhanced patient charts with more data
3. Added rhythm review
4. Added code cart review
5. Implement a novice to expert model (Fall = urgent scenarios, Spring Emergent scenarios)

Cycle 2 – Fall 2012

Plan — Learners

1. New Nurses (RN)
2. Nurse Practitioner Students (NP)
3. Nurse Educator Student (NE)
4. Pharmacy Residents (PharmD)

Do — Objectives

1. Demonstrate selected roles in an urgent scenarios
2. Analyze data, VS changes, and anticipate interventions
3. Order appropriate pharmacotherapeutics for urgent scenarios
4. Demonstrate critical thinking by anticipating client changes r/t interventions
5. Demonstrate "SBAR" communication
6. Demonstrate closed loop communication

Do — Stations

1. Rhythm review station – audience response system
2. Code Cart & Medication review station (by PharmD)
3. Urgent Scenarios (RAF, SVT)
4. Debriefing by NE

Study — Student Evaluation

- "Great opportunity to make mistakes in a safe environment and collaborate with others with a real sense of the stress of the situation"
- "Great experience, thinking on your feet"
- "Non-threatening learning environment"
- "It is a way to learn/evaluate what you know/improve without being a true clinical situation"
- "Smaller teams & more scenarios"
- "Therapeutic conversation"
- "I get to critique myself"

Cycle #3 – Spring 2013

Plan — Learners

1. Nurse Practitioner Students (NP)
2. Nurse Educator Students (NE)
3. Respiratory Therapy Students (RT)

Do — Objectives

1. Assess and diagnose emergent situation
2. Analyze data, VS changes, and anticipate interventions
3. Order appropriate pharmacotherapeutics for emergent scenarios
4. Demonstrate critical thinking by anticipating client changes r/t interventions
5. Demonstrate proficient "SBAR" communication
6. Demonstrate breaking bad news to family

Do — Stations

1. Airway management station
2. Emergent Scenarios (Asystole & VT/VF)
3. Debriefing by NE

Study — Evaluation – Pending 4/26/13

Plan — Ongoing Challenges
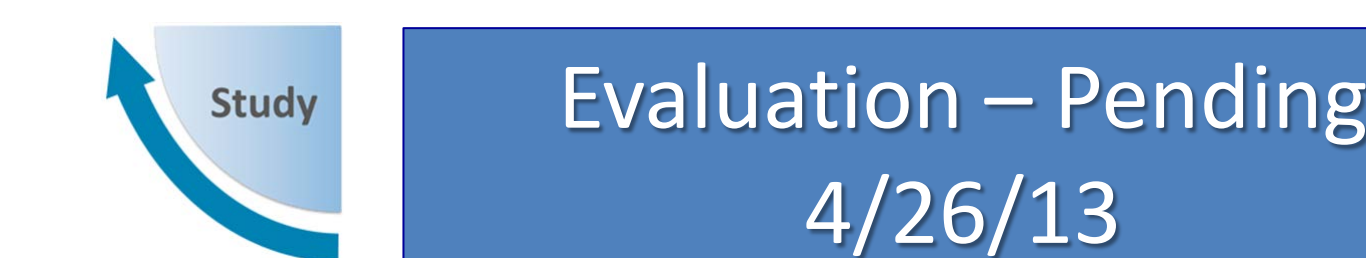
1. Keeping groups small enough to function well
2. Number of faculty required
3. Finding the right tool for evaluation

Plan — Next Steps

1. Integration of Medical Students

University of Massachusetts Medical School

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