

USE OF SIMULATION TO IDENTIFY ACADEMIC-PRACTICE GAPS TO IMPROVE HEALTHCARE

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Purpose

- Move toward the use of simulation for assessment
- Shift from observing what the students did correctly to the identification of what was missing
- To examine how significant faculty time and attention is devoted to arranging and facilitating simulation scenarios.

The real work begins once the students leave.

Faculty Experience

Before

- Emphasis was originally placed on “doing” the simulation NOW
- Faculty workload with working with simulation
- Focus solely on demonstration of learning and evaluation of student abilities
- Little curricular influence

After

- Learn how to work with simulation scenarios in light of curriculum assessment
- Faculty workload with working with simulation plus curriculum evaluation
- Emphasis placed on outcomes of simulation experience
- Take outcomes and wrap back into our curriculum

Student Experience

Before

- Debrief focused on what the students did
- Simulation experience would change depending upon faculty leader
- Student anxiety in simulation experiences

After

- Debrief shifted from what they did to what they didn't do based on peer feedback
- Simulation experience was the same for all students
- Increased familiarity with the use of simulation for their learning

Simulation Details

- Capstone course
- 47 Students
- 4 Faculty
 - Observation
 - Control room
 - Simulation suite
 - Debriefing
- Time in simulation-20 minutes
- Rotated through scenarios in groups of 4

Simulation Scenario

- Closed Head Injury-Samantha Sim
 - Complex patient with multi-system concerns and a family in crisis
 - Samantha Sim, is a 70 year old woman who is brought to the ETU after a MVA at high speeds. Mrs. Sims has a new diagnosis of dementia. Her husband, the driver, who was unharmed other than some cuts and scrapes, accompanies her

Simulation Learning Objectives

1. Assessment and recognition of signs and symptoms of decreased level of consciousness
2. Initiate collaboration of team members in the hospital setting
3. Utilization of appropriate interventions
4. Monitoring for therapeutic response to interventions utilized
5. Addressing the needs of the family

Simulation Scenario Foci

Physiological Integrity

- Seizure
 - Precautions
 - Head of bed elevated
 - Safety
 - Timing of seizure
- Neuro Assessment
 - Glasgow Coma Scale
 - Pain Assessment
 - Cognition

Psychosocial Integrity

- Communication
 - ISBAR
 - Distressed family member
 - Between team members
 - Delegation
- Family Component
 - Guilt
 - Crisis
 - Nurse presence
 - Uncertainty

Gaps with Seizure focus

What did the students do?

- Seizure
 - Precautions
 - Head of bed elevated (30%)
 - Safety
 - Timing of seizure (10%)

What were the gaps?

- Didn't know what to do for precautions
- No HOB elevated – left on back
- Left oxygen mask on when vomiting
- Didn't notice time of seizure activity

Gaps Woven Into Curriculum

Identified Gaps

- Observed that students didn't know what to do for precautions
- No HOB elevated – left on back
- Left oxygen mask on when vomiting
- Didn't notice time of seizure activity

Curriculum Focus

- Strengthen learning of seizure precautions in the senior level adult health course
- Add case study as a teaching strategy
- Add professional journal article on patient safety in seizure care required prior to simulation activity

Gaps in Neuro Assessment Focus

What did the students do?

- Pupil checks
- Turn patient on side with emesis (50%)
- Thorough cognitive assessment (90%)
- Pain assessment (80%)

What were the gaps?

- No consistency with Glasgow Coma Scale
- Non verbal pain assessment
- Inconsistent use of pain scale

Gaps Woven Into Curriculum

Identified Gaps

- No consistency with Glasgow Coma Scale
- Non verbal pain assessment
- Inconsistent use of pain scale

Curriculum Focus

- Re-institute use of case study in which students are asked to use the Glasgow Coma scale
- Provide students with pain assessment tools in 1st semester assessment and nursing procedure course

Gaps in Communication Focus

What did the students do?

- Used appropriate language during simulation (90%)
- Introduced self to patient (60%)
- Identified patient using 2 patient identifiers (20%)
- Engaged other team members (15%)
- Gathered appropriate information necessary to convey to other healthcare providers (0%)

What were the gaps?

- Used inappropriate language **** during simulation
- Failed to introduce self to patient
- Used 0-1 patient identifiers.
- Lacked ability to engage with team members
- Inability to gather appropriate information necessary to convey to other healthcare providers

Gaps Woven Into Curriculum

Identified Gaps

- Used inappropriate language **** during simulation
- Failed to introduce self to patient
- Used 0-1 patient identifiers
- Lacked ability to engage with team members
- Inability to gather appropriate information necessary to convey to other healthcare providers

Curriculum Focus

- Emphasize treating the simulation as the 'real world' experience
- Increase use of safety simulations
- Create set of communication simulations and tools for students to use in communicating with team members

Gaps in Family Focus

What did the students do?

- Provided family members with information as needed (20%)
- Sought information from family member (10%)
- Addressed husband's feelings of guilt related to the accident (0%)
- Used nurse presence to support family (30%)

What were the gaps?

- Needed prompting from family member rather than initiating the communication on own
- Did not use husband as a resource for information.
- Minimalized husband's guilt by using clichés
- Focused mainly on skill set rather than supporting family
- Lacked confidence when engaging with family members

Gaps Woven Into Curriculum

Identified Gaps

- Needed prompting from family member rather than initiating the communication on own
- Did not use husband as a resource for information.
- Minimalized husband's guilt by using clichés
- Focused mainly on skill set rather than supporting family
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Curriculum Focus

- Increase use of communication simulations involving family members from the beginning of the curriculum
- Institute role-play strategy in theory class to provide students with opportunity to use therapeutic communication with family members

Additional Gaps Identified

- Lack of consistent hand hygiene
- Inconsistent read back of orders
- Poor body mechanics
- Limited use of available resources
- Breaks in sterile technique

Summary – Lessons Learned

- Using simulation in curriculum assessment can be effective in noting gaps in student learning
- Curriculum Improvement
 - Simulations were developed as a teaching strategy for learning medication administration
 - Simulation developed for teaching safety, *Room of Errors*
- Faculty development needed on use of simulation and observation for curricular gaps

Thank you