EFFECTS OF DELIBERATE PRACTICE DEBRIEFING DURING A RESPONSE TO RESCUE SIMULATION WITH UNDERGRADUATE NURSING STUDENTS

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OBJECTIVES

1. Recognize evidence base for deliberate practice and failure to rescue simulation use in education.

2. Determine uses of deliberate practice in the simulations conducted at your institutions.

3. Identify available tools for use in evaluating those simulations.
FAILURE TO RESCUE (FTR)

• Adverse event that occurs because healthcare provider’s inability to recognize deteriorating patient and respond appropriately

• Centers for Medicare and Medicaid Services require all hospitals to monitor FTR events (AHRQ, 2018)
NOVICE NURSES

- Inadequately prepared for complex patients due to limited clinical experiences
- Unable to participate in response to rescue events during programs (Bacon, 2017; Mushta, Rush, & Andersen, 2018)
- 4 main ways FTR (Mushta, Rush, Andersen, 2018):
  - Not recognize change in patient status
  - Errors in care
  - Failure to communicate
  - Failure in clinical decision making
DELIBERATE PRACTICE

• While participating in simulation experience, receive feedback, problem solve and evaluate performance, then repeat to perfect performance (Ericsson, 2015)

• Critical and ongoing reflection are key elements

• Used successfully in nursing education to perfect skill performance (Welch & Carter, 2018)

• Limited studies on effectiveness helping students navigate complex clinical scenarios/make decisions that will improve patient outcomes (Whyte & Cormier, 2014)
The purpose of this study was to compare student nurse competency, learning retention and perceived student support after exposure to deliberate practice debriefing model versus standardized debriefing during a heart failure complex response to rescue scenario.
HEART FAILURE RESPONSE TO RESCUE SIMULATION: RESEARCH QUESTIONS

- RQ 1: What is the effect of deliberate practice debriefing as compared to standard debriefing on student nurse competency during a heart failure response to rescue simulation?
- RQ 2: What is the effect of deliberate practice debriefing as compared to standard debriefing on student learning retention during a heart failure response to rescue simulation?
- RQ 3: Which simulation design best supports learning from the student’s perspective?
METHOD/DESIGN

- Multi-site (international), Randomized, Pre-test/Post-test, Quasi-experimental Design
- 4 BSN programs
STUDY PARTICIPANTS

- 50 volunteer senior level BSN undergraduate nursing students
- No significant differences between group demographics
STUDY INSTRUMENTS USED

- Heart Failure Simulation Competency Evaluation Tool (HFSCET) (Aronson, Glynn & Squires, 2012)
  Patient Safety, Assessment, Communication, Intervention, Documentation

- Simulation Design Scale (Student Version) (NLN, 2005)
  Student perceptions of objectives/information; 2) support, 3) problem solving; 4) feedback; 5) fidelity
Comparison Group

Orientation
Med Record, Equipment

View Expert Video

Simulation
40 minutes, DB
Evaluate c HFSCET

Wait 4 Weeks

Simulation
40 minutes, standard DB

Intervention Group

Orientation
Med Record, Equipment

View Expert Video

Simulation
20 minutes, Stop, DB, Repeat 20 min.
Evaluate c HFSCET

Wait 4 Weeks

Simulation
40 minutes, standard DB
RESULTS

- Students did score better in the majority of the HFSCET categories using deliberate practice debriefing versus standard debriefing, specifically subscales of patient safety, assessment, and communication.

- There was no significant difference in learning retention at 4 weeks between the 2 groups.

- There was no significant difference in perception of learning as a result of the simulation between the groups: both rated the learning experience highly.
IMPLICATIONS

- More research!
- Early recognition and response is key to patient safety
- While research has shown that the deliberate practice model is effective for acquisition of nursing psychomotor skills, this study attempted to show that it could also improve competency in recognizing and responding to a deteriorating patient, more complex situations.
- Deliberate Practice gives them the opportunity to do it again, refine those noticing skills and responding skills
LIMITATIONS & CHALLENGES

• Challenges with IRB – across institutions, across nations
• Communication across time zones, differences in programs, trimesters vs semesters
• Availability of simulation space and equipment
• Recruitment of students
  • Busy students
  • Lack of support from other faculty
OPPORTUNITIES

• Multi-site, multi-country projects are an opportunity and a limitation
• Learning from each other across regions/countries
• Making our gained knowledge more generalizable
• This type of scenario demonstrates to students the consequences of FTR
• Expand the experience to interprofessional teams


NLN Simulation Leaders