Simulation: Effects on Communication, Leadership, Clinical Reasoning, and Interprofessional Collaboration Skills in Nursing Students

Joan Ruhs MSN, RN, CCRN, Marianne Schmitt MSN, RN, CNE, Becky White MSN, RN

Purpose

- To evaluate the effects of high fidelity simulation on baccalaureate nursing students’ clinical reasoning, interprofessional collaboration, communication, and leadership skills.

Background

- Simulation is a teaching strategy that has been embraced by educators as a key teaching strategy when trying to connect theoretical concepts with clinical applications.
- It is crucial that educators offer experiences that foster the development of critical thinking and clinical reasoning skills.
- Simulation provides an avenue to construct learning opportunities, which a student may or may not experience in their educational journey.

Sample

- Convenience sample of students enrolled in a senior Leadership in Nursing course
- Sample size N = 90
  - Age Range 20-29: 70
  - Age Range 30-39: 14
  - Age Range 40-49: 6
  - Age Range 50-59: 0

Simulation

- This simulation included five patients in a hospital setting with a variety of complex health problems.
  - Dissecting Abdominal Aortic Aneurysm
  - Pancreatitis/ARDS
  - ALS
  - Atrial Fib
  - Elderly Dementia Patient

Tools

- Demographic Questionnaire
- Mayo High Performance Teamwork Scale
- Interprofessional Collaborative Simulation Experience Tool
- Instructor designed NCLEX style 24 question exam
- ISBAR Interprofessional Communication Rubric (IICR)

Simulation Thoughts

- Improves Understanding
  - 76% of participants felt that this simulation provided a canvas for teamwork, learning time management and prioritization skills.
  - “It was great to work with a team of RN, LPN, UAP because we were able to delegate and prioritize with real life situations”
  - 28% of participants felt overwhelmed and were unsure of roles.
  - “It made me uncomfortable”

- Comfort Level
  - 50% of participants report increased comfort level, more awareness of roles, teamwork skills improved.
  - “This simulation made me a little more comfortable with being part of a team because during clinical I don’t utilize the other members of my team very much.”
  - 50% of participants report feeling less comfortable, anxious, nervous and stressed out.
  - “Made me feel uncomfortable as an LPN”

- Understanding and problem solving skills
  - 80% of participants report improved communication, collaboration, assessment skills and a better understanding of disease process.
  - “Made me realize how much a detailed assessment plays a role on a patient health.”
  - 20% of participants report feeling less comfortable, anxious and stressed.
  - “Feel less comfortable, I have a lot to learn, did not know how to explain tests, stressed me out.”

- Collaboration Skills
  - 87% of participants report simulation helped with collaboration, prioritization, learning to call physician, learning other roles and scopes of practice.
  - “Better understanding of LPN role.”
  - 13% of participants report simulation left them feeling helpless when practicing a different role and also felt that collaboration was difficult.
  - “You feel helpless as a CNA.”

Data Analysis

- Data was analyzed using SPSS Version 22.
- Descriptive statistics describe the characteristics of the participants.
- Paired t tests were completed to illustrate statistical correlation between simulation and student performance and perceived leadership characteristics.
- Content analysis was used to analyze open-ended responses.

Research Question

What are the effects of a high fidelity, multi patient, interprofessional simulation on clinical reasoning; interprofessional collaboration, communication, and leadership skills in nursing students?

Blessing-Rieman College of Nursing & Health Sciences Simulation Lab

13/16 areas evaluated displayed an increase in Leadership characteristics Post-Simulation

Greatest increase

- Team members ask each other for assistance prior to or during periods of task overload. Score: (Pre)1.5909-(Post)1.6705
- Team Members shift roles in emergent situation. Score (Pre) 1.5455 (Post) 1.618

References