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The Effects of Nursing Students Participating in a Operating Room Simulation

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The Effects of Nursing Students Participating in a Operating Room Simulation

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Abstract

Entering an unfamiliar, complex, fast-paced, unpredictable perioperative environment can be frightening and intimidating to any newcomer, especially as an inexperienced nursing student. When nursing students are better prepared prior to arriving into their Operating Room (OR) for clinical, theoretically they should have a decreased anxiety while improving their overall experience and perception (Byrne, Root, & Culbertson, 2016; Motts, 2012). Nursing student’s first impression of any nursing specialty is during their clinical rotation. Their experience whether it be a positive or negative one, will impact their decision on choosing a specialty or post-graduation (Helzer Doroh & Monahan, 2016). By implementing an operating room simulation prior to clinical experience will give the nursing students an opportunity to become more knowledgeable with the perioperative setting and increase their sense of preparedness, overall perception and experience of the OR.

Keywords: Simulation, Operating Room, nursing students

Review of Literature

Study conducted by Thidemann and Söderhamn (2013) displayed that students participated in a high-fidelity simulation with alternating roles resulted in the students rating the Student Satisfaction and Self-confidence in Learning as high. Study conducted by Foran (2015) showed that students who had a guided practice prior to clinical experience were likely to consider perioperative nursing as a career. An OR simulation study revealed students had improved performance in a safe learning environment without jeopardizing harm to actual patients in low-volume, but high-risk scenarios (Bashaw, 2016). Nursing educators who present concept-based case studies to nursing students showed an excellent means for content integration and promote active learning and should be encouraged in undergraduate nursing curricula (Bashaw, Root, & Culbertson, 2016). Introducing students to a perioperative practice area prior to clinical rotation yielded positive outcomes by furnishing key foundational clinical learning experiences for novice nursing students (Tschirch, Leyden, Dufrene, & Land, 2017).

Implementation

Researcher will provide second semester Junior-level undergraduate nursing students at FHSU with an Operating Room simulation prior to OR clinical experience. During the simulation, the researcher reviewed the OR environment, sterile field, roles of intraoperative RN/staff members, prepping and positioning a patient for surgical procedures, proper scrubbing, gowning and gloving, dressing, basic surgical instruments and instrument passing techniques.

Review of Literature

Methodology

Background

As simulation is becoming more popular in nursing education and incredibly realistic for students, many studies have been conducted on the benefits of implementation of OR simulation prior to clinical experience. Post OR Simulation positively impacts their decision on choosing a nursing specialty during their clinical rotation. Their overall experience and perception (Byrne, Root, & Culbertson, 2016; Foran, 2015). In nursing curricula (Byrne, Root, & Culbertson, 2016). Nursing educators who present concept-based case studies to nursing students showed an excellent means for content integration and promote active learning and should be encouraged in undergraduate nursing curricula (Bashaw, Root, & Culbertson, 2016). Introducing students to a perioperative practice area prior to clinical rotation yielded positive outcomes by furnishing key foundational clinical learning experiences for novice nursing students (Tschirch, Leyden, Dufrene, & Land, 2017).

Research Question- In Fort Hays State University’s second semester junior (J2) nursing students, how does participating in an Operating Room (OR) simulation prior to OR clinical experience compare to students who did not participate in the OR simulation influence nursing student’s increase knowledge of OR environment, sense of preparedness, overall perception and experience of the OR during the spring 2020 semester (from initiation of OR simulation to OR clinical rotation)?

Design-Quasi-Experimental study using a post OR clinical experience survey addressing students’ knowledge of the OR environment, student’s preparedness, and overall perception and experience of the OR of clinical experience. Post OR Simulation evaluation for students who participated in the OR simulated experience. Ethics- FHSU IRB approved this study prior to initiation

Results

Post OR Clinical Experience Survey-

- Qualitative- All question’s results were improved significantly. Many questions increased from ‘neutral’ and ‘agree’ to ‘strongly agree’ after implementation.
- Quantitative- Majority of the comments were positive, and the overall student consensus were that they enjoyed the OR clinical experience and learned greatly. A few negative comments regarding standing in one spot for a long period of time and unable to see the surgery up close.

Post OR Simulation Evaluation-

- Qualitative- All three questions were answered ‘satisfied’ beside 2 responses answered ‘somewhat satisfied’
- Quantitative- All comments were positive. Some comments are as follows: “I thought the whole experience was very fun and helpful”, “Very educational! Really enjoyed the simulation”, “Looking forward to the OR now!”, and “Amazing skills taught”.

Conclusion

Enhanced preparation of undergraduate students with the use of simulation can benefit their clinical experience and perception of the Operating Room. The study displays a positive correlation that students had an enhanced knowledge of the OR environment, overall clinical experience and perception of the OR by implementing an OR simulation prior to clinical experience.

Limitations- This study used a convenience sampling from one rural, Midwestern university with a small sample size. The results of this study may not be comparable to other relevant Operating Room and results may vary depending on the precepting Operating Room staff.

Recommendations for Future Research- How could simulations for other specialty clinical areas be implemented into nursing curricula? How does implementation of OR simulation affect students choosing perioperative nursing post-graduation?

References