Title:
Using Simulation to Enhance Clinical Reasoning During Medication Administration: A Multi-Site Qualitative Study

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Session Title:
Simulation Research: Informing Best Practices in Nursing Education
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Keywords:
Clinical Reasoning, Multisite Simulation Study and Nursing Education

References:


Abstract Summary:
Thought processes of student nurses are not well known. This paper will discuss findings of a multi-site qualitative simulation study in the USA and a replicated study in Tanzania, East Africa; which examined student nurses’ reported thinking during medication administration. Findings will inform faculty relative to pedagogy in nursing education.

Learning Activity:
The learner will be able to discuss findings from a multi-site qualitative simulation study for use in educating nursing students.

Findings of a multi-site qualitative simulation study, which examined student nurses’ reported thinking during medication administration, will be presented to inform faculty relative to pedagogy in nursing education.

The learner will be able to examine the impact of simulation in nursing education to prepare safe nurses for clinical practice.

Descriptions to explain the thinking processes of nursing students during medication administration will be examined in relation to their clinical reasoning during the simulated experience.

Abstract Text:

Patient safety and quality care are issues of major concern worldwide and are significant challenges facing healthcare systems, clinical practice, and nursing education. The Quality and Safety Education for Nurses (QSEN) project, funded by the Robert Wood Johnson Foundation, has been pivotal in engaging nursing faculty in the important work of assuring that graduates are able to demonstrate quality and safety competencies. The purpose of the QSEN project is to prepare nurses who will improve the quality and safety of the healthcare system and individual performance. To promote quality and safety in nursing care, QSEN developed core competencies in knowledge, skills, and attitudes (KSAs) that are essential for pre-licensure nursing students. Medication administration is a common and necessary core competency in nursing care. Patient safety is especially at risk during medication administration as medication incidents are a leading cause of patient injury.

Nursing educators face many challenges ensuring that students have the knowledge and abilities to safely administer medications to patients. The simulation nursing lab is a safe environment to teach medication administration. Repetition and rote memory have traditionally been used heavily by students to acquire nursing skills such as medication administration. Although the procedure of administering medications appears to be simple and straightforward from a psychomotor domain, the student nurse’s thought processes and critical judgments may contribute to medication errors.

The thought processes of student nurses during medication administration related to prevention of patient harm or errors or promoting therapeutic responses are not well known. Nursing students may be focused more on the rules and procedures rather than anticipatory problem solving, and concurrent patient teaching that occurs with practicing nurses. The QSEN project provides nursing faculty with a framework to assure that graduates are able to demonstrate quality and safety competencies, including that of medication administration.

Simulation and debriefing is gaining momentum as an active learning teaching strategy that is successfully impacting student thinking along the learning continuum. The direct effect of simulation and debriefing on learner performance and clinical reasoning is not well studied. Nurse educators continue to seek new teaching and learning strategies with the goal of engaging students in thinking that goes beyond the boundaries of memorization. With a focus on developing sound critical thinking and clinical reasoning skills, contemporary nursing education is focused on teaching students to think like a nurse (Tanner, 2006).

This paper will discuss the findings of a multi-site qualitative study, which examined student nurses’ reported thinking during medication administration in a simulated experience involving care of a post-operative patient reporting pain. Forty-eight students from five baccalaureate-nursing programs in Minnesota, USA participated in a simulation with a standardized post-operative patient. Ten, second year
advanced diploma student nurses at Tumaini University Kilimanjaro Christian Medical College in Moshi, Tanzania participated in a subsequent replicated study. In both studies, students independently completed a patient assessment and administered pain medication from a variety of options. Following the simulation, semi-structured debriefing interviews containing 9 open-ended questions were conducted and audiotaped.

Students administered a variety of pain medication during the simulation. Analysis of transcriptions revealed five themes including 1) safety, 2) clinical reasoning, 3) uncertainty and need for validation, 4) lessons learned, and 5) perception of realism. Safety was the most predominant theme that emerged from the data.

Students must be able to more fully understand clinical decision-making around medication administration (e.g., best practice, individual experiences with pain, patient preferences, patient conditions, etc.). Implementing teaching strategies that integrate opportunities for several valid nursing interventions encourage students to move away from a linear perspective to examine their thinking and the complexity of clinical practice. Findings will inform faculty relative to curricular design, pedagogy, and evaluation in educating nursing students to become safe and competent nurses.