Practice to Make Permanent: A Call to Safety Initiative with Use of Simulation

Patient safety is a multi-person responsibility in healthcare. Nursing faculty should proactively find ways to methodically teach and impress the future nurses about their place in the arena of safety for their patients. Instilling a sense of commitment and advocacy creates a better focus of obligation. Thinking is not optional, but expected at every level of the process in patient care and more specifically medication administration. Anecdotal reports from clinical faculty and student nurses suggest that current academic medication administration education may not optimally prepare students for safe entry into clinical practice and creates a work-around mentality. Improved patient safety through the enhanced preparation of nursing students with medication administration and critical thinking/clinical reasoning leads our conversation today. Medication errors are some of the most costly and devastating challenges with both lives of patients and their health and well-being at stake. The goal of the proposed research study is to assure students comprehend medication math, develop reading and calculating prescribed dosage capabilities, and determine the impact of the use of simulation on medication safety in clinical practice. The purpose of the research is to transform the culture of thinking in both faculty and students, and potentially demonstrate how “practice makes permanent” but “bad practice makes dangerous.” Often simulating the simulation is a shortcut that can permanently embed incorrect clinical practices. This research can alter the culture of simulation and in turn, can change the culture of future medication administration practices.

The research question is: Does realistic, and real-time simulation impact future medication administration practice of novice nurses? This quasiexperimental, comparative study will evaluate medication errors in nurses who have been trained with standard simulation practices and those who are prepared with realistic, real-time simulation. The study setting will be a community college in the southern United States. The population for this research will be a convenience sample of past and current nursing students from an Associate Degree Nursing program at the study site. The aim will be to recreate a teaching and learning environment that replicates a true clinical setting, which will generate an almost flawless replication of a clinical practice site. The current students will practice medication administration with realistic, real-time simulation that incorporates the use of a multi-check system, electronic health records, and unit-dose drug system. The simulations will integrate medication administration with these tools into designed, simulated experiences with the primary focus on the successful and safe administration of medications from provider orders through care and then evaluation. The data collected will include follow-up surveys which will determine the number of medication errors and near misses. The responses will then be compared to a survey completed by former students who already work in the clinical setting. Then this data will be analyzed using an independent sample t-test to compare outcomes.

For the proposed research study, faculty will need training on the technology and utilizing new simulation strategies. Many of the faculty completed the National League of Nursing Simulation Innovation Resource Center modules and had at least a Master’s Degree in Nursing. The simulation center at the proposed site employs trained staff with expertise in the technology of simulation.