Oral Defense Announcement
University of Missouri – St. Louis Graduate School

An oral examination in defense of the dissertation for the degree
Doctor of Nursing Practice

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Increasing Nursing Competence and Confidence During Obstetric Emergencies Through Simulation: A Quality Improvement Project

Date: July 11, 2019
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Place: College of Nursing Building, Room 106

Abstract
Problem: The aim of this quality improvement project was to improve the knowledge and confidence of the mother/baby nursing staff during obstetrical emergencies, namely postpartum hemorrhage, at a large tertiary care medical center located in a Midwest urban area through in situ simulation. PPH occurs in 10-15% of women after delivering and is a leading cause of maternal death. Hospitals across the U.S. lack a standard approach to managing obstetric emergencies and the complications of pregnancy and childbirth are often identified too late. Multidisciplinary simulation-based team training, including postpartum hemorrhage scenarios, have been associated with an improved culture of safety and improved outcomes in obstetrics. Preparation and early intervention are crucial to prevent adverse maternal outcomes. The instant that an obstetric emergency is identified is not the time to fumble through life-saving interventions. Appropriate reactions and a confident approach must be ingrained to ensure that response is second nature.

Methods: A convenience sample of 26 registered nurses (RNs) that care for postpartum patients attended a one-hour instructor led presentation followed by in situ simulations of a postpartum hemorrhage. A knowledge assessment and confidence survey were administered pre-intervention and post-intervention. The pre-intervention and post-intervention scores were compared to determine knowledge and confidence gained following didactic and simulation exercises. A team of three observers rated each simulation exercise using the TeamSTEPPS Modified Team Performance Observation Tool (TPOT).

Results: The overall mean scores for the pre-intervention confidence survey and knowledge assessment were statistically significantly lower than the mean scores for the post-intervention confidence survey and knowledge assessment thus indicating overall improvement in participants' knowledge gained and retained regarding a postpartum hemorrhage and improved confidence with their approach to managing a postpartum hemorrhage following didactic education and simulation exercises. Five of the seven simulation exercises had mean observer TPOT ratings greater than 4.0 (on a 5 point scale).

Implications for Practice: The ultimate goal is to expand the multidisciplinary team’s competence and confidence with all obstetric emergencies (PPH, maternal cardiac arrest, preeclampsia, and thromboembolism) through simulation in order to improve maternal outcomes.

Defense of Dissertation Committee
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