

## Women's Health Research Day

*"Why XX Matters: Focus on Cancer and Regenerative Medicine"*

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### **Emergencies in Clinical Obstetrics Course and Competency-Based Assessment Used to Prepare Wake Forest Baptist Medical Center Nurses for New Labor and Delivery Service**

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Simulation training in conjunction with didactic learning and scored assessment is beneficial for readiness of new service line offerings in healthcare. Since an estimated 15% of women will develop a medical complication during pregnancy, delivery, or postpartum (1), we used simulation to prepare newly hired labor and delivery nurses in emergency clinical obstetrics during the new Birth Center opening at Wake Forest Baptist Medical Center (WFBMC). Staffing for the new Birth Center required onboarding nurses with varying levels of labor and delivery proficiency and years of experience, highlighting the need for a formalized curriculum, training, and assessment program. The value of learning was determined by statistically comparing before/after competency-based assessment scores. The Center for Experiential and Applied Learning (CEAL) partnered with The American College of Obstetricians and Gynecologists (ACOG) to identify a relevant adoptable curriculum. The Emergencies in Clinical Obstetrics (ECO) course was used to train nurses in management of obstetrical emergencies. Nurses performed simulated scenarios with high fidelity and task trainer birthing simulators and checklists to reinforce teamwork skills. Pre/post competency-based assessments were administered to evaluate understanding of material/simulations and gauge proficiencies in dealing with emergencies presented during and after childbirth. A paired t-test compared pre-post competency results. There was a statistically significant ( $p < 0.05$ ) improvement in competence following the simulation training (pre-test =  $77.3 \pm 1.5$ ; post-test =  $89.0 \pm 0.8$ ;  $n=58$ ). Class participants were asked to complete a post-training survey, evaluating their before and after knowledge of protocols, techniques, risk factors, and team collaboration. On a scale of 1 (not at all confident) to 4 (very confident), the mean self-ranked score among nurses was 2.3 before the intervention and 3.5 afterward. Nurses at WFBMC demonstrated day one readiness for the new Birth Center through reaching competency-based assessment thresholds (>80%) and improved post-test scores following simulation training paired with didactic learning. Monthly simulation training now occurs in the Birth Center at Wake Forest to regularly reinforce best practices during obstetric emergencies.

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1. Ameh, C. A., & Broek, N. V. D. (2015). Making It Happen: Training health-care providers in emergency obstetric and newborn care. *Best Practice & Research Clinical Obstetrics & Gynecology*, 29(8), 1077–1091. doi: 10.1016/j.bpobgyn.2015.03.019