Simulation: Building Skills and Improving Outcomes

Curry J. Bordelon, DNP, MBA, NNP-BC, CPNP-AC, CNE

Katherine Dudding, PhD, RN, RNC-NIC

Curry J. Bordelon, DNP, MBA, NNP-BC, CPNP-AC, CNE, University of Alabama at Birmingham School of Nursing, Birmingham, Alabama, United States. E-mail: cjborde@uab.edu

Katherine Dudding, PhD, RN, RNC-NIC, University of Alabama at Birmingham School of Nursing, Birmingham, Alabama, United States. E-mail: kdudding@uab.edu

SIMULATION IS AN ESSENTIAL BUILDING BLOCK in nursing education. It provides a safe learning environment for the learner to develop skills and behaviors necessary for effective nursing practice. Simulation is utilized to build clinical skills, reinforce learning through practiced actions, increase self-confidence, and encourage effective team function.¹

Simulation is useful in preparing the learner for acute patient care, such as within the NICU. The learner is embedded in realistic NICU clinical scenarios to practice and enhance skills and actions, while competencies and skill readiness are assessed. A few examples of simulated activities within the NICU that can improve skills and patient outcomes are intubation, resuscitation and stabilization of an infant through the Neonatal Resuscitation Program (NRP) algorithm, mock codes, and difficult conversations.^{1–3}

Professional nursing organizations, such as the National Organization of Nurse Practitioner Faculty and the National League for Nursing, embrace the value of simulation in health care, and developed standards for simulation in nursing education and clinical practice.^{4,5} These standards are utilized for curriculum design to ensure content and hands-on student skill lab experiences maintain rigorous and high-quality education. The International Nursing Association for Clinical Simulation and Learning (INACSL) is the leading organization for simulation in education. The association developed the INACSL Standards of Best Practice: Simulation for

prebriefing and debriefing activities, simulation design and requirements, and evaluation to facilitate optimal learner outcomes.⁶

Despite the well-documented benefits of simulation and the professional standards, the translation of organized simulation experiences within the clinical setting is inconsistent. Perceived increased cost, workload, and laborious setup are potential barriers to simulation.⁷ Some health care facilities may incorporate simulation activities within the onboarding process for specific competencies, such as NRP. Other facilities may utilize simulation training for new nurses to prepare them for clinical practice within neonatal care environments, such as the NICU. However, simulation experiences beyond onboarding or the maintenance of skills for experienced nurses may be limited.

In neonatal care environments, opportunities exist for the frequent use of simulated experiences to maintain skills, support a culture of continued learning, and optimize patient care and safety. Meanwhile, the health care facility benefits by providing a low-cost simulation and acquiring a highly competent neonatal nurse.

The Academy of Neonatal Nursing is excited to introduce a series of articles in *Neonatal Network* focused on the incorporation of simulation into neonatal care. This series aims to provide resources to neonatal educators and clinicians to incorporate simulated experiences within the clinical setting, maintain relevant nursing skills, and improve patient outcomes. Topics for the series include

simulation basics, effective communication, competency-based learning activities, exemplars, and the use of other advanced technologies (i.e., telehealth) to provide low-cost, high-impact simulation experiences. Articles in the *Neonatal Network* series provide evidence-based approaches to incorporating simulation into the neonatal care environment.

This series is made possible, in part, by the dedicated work of the Neonatal Scholars Interest Group (NSIG), an independent group of neonatal nurses. The group consists of nurse researchers, clinicians, educators, and leaders dedicated to providing neonatal educational pearls, including simulation, to make a difference in the lives and outcomes of neonates.

ACKNOWLEDGMENTS

This work is a product of the collaborative efforts of the UAB School of Nursing and Neonatal Scholars Interest Group (NSIG). We would like to acknowledge the groups' dedication to making a difference in the lives of neonates.

REFERENCES

1. Cates LA. Simulation training: a multidisciplinary approach. *Adv Neonatal Care*. 2011;11(2):95–100. doi:10.1097/ANC.0b013e318210d16b
2. Haubner LY, Barry JS, Johnston LC, et al. Neonatal intubation performance: room for improvement in tertiary neonatal intensive care units. *Resuscitation*. 2013 Oct;84(10):1359–1364. doi:10.1016/j.resuscitation.2013.03.014.
3. Farra SL, Miller ET, Gneuhs M, et al. Disaster management: communication up, across, and down. *Nurs Manage*. 2017;48(7):51–54. doi:10.1097/01.NUMA.0000520720.78549.e4
4. National Organization of Nurse Practitioner Faculty. Simulation SIG. <https://www.nonpf.org/members/group.aspx?id=180524&hhSearchTerms=%22simulation%22>. Accessed May 21, 2020.
5. National League for Nursing. Successful simulation in nursing. <http://www.nln.org/centers-for-nursing-education/nln-center-for-innovation-in-education-excellence/institute-for-simulation-and-technology/simulation-education-solutions-for-nursing>. Accessed May 21, 2020.
6. National International Nursing Association for Clinical Simulation and Learning. INACSL Standards of Best Practice: SimulationSM. <https://www.inacsl.org/inacsl-standards-of-best-practice-simulation/>. Accessed May 21, 2020.
7. Smith TS, Dudding KM, Knight CC, et al. Back to basics: simulation in neonatal education. *Neonatal Network*. 2020;39(5):257–262.

Experts Needed.

Nurses are vital to our world's wellbeing. UVA's programs—ranked among the nation's top 3%—offer a world-class teaching approach in a setting that is as rigorous as it is life-changing.

Through a dynamic hybrid approach, neonatal and pediatric acute care nurse practitioner students can earn a specialty master's degree in as little as 21 months, log 600+ clinical hours, and ultimately realize the array of personal, professional, and financial benefits an advanced practice nursing degree brings.

Like never before, vulnerable patients need advanced practice experts to offer world-class care.

We'll help get you there.

UVA | SCHOOL of NURSING
nursing.virginia.edu/neonatal