

6th World Summit on Neonatology, Pediatrics and Developmental Medicine

April 29-30, 2025

Webinar

Rosemary M Malya RN, Clin Pediatr 2025, Volume 10

Effectiveness of simulation-based education on initial neonatal care knowledge among nursing students in Tanzania

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Statement of the Problem: Simulation-based education is an effective pedagogical method for improving nursing students' knowledge and quality care. However, traditional methods of auditorium lectures are widely conducted in nursing education in Low- and Middle-Income Countries like Tanzania. Such pedagogic provides students with theoretical knowledge yet limited hands-on exposure for clinical competence, thus, affecting professional integration of students and quality care delivery. The purpose of this study is to determine the effectiveness of simulation-based education on initial neonatal care knowledge among nursing students in Tanzania.

Methodology & Theoretical Orientation: A quasi-experimental with pre-post study design was employed. Ninety students from two nursing schools: forty-five students in urban school (intervention group), and forty-five in a rural school (control group) were purposively selected to participate in the study. Both students in the study groups received two-hour lecture on initial neonatal care. The students in the intervention group received two initial neonatal care scenarios: (1) initial neonatal care to a term normal healthy breathing neonate, (2) Initial neonatal care to neonates with difficulty breathing using a low fidelity Neonatal simulator. The pre-post test data was collected using structured questionnaire between March and June, 2023. Data was analyzed using descriptive statistics, independent t-test, and multiple linear model. Findings: The interventional group students showed a significant higher knowledge mean score on initial neonatal care $\beta C=7.6(6.8-8.4)$, $p < 0.001$. The effect size of the intervention was statistically significant $aDiD 3.0(1.8-4.1)$, p - value 0.001.

Conclusion & Significance: Simulation-based education improved students' knowledge in the interventional group compared to traditional lectures group. This approach could enhance learning outcomes in Tanzania's nursing education, addressing challenges related to shortage of skilled healthcare providers, and quality neonatal care. Further research is recommended to assess whether students can translate knowledge into skills practice.

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Biography

Rosemary has expertise in midwifery, educator, and researcher dedicated to improving maternal health and neonatal well-being. With a strong passion for teaching, she has spent years educating nursing students both in clinical settings and academic institutions. Her expertise extends to working closely with mothers in hospital settings, providing hands-on care and support during childbirth. Currently pursuing a PhD, her research focuses on simulation-based education on initial neonatal care among nursing students. Initial neonatal care involves evaluating a newborn's breathing at birth to determine the need for resuscitation, as well as essential interventions: drying, covering with warm clothing to prevent hypothermia. Recognizing the importance of hands-on exposure, she employs simulation-based education to enhance students' knowledge, and competence, ultimately preparing them for professional practice, and improving neonatal outcomes. Her research is guided by Jeffries P. (2005) framework, a well-established model for designing, implementing, and evaluating simulation-based learning.

Received: February 15, 2025; **Accepted:** February 16, 2025; **Published:** April 30, 2025
