



“From Mannequins to Mothers: Exploring Nursing Students’ Experiences with Simulation-Based Learning Prior to Labor Room Posting”

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Abstract: Simulation-based learning (SBL) has emerged as a transformative pedagogical strategy in nursing and midwifery education, particularly in preparing students for high-stakes clinical environments such as the labor room. The labor room is a complex, fast-paced, and emotionally charged setting that demands not only sound theoretical knowledge but also refined psychomotor skills, critical thinking, communication competence, and emotional resilience. Traditional clinical exposure alone has often been insufficient to ensure readiness among novice nursing students, leading to anxiety, lack of confidence, and compromised learning outcomes. In this context, simulation-based learning provides a structured, safe, and learner-centered approach to bridge the theory-practice gap before labor room posting. This review article explores nursing students’ experiences with simulation-based learning prior to labor room exposure, focusing on its impact on knowledge acquisition, skill development, confidence, clinical judgment, teamwork, and emotional preparedness. The article synthesizes findings from national and international literature, discusses theoretical underpinnings of simulation pedagogy, examines types of simulations used in obstetric education, and highlights perceived benefits, challenges, and future directions. The review underscores the importance of integrating simulation-based learning systematically into preclinical obstetric nursing curricula to enhance student readiness, patient safety, and quality of maternity care.

Keywords: *Simulation-based learning, labor room posting, obstetric nursing education, nursing students’ experiences, clinical preparedness, maternal health education*

Introduction

The preparation of nursing students for labor room posting is a critical component of obstetric and midwifery education. The labor room represents one of the most demanding clinical learning environments, characterized by unpredictable clinical scenarios, rapid decision-making, interdisciplinary collaboration, and intense emotional involvement of mothers and families. For undergraduate nursing students, first exposure to the labor room often evokes feelings of fear, anxiety, self-doubt, and performance pressure. These emotional responses may negatively influence learning, clinical competence, and patient safety if not adequately addressed during preclinical preparation.

Simulation-based learning has gained prominence as an innovative educational strategy that addresses the limitations of traditional teaching methods in nursing

education. Simulation allows learners to engage in realistic clinical scenarios using mannequins, task trainers, standardized patients, or virtual platforms, without risk to real patients. In obstetric nursing, simulation offers unique opportunities to practice essential skills such as abdominal examination, fetal heart monitoring, conduct of normal delivery, management of obstetric emergencies, newborn resuscitation, and therapeutic communication with laboring women.

Experiences with simulation-based learning before labor room posting play a pivotal role in shaping students’ clinical readiness, confidence, and professional identity. Understanding these experiences is crucial for educators to design effective simulation programs that align with learning objectives and clinical expectations. This review article aims to critically examine existing literature on nursing students’ experiences with simulation-based



learning prior to labor room posting and to highlight its educational significance in contemporary nursing education.

Concept of Simulation-Based Learning in Nursing Education

Simulation-based learning is an instructional approach that replicates real-world clinical situations in a controlled and interactive environment. In nursing education, simulation encompasses a range of modalities, from low-fidelity task trainers to high-fidelity computerized mannequins capable of mimicking physiological responses such as contractions, fetal heart sounds, bleeding, and maternal distress.

The pedagogical foundation of simulation-based learning is rooted in experiential learning theory, which emphasizes learning through experience, reflection, and application. Simulation enables students to actively participate in clinical decision-making rather than passively observe care delivery. It encourages critical thinking, problem-solving, and self-reflection through structured debriefing sessions. In the context of obstetric nursing, simulation-based learning serves as a preparatory platform where students can rehearse labor room procedures, understand clinical workflows, and internalize professional roles. It offers repeated practice opportunities, immediate feedback, and exposure to rare or high-risk scenarios that may not be consistently available during clinical postings.

Rationale for Simulation Before Labor Room Posting

Labor room posting is often the first encounter nursing students have with childbirth, a process that is both physiological and deeply emotional. Students are expected to demonstrate technical competence while maintaining empathy, respect, and effective communication with women in labor. However, limited clinical exposure, ethical concerns, patient privacy, and increasing patient loads restrict hands-on learning opportunities in real labor rooms. Simulation-based learning before labor room posting addresses these challenges by allowing students to familiarize themselves with the labor room environment, equipment, and procedures in advance. It reduces the initial shock and anxiety associated with first clinical

exposure. Simulation also ensures that students acquire baseline competencies before interacting with real patients, thereby enhancing patient safety and quality of care.

Furthermore, simulation promotes standardized learning experiences for all students, minimizing variations in clinical exposure due to differences in case availability. This consistency is particularly important in obstetric education, where learning opportunities can be unpredictable.

Types of Simulation Used in Obstetric Nursing Education

Simulation-based learning in obstetric nursing employs various modalities depending on learning objectives and available resources. Low-fidelity simulations involve simple models and task trainers used for practicing basic skills such as vaginal examination, perineal care, and suturing techniques. These simulations focus primarily on psychomotor skill development.

Medium-fidelity simulations incorporate mannequins with limited physiological responses and are often used to practice labor monitoring, fetal heart auscultation, and basic delivery procedures. High-fidelity simulations utilize advanced mannequins that can simulate contractions, vocal responses, bleeding, and fetal distress, creating highly realistic labor room scenarios.

Standardized patient simulations involve trained actors portraying pregnant women, enabling students to practice communication, counseling, and emotional support. Virtual simulations and computer-based platforms have also gained attention, especially during periods of restricted clinical access, such as the COVID-19 pandemic. These diverse simulation modalities collectively contribute to comprehensive preclinical preparation.

Students' Experiences of Skill Development Through Simulation

One of the most consistently reported experiences among nursing students is the enhancement of clinical skills following simulation-based learning. Students perceive simulation as a valuable opportunity to practice obstetric



procedures repeatedly until they achieve competence. Skills such as abdominal palpation using Leopold's maneuvers, identification of fetal position, monitoring uterine contractions, and assisting in normal delivery become less intimidating when practiced in a simulated environment.

Simulation allows students to make mistakes without fear of harming patients, which fosters active learning and skill mastery. Many students report that hands-on simulation sessions improve their hand-eye coordination, procedural accuracy, and familiarity with obstetric instruments. This experiential learning significantly enhances their confidence when transitioning to real labor room settings.

Impact of Simulation on Knowledge and Clinical Judgment

Simulation-based learning not only enhances psychomotor skills but also strengthens cognitive learning and clinical reasoning. Through scenario-based simulations, students are required to assess clinical cues, interpret findings, prioritize nursing interventions, and anticipate complications. These experiences promote deeper understanding of labor physiology and obstetric care principles.

Students often describe simulation as a bridge between theory and practice, enabling them to apply classroom knowledge to realistic clinical situations. Exposure to simulated obstetric emergencies such as postpartum hemorrhage, eclampsia, or fetal distress enhances their ability to recognize early warning signs and respond appropriately. This development of clinical judgment before labor room posting is critical for safe and effective nursing practice.

Emotional Preparedness and Reduction of Anxiety

Emotional preparedness is a significant aspect of students' experiences with simulation-based learning. Labor room posting can be emotionally overwhelming due to exposure to pain, blood, emergency situations, and the responsibility of supporting laboring women. Simulation provides a psychologically safe environment where students can acclimatize to these stressors gradually.

Studies consistently report that students experience reduced anxiety and fear after participating in obstetric simulations. Familiarity with the labor room setup, procedures, and expected roles helps students feel more prepared and confident. This reduction in anxiety positively influences learning engagement and performance during actual clinical postings.

Development of Communication and Teamwork Skills

Effective communication and teamwork are essential competencies in labor room practice. Simulation-based learning offers opportunities for students to engage in role-play, interdisciplinary collaboration, and therapeutic communication with simulated patients and team members. Students learn how to provide emotional support, explain procedures, and respond empathetically to laboring women and their families.

Team-based simulations also help students understand their roles within the healthcare team and develop skills in delegation, coordination, and mutual support. These experiences are particularly valuable in obstetric emergencies, where timely communication and teamwork can be lifesaving.

Role of Debriefing in Shaping Learning Experiences

Debriefing is a critical component of simulation-based learning and significantly influences students' experiences. Structured debriefing sessions provide opportunities for reflection, self-assessment, and feedback. Students often describe debriefing as a safe space to discuss emotions, clarify doubts, and learn from mistakes.

Through guided reflection, students gain insights into their strengths and areas for improvement. Debriefing enhances self-awareness, critical thinking, and professional growth. It reinforces learning objectives and helps students internalize lessons learned during simulation sessions.

Challenges and Limitations of Simulation-Based Learning

Despite its benefits, simulation-based learning is not without challenges. Students sometimes report initial discomfort or difficulty taking simulations seriously,



especially when realism is limited. Resource constraints, including high costs of equipment and limited faculty training, can affect the quality and accessibility of simulation experiences.

Time constraints within academic schedules may also limit the frequency and depth of simulation sessions. Additionally, simulation cannot fully replicate the emotional complexity and unpredictability of real labor room situations. Therefore, simulation should be viewed as a complementary strategy rather than a replacement for clinical exposure.

Implications for Nursing Education and Practice

The positive experiences reported by nursing students highlight the need for systematic integration of simulation-based learning into obstetric nursing curricula. Educators should align simulation scenarios with clinical objectives and ensure progressive skill development before labor room posting. Faculty development programs are essential to enhance the effectiveness of simulation facilitation and debriefing.

Institutional investment in simulation infrastructure can yield long-term benefits in terms of student competence, patient safety, and quality of maternity care. Incorporating students' feedback into simulation design can further enhance learning outcomes and satisfaction.

Future Directions and Research Recommendations

Future research should explore longitudinal outcomes of simulation-based learning on clinical performance and professional competence in obstetric nursing. Qualitative studies examining students' lived experiences can provide deeper insights into emotional and psychosocial aspects of simulation learning. Comparative studies between different simulation modalities may also inform best practices in obstetric education.

The integration of virtual and augmented reality simulations represents a promising direction, particularly in resource-limited settings. Emphasizing culturally sensitive and woman-centered care in simulation scenarios can further enhance relevance and impact.

Conclusion

Simulation-based learning before labor room posting plays a crucial role in preparing nursing students for the complexities of obstetric clinical practice. Students' experiences consistently highlight improvements in knowledge, skills, confidence, emotional readiness, and professional competence. By providing a safe and supportive learning environment, simulation bridges the gap between theory and practice and enhances readiness for real-world labor room challenges. Integrating high-quality simulation-based learning into obstetric nursing education is essential for developing competent, confident, and compassionate nurses capable of delivering safe and respectful maternity care.

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