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High-Fidelity Simulation Education and Clinical Judgment: New Nurses' Voices
Martha Kay Lawrence, PhD, RN, CCRN
School of Nursing, University of South Carolina, Aiken, Aiken, SC, USA
DeAnne K. Hilfinger Messias, PhD, RN, FAAN
College of Nursing, University of South Carolina, Columbia, SC, USA

Purpose:
With the increasing complexity of healthcare, new nurses face increasing challenges in transitioning from educational to professional practice settings. Development of sound clinical judgment skills may facilitate this transition and enhance the provision of safe, effective patient care. Nurses must be able to notice, interpret, and respond to patients’ conditions as well as anticipate and reflect on the results of their subsequent actions. Experience is critical in developing clinical judgment (Tanner, 2006). Given increased competition for clinical sites, a challenge for faculty is to provide meaningful practice experiences for nursing students. With 87% of 1060 programs reporting use of HFS as a substitute for, or adjunct to traditional clinical experiences, high fidelity simulation may provide high quality clinical experiences for nursing students (Gore & Thompson, 2016). There is a substantial body of literature documenting the effectiveness of HFS in enhancing student development of clinical judgment skills (Bussard, 2016; Fawaz & Hamdan-Mansour, 2016; Ironside & Jeffries, 2016; Lavoie, Pepin, & Cossette, 2017; Page-Cutrara & Turk, 2017; Victor, Ruppert, & Ballasy; 2017), yet there remains a significant knowledge gap regarding how students translate simulated learning to practice.

Methods:
The aim of this qualitative exploratory study was to enhance understanding of how new nurses (with one to three years’ professional experience) interpret the contribution of their HFS experiences as student nurses to their subsequent development of clinical judgment and the role of HFS learning in their transition to practice. Guiding questions were: 1) What were the perceptions of nurses with one to three years’ experience related to the contribution of HFS to their development of clinical judgment; 2) In what ways do these nurses believe HFS enhanced their ability to notice, interpret, respond to, and reflect on patient conditions and responses; 3) What specific aspects of HFS were regarded as most helpful in development of clinical judgment? The research protocol was reviewed and approved by the Institutional Review Board. The primary researcher recruited and enrolled a purposive sample of 20 BSN graduates from ten different nursing programs located in the southeastern United States. Demographic data revealed racial and ethnic proportions consistent with the region (University of Georgia Board of Regents Center for Health Workforce Planning and Analysis, 2010; Office for Healthcare Workforce Analysis and Planning in the South Carolina Area Health Education Consortium [AHEC], 2014). Data collection consisted of semi-structured individual interviews, ranging from 45 to 60 minutes. The primary researcher conducted and transcribed all audio-recorded interviews which enhanced ongoing engagement with the data. Two researchers independently coded two transcripts and then met to review, compare, and discuss their initial open coding. Following this review of the initial coding, both researchers independently coded the remaining transcripts and subsequently convened to discuss their coding and interpretation of the data (Saldana,
They identified three major themes in the data: 1) Acting in the role of the nurse in simulation learning enhanced students’ synthesis of knowledge from multiple sources; 2) Students identified specific learning advantages of HFS over the clinical setting; 3) Knowledge, skills, and attitudes gained through HFS translated to the student clinical experience and into practice.

**Results:**
New nurses described HFS experiences as enhancing their development of clinical judgment. They reported having taken on the role of the nurse in a safe environment enabled them to practice clinical judgment skills and noted that clinical practice settings seldom afforded the same opportunities because of patient safety constraints. They identified advantages of the HFS environment, including the ability to make mistakes without negative consequences to an actual patient and the faculty’s ability to pause the simulation and provide explanations that might not be possible in front of an actual patient. Although these nurses found “thinking aloud” in HFS as uncomfortable at the time, they now credited these experiences as enhancing their development of clinical judgment.

**Conclusion:**
In contrast to prior studies examining student development of clinical judgment skills in HFS, this research focused on new nurses’ recalled experiences and their reflections on how HFS contributed to the development of clinical judgment skills. Compared to clinical practice settings, unique benefits of HFS include the opportunity for the nursing student to take on the role of the nurse and make independent judgments. Students perceived the HFS environment as safe in that it eliminated the risk of harm to actual patients and allowed them to practice decision making in a supportive environment. Nurses related that HFS enhanced their ability to synthesize information learned from multiple sources and to notice, interpret, and respond to patient conditions. They recalled debriefing as contributing to their ability to reflect on patient conditions and their nursing actions. Participants recalled how the knowledge, skills, and attitudes learned in HFS related to their current realm of practice and enhanced their ability to skillfully perform clinical judgment and provide safe, effective care to patients.

**Title:**
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**Keywords:**
Clinical judgment, Simulation and Transition to practice

**References:**
Abstract Summary:
Research suggests high fidelity simulation (HFS) contributes to development of clinical judgment among nursing students. This research examined the translation of HFS educational experiences into nursing practice. Nurses reported educational HFS experiences as contributing to their ability to notice and respond to patient conditions and to prioritize and organize care.

Content Outline:
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1. Introduction: Clinical judgment is considered essential for both experienced and new nurses to provide safe and effective patient care.
   1. New nurses face an ever more complex health care environment.
2. Given the limitations of standard clinical education settings, high fidelity simulation (HFS) provides nursing students with expanded opportunities to apply clinical judgment skills.
3. There is a substantial body of literature on HFS and nursing students’ development of clinical judgment, yet a significant gap remains regarding translation of HFS-acquired clinical judgment skills into practice. New nurses have valuable insights into the effectiveness of nursing education and transition to practice.
4. The aim of this qualitative exploratory study was to examine nurses’ translation of knowledge gained in HFS to practice. Specific research questions were 1) What were the perceptions of nurses with one to three years’ experience related to the contribution of HFS to their development of clinical judgment; 2) In what ways do these nurses believe HFS enhanced their ability to notice, interpret, respond to, and reflect on patient conditions and responses; 3) What specific aspects of HFS were regarded as most helpful in development of clinical judgment?
5. Interviews were conducted with a purposeful sample of twenty nurses with one to three years of post BSN graduate experience. were interviewed with the aim of answering the following research questions: New nurses have valuable insights into aspects of nursing education that contribute to their development of clinical judgment as they transition to practice.

6. Each participant was interviewed and asked to reflect on their student HFS experience using a semi-structured interview guide. Following transcription, the data were open coded and initial themes identified. Second cycle coding was performed, and subsequent themes identified.

7. The following major themes emerged from the analysis: 1) Acting in the role of the nurse in simulation learning enhanced synthesis of knowledge from multiple sources; 2) HFS had specific advantages over the student clinical setting; 3) Knowledge, skills, and attitudes translated from the HFS setting to the student clinical experience and into practice.

2. HFS provides an environment of safety for students to practice higher order thinking skills such as clinical judgment. Additional advantages of HFS include opportunities for independent and collaborative decision making which may not be practical in the clinical setting. Nurses reported that they learned to prioritize multiple aspects of patient care as they honed their ability to notice and respond to patient conditions. Nurses noted that the debriefing process enhanced their ability to reflect on their actions and to synthesize knowledge from classroom, clinical, and simulation experiences. Nurse educators continue to face challenges in providing high quality practice experiences for students. HFS provides meaningful opportunities for students to gain valuable experiences with exercising clinical judgment.

**First Primary Presenting Author**

**Primary Presenting Author**
Martha Kay Lawrence, PhD, RN, CCRN
University of South Carolina, Aiken
School of Nursing
Assistant Professor, Simulation Coordinator
Aiken SC
USA

**Author Summary:** I have been a nurse since 1983 and have extensive clinical experience in acute and critical care nursing. I have been simulation coordinator at USCA since 2012. I have presented simulation related topics at the International Association of Clinical Simulation in Nursing 6 times. I presented at STTI research conference in 2015. I have three simulation related research publications.

**Second Secondary Presenting Author**

**Corresponding Secondary Presenting Author**
DeAnne K. Hilfinger Messias, PhD, RN, FAAN
University of South Carolina
College of Nursing
Emily Myrtle Smith Endowed Professor
Author Summary: Dr. Messias has extensive experience in global nursing and health and has developed and supervised community health worker interventions and research. These initiatives have targeted diverse populations across a variety of settings, ranging from rural Amazon villages to Texas Rio Grande Valley colonias and new immigrant communities in South Carolina. Her research focuses on improving access to and utilization of care among limited-English-proficient populations and enhancing the cultural and linguistic competence of healthcare providers.