Keep Calm and Simulate On: Faculty Experiences and Insights Into Implementing Best Practices in Simulation[1,2]

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A B S T R A C T

Nursing faculty struggle with simulation pedagogy as standards and best practices have only recently emerged. Recent groundbreaking research provides support for the acceptance of simulation standards across nursing programs. However, experts developed best practices under optimal conditions that can be challenging to implement under real-world conditions. Educators need examples of implementing standards to ensure high-quality simulation-based education. Keep calm and read on for a practical examination of simulation best practices and to learn strategies and tools for organizing simulated learning experiences.

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Introduction

In the past decade, nursing programs have been charged with the task of preparing larger numbers of students to fill projected gaps in the nursing workforce. However, nursing faculty struggle to provide students with learning experiences that support their transition into complex care environments as demands for increased enrollment collide with restrictions on clinical placements. In an environment where educators are expected to do more with less, faculty are looking to innovative pedagogies and technologies for the provision of quality clinical learning experiences. Specifically, high-fidelity simulation (HFS) has provided a viable solution to the growing challenges of providing clinical experiences to students in traditional care settings. The use of HFS in nursing education burgeoned as evidenced by the body of nursing research on simulation pedagogy. By 2010, Hayden's national simulation study affirmed that 87% of surveyed prelicensure nursing programs reported integration of simulation into their curricula.

As early adopters of innovation, nurse educators faced significant barriers to successful integration of HFS. For example, the majority of educators (81%) in Hayden's (2010) study reported that barriers in resources, time, professional development, and training inhibited their facilitation of high-quality simulation experiences. In addition, faculty were wary of HFS as early research was inconclusive and failed to demonstrate consistent and positive learning results (Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). Faculty questioned the efficacy of replacing learning in traditional clinical environments with simulation as some studies reported heightened levels of student anxiety during HFS that could contribute to negative learning outcomes (Blazeck, 2011; Walton, Chute, & Ball, 2011; Palethorpe & Wilson, 2011). In light of these issues, nursing faculty and experts called for the development of simulation standards and best practices. Simulation standards would help to build the science of nursing education and provide faculty with evidence-based guidelines to ensure positive and consistent learning experiences for students.

State of the Science: The Evolution of Best Practices in Simulation

Early simulation efforts focused on building collaborative learning environments and developing sound educational practices to ensure student support (Jeffries, 2012). Professional organizations, such as the National League for Nursing, hosted discussion forums where nurse educators were able to share simulation experiences and resources. In 2008, the National League for Nursing teamed with Laerdal Medical to launch the *Simulation Innovation Resource Center* to offer online courses and workshops for nurse educators. In addition, Jeffries' (2008) foundational work *Getting in S.T.E.P.*

with Simulations: Simulations Take Educator Preparation provided faculty with support to overcome financial and administrative barriers. As simulation resources began to proliferate and diversify, the need for a centralized and evidence-based set of standards became apparent.

With the release of results from the 2014 landmark simulation study by the National Council of State Boards of Nursing's, the conversation surrounding simulation best practices shifted again. Authors of the study urged educators to ensure quality learning with HFS through the adoption of standards developed by the International Association for Clinical Simulation and Learning (INACSL; Hayden et al., 2014). Initially released in 2011, the INACSL Standards of Best Practice: Simulation[SM] provide evidence-based practice guidelines for the design, implementation, and evaluation of simulation activities (INACSL, 2013). In 2015, INACSL released revisions that resulted in Standards I-IX that outline standards for simulation facilitation, debriefing, participant assessment, and learning evaluation. However, as INACSL simulation standards are relatively new, faculty are in need of examples demonstrating their practical application.

Defining the Current Problem

Nursing faculty can ensure outcomes of HFS that support student learning in a safe and collaborative environment by building awareness of sound educational practices. Teaching and learning examples that apply INACSL standards provide faculty with a foundation for simulation decisions, actions, policies, and procedures supported by research evidence. The adoption of INACSL Standards of Best Practice: Simulation help ensure efficacy in the efficient and effective delivery of HFS learning experiences. By reading this article, faculty will gain insight into the organization, preparation, and structuring of simulation experiences in consideration of INACSL best practices. Faculty will be better equipped with tools to ensure optimal learning conditions exist for students with use of simulation pedagogy in a real-world setting. Keep calm and read on to gain insight into the development of quality simulation learning experiences.

Preparation: Implementing Best Practices Before the Simulation Experience

Faculty must consider a variety of issues when preparing students for simulation. The following interventions focus on organizational interventions performed prior to the simulation activity. Although the example and materials provided relate to maternal–child health nursing, resources have successfully been adapted to fit a variety of clinical specialties at a prelicensure baccalaureate nursing program in the northern United States. Faculty may utilize templates to develop their own clinical scenarios or to customize standard scenarios available for purchase.

Keep Calm…and Plan

Orienting learners to the simulation environment and leading an effective prebriefing session requires faculty planning. INACSL Standards of Best Practice: Simulation, Standard II Professional Integrity of Participants and Standard III Participant Objectives discuss that scenario development begins with creation of detailed learning objectives (Gloe et al., 2013). Educators should begin the process of scenario development by creating learning objectives based on specific course objectives and outcomes (Mahoney, Hancock, Iorianni-Cimbak, & Curley, 2013; Oermann & Gaberson, 2014). Clearly written simulation objectives offer a framework for providing learner feedback and preparation and are essential in assessment and determination of outcome achievement (INACSL). In the provided example, faculty

designed maternal–child health learning objectives to coincide with and performance and evaluation measures of prelicensure junior nursing students. Simulation objectives focused on the nursing role of data interpreter, coordinator of care, and director of communication. Objectives were written in congruence with INACSL criterion-addressing domains of learning, corresponding to the participant's knowledge level and experience, congruent with program outcomes, and appropriate to the simulation timeframe (Gloe et al., 2013).

In addition, faculty decided to create a preparation guide for students that would also serve to organize and structure prebriefing activities as outlined by best practices in INACSL Standards of Best Practice: Simulation, Standard IV: Facilitation (Franklin et al., 2013). Fig. 1 provides an example of the student preparation guide crafted for use prior to a postpartum hemorrhage scenario. Students were given the guide a week prior to the simulation experience so that they could review the defined objectives. Faculty also used the guide to lead a prebriefing session on the day of the scheduled simulation experience. The prebriefing session helped to set simulation expectations by clarifying learning objectives, skills necessary for success, and evaluation of learning (Franklin et al., 2013). Educators also followed prebriefing best practices by familiarizing students with equipment in the simulation room, reviewing use of communication tools such as the Situation, Background, Assessment, and Recommendation (SBAR) form, and providing time for planning care.

Get Organized…and Carry On

Prior to hosting a prebriefing and orientation session, educators must develop an organized simulation guide. Faculty can begin this process by selecting patient information for inclusion on student preparation materials in consideration of the clinical level of the student (Lioce et al., 2013). During the creation of the maternal–child health preparation guides, faculty carefully examined clinical reasoning skills of junior students to balance complex clinical aspects of the nursing role including planning care based on assessments, orders, and chart review. In the hospital setting, educators instruct students on the process of organizing care while administering medications, performing bedside interventions, reviewing patient charts, and formulating appropriate nursing diagnoses. Best practices suggest that simulation preparation should include these same elements of student-centered support and preparation (Lioce et al., 2013). Creating organized student preparation materials enables educators to construct a realistic clinical learning experience that mirrors care planning in the clinical setting.

The preparation guide differs from the simulated patient chart in that faculty chose narrowed content for inclusion to direct the student's clinical reasoning without revealing specific scenario elements or outcomes of simulation. Detailed in Fig. 1, information revealed to students in the guide included history, prenatal risk factors, and labor and delivery data that contributed to the patient's increased risk for postpartum hemorrhage. Faculty incorporated Socratic questioning methods into preparation materials with inquiries relating to nursing orders and pertinent postpartum medications. Faculty chose to list resource references to direct student research and assigned preparation questions as homework during orientation the week prior to the event. Again, educators aimed to direct the development of clinical reasoning during the critical process of planning care.

Through the development of a preparation guide, educators can organize the prebriefing orientation and implement simulation best practices that consider learning needs of participants. However, faculty should not aim to remove all student stressors during the orientation process, as an optimal level of stress promotes student learning. Prebriefing provides faculty with an opportunity to establish simulation as a safe and controlled environment in which