Featured Article

Debriefing Virtual Simulation Using an Online Conferencing Platform: Lessons Learned

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Abstract: Debriefing is a critical conversation following simulation to reframe the context of a situation, facilitate students' reflection, assess critical thinking, evaluate learning, and improve future performance. However, there is a significant gap in the literature regarding how to effectively debrief following immersion in virtual simulation. The International Nursing Association for Clinical Simulation and Learning (INACSL) *Standards of Best Practice: Simulation[SM] Debriefing* (2016) were developed to support effective simulation and learning when incorporated with design and development; yet, debriefing for virtual simulation may not have been fully conceptualized when the standards were established. Alternative debriefing methods specifically aimed at debriefing virtual simulation must be explored and implemented in order to ''enhance learning and heighten participant self-awareness and self-efficacy'' (INACSL Standards Committee, 2016, p. S21). This article provides an example of how a synchronous, Web-based Internet conferencing platform was used to conduct debriefing sessions following immersion in an asynchronous virtual learning environment with family nurse practitioner students in an online graduate program. The lessons learned and recommendations are generalizable for all simulation populations.

Debriefing allows learners to reframe the context of a situation and clarify perspectives and assumptions (National League for Nursing [NLN] Board of Governors, 2015). This reframing is the goal of every faculty−student interaction (Benner, Sutphen, Leonard, & Day, 2010; Edgecombe et al., 2013). Effective faculty-led debriefing fosters high participant engagement that allows students to explore and analyze actions and thought processes as well as emotional responses to the simulated scenario (Fanning & Gaba, 2007; Kolbe, Grande, & Spahn, 2015). By providing an active learning opportunity whereby the students and faculty actively examine the simulation, debriefing promotes the development of clinical reasoning and critical thinking through a reflective learning process (Dreifuerst, 2009). Experts further suggest that debriefing yields better retention, deeper learning, and increases the likelihood of the transfer of new or reinforced knowledge, skills, and abilities to the clinical or broader health care setting (Decker et al., 2013; INACSL, 2016).

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During the debriefing process, students reflect on the simulation experience and revisit assessments, interventions, observations, and patient responses (Decker et al., 2013). The debriefing facilitator coaches students to review the patient data and reflect on the interventions performed in response to the clinical situation presented during the simulation experience. This process facilitates the learner to analyze decisions and allows the educator an opportunity to promote transfer of knowledge gained from simulation experiences to actual clinical practice.

> **Key Points**
> - Debriefing promotes the development of clinical reasoning and critical thinking through a reflective learning process.
> - To encourage broader adoption of debriefing across the nursing education, it is essential to disseminate knowledge and understanding gained through experience.
> - Effective debriefing is achievable using an online conferencing platform.

Setting

The Virtual Learning Lab and WebEx

The Virtual Learning Lab (VLL) was a year-long pilot project to examine the feasibility of offering students an immersive clinical practicum experience conducted using a virtual learning environment (VLE) as an alternative to an on-ground traditional clinical site. In the VLL, competency-driven learning activities took place in a standardized VLE that supported consistency between student experiences as well as the opportunity to gauge performance. Students interacted with virtual patients and participated in concept labs that simulated real-life clinical experiences. In this way, the VLL allowed students to demonstrate achievement of clinical learning objectives and program outcomes. The VLL ensured students the opportunity to explore, analyze, and manage chronic health conditions frequently encountered in the primary care setting.

At the beginning of the VLL, students received orientation to the Shadow Health (SH) virtual learning platform (https://shadowhealth.com). Digital clinical experiences are online simulated patient encounters that allow family nurse practitioner students to demonstrate and perfect clinical reasoning skills through life-like interactions with standardized virtual patients. Students completed clinical simulations in which they interacted with multiple virtual patients. Utilizing a natural language interface embedded in SH's virtual learning platform, students engaged in open-ended conversations to gather subjective data and practice patient-centered communication. Students performed tests and used instruments to gather and then record objective patient data as well as synthesized findings and compared documentation with an exemplar or model note. Performance was partially measured using SH's digital clinical experience score that took into account subjective data collection, objective data collection, education/empathy, and information processing per assignment and was highly correlative for grading. Students were also provided individualized feedback from a VLL faculty preceptor. SH incorporates postsimulation critical thinking questions and self-reflective journaling to support the development of clinical reasoning skills. Learning was further demonstrated and enhanced through synchronous online debriefing sessions using WebEx, an on-demand, collaborative, online conferencing system and videoconferencing tool. WebEx features interactive capabilities such as screen sharing, the ability to annotate documents and write on a virtual whiteboard, as well as the option to join meetings from a computer, smartphone, or tablet. Although WebEx can be used to record meetings, the debriefing sessions were not recorded. Additionally, debriefing sessions were led by the same faculty preceptor who reviewed and provided feedback to students in SH.

Background

Debriefing Model and Framework

The primary function of a planned debriefing following a simulation-based learning experience is to promote reflective thinking (Decker et al., 2013). Various debriefing models are in common use. Dreifuerst developed Debriefing for Meaningful Learning$^{©}$ (DML), a method of structured reflective debriefing that has been studied in simulation research with regard to clinical reasoning (Dreifuerst, 2015). The DML is intended to "guide learners through a process of reflecting on and explaining their thinking within the context of their experience, making known the reasoning and knowledge behind their actions" (Dreifuerst, 2015, p. 268). The DML was used as the conceptual model for debriefing following simulation in the VLL. The following four essential components of a virtual learning simulation (McGonigle & Mastrian, 2017) were incorporated to further refine and structure the framework: pre-brief, enactment, debrief, and assessment.

Pre-brief

Prior to beginning any simulation experience, it is important to provide the learners with an overview of the activity, an orientation to the environment, and an establishment of ground rules (Meakim et al., 2013). Students should receive pertinent information regarding the simulation activity, including goals, objectives, and virtual learning outcomes, related course/program outcomes, and related competencies. Students must be provided with unambiguous, easy to understand instructions including how to prepare for the activity, what is expected, provided with the background necessary to be able to fully enact their role in the activity, and specifics about how their performance will be evaluated. Students must also be given the parameters within which the learning activities must be completed.