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Featured Article

Asynchronous Online Debriefing with Health Care Workers: Lessons Learned

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virtual reality simulation;
debriefing;
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online learning

Abstract

Background: This article describes how monitored asynchronous online debriefing was performed with health care workers who were part of a larger study that examined the effect of virtual reality simulation (VRS) on evacuation of neonates by workers.

Method: Asynchronous online debriefing was performed with VRS participants (N = 34). An analysis of discussion board postings was completed. Also, two focus groups provided supplementary data associated with this debriefing experience.

Results: Participation rates from VRS one to VRS four debriefing ranged from 72% to 53%. Responses were focused more on the VRS format than on participant learning.

Conclusions: Monitored online asynchronous debriefing can be beneficial to participants. Clear instructions, facilitator monitoring, and participant commitment are needed for success.

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Virtual reality simulation (VRS) is steadily increasing as a method of training for both health care workers and students. One of the advantages of VRS is the ability for participants to access the simulation asynchronously. The independent interaction and the potential to access the simulation from any computer lead to debriefing challenges. Most VRS can provide the participant with performance-based feedback, in the form of a report, but richer reflection may pose a challenge. Owing to the greater prevalence of VRS for training of health care workers and paucity of literature pertaining to asynchronous debriefing, additional investigation is needed. The purpose of this article is to describe how monitored asynchronous online debriefing was performed with health care workers who were part of a larger study that examined the effect of VRS on evacuation of neonates by workers. Within this study, debriefing was an evolving process that incorporated performance feedback and monitored discussion boards (DBs).

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Background

According to The International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Simulation Practice (2016), debriefing is a critical aspect of the simulation experience. Debriefing after simulation provides the opportunity for self-assessment and peer evaluation by giving feedback to others (Decker et al., 2013; Grant, Dawkins, Molhook, Keltner, & Vance, 2014). Edgecombe et al. (2013) further assert that within the process of debriefing, learning is maximized by linking theory to practice along with encouraging reflection, critical thinking, and clinical reasoning. The literature reveals that debriefing techniques are varied with a wide range of execution strategies in health education (Levett-Jones & Lapkin, 2014; Krogh, Bearman, & Nestel, 2015). Debriefing is an "integral part of the experience and creates the platform where critical thinking and learning integration takes place" (Levett-Jones & Lapkin, 2014, p. 1). Even though debriefing is recognized as a pivotal practice component after simulation, the research remains limited, and conflicting evidence exists pertaining to the best approach (Hall & Tori, 2017, Rojas, Parker, Schams, & McNeill, 2017; Jeffries, 2016).

Key Points

- Using a specific debriefing method facilitated the online debriefing process.
- Online asynchronous debriefing may be affected by the participants' learning style, rapid pace in which they performed the timed virtual reality simulations (VRSs), disconnect between feedback received and wanted, and lack of the requirement for health care workers to complete the asynchronous debriefing after viewing the VRSs.
- Keep the number of VRS debriefing questions to a minimum (e.g., four).

When working with VRS in a hospital setting, debriefing must be a fundamental component of the experience. Yet, it presents unique challenges in getting health care professionals to participate and be candid. Moreover, debriefing in a hospital clinical event may be difficult to implement because of the uncertainty of when it will occur, the nature of the events debriefed, and the time pressure of the clinical environment (AHRQ, 2016). Despite these issues, experts agree that clinical event briefing can be performed quickly using a simple approach and still be effective.

In high-fidelity simulation experiences, debriefing is an integral component. Verbal debriefing tends to be the most common didactic approach led by a clinical facilitator, whereas video-assisted verbal debriefing (VA + V) incorporates video playback of portions of the simulation combined with verbal discussion (Chronister & Brown, 2012). With VA + V, there is the incorporation of visual reinforcement to the experience, but this adds more time and equipment to execute (Chronister & Brown, 2012). Studies that have examined the difference in performance and knowledge currently suggest that the VA + V and verbal discussion alone yield similar outcomes in terms of performance and knowledge (Cheng et al., 2014). Chronister and Brown (2012) discovered that VA + A positively affected nursing skills and response times for their participants, whereas verbal debriefing only positively affected knowledge retention. Other researchers (Grant et al, 2014; Reed, Andrews, & Ravet, 2013), on the other hand, found these outcomes comparable for VA + A and V alone. In addition to VA and V debriefing, written responses may be used in debriefing.

Written debriefing provides greater opportunities to deliberate and reflect than discussion alone (Van der Meij & Li, 2013). In addition, journaling can stimulate a deeper processing of experiences through personal reflection and reframing of events (Decker & Dreifuerst, 2012). In this study involving online students at three different universities, Oertig (2010) found that written debriefing was more interactive, provided more in-depth reflection, and an improvement over verbal feedback. Oertig (2010) observed that women had a different response to debriefing than their male participants. Given the millennial generation being more accustomed to internet access, Wieck (2011) further contends they are more likely to gravitate to this type of interaction.

In another study of undergraduate nursing students, Reed (2015) discovered that these students preferred debriefing with discussion only rather than debriefing with a written component (i.e., journaling vs. blogging). However, limitations of this study included a small sample of nursing students and the written debriefing occurred over two days rather than immediately after the experience. The study participants who blogged indicated that "blogging was not helpful and really annoying" (Reed, 2015, p. 547). Findings highlight the importance of further research to either support or refute the value of written debriefing, especially when it is performed asynchronously and with diverse groups such as experienced health care workers.

Study Design

This descriptive study evaluated VRS participant's asynchronous online debriefing including quantity and content of posts. Data from two focus groups which asked two questions specifically related to the debriefing experience were also qualitatively analyzed. The two focus groups were part of a larger intervention study consisting of a series of four scaffold VRS scenarios focusing on preparation of health care workers for the evacuation of a neonatal intensive care unit (NICU) in a large Midwest children's hospital.