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Featured Article

Virtual Gaming Simulation: Exploring Self-Debriefing, Virtual Debriefing, and In-person Debriefing

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Abstract

Background: Best practice guidelines exist for debriefing, but only a little is known on how these align with the unique attributes of virtual simulation. This study explores self-debriefing, virtual debriefing, and in-person debriefing methods after a virtual gaming simulation.

Methods: A focus-group-study methodology was employed with a convenience sample of 24 nursing students. The study was theoretically informed by the 3D Model of Debriefing.

Results: Study results were categorized according to four thematic areas including defusing, discovering, deepening, and environment.

Conclusion: This study provides insight into design and implementation of various debriefing formats using the unique features of virtual simulation.

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Debriefing is central to the simulation learning experience in nursing and health professions education (Decker et al., 2013; Verkuyl, Lapum, St-Amant, Betts, & Hughes, 2017b). Debriefing enhances learning by providing opportunity for reflecting one's experiences and decision-making, identifying gaps in knowledge, and transferring knowledge to practice (Al Sabei & Lasater, 2016; Decker et al., 2013). However, much of the debriefing research is carried out in the context of in-person simulation. The unique attributes of virtual simulation require careful consideration in the debriefing process (Verkuyl et al., 2017b). One of the attributes is individual reflection, the ability to repeat the experience and analytics that can be included in the debrief phase. At this time, there is no clear understanding of how these attributes influence the debriefing process.

Key Points

- The expansive uptake of virtual simulation in health care education calls for innovative debrief formats and designs.
- Learning and reflection occurred in self-debrief, virtual debrief, and in-person debrief after a virtual gaming simulation.
- Deep and authentic reflection occurred with self-debriefing, providing opportunity to analyze one's own decision-making without being influenced by others.

We conducted a focus-group study to explore the impact of three debriefing formats (in-person, virtual, and self) after a virtual gaming simulation (VGS). In this article, we present the study's focus-group findings that provide insight into how student reflection unfolds within these debriefing methods.

Background

Well-established standards for debriefing include competent facilitators familiar with the simulation, safe and supportive learning environments, theoretically informed debriefs, and congruence with simulation learning outcomes (INACSL Standards Committee, 2016). These standards are supported by recent literature reviews (Hall & Tori, 2017; Levett-Jones & Lapkin, 2014), but only a little is known about how these best practices are aligned with the unique attributes of virtual simulations.

There has been exponential increase in the creation and study of virtual simulation platforms across health care disciplines (Cobbett & Snelgrove-Clarke, 2016; Darragh et al., 2016; Foronda, Gattamorta, Snowden, & Bauman, 2014; Lapum et al., 2018; Verkuyl, Atack, Mastrilli, & Romaniuk, 2016). However, the inclusion of debriefing is only noted in a few studies (Foronda et al., 2014; Mathew, Brewer, Crist, & Poedel, 2017). When debriefing is noted, it is an assumed activity, and few details are provided. In a previous study evaluating the effectiveness of VGS, we found participants using focus groups to debrief their simulation experience (Verkuyl et al., 2017a). Gordon (2017) provided a commentary of his design and implementation of web-based conferencing to debrief asynchronous virtual simulations. Gordon recommended a maximum of 10 students per group, facilitation by faculty members, and offering multiple time slots for timely debrief. Alternatively, in the in-person simulation context, two studies highlighted that self-debriefing provided similar educational outcomes compared with facilitator-led debriefing (Boet et al., 2011; Oikawa et al., 2016).

It is unclear what types of debriefing methods are most effective for virtual simulation. In the virtual environment, facilitators may not be participating in the simulation, and there is less control over the timing of debriefs. This study presents considerations in debrief design which address the unique features of VGS learning, such as asynchronous content delivery and increased accessibility for learning.

Study Intervention

First-year baccalaureate nursing students played a VGS (see https://de.ryerson.ca/games/nursing/mental-health/game.html#/), assuming the nursing role in a home visit focusing on the assessment of mental health and interpersonal violence. Film clips provided realistic images of the clinical setting in which the student was prompted to make decisions from the health care provider's perspective. During the simulation, students were offered different choices on how to proceed while collecting assessment data, making intervention decisions, and experiencing the consequences of their choices. Students were provided with immediate feedback and rationales related to their decisions. After completing the 13 decision points, students received an autogenerated, individualized summary report of their decisions with feedback. Within 72 hours, students attended a randomly assigned debrief: self-debrief (SD), facilitator-led in-person debrief (IP), or facilitator-led virtual debrief (VD). The SD was a document with the same debriefing questions as the other groups. The student was required to write or type their responses. Faculty members with simulation experience, who attended the study's debriefing training, led the facilitator-led debriefs. The same question guide based on the 3D Model of Debriefing was used in all debriefs (Table).

Students were oriented to the VGS and debrief process and were instructed to bring their summary report to the debrief session. Although the VGS and debrief were course-mandated activities, study participation was voluntary.