



Debriefing is Missing Loop of Simulation-Enhanced Clinical Education: Prescription for Best Practice

Toktam Masoumain Hosseini ^{1,2,*} and Soleiman Ahmady ¹

¹Department of Medical Education, Virtual School of Medical Education & Management, Shahid Beheshti University of Medical Sciences, Tehran, Iran

²Department of Nursing, School of Nursing and Midwifery, Torbat Heydariyeh University of Medical Sciences, Torbat Heydariyeh, Iran

*Corresponding author: Department of Medical Education, Virtual School of Medical Education & Management, Shahid Beheshti University of Medical Sciences, Tehran, Iran. Email: masoumiyan.mohsen@gmail.com

Received 2022 April 18; Accepted 2022 May 07.

Keywords: Debriefing, Simulation-Enhanced Clinical Education, Best Practice, Prescription

Dear Editor,

Nursing programs are turning to screen-based virtual simulations and other innovative alternatives to traditional clinical courses to address educational constraints resulting from COVID-19 (1). In response to urgent learning needs, the producers of screen-based virtual simulation resources provide discounted access to valuable online resources to provide distant learners with virtual learning opportunities that would not otherwise have been integrated into the program curriculum (2). Students may lose out on important opportunities for learning if a robust debriefing is not considered part of the experience. Research in simulation has generated a body of knowledge stating the necessity for post-simulation debriefing, which cannot be ignored in times of crisis (3).

After we have paused to reflect on how a robust debriefing of the alternate virtual learning activities is necessary in conjunction with current simulation best practices and regulatory recommendations, we should pause, reassess, and return to the undeniable evidence that shows how active learning occurs with alternate virtual learning activities. In the future, we need to go back and review our hurried solutions and ensure adherence to best practices in online education, simulation, and debriefing, in both prelicensure and graduate programs (4). No matter how nursing education is delivered online, a primary objective is to teach students how to think like a nurse. The debriefing process increases students' ability to develop clinical reasoning and clinical judgment, which are critical for thinking like a nurse. Debriefing has traditionally been done through face-to-face conversations after simulations or when patients are treated in traditional settings, but the current pandemic makes a virtual format necessary (5). Due to the recommendations for the use of de-

briefing across nursing curricula (NLN Board of Governors, 2015), debriefing is now being considered the most crucial aspect of learning in higher education. By debriefing, students can develop their clinical reasoning through reflection and metacognition. Students can critically think and intervene in complex situations through effective debriefings, which connect theory to practice and research (6).

Since these initiatives were quickly converted into distance learning activities, many students were given virtual clinical experiences they completed independently without discussing or receiving feedback from faculty (7). Due to the race to provide distance learning quickly, many faculty members have adopted reflective journals and guided questions submitted to written discussion boards through learning management systems as a way for students to reflect upon virtual learning. These strategies are not new to nursing education, and while they can be valuable tools for directing students to think about their individual reactions to experiences, they are not a replacement for faculty-led, verbal, interactive, and reflective discussions. Instead, the rich dialog that defines debriefing as a dynamic, two-way conversation is absent, leaving students without this valuable opportunity for faculty-led reflection and anticipation (8).

Debriefing, however, cannot be taken lightly and demands energy and intention from the faculty, particularly in the current crisis. Debriefing dialogs allow faculty and students to see the thought processes of students, which promotes deeper learning (9). The debriefing process enables students to gain insight into a teacher's love of nursing and their expertise as a teacher. Faculty members need to connect with students on a deeper level to create meaningful learning through verbal interaction, as students and faculty alike are becoming overloaded with time spent on screens (8). Debriefing is a reflective, engaging,

and informative dialog that can help faculty understand the learners' thinking, help the students confirm or correct their thinking, and cultivate anticipation and assimilation. Debriefing is not always a solo activity with prescriptive questions asking what went well, what went wrong, what you learned, and how you feel. Without the conversation, the learning opportunity is lost (9).

The Best Practices for the Debriefing Phase of Simulation-Based Education

Facilitator of the debrief: It is standard practice in simulation that educators observe the simulation and then debrief it: Observing guides the facilitator on how to evaluate participants' actions, judgments, and decisions. The person who observes the clinical experience must prepare simulation debriefing to close the gap between desired and actual performance (4).

Learning outcomes identification: A debrief should be based on the learning outcomes of the simulation experience (7). These set the expectation for the debrief and define the standard of performance expected of the learners. Defining learning objectives before the simulation and reviewing them during debriefing provides the student with a focused and profound learning experience (9).

The environment in which the debrief is conducted: As experiential learning is known to cause anxiety in learners, it is essential to provide a safe environment for debriefing (4). There is an expectation of confidentiality during simulation scenarios, participant actions, and debriefing discussions. Rules of conduct should also specify constructive, honest, and respectful feedback (9).

Debriefing method: Numerous debriefing models exist, although a lack of research into this topic prevents the establishment of the best model (7). Clearly, debriefing should be based on a structured framework; it should allow learners to move through the identified phases of debriefing: Reaction, analysis, and summary, or any other similar phases and frames that students may encounter during debriefing. For example, defusing emotions and reactions, exploring alternatives for responses, and deepening through connecting to new knowledge is the critical point of the 3D model (4).

Facilitator training for the debriefing process: Those who facilitate debriefings need to diagnose the learning needs of participants and adjust their level of facilitation accordingly. They should be adequately trained and assessed (4).

Format of debriefing: By analyzing six randomized controlled studies, Levett-Jones and Lapkin (2014) found no evidence that video-assisted debriefing leads to better learning outcomes than facilitator-only formats (10).

Comparing the Simulation Debriefing and Post-simulation Debriefing

A study conducted by Van Heukelom et al. randomly assigned 161 third-year medical students to two groups: Sim-

ulation debriefing and post-simulation debriefing. Both groups showed significantly higher knowledge and confidence levels post-stimulation than pre-stimulation on a Likert-scale survey. Nevertheless, the post-simulation group reported that the learning process was more effective, and they understood how to perform correct and incorrect actions better. The debriefing that occurs after a simulation is more effective than the one that occurs during the simulation ($P = 0.001$), indicating that post-simulation debriefing is more effective (5).

No one can deny that simulation-based learning contributes to developing critical skills in clinical reasoning and critical thinking. A debriefing follows the main simulation exercise and possibly is the most critical component.

Footnotes

Authors' Contribution: T.M.H. and S.A. participated in conceptualizing, designing, and drafting the manuscript.

Conflict of Interests: The authors declare no conflict of interests.

Funding/Support: There was no funding.

References

1. Fogg N, Wilson C, Trinka M, Campbell R, Thomson A, Merritt L, et al. Transitioning from direct care to virtual clinical experiences during the COVID-19 pandemic. *J Prof Nurs.* 2020;**36**(6):685–91. [PubMed: 33308572]. [PubMed Central: PMC7540562]. <https://doi.org/10.1016/j.profnurs.2020.09.012>.
2. Tabatabai S. COVID-19 impact and virtual medical education. *J Adv Med Educ Prof.* 2020;**8**(3):140–3. [PubMed: 32802908]. [PubMed Central: PMC7395196]. <https://doi.org/10.30476/jamp.2020.86070.1213>.
3. Cantrell MA. The Importance of Debriefing in Clinical Simulations. *Clin Simul Nurs.* 2008;**4**(2):e19–23. <https://doi.org/10.1016/j.ecns.2008.06.006>.
4. Decker S, Fey M, Sideras S, Caballero S, Rockstraw L, Boese T, et al. Standards of Best Practice: Simulation Standard VI: The Debriefing Process. *Clin Simul Nurs.* 2013;**9**(6):S26–9. <https://doi.org/10.1016/j.ecns.2013.04.008>.
5. Van Heukelom JN, Begaz T, Treat R. Comparison of postsimulation debriefing versus in-simulation debriefing in medical simulation. *Simul Healthc.* 2010;**5**(2):91–7. [PubMed: 20661008]. <https://doi.org/10.1097/SIH.0b013e3181be0d17>.
6. Erlam GD, Edgecombe K, Seaton P, Monahan K, Meyer S, LePage S. *Clinical Simulation in Nursing: A literature review and guidelines for practice.* Wellington, New Zealand: Ako Aotearoa; 2013.
7. Verkuyl M, Lapum JL, St-Amant O, Betts L, Hughes M. An Exploration of Debriefing in Virtual Simulation. *Clin Simul Nurs.* 2017;**13**(11):591–4. <https://doi.org/10.1016/j.ecns.2017.08.002>.
8. Verkuyl M, Atack L, McCulloch T, Liu L, Betts L, Lapum JL, et al. Comparison of Debriefing Methods after a Virtual Simulation: An Experiment. *Clin Simul Nurs.* 2018;**19**:1–7. <https://doi.org/10.1016/j.ecns.2018.03.002>.
9. Mariani B, Cantrell MA, Meakim C, Prieto P, Dreifuerst KT. Structured Debriefing and Students' Clinical Judgment Abilities in Simulation. *Clin Simul Nurs.* 2013;**9**(5):e147–55. <https://doi.org/10.1016/j.ecns.2011.11.009>.
10. Levett-Jones T, Lapkin S. A systematic review of the effectiveness of simulation debriefing in health professional education. *Nurse Educ Today.* 2014;**34**(6):e58–63. [PubMed: 24169444]. <https://doi.org/10.1016/j.nedt.2013.09.020>.