

Integration of Peer-Reviewed Journal Discussion into Structured Debriefing in Nursing Simulation: Nursing Students' Perceptions

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Abstract:

Purpose: Research strongly supports the use of structured debriefing in nursing simulation because it fosters meaningful learning and promotes the use of critical thinking, cognitive skills, and collective reflection among nursing students. Although there is a wide spectrum of strategies to debriefing in the literature, research into the best design of structured debriefing to maximize students' learning outcomes have been substantially unexplored. There is substantial need for research on the most effective strategies of structured debriefing because learning outcomes are determined by the extent to which best practices in education are incorporated into the design and implementation of simulation. Therefore, further qualitative evidence is needed to address the gap in the literature on the best practices for structured debriefing and how it may be conducted to substantially impact the students' learning outcomes and experience. This study explored the effect of integrating peer reviewed journal discussion to the structured debriefing model on nursing students learning outcomes and experience in nursing simulation.

Methods: A focus group qualitative study was conducted with a purposive sample of 18 second-year students of an undergraduate nursing degree. Data were analyzed using a qualitative thematic analysis approach.

Results: Participants perceived that adding peer-reviewed journal discussion into structured debriefing resulting in developing better perspectives and insight into up-to-date information on clinical practices, supported evidence-based learning, critical thinking, and simulation preparation. Moreover, they perceived that this model of structured debriefing played an important role in facilitating communication and supporting active engagement between peers to peers, and students-to-faculty during simulation debriefing

Conclusion: Using peer-reviewed journal during structured debriefing is an innovative teaching strategy to support students in developing better perspectives, evidence-based learning, critical thinking, students' preparation toward learning, and promoting communication. Findings from this study can catalyze additional supports and guidance for nursing educators utilizing directing structural debriefing in a way that maximizes students' learning experience. Including this strategy into structured debriefing in simulation is recommended to improve students' learning experience and outcomes. Further studies are recommended to compare a group that uses structured debriefing with peer-reviewed journal discussion and a group with structured debriefing alone.

Date of Submission: 28-03-2019

Date of acceptance: 13-04-2019

I. Introduction

Debriefing is considered a fundamental component of clinical simulation. It is considered the most essential part of simulation for successful learning experience (Omer, 2018). Research strongly supports debriefing as a crucial aspect of simulation (Raemer, et al. 2011), because it promotes clinical reasoning and critical thinking (Mariani et al. 2013) and enhances the connection of theoretical knowledge to clinical practice (Jeffries, 2010).

According to Warrick (1979), simulation debriefing can vary from spontaneous, to structured or unstructured or a combination of both. Research strongly support the use of structured debriefing in nursing simulation because it fosters meaningful learning and promotes the use of critical thinking, cognitive skills, and collective reflection among nursing students (Omer, 2018; Coutinho, Martins, & Pereira, 2016; Chronister & Brown, 2012; Kuiper, et al. 2008). Although there is a wide spectrum of strategies to debriefing in the literature, research into the best design of structured debriefing to maximize students' learning outcomes have been substantially unexplored (Brown, Wong, & Ahmed, 2018). Research on the most effective strategies of structured debriefing is needed, because students' learning outcomes are determined by the extent to which best practices in education are incorporated into the design and implementation of simulation (Jeffries, 2005). There is gap in the literature on the best practices for structured debriefing, and how structured debriefing may be conducted to substantially impact the students' learning outcomes and experience. To the authors'

understanding, there is no evidence in the literature underlining the impact of integrating peer-reviewed journal discussion in structured debriefing on the students' learning outcomes and experience. Therefore, further qualitative evidence is needed to address this gap. This study explored the effect of integrating peer-reviewed journal discussion to the structured debriefing model on nursing students learning outcomes and experience in nursing simulation. It is crucially important to explore students' perceptions of this technique of debriefing to identify the best strategies in maximizing learning outcomes from structured debriefing.

II. Method

A focus group qualitative study was conducted with a purposive and convenience sample of 18 second-year students of an undergraduate nursing degree programs. A focus group design is appropriate because it elicits a multiplicity of perceptions with a group context (Gibbs, 1997).

Strategies of Structured Debriefing

A new pedagogical approach to structure debriefing in simulation was undertaken by integrating dialogue about students' findings from peer-reviewed journals into the debriefing process. The new pedagogical approach was motivated by Bruner's theory of discovery learning (1966) which emphasized teaching as a means of enhancing cognitive development and described the teacher's role as translating information to be learned into a format appropriate to the learner's current state of understanding. This is an inquiry-based learning theory with emphasis on the faculty encouraging students to be active agents in their own learning process by constructing their own knowledge and engaging in active intellectual conversation with their peers and faculty (Jong & Joolingen, 1998). The authors required each student to study and discuss findings from a peer reviewed journal related to the topic of the simulation as part of the students' simulation preparation process for acute care coursework at a university college in the United States.

Each student described the findings from their researched article and described how the new knowledge from the article studied is connected to the concept of simulation practice during debriefing. Thus, students presented their reflection from the peer-reviewed journal and the simulation activity deducting new knowledge and reflecting on their learning experience and practice. As each student described their findings, and reflection on simulation activity, they were asked questions both by their peers, and faculty to test their understanding of the concept they studied in the literature. In general students are required to submit their reviewed as evidence of preparedness for simulation activity.

Data Collection

To generate data, interviews were recorded on audio-tape for over an hour. Data collection was facilitated by research assistants who are non-faculty members at the university. The research assistants randomly divided the participants into two groups for a simultaneous and intensive focus group interviews. Participants were asked: What difference does integrating peer-reviewed journal discussion into structured debriefing make to their learning experience? How they would describe their simulation debriefing learning experience with peer-reviewed journals? Moreover, they were asked about their thoughts about this model of structured debriefing. Data were recorded using audio taped recorder and recorded data was professionally transcribed verbatim for data analysis.

Data Analysis

Data were analyzed using thematic analysis qualitative approach. The first author read the transcripts while listening to the audio to ensure accuracy of the transcribed date. Each participant was numbered as "observer" (e.g observer 1) in the transcript to indicate which participant was speaking during the focus group session. Transcribed data were organized into significant statements, coded by themes, reduced, and interpreted leading to emergent themes.

III. Findings

Three key patterns related to the impact of integrating peer-reviewed journal into simulation debriefing emerged: Developing better perspectives, supporting preparation, critical thinking, and evidence-based learning, and facilitating communication among peers and faculty. However, some participants perceived journal discussion as overwhelming, and additional workload, that are not necessarily beneficial to learning.

Theme 1: Developing better perspectives

Developing better and more holistic perspectives. A majority of the participants perceived that reviewing and discussing findings from relevant peer-reviewed journal during debriefing supported their learning with developing better perspectives and gaining in-depth and holistic understanding of the simulation topic: "So for

me I think the biggest difference is having a better perspective going into the same simulation like when you have an article on hand" (Observer 1). "So I think for me that's the difference when you're finding an article you have more perspectives than just debriefing without an article" (Observer 4). "Yeah I think it makes me look at a more holistic view because then you start thinking like [Name Redacted] said like you get in your topic so then you think about all the aspects of that patient's life like their mental health or whatever. "It's kind of a different perspective it's better than what we do" (Observer 10).

Developing better insights into the topic and up-to-date information on clinical practices. Participants also revealed that this model exposed them to more studies. Also, better insight on up-to-date information on clinical practice issues relevant to nursing practice: "Newer practices suggesting different drugs being used and it was kind of my aha moment of being like these things are constantly changing and we need to stay up to date on treatment modalities" (Observer 6).

Moreover, majority of the participants perceived that this strategy of structured debriefing provided them with opportunities to learn more from divergent perspectives better internalized the topic of discussion, thus promoting deeper insights into concepts related to their simulation activity: "I'm doing prep for simulation I'm also getting this article and it's just for me it's just reiterating this information over and over I'm seeing it again and I'm hearing the same...then having to go to find this article you're seeing those things of the similar characteristics of each of you and whoa ok like this is starting to make more sense now instead of just being OK" (Observer 13). "I think when you find what you're doing, it like an article it's kind of validates that you are going to use it or helps you understand it a little bit better. So when you're going in you know a little more than just what they have given you. Yeah I agree that it's" (Observer 7)

However, one participant thought that it could be beneficial to discuss the article during simulation pre-briefing to gain the better perspectives prior to engaging in simulation activity compared to gaining the better perspective after simulation activities: "I do agree that before the simulation that would be helpful to go over the article. Just because it would give you a bigger picture and kind of put you in the mindset of what you're going into for the simulation diagnosis" (Observer 2)

Theme 2: Supporting Evidence-Based Learning, Critical-Thinking, and Simulation Preparation

Supporting evidence based learning and critical thinking. Majority of the participants also perceived this strategy of structured debriefing as supporting their critical thinking and understanding the importance of evidence-based learning activity which is fundamental to nursing practice: "You really look at it and then you pull out like evidence based practice and that's what I mean okay like this makes more sense. But when we first find a research article like they give you like the requirements I guess this is what they intertwine a little bit" (Observer 4). "No let's talk through our articles and get someone you know kind of gives them the stage so they can stand up and kind of start using their critical thinking out loud instead of by themselves. And I think that's" extremely important and helpful" (Observer 15). "It kind of makes you think that outside of the box perspective and getting that like I almost feel like I take more stuff from other people's articles I do my own" (Observer 11).

Motivating preparation for simulation. Moreover, most participants shared that the requirement to reviewed and discuss an article on related topic prior to simulation and during simulation debriefing motivate them to be more prepared and accountable toward the simulation learning experience: "I think that it is holding us accountable as students to come more prepared to simulation because I honestly in the old model did not come as prepared as I have been this year when we're using the newer model. So I like holding each other accountable as well" (Observer 18). "You can kind of relate things that you have expected with your same prep as well as with your article that you've chosen. And so I found that that was something that was extremely helpful was to be like these are the medications they gave this individual from this case study article that I found" (Observer, 9)

However, some participants perceived journal discussion as overwhelming/additional workload, stressful, redundant, and time-consuming. Some of the participants considered it as a time-consuming because it takes away time from sim-related constructive criticism, but in general a rewarding learning experience: "Sometimes it's kind of pressure because I feel like it's just another thing added on to what we have to do. But I mean it always feels like worth it" (Observer 8). "But now we focus more on our articles and what our new research is. So like that kind of takes away from our maybe constructive criticism" (Observer 12). "The people in my groups that were negative towards it. I think that's probably the only negative thing that I got out of this was that our energies would bounce off each other say like just complaining that we had to bring something extra and not realizing how much it could help us" (Observer, 1).

Theme 3: Facilitating communication among peers and faculty during debriefing

Participants reported that reviewed and sharing findings from evidence-based peer reviewed articles during simulation debriefing supported their active engagement/participation in the debriefing process because it foster both structured and casual conversation between peers-to-peers, and students-to-faculty: "I feel that it made us more engaged in debrief when we used to not bring articles. We all just kind of sat and listened and didn't really participate as much in bringing articles and discussing them and then having insight and input on

other people's articles makes us more engaged in the topic and then learn more about what is going on now that will probably change our treatment and practice in the future" (Observer 7). "For me the most positive thing is that it improved my like public speaking per se and being able to teach other people what I have learned and like rephrase it in my own words and hopefully get others excited or learn exactly what I did through my words in my teaching" (Observer 15).

IV. Discussion

The main findings of the current study indicated that integrating peer-reviewed journal discussion during simulation debriefing supported nursing students in developing better and holistic perspectives to their simulation learning activities consequently improving their learning experiences and outcomes. This finding is similar to research findings from other authors on structured debriefing (Omer, 2018; Coutinho, Martins, & Pereira, 2016; Mariani et al. 2013; Chronister & Brown, 2012). None of these studies included peer-reviewed journal discussion into their structured debriefing. What is new is that participants in this study perceived adding peer-reviewed journal discussion into structured debriefing resulted in developing better insights into up-to-date information on clinical practices. The connection of insights and unplanned discovery is essential for professional nursing practice (Cioffi, 2017). This strategy of structured debriefing create additional opportunities for students to developed increased insights into simulation concepts and a change in their approach to care in clinical settings. Moreover, by incorporating this strategy of structured debriefing, nurse educators can improve their students chances of gaining better insights that leads to new knowledge. Also, findings from this study indicate there is potential in supporting students in gaining better understanding, increased learning, and deeper insights into the topic of simulation consequently making incorporation peer-reviewed journal discussion into structured debriefing a more rewarding experience for the students.

A majority of the participants perceived that integrating peer-reviewed journal discussion into structured debriefing support evidence base learning, critical thinking, and sim-preparation. This perception is related to findings from other authors that reported debriefing helps students to establish a connection between performing and critical thinking (Jeffries, 2012; International Nursing Association for Clinical Simulation, 2013). They found this strategy of structured debriefing facilitated evidence-based learning which are crucial for nursing clinical practice. According to the National League of Nursing (NLN) (2015) the use of evidence based published resources is important to ensure evaluation of competence in debriefing. Findings from this study contribute to a body of evidence that the use of evidence based published studies in debriefing should be embraced as an essential component of a simulation debriefing.

Majority believed this strategy of structured debriefing supported them to be better prepared for their simulation activity which is consistent with the Bruner's theory of discovery learning suggesting that students should find educational information and be active agents in their own learning process by constructing their own knowledge (Bruner 1966).

Finally, students perceived that using peer-reviewed journal discussion facilitated communication among peers and faculty during debriefing. Creating a safe environment in which students are free to communicate and express their knowledge is essential in debriefing (Sittner et al. 2015). This finding is consistent with findings from other authors that reported structured debriefing facilitates discussion and interactions between students and their educators to improve learning process and experience (Rudolph et al. 2008; Coutinho, Martins, & Pereira, 2016). Moreover, it fosters faculty-student interaction in a safe environment, promoting students' self-confidence (Coutinho, Martins, & Pereira, 2016).

Limitation

This study had specific limitations associated with the study's design. Respondents' bias could be possible as both authors are clinical instructors in the nursing program. To minimized respondent's biases and enhance the credibility, the focus group interviews were facilitated by research assistants who were non-faculty member and participants were assured that their responses were anonymous. Also, findings are limited to the participants' perceptions of the effectiveness of this strategy of structured debriefing. However, the qualitative comments from the participants illuminate their perceived effectiveness create potential to establish new knowledge on this subject.

V. Conclusion

Adding peer-reviewed journal discussion into structured debriefing resulted in developing better perspectives and insight on up-to-date information on clinical practices, support evidence-based learning, critical thinking, and sim preparation. Moreover, students perceived that this model of structured debriefing played an important role in facilitating communication and supporting active engagement between peers-to-peers, and students-to-faculty. Including this strategy into structured debriefing in simulation is recommended to improve students' learning experience and outcomes. Using peer-reviewed journal during structured debriefing

is an innovative teaching strategy to support students in developing better perspectives, evidence-based learning, critical thinking, students' preparation toward learning, and promoting communication. Further studies are recommended to compare that used structured debriefing combined with peer-reviewed journal discussion compared to a group with debriefing alone perhaps in other colleges. Finding from this study can serve as catalyst to provide additional supports and guidance for nursing educators utilizing directing structural debriefing in a way that maximizes students' learning experience

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David Oni. " Integration of Peer-Reviewed Journal Discussion into Structured Debriefing in Nursing Simulation: Nursing Students' Perceptions." *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, vol. 8, no. 02 , 2019, pp. 35-39.