



Featured Article

The Importance of Debriefing in Clinical Simulations

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KEYWORDS

Debriefing;
simulations;
focus groups

Abstract

Background: This education-focused research project evaluated the benefit of a structured debriefing session on students' learning after the students completed three pediatric-based clinical simulations.

Method: Eleven students participated in this study, in which their performance was videotaped during each simulation. They received a verbal debriefing at the conclusion of each clinical simulation and then received a structured debriefing session involving a review of the videotape during a qualitative focus group interview.

Results and Conclusions: Descriptive findings from the discussion of the debriefing session suggest that students have a strong need for debriefing immediately following the conclusion of each simulation to help them decompress and integrate the experience into their knowledge base.

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Laboratory-based clinical simulations offer experiential learning opportunities in which the objective is to link theory and practice (Childs & Sepples, 2006; Cioffi, 2001). Since the late 1990s, academic institutions and the National League for Nursing have strongly supported the incorporation of clinical simulations into nursing curricula. Clinical simulation may be used for assessment and evaluation of students' skills and as a teaching strategy in clinical nursing courses and an opportunity for students to practice clinical skills. For all these uses, most educators believe that clinical simulations foster and enhance critical thinking skills through the practice of psychomotor skills and therapeutic communication techniques (Jeffries, Woolf, & Linde, 2003; Schoening, Sittner, & Todd, 2006).

An integral component of this teaching—learning strategy is the use of debriefing after the completion of

a simulation. Debriefing sessions are follow-up discussions that provide opportunities for students to discuss with one another what they have learned after completing group activities and to process what they have learned, ensuring that activities are not left unfinished, with students wondering what they accomplished and why (Performance Learning Systems, 2003). Many social science researchers believe debriefing is important to the learning experience, especially when it is part of a clinical simulation experience. Yet Brackenreng (2004) has pointed out that the recent literature on clinical simulation has focused on detailed descriptions of the action phase and best practices in developing and implementing clinical simulations but has almost ignored the importance of debriefing and reflection.

Debriefing is in and of itself a teaching strategy. Debriefing sessions facilitate use of therapeutic communication skills, address students' emotions, and affirm feelings as an integral component of the teaching—learning

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process (Horsfall, 1990). Feedback and reflection are essential determinants of professional development at all levels and are linked to professional nurse competencies (Babenko-Mould, Andrusyszyn, & Goldenberg, 2004). Competencies are often measured by one's ability to demonstrate a skill. However, Synder, Fitzloff, Fiedler, and Lambke (2000) have suggested that skill performance and learning are dissimilar processes and that learning becomes meaningful only when the dimensions of performing the skill, which include cognitive mastery and the affective components (one's values, past experiences, and motivation), are all attended to. Consequently, these educators argue that clinical skills, such as those practiced in a clinical simulation, are not fully mastered without feedback and reflection on the cognitive and affective, as well as the psychomotor, components of the learning experience. Debriefing sessions are important to students since they provide constructive critique and an opportunity for reflection, which are integral to nurses' personal and professional development throughout their careers.

KEY POINTS

- Debriefing is a teaching–learning strategy.
- Debriefing immediately after the completion of the simulation enhances learning.
- Three critical components influence students' learning through participation in clinical simulations: adequate preparation, the demeanor of the faculty involved in the simulation, and debriefing at the conclusion of the experience.

Current practice among nurse educators who employ clinical simulations is to provide either verbal debriefing immediately following the completion of the simulation or structured debriefing by means of a videotape of the experience. Videotaping captures students' behaviors and performance in a way that can be reviewed with students at a later time, not during the simulation experience itself. Each strategy has its advantages and limitations, but neither has been extensively researched to evaluate its efficacy and importance to

students' learning. Studies that examined debriefing sessions with the use of videotapes of students' performance found that this structured approach to debriefing gave students experience with analyzing and critiquing performance and decreased their anxiety (Matthews & Viens, 1988). In addition, research has shown that videotaping can help validate skill competency and decrease student stress (Graf, 1993).

This education-focused research project was intended to evaluate the benefit of structured debriefing sessions on students' learning after they completed three pediatric-based clinical simulations. The first aim of this study was to determine whether a structured debriefing session increased students' awareness of their skill level and performance in the required technical skills and critical thinking abilities in each clinical simulation. The second aim was to evaluate

whether a structured debriefing session enhanced students' perceived value of clinical simulations as a teaching–learning experience. One simulation described a young child with asthma, one described an adolescent with sickle-cell anemia, and the third was a well-child simulation that involved a physical and developmental assessment and a history intake of a young child. Clinical skills involved in the simulations were physical assessment; psychosocial nursing interventions; intravenous medication administration; and intramuscular injections, intravenous fluid management, or both. The length of each simulation was determined by the findings of Childs and Sepples (2006), who recommended that 45 min for each simulation was adequate to meet the identified goals and learning needs of students. During the simulations, students worked in groups of six and assumed the role of either direct care provider or participant observer (in which they could coach and provide feedback). This strategy emphasized the concept of teamwork and its importance in actual clinical settings.

Childs and Sepples (2006) also reported that 10-min debriefing sessions, as were used in their study, were not adequate to allow students to discuss their experience and process what had occurred. Given our time parameters and limited laboratory space, the time for the debriefing following each simulation in our study was limited to 10 min. During the oral debriefing immediately following each simulation, faculty posed the following questions used by Ham and O'Rourke (2004): (a) What were the patient's goals for this episode of care? (b) Were these goals met by your nursing behaviors? (c) How did you prioritize the patient's needs? (d) What would you do differently if actually caring for him or her and the family in an acute care setting? In addition, structured debriefing sessions critiqued students' performance and behaviors captured on the videotape for each simulation to identify changes for students to institute to improve their clinical practice.

Method

Following institutional review board approval, 11 senior-level students concurrently enrolled in a pediatric clinical course and its corresponding pediatric theory course consented to participate in the study. Prior to consenting to participate, students were informed that if they participated in the study, they would receive oral debriefing at the conclusion of each simulation, which is a standard component of each simulation, and would also have their performance videotaped during each simulation and receive a structured, investigator-led debriefing session, using the videotape, to provide feedback about their performance during the simulations. The structured debriefing would be part of an audiotaped, qualitative focus group interview 2 weeks following participation in the simulations. The three simulations developed for this project were of a young child with asthma, an adolescent with sickle-cell anemia,

and a physical and developmental assessment and a history intake of a young, well child. A detailed description of the development and content of these three simulations has been reported elsewhere (Cantrell, Meakim, & Cash, 2008). The study occurred in fall 2006.

Two qualitative focus group interviews lasting approximately 1 hr were conducted by the study's investigator to assess whether those students who received the structured debriefing sessions perceived this learning activity as being more beneficial than the oral debriefing that occurred after the simulation. The perceived benefit was explored by asking whether and how they achieved a greater understanding of the learning outcomes for each simulation and increased confidence in their technical skills and critical thinking abilities and satisfaction with the clinical simulations overall. Content analysis as suggested by Morrison-Beedy, Cote-Arsenault, and Feinstein (2001) was used to analyze the descriptive, narrative data. The audiotapes from the focus group interviews were transcribed, and the written text was verified with the audiotapes for congruence and accuracy.

Results

Content analysis of students' comments while watching their performance on the videotape during the focus groups suggested that students experienced stress and felt too intimidated to perform spontaneously in the presence of faculty during the simulations. On review of their performance, students stated that it appeared as if they were not doing anything or did not seem to know what they were doing. Content analysis also revealed three critical components that influenced students' learning through participation in the clinical simulations: adequate preparation, the demeanor of the faculty involved in the simulation, and debriefing at the conclusion of the experience. Students stated that they perceived themselves most prepared for the sickle-cell anemia simulation and attributed this to the case study and the discussion and review of it during the companion theory course. In contrast, preparation materials for the other two simulations were a list of questions students answered on their own. Students perceived differences among the faculty members present during the simulation. Faculty who provided cuing to the students during the simulation, used humor, and exhibited a supportive and coaching demeanor during the simulation lessened students' anxiety and stress and supported their learning. In contrast, faculty who neither engaged with the students to assist them in making clinical practice decisions during the simulation nor provided any encouraging verbal or non-verbal feedback had a negative effect on students' learning. Since the objective of the clinical simulation experience was teaching, not evaluation, students had expected to have support and guidance by faculty during the clinical simulations. The following are examples of students'

comments when receiving feedback during the focus group interview:

They [two faculty members responsible for the simulation] were on the same level as us, and they were just trying to guide us rather than to trick us. They coached us during the simulation, they were part of the simulation, they weren't standing on the sidelines saying "you did this wrong," "you did that wrong," and then at the end, when we were all done, they [the clinical faculty] reviewed the simulation with us and said ... "you kind of skipped over this" and "you should have said this," not in the middle [of the simulation], not just telling us "you did that wrong."

In contrast, another student commented on faculty members' demeanor (during a different simulation) that was perceived as not being supportive or helpful:

Maybe instead of drilling us, they could have just like helped us get the assessment. Maybe they could have gone through exactly what you're supposed to do instead of asking us information we didn't know.

Students strongly believed debriefing immediately after completion of the simulation enhanced their learning. When asked whether they would prefer only an oral debriefing rather than being videotaped and receiving a review of the tape, they were clear that the medium for debriefing was not as essential as the timing of it. Students believed that debriefing immediately following the completion of a simulation was preferable because the experience was fresh in their mind and they were still engaged in the learning activity. Students also suggested that a simulation accurately demonstrated by the faculty at the conclusion of the debriefing session would have significantly enhanced their learning as well.

Discussion

The analyses of these qualitative findings have provided an initial step in understanding students' immediate perceptions about the differences in modes of debriefing. However, these results should be considered beginning results; further exploration in future studies is needed to provide a more complete understanding of this phenomenon. As anticipated, debriefing was a critical component that influenced students' learning through participation in the simulations. Students' comments during the focus group supported social science researchers' beliefs such as those cited by Babenko-Mould, Andrusyszyn, and Goldenberg (2004), Horsfall (1990), and Matthews and Viens (1988) that debriefing is of itself a teaching strategy and is important to the learning experience, especially when it is part of a clinical simulation experience.

Adequate preparation was another critical component that influenced students' learning through participation in the simulations. The transfer of information from preparation

sheets to the implementation of care interventions during the simulation was essential. As Ham and O'Rourke (2004) have noted, whatever teaching strategy is being used to assist nursing students to prepare for caring for patients, the need to address the basic question in the mind of nursing students—What do I do?—has to be considered.

The demeanor of the faculty involved in the simulation was the third influential component identified in the analysis of the qualitative findings. There is no published literature about the effects that a faculty member's demeanor during clinical simulations and debriefings has on students' learning. Yet the nursing literature is replete with empirical findings suggesting that a faculty member's behavior influences learning. Cooke (1996) asked neophyte nursing students ($N = 198$) about faculty facilitators' behaviors that helped them learn in challenging situations and found that supportive behavior, good preparation, quality instruction, and helpful evaluation were the most often cited. Similarly, Krichbaum (1994) reported that important clinical teaching behaviors rated by junior-level students ($N = 36$) in a critical care setting included providing quality feedback and conveying a positive concerned attitude. In a thematic analysis of descriptions of faculty strengths and weaknesses, Wolf, Bender, Beitz, Wieland, and Vito (2004) concluded that, in general, good teachers created a positive relationship in which students valued their role modeling and interpersonal support. Conversely, these researchers found that ineffective teachers did not organize and deliver content well, did not develop a good relationship, and exhibited behaviors that interfered with the construction of joint understanding.

Implications for Nurse Educators

For nurse educators involved in clinical simulations, this study's findings suggest they need to be aware that students' overall satisfaction and learning outcomes are dependent on faculty's direction during the simulation as well as feedback and analysis at the completion of each simulation. Students described without hesitancy their need for direction and assistance during the simulation as well as debriefing at its conclusion to help them decompress and emphasized the importance of these factors in helping them integrate the experience and their performance into their knowledge base. This finding is particularly important if simulations are intended to be teaching—learning experiences rather than data for evaluative purposes. A second implication is that for simulations to be most effective and reflect best practices in undergraduate nursing education, feedback and interactions with faculty have to reflect caring, nurturing, and unbiased feedback if they are to increase the efficacy of this teaching—learning strategy and to provide maximal benefit to students' learning. These findings reflect what current educators are suggesting as best teaching practices with undergraduates, in which

faculty should connect with the student and provide frequent feedback to foster students in their understanding of information and concepts (Zager, 2006).

Conclusion

Clinical simulation as a teaching—learning strategy in nursing education continues to be refined and expanded. As noted in published literature and validated by the findings in this study, debriefing is crucial to the teaching—learning process in clinical simulations and highly valued by students. Debriefing's role in clinical simulation requires further exploration. Of importance for further investigation is the nature of the feedback and the interactions among and between faculty and students during debriefing sessions. Debriefing is in and of itself a teaching—learning strategy, and for nursing students, the nature of the feedback received in debriefing sessions is an appreciable component of the success of clinical simulations.

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