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Structured debriefing: What difference does it make?

Inger Åse Reierson [a, *], Thor Arne Haukedal [a], Hanne Hedeman [a], Ida Torunn Bjørk [a, b]

[a] Department of Nursing and Health Sciences, Faculty of Health and Social Sciences, University College of Southeast Norway, Post box 235, 3603, Kongsberg, Norway
[b] Department of Nursing Science, Faculty of Medicine, University of Oslo, Post box 1130, Blindern, 0318, Oslo, Norway

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ABSTRACT

Debriefing in simulation is a cornerstone of learning. However, in-depth studies examining simulation debriefing are scarce. This study explored four key debriefing attributes—feedback, reflection, knowledge development, and psychological safety—prior and subsequent to the implementation of a new pedagogical intervention in a pre-clinical scenario simulation course. The scenarios focused on patients with deteriorating conditions and took place at bachelor's nursing degree level. The new intervention for the debriefing sessions contained a detailed observation tool describing specific, correct nursing actions for deteriorating patients; video playback watched only by students acting as nurses, and debriefing organized into two sections. The study design was explorative. To generate data, 12 debriefing sessions were audio and video recorded in 2013 and 11 in 2014. Two student groups participated each year, comprising 16 and 10 students, respectively. Qualitative analysis was performed to examine the transcribed audio and video recordings. Relative to the 2013 cohort, the reflections of observers and the students acting as nurses were more assertive, and students' feedback was more specific and comprehensive in the 2014 cohort. Conducting in-depth studies examining debriefing is important to increase knowledge regarding the impact of pedagogical underpinnings on debriefing content and processes.

1. Introduction

Simulation has been important in nursing education for decades (Nehring and Lashley, 2009). However, due to a lack of clinical placements and opportunities to encounter variation in patient situations, simulation has attracted increased attention (Hayden et al., 2014), and debriefing sessions have been highlighted as a key component of simulation-based learning, as they facilitate students' integration of theoretical and practical knowledge (Adamson, 2015; Fey et al., 2014; Forneris, 2015). Accomplished nursing actions are discussed and reflected on, and gaps in knowledge and performance are identified and examined (Cheng et al., 2014; Kelly et al., 2014). Although the generally agreed-upon stance confirms the importance of debriefing, there is no overall consensus as to what constitutes best practice (Adamson, 2015; Cheng et al., 2014; Dufrene and Young, 2014; Waznonis, 2015). However, the International Nursing Association for Clinical Simulation and Learning has developed standards for best practice in simulation including debriefing sessions (Decker et al., 2013). Structured debriefing is recommended, indicating that debriefing is a planned activity, facilitated by individuals experienced in the debriefing process and performed in a trusting environment in which objectives define learning outcomes and guide debriefing (Sittner et al., 2015). Despite these recognized standards (Hayden et al., 2014), there is a need for studies exploring central features in debriefing, comparing debriefing methods (Cheng et al., 2014) and illuminating in-depth descriptions on 'what works, for whom and under what circumstances' (Cook et al., 2013, p. e853). This need for knowledge was the motivation for the current study, which aimed to perform an in-depth exploration of four key attributes of debriefing sessions prior and subsequent to a pedagogical intervention involving scenario simulation.

2. Background

2.1. Central attributes in debriefing

Reflection, feedback, knowledge development, and psychological safety have been described as important attributes of debriefing

* Corresponding author.
E-mail addresses: Inger.A.Reierson@usn.no (I.Å. Reierson), Thor.A.Haukedal@usn.no (T.A. Haukedal), Hanne.Hedeman@usn.no (H. Hedeman), I.T.Bjork@medisin.uio.no (I.T. Bjørk).

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in the simulation-based learning literature. Studies recommend that during debriefing students are systematically guided through a reflective process in line with defined learning outcomes (Fey and Jenkins, 2015; Forneris, 2016; Sittner et al., 2015). In accordance with experiential learning theory, reflection focuses on learners' own experiences and is purposive, goal-directed, and complex, as 'both feelings and cognition are closely interrelated and interactive' (Boud et al., 1985, p. 11).

Feedback is considered one of the cornerstones of simulation, as previous research has confirmed that it improves learning outcomes (Cook et al., 2013). Feedback provided by both facilitators and peers has been shown to improve participant learning and outcomes (Adamson, 2015). Feedback is often used interchangeably with the concept of debriefing. However, the two processes differ (Hallmark et al., 2014), as feedback can be defined as one-way communication regarding participants' behaviour or performance, intended to improve practice (Waznonis, 2014).

In the current study, the attribute knowledge development focused on the application of nursing knowledge to practice in relation to learning outcomes (Groom et al., 2014). The integration of theoretical and practical knowledge is a crucial learning activity in nursing education, and simulation offers the opportunity to practise this skill (Adamson, 2015). Situated cognitive reasoning skills experienced in simulation are considered comparable to reasoning skills required in clinical situations (Forneris, 2015). This reasoning becomes explicit when thoughts are voiced, and the study explored this type of knowledge development in debriefing sessions.

Fey et al. (2014) found that a psychologically safe environment was important in debriefing, as it created a climate in which students felt free to explore 'anxieties, fears, and worries about simulation and performance' (p. e253). Emotions are important in learning, as negative feelings could serve as barriers, while positive feelings could enhance learning (Boud et al., 1985). Student-teacher interaction is vital from this perspective; however, Adamson (2015) found that the literature did not address student-teacher interaction or collaboration explicitly in debriefing studies. Therefore, in the current study, psychological safety in debriefing was defined as the way in which students and teachers demonstrated positive regard for each other (Anyinam and Da Silva, 2015). These four central attributes of debriefing (reflection, feedback, knowledge development and psychological safety) were chosen as a priori categories for analysis (Ary et al., 2014).

3. Methods

The study involved an explorative qualitative design. Explorative research aims to examine a phenomenon that is not fully understood, to clarify the processes via which it evolves (Polit and Beck, 2017). As in-depth knowledge regarding the debriefing process is scarce (Hallmark et al., 2014; Levett-Jones and Lapkin, 2014), this approach was suitable for use in the study.

3.1. Setting and participants

The study was conducted during a pre-clinical scenario simulation course in the second year of a bachelor nursing degree level, at a university college in southern part of Norway. To recruit participants, a combination of convenience and criterion sampling (Patton, 2015; Polit and Beck, 2017) was used. Convenience sampling was used, as the student groups in the scenario simulation course in 2013 and 2014 were asked via the university college's digital learning platform and verbally in class to volunteer their participation. The criterion was that the nursing students belonged to the same student-learning group. This participant selection took place in autumn 2013 and autumn 2014. Two student groups were recruited each year, with 16 students included in 2013 (four men and 12 women) and 10 students (all women) included in 2014. In 2013, participants' mean age was 25.6 (SD = 7.9; range: 20–40) years. In 2014, their mean age was 25.5 (SD = 7.6; range: 20–45) years.

3.2. Scenario simulation intervention

Both simulation courses in 2013 and 2014 consisted of six scenarios focusing on patients with deteriorating conditions and appropriate nursing interventions: chest pain resulting from angina pectoris, cardiac arrest, hypovolemia following post-operative bleeding, ileus onset, acute deterioration in chronic obstructive lung disease, and hypoglycaemia in adolescents newly diagnosed with Type 1 diabetes. Development of scenario content was inspired by the National League for Nursing Simulation Scenarios (Laerdal Medical, Norway) and adapted for use in a Norwegian context in collaboration with nurse experts in relevant clinical fields. The Nursing Anne manikin (Laerdal Medical, Norway) was used in the study. The framework involved briefing, simulation, and facilitator-led debriefing conducted to achieve learning outcomes (Decker et al., 2013). One teacher operated the simulator and one facilitated the scenario simulation. One teacher in each group had completed a simulation facilitator competence course. To ensure a psychologically safe learning climate, students were assigned to pre-established learning groups consisting of 5–9 participants. In each scenario, two students acted as nurses. The students' simulation roles were rotated, with students acting as nurses once or twice and otherwise participating as observers or next of kin.

The simulation course took place over a period of 2 weeks approximately 6 weeks prior to medical and surgical internships. The simulation formed part of a pre-clinical course for which 10 European Credit Transfer and Accumulation System credits were awarded. The students had completed related theory courses in pathology and nursing theory and one clinical placement. The internship involved 6 weeks in a nursing home during the first year, focusing on basic nursing care.

In 2013, the simulation faculty began planning a new pedagogical intervention by developing a systematic, detailed approach for the simulation course. Research conducted by Buykx et al. (2011) and the First^{2}Act® model, an evidence-based educational model for simulation, had attracted our interest. Inspired by this model, a pedagogical intervention was implemented in 2014. The new intervention included a multiple-choice test as a learning stimulus assessment; this covered core knowledge related to the scenarios and was completed by students 1 week prior to the scenario simulations. The changes executed during the scenario simulations are presented in Table 1.

The key changes that occurred in 2014 are described as follows. To guide the observation of the simulation session, a structured observation tool was developed for each scenario. The observation tool described specific scenario-related, correct nursing observations and interventions related to learning outcomes. Observers and facilitators used the same instrument during simulation. The observers were encouraged to make notes using the observation tool. The simulation session was video recorded using an iPad, which was chosen to simplify logistics, as students knew how to operate it. The debriefing session was organized into two sections. During the first section, the two nurses watched their performance together in private. Meanwhile, the observers and faculty members discussed and examined their own observations in relation to the structured observation tool. The two acting nurses were free to delete the video recording after watching it, as the aim of the