Teaching and Learning in Nursing xxx (2016) xxx–xxx

Contents lists available at ScienceDirect

Teaching and Learning in Nursing

journal homepage: www.jtln.org

Student Facilitation of Simulation Debrief: Measuring Reflective Thinking and Self-Efficacy

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ARTICLE INFO

Article history:
Accepted 26 November 2016
Available online xxxx

Keywords:
High-fidelity simulation
Reflection
Self-efficacy
Undergraduate nursing

ABSTRACT

This study examined the effectiveness of different debriefing facilitation approaches on third year undergraduate nursing students' reflective thinking and critical reflection self-efficacy following high-fidelity simulation using a 3-arm nonequivalent control group design. Students facilitated by either an academic or academic and student showed significantly higher levels of critical reflection. Correlation revealed a medium, positive association between critical reflection self-efficacy and general self-efficacy. Academic and student partnerships in debriefing can prompt students to reflect.

Introduction

Reflection is arguably the most important aspect and outcome of the simulation experience (Decker et al., 2013; Kelly, Berragan, Husebø, & Orr, 2016). Quality reflection during simulation debriefing, the demonstration of interactive critical reflection by participants, has been recognized for its learning value and identified as key to improved learning (Husebø, O'Regan, & Nestel, 2015). The facilitator plays a critical role in the success of simulation debriefing, as this role is central to the effectiveness of debriefing and promotion of reflective thinking (Decker et al., 2013). It is imperative that simulation pedagogy is examined to maximize the efficacy of debriefing to move the science of simulation forward. The sphere of simulation currently lacks valid and reliable instruments specifically designed to measure key learning outcomes (Doolen et al., 2016). This dearth of reliable and valid instruments extends to the construct of reflective thinking and self-efficacy for critical reflection by senior undergraduate nursing students (Adamson, 2015; Adamson, Kardong-Edgren, & Willhaus, 2013; Kember et al., 2000; O'Brien, Hagler, & Thompson, 2015). Quantifying reflection after simulation is, at best, currently achieved through summative written reflective assessment pieces. The capacity of students to critically reflect is influenced by their competence and self-efficacy reflective thought (Kennedy, Murphy, Misener, & Alder, 2015). An important goal for nurse educators is to ensure that students are prepared to become both competent and confident practitioners (Kennedy et al., 2015). The focus of this study was to determine the impact of different approaches to debriefing facilitation on reflective capacity. Standard practice for simulation debriefing is for an academic to facilitate debriefing (Boese et al., 2013). This study examined the impact of two additional approaches to debriefing: student facilitation and student and academic joint facilitation on reflective thinking and self-efficacy.

Peer-led learning is a move toward student-centered teaching and more collaborative teaching spaces, taking the form of peer-led groups where students work to solve problems while encouraged by a peer facilitator to elaborate and exchange ideas (Naude, van den Bergh, & Kruger, 2014). Small-group learning that emphasizes peer facilitation has been associated with several desirable outcomes, including high levels of student satisfaction and improved cognitive and clinical performance (Dumas, Hollerbach, Stuart, & Duffy, 2015; Kibble, Hansen, & Nelson, 2006). These key outcomes would be equally desirable in experiential learning, such as simulation. Group work in a nonthreatening environment can lead to learning naturally, and the role of the instructor (peer) can facilitate more frequent and less constrained interaction among students, rather than functioning as an unquestioned authority figure (Micari & Light, 2009). The safe

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http://dx.doi.org/10.1016/j.teln.2016.11.005
1557-3087/

Please cite this article as: Tutticci, N., et al., Student Facilitation of Simulation Debrief: Measuring Reflective Thinking and Self-Efficacy, *Teaching and Learning in Nursing* (2016), http://dx.doi.org/10.1016/j.teln.2016.11.005

environment engendered by peer group learning can increase empathy and reduce the risk of judgment, improving collegial relationships (Gum, Greenhill, & Dix, 2011). Students work together to develop their understanding of clinical practice; this may be particularly evident in high-fidelity simulation (HFS) learning, which has the potential to foster vicarious learning (Roberts & Greene, 2011).

Social constructivist-based simulation is deemed more valuable in developing clinical judgment skills, problem solving, collaboration, and group process (Parker & Myrick, 2009). Educators can foster critical reflection, challenge learner assumptions by serving as the facilitators of reflectors (Merriam, Caffarella, & Baumgartner, 2012), and promote cognitive growth within a zone of proximal development (Fani & Ghaemi, 2011). Literature is explicit about the benefit of academics in the role of facilitator to lead reflective thinking. An academic can function as both facilitator and instructor, particularly during the debriefing process (Boese et al., 2013; Dreifuerst & Decker, 2012; Fey & Jenkins, 2015). What was of interest to this study was whether the inclusion of a student/academic partnership into the facilitation model was as effective as standard practice to entice participants to reflect deeply and critically.

An effective facilitator has a major influence on the outcome of reflective practice (Paget, 2001). Successful facilitators guide and support students as they integrate classroom theory into practice, challenge assumptions, and resist the urge to impose knowledge; instead supporting the problem-solving process within the group (Boese et al., 2013). A leader who can deftly guide the group while allowing students to take responsibility for their own learning is key to the success of collaborative learning and reflective practice (Neill & Wotton, 2011).

A proportionate mix of self-belief and competence for reflective thinking is desirable in professional practice (Miller, Russell, Cheng, & Skarbek, 2015; Yost, 2006). Students who believe they can think reflectively and who are developing reflective competence (Mann, Gordon, & MacLeod, 2009) are more likely to actualize professional practice (Kennedy et al., 2015; Valler-Jones, 2014). Given the pressure from employers to have a generically capable graduate (Baldwin, Bentley, Langtree, & Mills, 2014; Barrie, 2012; Crosthwaite, Cameron, Lant, & Litster, 2006), particularly one who can critically think (DiLullo, McGee, & Kriebel, 2011), the development of the underlying metacognitive skill—critical reflection—is imperative (Crebert, Bates, Bell, Patrick, & Cragnolini, 2004). Examining the adjunctive or complimentary self-belief for critical reflection within the context of simulation (Franklin & Lee, 2014) is therefore worthy of investigation; however, self-belief must not be mistaken for competence (Franklin & Lee, 2014; Kardong-Edgren, 2013).

The purpose of this study was to determine whether student-facilitated debriefing and/or student- and academic-cofacilitated debriefing differed from academic-facilitated debriefing after HFS in assisting students to reveal critical reflection skills. To address this aim, we posed the following questions:

Q1. Are students who experience an academic led HFS debriefing more likely to critically reflect on their HFS experience compared with students who experience student- or joint student- and academic-led debriefing?
Q2. Are students who experience an academic led HFS debriefing more likely to have a high level of reflective self-efficacy compared with students who experience student- or joint student- and academic-led debriefing?

Methods

The study used a nonequivalent control group design (Fig. 1) to evaluate the effects of three types of HFS debriefing facilitation (academic, student and academic, and student only) on the reflective thinking and self-efficacy of third year undergraduate nursing students.

Setting and Sample

The setting for this study was a school of nursing in a large metropolitan Australian university with approximately 2,600 students enrolled in all nursing disciplines. The study was conducted between March 1 and April 30, 2015. All Bachelor of Nursing (BN) and BN double-degree students enrolled in their final nursing clinical subject were eligible for study inclusion; repeating students were not excluded. As this was a cohort study, the sample size was predetermined and, therefore, limited to the number of students enrolled in the clinical subject.

The participants self-selected into 1 of 103 simulation sessions provided as part of the final year clinical subject. Block randomization was then used to allocate the simulation sessions to control (academic facilitation) or intervention (academic and student facilitation or student facilitation). A Web-based randomizer (Urbaniak & Plous, 2013) was used for block randomization. Blinding of participants to the intervention was not possible because the type of intervention

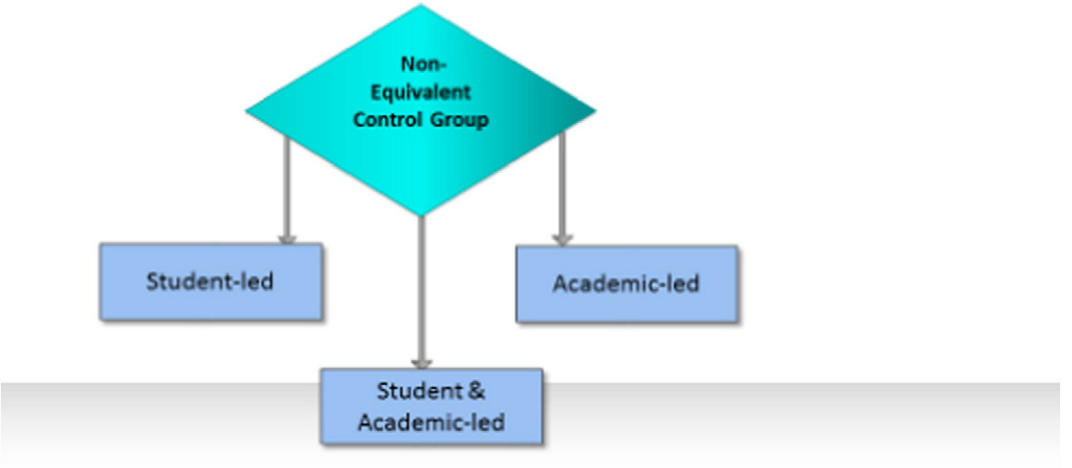

Fig. 1. Three-arm nonequivalent control group design.

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