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Research Brief

Pilot Testing the Debriefing for Meaningful Learning Evaluation Scale

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DML;
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Abstract
Background: Debriefing for Meaningful Learning (DML), an evidence-based debriefing method, promotes thinking like a nurse through reflective learning. Despite widespread adoption of DML, little is known about how well it is implemented. To assess the effectiveness of DML implementation, an evaluative rubric was developed and tested.
Sample: Three debriefers who had been trained to use DML at least 1 year previously, submitted five recorded debriefings each for evaluation.
Methods: Three raters who were experts in DML scored each of the 15 recorded debriefing session using DML Evaluation Scale (DMLES). Observable behaviors were scored with binary options. These raters also assessed the items in the DMLES for content validity.
Results: Cronbach's alpha, intraclass correlation coefficients, and Content Validity Index scores were calculated to determine reliability and validity.
Conclusion: Use of DMLES could support quality improvement, teacher preparation, and faculty development. Future testing is warranted to investigate the relationship between DML implementation and clinical reasoning.

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Debriefing has been widely recognized as the most significant component of a simulation learning experience (Shinnick, Woo, Horwich, & Steadman, 2011). Although there is an agreement that mastery of debriefing skills is crucial to facilitating student learning (Neill & Wotton, 2011), measurement of this mastery is lacking. Although aspects of debriefing have been marginally evaluated (Fey, 2014; Waznonis, 2015), there are no reports of a psychometrically tested instrument of a debriefer's ability to adhere to a specific structured debriefing method. Therefore, a formative, evaluative, behaviorally anchored scale, the Debriefing for Meaningful Learning Evaluation Scale (DMLES), was developed based on the framework of Debriefing for Meaningful Learning© (DML) to evaluate the ability of a debriefer to implement this method.

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Background

A skilled debriefer plays an essential role in a learner's reflective thinking process during debriefing (Decker et al., 2013). A debriefer guides learners in discussing and deepening their learning while facilitating reflection on decisions, actions, and emotions occurring during the learning experience. Because debriefing enhances the transfer of knowledge, skills, and attitudes to nursing practice, it is crucial that the debriefer is equipped through formal training and competency assessment in a structured, theory-based debriefing method (Decker et al., 2013; Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries, 2014). Yet, training in debriefing practice is reportedly limited in both quantity and quality, with even less reported competency assessment of debriefing practice (Fey, 2014; Waznonis, 2015).

Key Points

- The DMLES was developed to measure the presence of DML debriefing behaviors.
- Evaluation of debriefing practice is critical to ensuring learning outcomes.
- Pilot testing of the DMLES demonstrated internal consistency and validity.

Debriefing has become an increasingly common pedagogical method in which teaching can be evaluated. Traditionally, evaluation of the debriefing process has focused on examining elements of debriefing such as duration, environment, faculty experience, and learning objectives (Waznonis, 2015). The following four tools have been reported for evaluation of the debriefing experience: a tool developed by Gururaja, Yang, Paige, & Chauvin (2008) measures broad aspects of debriefing effectiveness, the Debriefing Assessment for Simulation in Healthcare© measures debriefing quality across disciplines and simulation learning environments (Simon, Raemer, & Rudolph, 2009), the Objective Structured Assessment of Debriefing measures debriefing quality (Arora et al., 2012), and the Debriefing Experience Scale is a participant self-reporting of individual learning and perception in debriefing (Reed, 2012). Absent from these reports of debriefing evaluation, however, is a measure of the debriefer's ability to consistently implement a specific structured debriefing method.

As simulation pedagogy is integrated increasingly within nursing education, psychometric reports of reliable and valid instruments are needed to evaluate the effectiveness of each component of the teaching and learning experiences (Adamson, Kardong-Edgren, & Willhaus, 2013). Specifically, evaluation of the debriefer's ability to engage students in a structured, theory-based debriefing is critical, as the practice of debriefing methods broadens throughout nursing curriculum. A structured debriefing method widely adopted across nursing education is DML. However, little is known regarding how well DML is being implemented by debriefers. Because of DML's increased use and subsequent reports of improved clinical reasoning in nursing students with the use of this method (Dreifuerst, 2012; Mariani, Cantrell, Meakim, Prieto, & Dreifuerst, 2013), DML was chosen as the framework for development of a behaviorally anchored rating scale to assess a debriefer's adherence to this structured debriefing method.

Through guided reflection and Socratic questioning, DML supports the development of clinical reasoning among learners and the translation of thinking into clinical decisions and actioned decisions in future clinical situations (Dreifuerst, 2012). Learners are engaged in purposeful reflection, while empowered to challenge assumptions and uncover relationships between thinking processes and nursing actions. DML is based on six elements that facilitate distinct, yet integrated, thinking processes. These elements are: engage, explore, explain, elaborate, evaluate, and extend.

The purpose of this pilot study was to test if the DMLES measures a debriefer's ability to implement this specific debriefing method. The research questions guiding testing were: (a) does the DMLES demonstrate internal consistency? (b) does the DMLES demonstrate interrater reliability? (c) does the DMLES demonstrate face validity? (d) does the DMLES demonstrate content validity? and (e) can a debriefing be scored with the DMLES without observation of the simulation experience?

Sample

Three debriefers teaching within a Midwestern prelicensure nursing program were purposively solicited to submit debriefings for review based on the following criteria: each received training in DML by the developer of DML in conjunction with the National Council of State Boards of Nursing National Simulation Study, and each facilitated debriefing with prelicensure nursing students.

Method

During regularly scheduled simulation learning experiences, students and debriefers participated in a 20-minute simulation, followed by a 30-minute debriefing per the customary process within the program. Each debriefing was recorded; each of the three faculty submitted five recorded debriefings to be scored, for a total of 15 recorded debriefing sessions. Three expert debriefers with extensive DML experience were asked to individually and privately score 15 recorded debriefings with the DMLES after receiving training in use of the scale. Training included review of all components of DML, and instruction