



## Review

## Simulation debriefing for clinical judgment development: A concept analysis

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## ABSTRACT

**Objective:** The aim of this review was to provide an in-depth analysis of debriefing in nursing simulation-based learning. Specifically, the authors sought to describe the debriefing concept within the context of enhancing nursing students' clinical judgment skill.

**Design:** Concept analysis.

**Data Sources:** A literature review was conducted using five electronic databases with the addition of references for relevant papers reviewed. Medline Ovid, Cumulative Index to Nursing and Allied Health (CINAHL) Plus, Educational Resources Information Center (ERIC), ScienceDirect and Google Scholar were searched for articles published in English between 2005 and 2015. Search terms included clinical judgment, debriefing, and simulation.

**Review Methods:** The Walker and Avant systematic approach was utilized as a concept analysis framework. The analysis informed how the concept is defined in the existing literature.

**Results:** The search resulted in a total of 47 articles. The concept of debriefing was analyzed using seven themes from Walker and Avant: concept definition, defining attributes, antecedents, consequences, empirical referents, uses of the concept, and a model case. Based on the analysis, an integrative simulation debriefing guide for promoting students' clinical judgment was presented as a vehicle for a consistent approach.

**Conclusions:** This review identified simulation debriefing as a structured and guided reflection process in which students actively appraise their cognitive, affective, and psychomotor performance within the context of their clinical judgment skill. Reflective debriefing provides students with an opportunity to assume an active role during the learning process. Following a structured debriefing guide can help educators and even students facilitate a learning environment that enhances students' clinical judgment development.

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## 1. Introduction

Recent evidence supports that new graduate nurses are not yet ready to think like nurses (Bashford et al., 2012; Berkow et al., 2009; Dyess and Sherman, 2009; Etheridge, 2007; Fenske et al., 2013; Fero et al., 2008; Hickey, 2009; Lasater et al., 2015; Miraglia and Asselin, 2016; Ryan and Tatum, 2013; Sorensen and Yankech, 2008; Theisen and Sandau, 2013). Clinical judgment is defined as “an interpretation or conclusion about a patient's needs, concerns, or health problems, and/or the decision to take action (or not), use or modify standard approaches, or improvise new ones as deemed appropriate by the patient's response” (Tanner 2006, p. 204). Not only does clinical judgment appear to be underdeveloped in new graduates but even those with up to 3 years experience may not be fully able to make safe clinical judgments (Lasater et al., 2015). The reasons for this underdevelopment

of clinical judgment are not completely clear, but there is evidence to support that clinical judgment can be learned (Cappelletti et al., 2014). It behooves educators to assist students in their academic programs by using pedagogical strategies to support clinical judgment development and learning to make clinical judgments for safe, quality patient care.

Simulation-based learning has emerged as an innovative teaching method that provides nursing and other healthcare students with more opportunities to acquire requisite knowledge, skills, and attitudes for developing clinical judgment abilities (Johnson et al., 2012; Lindsey and Jenkins, 2013; Yuan et al., 2014). There is increasing evidence that simulation debriefing can improve nursing students' clinical judgment (Dreifuerst, 2012; Forneris et al., 2015; Mariani et al., 2014; Tosterud et al., 2014). However, the literature reveals a lack of standardized methodological approaches for debriefing practice (Couper and Perkins, 2013; Lavoie et al., 2013) and unclear descriptions of debriefing (Wazonis, 2014). As a result, there is considerable variation in the methods to promote clinical judgment through debriefing and,

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accordingly, there is a need for a comprehensive understanding of the conceptual elements of debriefing. Greater understanding of this concept will equip nurse educators for a more structured debriefing practice to promote students' clinical judgment and set the stage for further research.

As a starting place, this paper provides an in-depth analysis of debriefing simulation-based learning. Using the concept analysis method described by Walker and Avant (2004), the paper starts by conceptualizing debriefing for the purpose of enhancing the development of clinical judgment. Then the purposes, defining attributes, antecedents, consequences, empirical referents, and uses of debriefing are presented. Throughout, the major contributions to the body of knowledge and implications of debriefing for clinical judgment are discussed. Based on the analysis, an integrated reflective debriefing guide for promoting students' clinical judgment and a model case for using the guide are presented.

## 2. Method

A literature review was conducted using five electronic databases with the addition of references from relevant papers reviewed. The databases were Medline Ovid, Cumulative Index to Nursing and Allied Health (CINAHL) Plus, Educational Resources Information Center (ERIC), ScienceDirect and Google Scholar. Criteria included articles published in English between 2005 and 2015 that linked clinical judgment to debriefing simulation scenarios. Using the key terms *clinical judgment*, *debriefing*, and *simulation*, the search yielded a total of 713 articles. Forty-seven articles met the inclusion criteria for the review.

## 3. Result

### 3.1. Concept Analysis

#### 3.1.1. Debriefing

Originally, the term *debriefing* was used in the military, where the unit leader gathered information from the troops at the end of each operation (Bartone and Adler, 1995). The military style of debriefing has both an educational and practical focus (Fanning and Gaba, 2007). During the 1980s, psychological debriefing evolved as a therapeutic intervention for people experiencing stressful and traumatic events, such as natural and aircraft disasters and staff assaults in healthcare settings (Raphael and Wilson, 2000). The style of psychological debriefing guides a group of people to discuss what happened, share meaning, and formulate new strategies to reduce the likelihood of posttraumatic stress disorders (Fanning and Gaba, 2007). The military and psychological types of debriefing have contributed significantly to the development of debriefing within the context of simulation-based learning in nursing.

Simulation-based learning consists of three phases: (1) briefing or pre-briefing, where the facilitator explains how the simulation session will be conducted, discusses intended objectives, and assigns students' roles; (2) the scenario, where students have experiential or observational experience with real cases, and (3) debriefing, in which retrospective assessment and discussion of students' performance take place. Debriefing is emerging as the most important phase of simulation though all three phases set the stage for learning (Jeffries, 2012; Lasater, 2007a; Mayville, 2011; Neill and Wotton, 2011; Shinnick et al., 2011). Several scholars have described the debriefing as a guided reflection process in which a facilitator directs students to reflect on their simulation performances (Dreifuerst, 2009; Forneris et al., 2015; Mayville, 2011; Rudolph et al., 2007). In one study, nursing students perceived guided debriefing as the most important component for gaining clinical judgment through simulation (Kelly et al., 2014).

However, the current definitions of debriefing are broad and do not guide the reader to the mechanisms or specific aspects where debriefing can be used to foster clinical competencies, including clinical judgment.

Furthermore, the literature is somewhat sparse and unclear about what to debrief, how, and by whom (Dreifuerst, 2009). This indicates a need for a more structured conceptualization of debriefing practice.

#### 3.1.2. Debriefing for Clinical Judgment

First, it is presumed that if clinical judgment is one of the desired outcomes or purposes of the simulation, the simulation should be designed to offer opportunities for students to demonstrate their clinical judgment skill. To provide a debriefing structure for clinical judgment development, the Tanner (2006) Model of Clinical Judgment, the Lasater (2007b) Clinical Judgment Rubric (LCJR), and Bloom's (1956) Taxonomy of Learning Domains were used as frameworks to develop a conceptualized definition of debriefing with application to clinical judgment skills.

Benner et al. (2009) describe the importance of the nurse's deep knowledge and understanding of the patient's situation as foundational for making clinical judgments. An evidence-based clinical judgment model encompasses four critical aspects nurses use to make reasonable clinical judgments about patient care: (1) noticing, when the nurse develops an initial expectation of the situation; (2) interpreting, a perceptual understanding of the situation; (3) responding, which focuses on developing a care plan with appropriate interventions; and (4) reflecting, focused on evaluating the effectiveness of the process (Tanner, 2006). The model identifies the reflective process where clinical learning takes place through reflection in-action and reflection on-action. As described by Tanner (2006), reflection-in-action refers to the cognitive appraisal of how the nurse interprets the patient's condition, what interventions the nurse develops, the patient's response to that intervention, and how the nurse readjusts interventions based on the patient's response during the interaction. This type of reflection focuses on reciprocal interactions between nurses' clinical interventions and patients' outcomes. Reflection-on-action refers to nurses' overall reflections on what was gained from the experiences and how to apply their learning. This type of reflection fosters recognition of facilitators or inhibitors for each aspect of clinical judgment. For instance, lack of deep knowledge related to disease conditions could inhibit noticing.

Using the Tanner Model of Clinical Judgment, Lasater (2007b) employed an evidence-based process to develop a rubric to describe in details effective noticing, interpreting, responding, and reflecting in four levels. The rubric forms a trajectory of development for students' clinical judgment. By defining the trajectory, nurse educators can provide more specific feedback, and students can reflect on their clinical and/or simulation performances within each aspect of the clinical judgment model and set goals for further development. To operationalize both types of reflection, reflection-in- and on-action, the use of the LCJR provides a shared language suitable for debriefing.

In addition to Tanner's Clinical Judgment Model and the LCJR, Bloom's (1956) Taxonomy of Learning provides a standardized structure to guide learning and promotion of clinical judgment through debriefing. The taxonomy offers a focus on three domains of learning: cognitive, psychomotor, and affective. These domains are widely accepted to describe the breadth of learning and guidance for the evaluation of students' performance. Integrating this taxonomy of learning domains as part of debriefing may provide nurse educators with commonly shared and consistent understandings that promote more effective learning.

#### 3.1.3. Theoretical Definition of the Concept

Based on the Tanner's (2006) Clinical Judgment Model, the Lasater (2007b) Rubric of Clinical Judgment, and Bloom's (1956) Taxonomy of Learning, the following definition of the concept of debriefing with application to clinical judgment is presented: simulation debriefing is a structured and guided reflection process through which students actively appraise their cognitive, affective, and psychomotor performance within the context of their clinical judgment skill.

### 3.1.4. Defining Attributes of Debriefing

The literature highlighted three critical attributes concerning debriefing: meaningful time for reflection, student-centeredness, and a link between theory and practice.

**3.1.4.1. Meaningful Reflection.** Reflection is considered a pivotal attribute of debriefing and of clinical learning (Tanner, 2006). Reflective debriefing offers students a meaningful time for reexamining their performance (Dreifuerst, 2009), exploring their emotions and feelings (Overstreet, 2010), and identifying actual or potential barriers to success, such as lack of knowledge or skills, unmanageable anxiety, and error assessment (Cordeau, 2012). For most effective reflection, debriefing should follow the simulation scenario immediately (Cantrell, 2008; Nickerson et al., 2011; Rhodes and Curran, 2005) and last about two to three times longer than the simulation scenario (Waxman, 2010). Nursing programs use different strategies to promote students' reflection skills during debriefing. Some of these strategies include, but are not limited to, self-evaluation (Lasater, 2011), using observational tools like the LCJR (Cato et al., 2009), and individualized competency checklists based on the simulation's objectives.

**3.1.4.2. Student-centeredness.** While many traditional teaching methods are teacher-centered, debriefing should be student-centered (Mariani et al., 2014). It is a contemporary pedagogy that engages students' active participation through questioning. During the scenario, a student either has a role of an active participant as a nurse or an observer (Seropian et al., 2004). Regardless of the role, students engage during the debriefing by responding to higher order thinking questions (Seropian et al.) that arise from genuine curiosity (Rudolph et al., 2007) to help learners link knowledge with practice in their clinical judgments. With guidance during a debriefing, students can devise a shared nursing care plan for more potentially complex situations (Jeffries, 2005).

**3.1.4.3. Theory-practice Link.** Several scholars claim that simulation generally and debriefing in particular link critical aspects of clinical judgment to practice (Dreifuerst, 2009; Rudolph et al., 2008). For example, reflection helps nurses connect their deep knowledge of the patient's situation to the outcomes of their actions, thereby fostering clinical learning for future patient encounters and clinical judgment development. During debriefing, the facilitator helps students relate their learning from theory classes to practical clinical applications in simulation. Thus, debriefing is considered a way to bridge theory with practice. However, integrating theory with practice is sometimes a challenge for novice nurse educators. Availability of structured debriefing formats might help new nurse educators foster clinical judgment development.

### 3.1.5. Antecedents of Debriefing

As described by Walker and Avant (2004), antecedents are events that should occur prior to occurrence of the concept. An effective debriefing session should be preceded with three steps: availability of learning objectives, simulation scenario with holistic and authentic representations, and a supportive learning environment. For example, the objectives should be linked to the course objectives specifically and to the institution's vision and mission generally. Both faculty and students should be aware of the learning objectives for the simulation prior to the debriefing session (Jeffries, 2012); in this way, students can make the link.

Second, based on the expected objectives, the case scenario should have both holistic and authentic representation. A holistic case scenario is one that represents contextual and psychosocial aspects of the patient's life, which Dreifuerst (2009) referred to as a patient story. For example, if the objective of a scenario is managing pain, the patients' cultural beliefs and values play significant roles in informing the patient's expression and management of pain. In addition, in some cultures, the patient's family members are key to home care. Effective clinical judgments require deep understanding of patient's physical,

emotional, and psychosocial needs (Benner et al., 2009). Therefore, to ensure holistic nursing care and cover all domains of learning, the scenario should represent the physical, psychosocial, and emotional aspects of the contextual situation. Otherwise, the focus will become task-oriented.

Third, faculty should ensure a supportive learning environment, such as availability of safety measures, physical resources including a place to debrief (Nickerson et al., 2011), and an advanced video-recording system to conduct video-assisted verbal discussion (Chronister and Brown, 2012; Ha, 2014). Video-assisted verbal discussion is a debriefing method in which students evaluate their own performances via peer observation. Peer feedback is valued (Lasater, 2007a) and offers a unique perspective as well as engaging the observers (Seropian et al., 2004). There is increasing evidence that using video-assisted debriefing improves students' technical and non-technical nursing skills, such as clinical judgment (Chronister and Brown, 2012).

### 3.1.6. Consequences of Debriefing

Consequences are events resulting from the occurrence of the concept (Walker and Avant, 2004). When a structured reflective debriefing for clinical judgment follows simulation, three main consequences are anticipated. The first is increased students' acquisition of knowledge or cognitive understanding of the patient's situation (Benner et al., 2009; Chronister and Brown, 2012; Shinnick et al., 2011), which serves as a critical foundation for making clinical judgments; improving self-efficacy (Van Heukelom et al., 2010); and promoting decision-making (Dreifuerst, 2009; Lavoie et al., 2013; Mariani et al., 2013). The second consequence is improving students' psychomotor skills performance (Levett-Jones and Lapkin, 2014), which has been linked to confidence, important to student development as a nurse (Bambini et al., 2009) and clinical judgment ability (Lasater, 2007a). The third consequence is students' ability to transfer simulation learning to clinical practical settings or bridge the theory-practice gap (Gum et al., 2011; Lasater et al., 2014; Tosterud et al., 2014). However, the occurrence of these consequences is dependent on guiding students' active participation during debriefing, assisting them to connect their knowledge to their actions through reflection.

### 3.1.7. Debriefing for Clinical Judgment's Empirical Referents

According to Walker and Avant (2004), empirical referents are conditions that by their existence indicate the occurrence of the concept. There are two indications for the existence of the concept of debriefing for clinical judgment development: the availability of structured debriefing sessions that includes defining attributes of the concept (Dreifuerst, 2009) and the availability of reliable measures for assessing students' clinical judgment skills.

The degree to which the debriefing session is structured can be measured by exploring students' (Cantrell, 2008; Tosterud et al., 2014) and faculty perceptions (Mariani et al., 2014) of the effectiveness of debriefing sessions using qualitative descriptive design. Another way to ensure a structured debriefing session is to utilize a model case of debriefing, such as the one to follow. A model case can help faculty practice consistent structured debriefing that encompasses the three defined attributes of the debriefing.

The effects of debriefing on enhancing students' clinical judgment skills can be assessed using the LCJR (Lasater, 2007b) where both students and faculty can see the expectations to evaluate students' performance (Mariani et al., 2013). Furthermore, the effects of debriefing on enhancing clinical judgment can be measured qualitatively, walking through the aspects (Tanner, 2006) and dimensions (Lasater, 2007a) of clinical judgment, using an open-ended questionnaire to evaluate participants' perceptions of the effects of debriefing on enhancing their clinical judgment abilities (Lavoie et al., 2013). Following debriefing, students can use the LCJR to set goals for further clinical judgment development (Cato et al., 2009; Lasater, 2011).

3.1.8. Uses of the Concept

With marginal clinical experiences in some pre-licensure nursing programs, limited clinical placements, and a paucity of clinical supervisors, students often have inadequate opportunities to practice/develop their clinical judgment skills (Butler et al., 2009). Simulation followed by debriefing with a skilled facilitator provides students with opportunities to review and reflect on their clinical judgment skills (Dreifuerst, 2009; Hayden et al., 2015). Thus, debriefing can reduce the gap between classroom and clinical practice. In addition, debriefing helps students to reflect on their cognitive, affective, and psychomotor skills without jeopardizing patient safety, thereby enhancing student confidence in a safe and controlled environment. Thus, focused reflection and discussion during debriefing is an effective strategy to foster quality and safety principles (Mariani et al., 2013).

Feedback and evaluation are integral aspects of nursing education. Debriefing offers educators and students a timely, meaningful approach for constructive feedback, thereby promoting students' clinical judgment development. A recent systematic review of debriefing effectiveness in healthcare education showed that debriefing is a significant approach to improve students' technical and nontechnical skills, such as raising situational awareness, performing psychomotor skills, cardiopulmonary resuscitation, task management, and teamwork (Levett-Jones and Lapkin, 2014). Yet, faculty do not always ask higher order thinking questions (Profetto-McGrath et al., 2004) that effectively elicit learning; therefore, some examples of questions that can derive meaningful thinking are included on the guide, in the next section.

For educators, debriefing is a means to assess students' understanding and level of clinical judgment competence. Moreover, recurrent students' failure in repeated simulation scenarios may inform educators about inadequacy of current theoretical background or practical sessions. Debriefing provides students with opportunities to evaluate their own performance (Bambini et al., 2009) and cognitively appraise their strengths and weaknesses as well as set goals for future development. Therefore, understanding how to operationally practice debriefing is critical.

3.1.9. Operational Application of the Concept

Theoretical frameworks make debriefing for clinical judgment more structured in ways that link practice to theory through focused discussion and reflection. Availability of a structured format for conducting a reflective debriefing session along with a tool that assesses students' clinical judgment skills is critical to ensure a supportive learning environment. For a more consistent approach to practice simulation debriefing, according to the proposed definition of the concept, an integrated structured reflective debriefing guide for promoting clinical judgment (IRDG-CJ) has been constructed (see Fig. 1). The IRDG-CJ integrates Tanner (2006); Lasater's (2007b) and Bloom's (1956) work. The evidence from the literature helped to construct some of the IRDG-CJ's themes and questions (Dreifuerst, 2012; Lusk and Fater, 2013). The IRDG-CJ encompasses the four aspects of the Tanner's model. It provides examples of common themes and questions that can guide both the educator and student to reflect across psychomotor, cognitive, and affective domains of learning within each phase of clinical judgment. The three domains of learning (Bloom, 1956) represent a multi-faceted approach to clinical judgment, and phrases and dimensions from the LCJR tie the work together.

To illustrate how the IRDG-IC can be applied during a debriefing to enhance students' clinical judgment abilities, a model case is presented in the following section of the paper. It should be noted that all aspects of this case and of the model do not fit every debriefing situation. It is hoped that the case and the model prompt deeper thinking about debriefing, specifically for clinical judgment development.

3.1.10. Model Case

Fifteen undergraduate nursing students attended a simulation session using a scenario of a 43-year-old female who is status post-laparoscopic cholecystectomy. She was on post-operative day three, presenting with shortness of breath, fever, and decreased oxygen saturation levels to 92%, requiring increased oxygen. Prior to the simulation session, the nurse educator briefly explained the simulation objectives and provided each student with an LCJR and the IRDG-CJ.

	Cognitive Domain	Psychomotor Domain	Affective domain
Noticing	<ul style="list-style-type: none"> <li>• <b>Level of Knowledge</b> What is the scenario about?</li> <li>• <b>Information Seeking</b> What happened or was wrong with patient? How did you know?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Focused Assessment</b> How did you focus your assessment? What did you do and why?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Initial Feelings</b> What was your first impression about the patient condition? What do you think the patient was feeling?</li> </ul>
Interpreting	<ul style="list-style-type: none"> <li>• <b>List of Patient Needs- Care Plan</b> What was the underlying issue, cause, or diagnosis? What data supported your conclusion?</li> <li>• <b>Adequacy of Information</b> What information did you miss or not have that otherwise would have provided effective clues to patient health condition?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Plan of Action</b> What nursing interventions did the patient require? On what did you base your response?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Emotions</b> What was the patient, family, or other healthcare team member's reaction to your intervention? How did you respond to that? How did that affect your intervention?</li> </ul>
Responding	<ul style="list-style-type: none"> <li>• <b>Self-Efficacy</b> To what extent were you confident and able to readjust your interventions, based on the patient response?</li> <li>• <b>Appropriateness of the Decision-Making</b> Did you agree/disagree with the nurse's interventions? Why?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Skills Competency</b> What were the critical safety issues and what did you do to protect the patient?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Effective Communication</b> How did you respond to the patient's and/or family caregiver's anxiety? How did you reassure them? Reflect on the kind and principles of health education provided in the scenario, patient readiness, influence on patient's anxiety status.</li> </ul>
Reflecting	<ul style="list-style-type: none"> <li>• <b>Self-Evaluation of the Clinical Judgment Abilities</b></li> <li>• <b>Praxis Element (Transferability to another complex situation)</b> If patient clinical condition deteriorated, or patient diagnosis was changed, how would your assessment or clinical judgment be similar or different?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Overall: Ability to Manage the Case in a Well-Planned Manner</b> What went well, what not, and why? What you would do differently?</li> <li>• <b>Plan for Improving Psychomotor Skills</b> What psychomotor skills you think you need to improve in order to tailor your intervention based on patient needs?</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Overall: Attitude, Clarity of Communication, Being Calm and Focused</b> Evaluating your clinical performance, to what extent were you able to assess and reassure the patient and family? How did you involve other team members in the care plan?</li> </ul>

Note. Application of Tanner's Model of Clinical Judgment, Lasater Clinical Judgment Rubric, and Bloom's Taxonomy of Learning to create a structured reflective debriefing guide for promotion of clinical judgment.

Fig. 1. Integrated reflective debriefing guide for promoting clinical judgment (IRDG-CJ). Note. Application of Tanner's Model of Clinical Judgment, Lasater Clinical Judgment Rubric, and Bloom's Taxonomy of Learning to create a structured reflective debriefing guide for promotion of clinical judgment.

Five students had active roles in the scenario and the remaining 10 students observed the simulation session from another room. For the debriefing, one observer was a timekeeper, one was making sure that students focused on the simulation objectives, and yet another was the summarizer during the debriefing. Following the 20-minute scenario, the five students returned to the debriefing room.

Beginning the debriefing session, the educator reminded the students of the simulation objectives, and encouraged them to use the IRDG-CJ to facilitate the discussion focused on clinical judgment. Starting with the first phase of clinical judgment, noticing phase, the educator assessed students cognitive abilities by asking general questions: what was the scenario about? What happened or was wrong with the patient? During the discussion, students also reflected on their initial emotions and feelings (affective domain). Then, students discussed the findings of the initial focused assessment during the simulation (psychomotor domain). Students provided several answers to the patient's issues and used the information to determine the clinical diagnosis (cognitive domain of interpreting phase). The educator directed the discussion on what were the students' interventions (psychomotor domain of interpreting phase), what went well, and what was patient and his/her family reactions to nursing intervention (affective domain).

Moving to the next two phases of clinical judgment, responding and reflecting, the nurse educator asked students to imagine that the patient is on post-operative day four when suddenly her condition deteriorates: The patient was crying because of incisional pain (8/10) and refused to move. She was coughing but not splinting her abdomen. Her spouse tried to reassure her and move her up in bed. The educator encouraged the students to discuss and contrast how their assessments, interventions and the patient's potential clinical responses might differ from the earlier case. In this way, students considered clinical judgment required from different and changing perspectives. After the patient issues were thoroughly and non-judgmentally discussed, the nurse educator asked students to use the LCJR as a guide to write their own reflections about the scenario, what they gained, and how they could improve next time. Finally, one student summarized the discussion focusing on the clinical judgment skills, achieved objectives, and proposed plans for future improvement.

This case represents a structured practice of the debriefing concept with application to clinical judgment. The defining attributes were clearly integrated. The students were actively engaged and even led some of the session with their educator's guidance. They reflected on their cognitive, affective, and psychomotor performance using the IRDG-CJ, the LCJR, and the four aspects of clinical judgment identified by Tanner (2006).

#### 4. Conclusion

This paper defines the concept of debriefing as a structured and guided-reflection process in which students actively appraise their cognitive, affective, and psychomotor performance within the context of clinical judgment skill development. This conceptual definition has several implications for nursing education. Defining debriefing as a guided-reflective process places great emphasis on the effects of reflection in enhancing students' clinical judgment abilities. Using this definition provides students with more opportunities to reflect on their knowledge to link with their actions, feelings, and thoughts. Furthermore, students actively participate in the debriefing process, providing peer evaluation and determining future care plan for hypothesized complex situations. Assigning students with some roles during debriefing, such as being a timekeeper, summarizer, and ensuring that students focused on predefined objectives fosters students' active engagement in the debriefing process. A structured debriefing guide might set a stage for further research studies that inform the value of student-led debriefing practice or how such a guide might facilitate learning for inexperienced faculty. In addition, debriefing is a means by which students and faculty engage to link theory to practice. These processes help to foster

students' transformative learning by applying simulated experiences to actual clinical settings (Lasater et al., 2014).

Conceptualizing the debriefing within the context of learning domains helps educators focus not only on students' mastery of psychomotor skills, but also recognize the influence of the affective and cognitive domains. Based on the conceptual analysis, the IRDG-CJ has been proposed as a guide to help nurse educators practice debriefing more consistently for clinical judgment. However, research is required to inform the applicability and effectiveness of the proposed guide. Moreover, teaching nurse educators about the application of the concept of debriefing, its defining attributes, antecedents, and consequences are critical for successful implementation and advancement of consistent debriefing practice in academic settings, whether the focus is clinical judgment or another skill.

#### Conflict of interest

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