

THE ESSENTIALS *of* DEBRIEFING in Simulation Learning: *A Concept Analysis*

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DEBRIEFING OF CLINICAL EXPERIENCES, NOTEWORTHY LEARNING EVENTS, AND IMPORTANT CURRICULAR COMPONENTS IS COMMON AMONG NURSE FACULTY AND STUDENTS.

THIS ARTICLE USES THE FRAMEWORK DEVELOPED BY WALKER AND AVANT (2005) TO REVIEW THE CONCEPT OF DEBRIEFING AS IT PERTAINS TO SIMULATED CLINICAL EXPERIENCES. Concept analyses based on this model have two assumptions: that concepts have defining attributes and that those concepts can be analyzed prior to, or independently of, theory construction and testing. Theory derivation is particularly useful when the concept has not been thoroughly explained, as is the case with simulation debriefing.

- The process used in this type of concept analysis is to survey the literature, state the defining attributes, and then present *model*, *contrary*, *related*, and *other* cases. The purpose is to provide clarity of thinking, direction for research, and a foundation for the development of effective teaching and learning strategies. Clarity about the components of debriefing and its effects on student learning is likely to support advancements of faculty development in this area as well as theory development and testing.

Debriefing as Part of Simulation By providing an active learning environment for students to experience clinical situations and use cognitive, affective, and psychomotor skills, simulation offers opportunities to practice critical thinking, clinical decision making, and clinical judgment (Childs & Seeples, 2006; Jeffries, 2005; Spunt, Foster & Adams, 2004). Debriefing, the process whereby faculty and students reexamine the clinical encounter, fosters the development of clinical reasoning and judgment skills through reflective learning processes.

Mastery of critical thinking, clinical decision making, and clinical judgment is a milestone of professional development as the nurse moves from being a novice to becoming an expert clinician.

Critical thinking is purposeful thought that encompasses interpretation, analysis, explanation, inference, and evaluation (Facione & Facione, 1996). Clinical decision making includes nursing knowledge, skills, and attitudes used in tandem with critical thinking to determine action or response (Lasater, 2007). Clinical reasoning in nursing goes beyond critical thinking and clinical decision making and includes metacognitive elements. According to Pesut (2004, p. 152), it “involves four threads of logic woven together: the nursing care needs or nursing diagnosis, the patient’s needs, the nurse’s own logic about the diagnoses and care planning process and the system in which the patient encounter is occurring.” Clinical judgments are “those thinking and evaluative processes that focus on a

ABSTRACT Debriefing is essential element of simulation; however, practices vary greatly. Common elements include critique, correction, and evaluation of student performance and discussion of the experience. Learning occurs in simulation through contextual task training and repetition, but significant learning occurs when deep insight is made explicit through reflection during debriefing. The value of the student’s learning is in the student’s ability to engage in reflection that translates into actionable knowledge. Facilitating debriefing emphasizing reflection is an essential competency, yet little research and resources are available to guide best practices in debriefing. This article analyzes the concept of debriefing and identifies essential components. Examples that demonstrate defining attributes of debriefing are included. This work supports the identification of best practices and future research agendas to enable nurse educators to master the knowledge and strategies needed to provide students with significant learning during simulation.

nurse's response to a patient's ill-structured and multilayered problems" (Lasater, p. 269).

The use of simulation is well documented in the education literature and has been identified as a critical component of experiential learning (Kolb, Rubin, & McIntyre, 1974). Warrick, Hunsaker, Cook, and Altman (1979) noted that the "debriefing phase is an intentional and important process that is designed to synergize, strengthen and transfer learning from an experiential learning exercise" (p. 91). They further defined the objectives of debriefing as follows:

- Identification of the different perceptions and attitudes that have occurred.
- Linking the exercise to specific theory or content and skill-building techniques.
- Development of a common set of experiences for further thought.
- Opportunity to receive feedback on the nature of one's involvement, behavior, and decision making.
- Reestablishment of the desired classroom climate, such as regaining trust, comfort, and purposefulness.

Strategies to support debriefing have received little attention in the simulation literature (Henneman & Cunningham, 2006; Rudolf, Simon, Rivard, Dufresne, & Raemer, 2007; Seropian, Brown, Gavilanes, & Driggers, 2004). But Jeffries (2005) stated that in simulation, knowing how to debrief student experiences is equal in importance to knowing how to create scenarios and using the equipment to represent human physiological responses to care. Generally, faculty focus debriefing discussions on learning outcomes and the intended objectives of the experience (Jeffries & Rogers, 2007). Many guidelines and strategies that are available focus on critique and correction of technical components, discussion of cognitive thinking, and attempts to develop evaluation criteria of student performance.

But questions remain on how to debrief, when to debrief, what to debrief, and whom to include in debriefing for the best student learning. Research is beginning to demonstrate an association with clinical reasoning that includes student assimilation of the knowledge brought from prior experiences and other courses. There is also beginning evidence that clinical reasoning involves use of a framework and an aspect of accommodation whereby knowledge learned from the simulation experience is applied to subsequent clinical situations the student encounters.

Reflective Learning and Debriefing as a Teaching-Learning Strategy When debriefing is structured to promote reflection, encouraging students to analyze their own assumptions and think about how to enhance or develop more skillful nursing practice, reflective practice may be involved. Reflective practitioners who engage in introspection learn to self-correct and assimilate

new experiences with prior ones and thus improve their professional competence (Rudolf et al., 2007). Debriefing provides opportunities to foster reflective learning, encompassing the ability to think-in-action as well as think-on-action (Schön, 1983). It is associated with critical thinking, clinical reasoning, and clinical judgment, desired elements as nurses move from novice to expert practice (Benner, Stannard, & Hooper, 1996; del Bueno, 2005; Kuiper, Heinrich, Matthias, Graham, & Bell-Kotwell, 2008; Lasater, 2007).

Scanlon and Chernomas (1997) identified three stages of reflection: *awareness*, *critical analysis*, and *new perspective*. Although the importance of using reflective learning to teach students to apply what they have learned from one situation to the next in the context of critical thinking and decision making is well documented (Benner et al., 1996; Chalykoff, 1993; Davies, 1995; Facione & Facione, 1996; Ironside, 2003; Kautz, Kuiper, Pesut, Knight-Brown, & Daneker, 2005; Tanner, 2006), debriefing as a teaching-learning strategy continues to be poorly understood. In addition, the impact of different debriefing priorities on students' clinical reasoning skills remains unclear and challenging (Dismukes, Gaba, & Howard, 2006).

The practice of debriefing varies considerably by facilitator. To enhance consistent, significant student learning and to facilitate faculty development, a concept analysis of the debriefing process in simulated learning is important.

With limited clinical time, inconsistent exposure to different types of patient situations, and little time available to interact with faculty, students may have few opportunities to link classroom content to clinical practice through experiential learning. By providing opportunities to review events and make visible their meaning, debriefing offers a way to draw out student thinking and help students develop their complex decision-making skills. While reflecting is thought to be an innate learning experience, not all learners do it consistently or thoughtfully enough for it to be a significant learning event. Thus, facilitating reflection through debriefing is essential for helping students get the greatest benefit when simulation is used (Decker, 2007).

Debriefing as teaching strategy supports a constructivist theoretical framework within problem-based learning experiences. Constructivist learning is a contextual and experiential process where knowledge is individually constructed and thought about as learning occurs (Richardson, 1997). With the preponderance of simulation use throughout the nursing curriculum, educators need to understand and develop best practices for debriefing to facilitate significant student learning during these experiences.

Defining the Attributes of Debriefing The process of experiential learning requires active engagement. To facilitate meaningful, active learning, students must have opportunities to

“reflect on their experience in the (simulation), have a period of emotional release, receive behavioral feedback, integrate their observations, behavior and feedback into a conceptual framework and create mechanisms and pathways for transferring learning to relevant outside situations” (Warrick et al., 1979). These attributes — reflection, emotion, reception, and integration and assimilation — are the defining attributes of simulation debriefing.

Reflection is the opportunity to reexamine the experience. It can be a chronological review or thinking upon what comes to mind first and working through the experience from that starting point. It is a time to call out the thinking processes that took place during the events of the simulation experience.

Emotion and emotional release are important. Student engagement in the simulation can cross boundaries of reality and call out significant emotional response. Emotion enhances learning by the way it frames the experience (Schön, 1983), but it can also inhibit learning if it distracts from engagement in the experience. Facilitating the expression of emotions acknowledges the power of the learning experience to set the frame for embedding it in the learner’s memory. Emotional release can redirect the attention of the learner to reflective learning.

Reception, or openness to feedback, is a primary role for the learner, but may also be evident in the simulation facilitator. Because simulation experiences encompass cognitive, affective, and psychomotor skills, this is an opportunity for all participants to provide feedback on those skills. Students need to be coached to be open to receive feedback in a way that facilitates positive learning rather than a negative response. Student strengths and challenges should be brought forward in a nonthreatening manner, using elements of formative feedback. Further, linking guided reflection to critique and correction provides an opportunity to make visible the “affective and behavioral learning” that happens through structured or situated cognitive activities during debriefing (Kuiper et al., 2008).

Summative evaluation serves a different purpose than a debriefing experience. Simulation events that are primarily focused on student performance and summative evaluation should be clearly indicated as such, and debriefing should be formatted in a confidential, respectful manner between the facilitator and the learner.

Integration of the simulation experience and the facilitated reflection into a conceptual framework is one of the most challenging and least common attributes of debriefing. To be successful, the facilitator models framing and embeds the elements of the experience into scaffolding that the learner is familiar with and can call upon when experiencing future situations. Framing is attribution of meaning to set of facts (Pesut, 2004). In nursing, there are numerous frames but the most common is the nursing

process. Integrating the elements of the nursing process into debriefing sets the stage for assimilation of the knowledge, skills, and attitudes into practice and provides a path for accommodation and transference into future patient care environments. Integration using the nursing process is commonly found in post-conference debriefing, but successful use of this conceptual framework with simulation experiences is beginning to be reported in the literature (Kuiper et al., 2008).

Assimilation and accommodation are the ultimate goals in a practice profession and the essence of reflection. Nurse educators want students to demonstrate successfully that they can transfer what they have learned and experienced from one situation to the next. In addition, assimilation and accommodation involve anticipation. Anticipation and reflection are related. While reflection is often considered looking back or looking at, as in “reflection on action” and “reflection in action” (Schön, 1983; Tanner, 2006), it can also be looking forward, or “reflection beyond action” (Dreifuerst, 2007). This critical aspect of reflection builds upon the work of Klein, who describes “seeing the future while seeing the past” as a component of decision-making (1999, p. 289) and supports the anticipatory nature of reflection.

The ability to anticipate or consider the “what if” distinguishes the novice nurse from the expert and represents higher order clinical judgment and clinical reasoning based on metacognition (Benner et al., 1996; Pesut, 2004; Tanner, 2006). Assimilation can be modeled or facilitated during debriefing using techniques like Socratic dialogue, where faculty plant ideas using provocative or directed questions and lay the framework for thinking-beyond-action through purposeful discourse. The use of “what if” questions, where the details and frame are changed to encourage the student to think beyond the boundaries of this situation and anticipate the next, takes time, not only to develop student thinking, but also to model anticipatory reflection.

All of these defining attributes work in tandem during debriefing to create the significant learning experience. When some attributes are neglected or discounted, the debriefing portion of simulation is not optimized. The model case that follows demonstrates the defining attributes of debriefing. Other cases are offered that demonstrate how students may miss having an assimilation-accommodation experience that develops critical thinking, clinical judgment, and clinical reasoning.

Model Case

Following a 20-minute simulation experience focused on a rapidly deteriorating patient, the five students and the faculty who have participated go to the conference room to debrief. Everyone is seated comfortably around a circular table and reminded of the simulation’s objectives. The ground rules of confidentiality and trust are reviewed. The faculty begins with open-ended questions addressed

to the students, such as, “Well, how are each of you feeling?” and “What was the experience of caring for this patient like for you?” Dialogue among students is encouraged with verbal and nonverbal feedback.

After everyone has talked about emotions and feelings, the faculty then refocuses the conversation on the debriefing attribute of reception by asking, “What went right?” and later, “What were the challenges and areas for improvement?” Specific feedback on cognitive, affective, and psychomotor skills is provided in an affirming manner. Ambiguous statements are clarified, and every student has an opportunity to contribute.

The faculty then redirects the debriefing toward integration and assimilation. Using the nursing process as a framework, the patient case is reviewed again, focusing on each element of the nursing process as it related to what was experienced with this simulated patient and alternatives that might have been experienced had details been different. The nursing process is mapped out on the white board in the conference room as students interject their thoughts. The process continues until all are satisfied. Then a plan of care is developed, and students use worksheets to capture the discussion for future reference.

The faculty then begins the wrap-up by coaching the students on assimilation of the key points of the simulation, summarizing what transpired and hypothesizing other possibilities. Throughout the entire debriefing process, the simulated patient used in this scenario has been frequently referred to by its name. This provides a mechanism for framing this experience so it can be referred to later. As the debriefing ends, the faculty asks the students to close their eyes and envision another patient, with a different medical history and disease process, who is now rapidly deteriorating. She asks them to silently envision working through the nursing process with that patient and to closely consider what might be similar to the patient in the simulation experience and what might be different. Students should silently give a name to this imagined patient. Then, speaking aloud, they should have an opportunity to ask questions about the simulated or imagined patient. Following the debriefing, students will write about their imagined patient, comparing and contrasting it to the patient in the simulation, using the nursing process framework for their follow-up assignment. The entire debriefing process has taken 40 minutes.

Borderline Case

Following a 20-minute simulation experience focused on a rapidly deteriorating patient, the five students and the faculty who have participated go to the conference room to debrief. The faculty begins with open-ended questions addressed to the students, such as “What did (student in primary nurse role) do well?” “What could she have done better?” After a short discussion and performance critique, this is followed with questions such as, “What was wrong with the

patient?” “What are the important things for the nurse to do with patients like this?” “What are the important points to think about from this case?”

Later the faculty asks, “What did you like best about your role in the simulation?” She concludes the discussion with a final question: “What have we learned about caring for the rapidly deteriorating patient?” When students are done talking, the faculty concludes by asking them to write a care plan for the simulated patient using the nursing process for their follow-up assignment. The entire debriefing process has taken 20 minutes.

Related Case

Following a 20-minute simulation experience focused on a rapidly deteriorating patient, the five students and the faculty who have participated go to the classroom to debrief. Most of the students stand against the wall but two sit at desks as the faculty member hustles in behind them. She asks if anyone has any questions about what went on during the simulation. Hearing no questions, she indicates they did a “pretty good job” overall. Over the next five minutes, she reviews aloud what she observed during the simulation while the students listen silently. She again asks if they have any questions. Hearing none again, she says they can leave. As the students are exiting, she reminds them that they need to turn in a care plan on a real patient from clinical for their assignment. The entire debriefing process has taken 10 minutes. As she is leaving the room, the faculty member indicates aloud that debriefing is such a waste of time.

Contrary Case

Following a 20-minute simulation experience focused on a rapidly deteriorating patient, the five students and the faculty who have participated go to the classroom to debrief. All participants are clearly upset. After the door is shut, the faculty loudly asks the student assigned to be the primary nurse, “What were you thinking in there?” As the student becomes visibly upset, the faculty states loudly, “Thank goodness it wasn’t a real patient you just killed in there.” She then turns to the rest of the students, and before dismissing them, states that she “hopes they all learned something.” This is followed by the statement that the first student “needs to stay and practice in the lab until you get it right.” All the other students leave followed by the teacher. The upset student remains alone in the classroom. This entire debriefing process has taken five minutes.

Absent Case

Following a 20-minute simulation experience focused on a rapidly deteriorating patient, the five students and the faculty who have participated leave the simulation area and go separate ways. When asked about debriefing, the faculty member states that due to technical problems with the simulator they got started late. There was no

time to debrief so she dismisses them. She follows up by indicating that time with patients — simulated or real — is more important than conferencing about them anyway. There was no time used for the debriefing process.

Antecedents and Consequences of Debriefing Defining antecedents and consequences is a step in the process defined by Walker and Avant (2005) in which the concept is described in its usual context. Antecedents are circumstances that precede the concept; consequences follow the occurrence of the concept. Several antecedents of debriefing attributes are meaningful components of simulation: the story, the physiological processes and mechanisms, and the learning objectives for the simulation activity.

Every real patient has a story, and nurses use the patient's story to understand the human response to illness and disease and to help the patient move along the wellness continuum. The story engages the student and helps the student make sense of the situation by providing connection and mental models (Pesut, 2004). When a detailed story is not created for the simulated patient as a part of the development of the scenario or is abbreviated, the focus of the simulation for the student becomes the tasks, and the simulation becomes a task-training exercise without context or reference to patient care. Essentially, the story becomes the frame, or mental model, for understanding the "human" response.

The second antecedent is physiological processes and mechanisms related to a specific disease or illness phenomenon. Whether using a manikin or task-trainer, the physiological response of the simulated patient can be tacit through fidelity or implied through verbal or written communication. However, to be meaningful, students need to experience a patient response to their action. When the only response is an instructor response, the meaning of the experience and the accommodation into clinical situations are impacted.

The final antecedent for debriefing is defined learning objectives for the simulation scenario. These link the experience to the curriculum, guide the facilitation of the debriefing discussion, and provide structure for evaluating the experience.

The consequences of debriefing a simulation can vary by student. Generally, when the defining attributes are evident, significant learning is demonstrated by a change in critical thinking, clinical decision making, and clinical judgment. When few of the attributes are evident, there can be a neutral or nonevident impact from insufficient learning indicated by no change in the cognitive, affective, or psychomotor domain. With few attributes evident, a negative effect, with erroneous learning or persistent, uncorrected poor critical thinking, clinical decision making, and clinical judgment, is likely.

Empirical Referents of Debriefing as Concept The model cases, in combination with the defining attributes of facilitated debriefing, support the identification of empirical referents, first explicated by Warrick et al. (1979) to describe types of debriefing of experiential learning exercises. Warrick et al. identified structured and spontaneous debriefing methods. Examples of facilitated debriefing can be further delineated for simulation using the defining attributes in three categories: unstructured debriefing, structured for critique debriefing, and structured for reflection debriefing.

Unstructured debriefing, like spontaneous debriefing, has minimal direction. The facilitator takes a passive role, allowing the experience to go wherever the participants may take it. The Related Case presented above, in which faculty do not engage students but speak at them without connecting the debriefing to the simulation, is an example of unstructured debriefing.


The Contrary Case presented above is an extreme example of debriefing that is structured for critique, the second empirical referent. Other examples include debriefing focused only on performance. Emphasis is placed on correct and incorrect behaviors, psychomotor skill demonstration, and simple decision-making.

The Model Case, and to a lesser extent the Borderline Case, are examples of debriefing that is structured for reflection. Faculty engage students using a structure for debriefing that includes the elements of a challenging problem of patient care, small-group work with a nursing process framework, and guidance and feedback from a facilitator. Interventions such as this are "designed to enable learners to think through a problem and to think about their thinking which are metacognitive in nature, leading to deep and meaningful learning" (August-Brady, 2005, p. 298). Meaningful learning in nursing reveals itself through critical thinking, clinical reasoning, and clinical judgment. Providing students a structure for reflection during debriefing is a valuable teaching-learning strategy that can promote significant learning experiences.

Discussion and Summary Simulation is an innovative way to offer experiential learning using a constructivist framework in a safe, clinically relevant environment. It is a tool that can provide an interactive, interesting experience with concurrent cognitive, affective, and psychomotor components. Reflective learning, demonstrated by thinking-in-action, thinking-on-action, and thinking-beyond-action using simulation experiences, can be fostered by facilitated debriefing strategies. Debriefing can be structured to enhance student learning and offer opportunities to develop critical thinking, clinical decision making, clinical reasoning, and clinical judgment skills.

Understanding the debriefing process and different types of debriefing, along with defining attributes, antecedents, and

consequences, offers a foundation for future research on debriefing strategies and environments and their impact on student learning. Such research will inform the development of methods and means to support faculty development and mastery of this essential component of simulation in nursing education. Until then, this concept analysis on debriefing can help faculty consider their use of debriefing strategies and the emphasis they place on reflective learning. Students can be encouraged to think in action, on action, and beyond action using activities that ground simulation experiences within the nursing process and call out the nuances of patient response from the narratives they are given. Faculty can help students gain insight and clinical reasoning skills to advance their practice across settings through facilitation of reflective learning during simu-

lation debriefing. The purpose of this concept analysis is to provide clarity of thinking, direction for research, and a foundation for the development of effective teaching-learning strategies for faculty in the area of debriefing. 

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Key Words Simulation – Debriefing – Reflective Learning – Clinical Judgment – Clinical Reasoning

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